Introduction
BRE Global Ltd, based in the UK near London, is an independent third party organisation offering certification of fire, security and sustainability products and services to an international market. LPCB is the certification brand used for fire and security products and services. The LPCB mark is accepted worldwide. We have representative offices in China, India and Dubai. We are owned by the BRE Trust, a not-for-profit organisation.

LPCB listings can be accessed, free of charge, at www.redbooklive.com.

BRE Global additionally carries out:
- Fire Investigation
- Fire Risk Assessment
- Fire Safety Engineering
- Research
- Training

LPCB Listings
Listings are given in sections which list related groups of products and services such as suppression, security and so on. Each section also summarises the technical basis for the certification of each product or service. The Red Book listings should always be used in conjunction with rules, regulations and design specifications required by the relevant Authority having jurisdiction.

Listings comprise:

Volume 1: (This Volume)
- Fire detection and alarm products, systems, and cables
- Manual fire extinguishing equipment
- Automatic sprinkler, water spray and deluge systems
- Fixed fire fighting products and systems
- Watermist systems
- Related installers

Volume 2:
- Passive fire protection products
- Security protection products
- Fire doors and shutters
- Smoke and fire ventilation systems
- Security Assessments - SABRE
- Related installers
- Management Systems
- Construction products

Listings are given in the name of the manufacturer or service provider, in alphabetical order. They can be downloaded free of charge from our website at www.redbooklive.com

Updates
Certification of products and services are updated regularly. To ensure that you are using the most up to date information please refer to www.redbooklive.com.
What is Third Party Certification?

A frequent concern of stakeholders is in knowing whether a product will perform in accordance with the stated specifications. These concerns can involve such product attributes as safety, health or environmental impacts, durability, compatibility, suitability for intended purposes or for stated conditions, and other similar considerations. These issues can all be addressed through product certification.

Third party certification is a conformity assessment process, carried out by a body that is independent of both supplier and customer organisations. It provides confirmation that products and services have met and will continue to meet the requirements of specified standards and other normative documents.

LPCB third party product certification schemes are quality assurance schemes and comprise initial type testing and technical evaluation, assessment and surveillance of the manufacturer’s quality system and factory production procedures, regular audit testing, labelling and listing.

Similarly, LPCB schemes for suppliers of services (installers) are also quality assurance schemes comprising a technical assessment of an installer’s capability, assessment and surveillance of the installer’s quality system and production procedures, regular inspection of completed installations and listing.

Benefits of Third Party Certification

For specifiers, regulators, insurers, manufacturers and installers, the benefits of an LPCB approval are:

For specifiers and regulators:
- Risk reduction - specifying LPCB approved products and services demonstrates due-diligence and best endeavour and mitigates against possible accusations of negligence.
- Avoidance of costly mistakes - you can trust LPCB approved products and services to conform each and every time.
- Time - using Red Book Live to search for and assess products and services can save you time.

For manufacturers and installers:
- Increased global sales - LPCB approval is recognised and specified widely throughout the world. In some territories LPCB approval is a mandatory requirement.
- Added value of the product or service - LPCB approved products and services are recognised as providing added value given their ability to conform each and every time.
- Reduced liability - LPCB approved products and services demonstrate due-diligence which can reduce liability for both you and your customers.

What does LPCB Certification offer?

LPCB certification is carried out against Loss Prevention Standards (LPS’s). These LPS’s include reference to BS, EN or ISO standards as appropriate. LPCB certification are level 5 schemes as detailed in ISO/ IEC 17067 with the added requirement to have a quality system certificated to ISO 9001.

The technical requirements of LPCB schemes are given in the Loss Prevention Standards (LPSs). These documents are drafted by LPCB technical experts in conjunction with appropriate external experts. They are then peer reviewed by representatives from trade bodies, regulators, insurers, specifiers, manufacturers and other suppliers. Finally these documents are approved for use by the BRE Global Governing Body; the Body that oversees all of the certification activities of BRE Global.
Product schemes comprise:
- Initial type testing and evaluation of product.
- Approval and surveillance of the manufacturer’s (or supplier’s) quality management system to ISO 9001.
- Assessment and surveillance of the manufacturer’s (or supplier) factory production control system (FPC).
- Periodic audit testing of the product from either the factory or marketplace.
- Labelling or marking as appropriate.
- Listing on Red Book Live.

Installer schemes comprise:
- Technical assessment of the installation contractor’s capability.
- Approval and surveillance of the contractor’s quality management system to ISO 9001 or assessment against the requirements of the relevant Loss Prevention Standard where ISO 9001 is not appropriate.
- Regular surveillance inspections of on-going installations.
- The issue of Certificates of Conformity by the installer to demonstrate compliance for each installation.
- Listing in the Red Book.

The LPCB Mark - the Mark you can trust
After certification of a product or service the manufacturer or service provider may place the LPCB certification mark, as shown below, on the product, packaging and literature etc.

Where LPCB holds accreditation through the United Kingdom Accreditation Service (UKAS), the certified company may include the UKAS symbol (the Crown and Tick) alongside the LPCB mark for certain applications e.g. promotional literature or material and stationery, as shown below.

(Full details of LPCB accreditation can be found on the UKAS website at www.ukas.com)
Where for reasons of space or cost the use of the above full mark is not practical, then the following simplified mark may be applied directly to the product (for some schemes only). The LPCB scheme rules define how and where the marks can be used.
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V-GREAT GLOBAL CORPORATION 255, 448, 522, 558, 724
Videofon Guvenlik Teknolojileri A.S. 449, 523
Vimpex Limited 559, 725
Vindex Systems Limited 14
Vipond Fire Protection Limited 14
Visonic 485
VIVA ELEKTRONIK SISTEMLER 256, 450, 523, 559, 725
W
Wagner Group GmbH 450
Wizmart Technology Inc. 453, 485
Wrexham Mineral Cables 798
X
Xtralis Pty Limited 454
Y
Yilu Wire and Cable Technology Co., Ltd 798
Yingkou Tiancheng Fire Protection Equipment Co., Ltd 257, 461, 523, 560, 726
Yuyao Lingtong Electric Appliance Industrial Co., Limited 799
Z
Zarja Elektronika d.o.o 257
Zeta Alarms Limited 461, 486, 523, 726
Zhongshan Guta Fire Equipment Technology Co., Ltd 259, 463
Zone Systems Limited 14
Part 1

FIRE DETECTION AND ALARM PRODUCTS, SYSTEMS & CABLES
PART 1: FIRE DETECTION AND ALARM PRODUCTS, SYSTEMS & CABLES

INTRODUCTION

A working fire detection and alarm system will increase the level of safety in a building by automatically warning occupants of fire before they would otherwise detect it.

To ensure the system works, the system must be designed correctly, products must be correctly selected and the systems must be correctly installed and maintained. It is recommended that all systems are designed, installed, commissioned and maintained by contractors who are approved by LPCB to LPS 1014 and that they are connected to Alarm Receiving Centres approved to LPS 1020.

Listings in this section include:

Products

- Control and indicating equipment including voice alarm and power supplies
- Wireless, flame, beam, aspirating, smoke, heat and multi-sensor detectors
- Manual call points
- Line units including input and output devices
- Alarm warning devices including visual alarms, loudspeakers and sounders
- Cables
- Alarm transmission equipment
- Signalling systems

Products are approved in accordance with a range of standards. The details of these standards are given at the front of each section relevant to the product. Some of the above products may be hard wired or wireless (Radio link). Wireless products should also be approved to EN 54-25.

Systems

Fire detection and alarm systems are approved for system compatibility in accordance with:
- LPS 1054: Requirements and testing procedures for the approval and listing of component compatibility for fire detection and alarm systems.
- EN 54 - Part 13: Compatibility assessment for system components.

Design, installation, commissioning and maintenance contractors

Contractors are approved in accordance with:
- LPS 1014: Requirements for certificated fire detection and alarm system firms.
- LPS 1020: Alarm Receiving Centres
WHY USE AN LPS 1014 APPROVED COMPANY?

Even with the best equipment, fire detection and alarm systems are only effective if correctly designed, installed, commissioned and serviced. It is therefore important that specifiers select only competent firms with a proven track record to undertake the work.

LPS 1014 Requirements for Certificated Fire Detection and Alarm System Firms meets these requirements in full.

LPS 1014 requires one encompassing Certificate of Conformity for the project, i.e. single point responsibility, which benefits all parties concerned, i.e. the insurer, the fire brigade, the building owner, etc. It is based on BS 5839-1 and also requires the use of third party approved products. For each system specifiers should request the issue of an LPCB Certificate of Conformity as part of the contract which:

- certifies that the fire detection and alarm system was designed, installed and commissioned in accordance with the installation rules applied, and
- ensures that the system is recorded by LPCB as a certificated fire detection and alarm installation.

The availability of more varied and sophisticated fire detection and alarm equipment means that it is even more important that firms listed to LPS 1014 are regularly assessed by LPCB for their competence to design, install, commission and service fire detection and alarm systems in accordance with acceptable installation rules or codes of practice.

Additional offices

Where a firm has additional offices, each office must meet the requirements of LPS 1014 to be eligible for certification, and is separately listed.

Provisional Approval

Firms with limited experience and track record can gain Provisional Approval in the LPS 1014 scheme. Their work is closely monitored by LPCB and when they have completed the requisite number of fire detection and alarm systems contracts over a period of not less than 2 years, and subject to satisfactory performance, they will be given full approval and listed in this section of the Red Book.

Aarhus Fire Protection Limited

Aarhus House, 4 Moss Lane, Whitefield, Manchester M45 6HG, United Kingdom
Tel: +44 (0)161 767 8715 • Fax: +44 (0)161 767 8716
E-mail: response@aarhusfire.co.uk • Website: www.aarhusfire.co.uk

Certificate No. CFA-187 to LPS 1014

ABCA Systems Limited

Unit 24, Mylord Crescent, Camperdown Industrial Estate, Killingworth, Tyne & Wear NE12 5UJ, United Kingdom
Tel: +44 (0)333 121 0999
E-mail: philip.miller@abcasystems.co.uk

Certificate No. CFA-206 to LPS 1014
ADT Fire and Security
Tyco Park, Grimshaw Lane, Newton Heath, Manchester M40 2WL, United Kingdom
Tel: +44 (0)161 252 5500 • Fax: +44 (0)161 252 5688
Certificate No. CFA-109 to LPS 1014

Alberta Fire & Security Equipment Limited
San Gwakkin Road, Mriehel, BKR 3000, Malta
Tel: +356 21 443538 • Fax: +356 21 484077
E-mail: enquiries@alberta.com.mt • Website: www.alberta.com.mt
Certificate No. CFA-177 to LPS 1014

Argus Fire Protection Company Limited
Hendglade House, 46 New Road, Stourbridge, West Midlands DY8 1PA, United Kingdom
Tel: +44 (0)1384 376256 • Fax: +44 (0)1384 393955
E-mail: info@argusfire.co.uk • Website: www.argusfire.co.uk
Certificate No. CFA-148 to LPS 1014

BBC Fire Protection Limited
St Florian House, Ayton Road, Wymondham, Norfolk NR18 0QH, United Kingdom
Tel: +44 (0)1953 857700 • Fax: +44 (0)1953 857750
E-mail: sales@bbcfire.co.uk • Website: www.bbcfire.co.uk
Certificate No. CFA-126 to LPS 1014

CAMS Fire & Security PLC
6 Wedgwood Court, Wedgwood Way, Pin Green Industrial Area, Stevenage, Hertfordshire SG1 4QR, United Kingdom
Tel: +44 (0)1438 740840 • Fax: +44 (0)1438 737969
E-mail: info@camsfire.co.uk / info@camssecurity.co.uk • Website: www.camssecurity.co.uk/
Certificate No. CFA-190 to LPS1014

Channel Fire Systems Limited
44 High Street, New Romney, Kent TN28 8BZ, United Kingdom
Tel: +44 (0)1797 335050
E-mail: info@channelfs.com • Website: www.channelfs.com
Certificate No. CFA-201 to LPS 1014
Chubb Fire & Security Ltd t/a Chubb Mechanical
Littleton Road, Ashford, Middlesex TW15 1TZ, United Kingdom
Tel: +44 (0)1784 425950  E-mail: mechanical@chubb.co.uk • Website: www.chubb.co.uk
Certificate No. CFA-193 to LPS 1014

Churches Fire Security Limited
Fire House, Mayflower Close, Chandlers Ford, Eastleigh, Hampshire SO53 4AR, United Kingdom
Tel: 0370 608 4350 • Fax: 0870 608 4351  E-mail: sales@churchesfire.com • Website: www.churchesfire.com
Certificate No. CFA-192 to LPS 1014

Clymac Limited
Cloudway Court, Belton Road, Loughborough LE11 1LW, United Kingdom
Tel: +44 (0)1509 232651 • Fax: +44 (0)1509 232665  E-mail: sales@clymac.co.uk • Website: www.clymac.co.uk
Certificate No. CFA-154 to LPS 1014

CTM Fire & Security Limited trading as Thompson Group Services
Unit 2, Osprey Place, Moss Side Industrial Estate, Leyland PR26 7EW, United Kingdom
Tel: +44 (0)1772 641226 • Fax: +44 (0)1772 641227  E-mail: info@thompsongroupservices.com • Website: www.thompsongroupservices.com
Certificate No. CFA-156 to LPS 1014

 Daemon Fire and Security Limited
Daemon House, 41-42 Albert Road, Tamworth, Staffs B79 7JS, United Kingdom
Tel: +44 (0)1827 69266  E-mail: sales@daemonfire.co.uk
Certificate No. CFA-145 to LPS 1014

DAS Fire Limited
Unit 13 Campbell Court, Bramley, Tadley, Hampshire RG26 5EG, United Kingdom
Tel: +44 (0)845 544 2316  E-mail: info@dasfire.com • Website: www.dasfire.com
Certificate No. CFA-207 to LPS 1014
PART 1: SECTION 1
LPS 1014 CERTIFIED FIRE DETECTION AND ALARM SYSTEM FIRMS

Defensor Maintenance Limited trading as Defensor Life Safety Systems
Defensor House, 15 Kingsley Street, Leicester LE2 6DY, United Kingdom
Tel: +44 (0)116 244 8689 • Fax: +44 (0)116 244 8884
E-mail: G.McCartney@defensorlifesafety.com
Certificate No. CFA-161 to LPS 1014

Direction Fire Limited
Unit 5, Fire Quarter, Blenheim Road, Epsom, Surrey KT19 9QN, United Kingdom
Tel: +44 (0)1372 744499
E-mail: general@directionfire.co.uk • Website: www.directionfire.co.uk
Certificate No. CFA-178 to LPS 1014

EA-RS Fire Engineering Limited
4 Swanbridge Industrial Park, Black Croft Road, Witham, Essex CM8 3YN, United Kingdom
Tel: +44 (0)1376 503680
E-mail: onesolution@ea-rsfire.com • Website: www.ea-rsfire.com
Certificate No. CFA-182 to LPS 1014

EMCOR Group (UK) plc, EMCOR UK - Fire and Security
Premier House, Tollgate, Eastleigh, Hampshire SO53 3YE, United Kingdom
Tel: 0800 085 4659 • Fax: +44 (0)2380 648191
E-mail: F&S@emcoruk.com • Website: www.emcoruk.com
Certificate No. CFA-151 to LPS 1014

Emico Limited
Innovation House, 39 Mark Road, Hemel Hempstead, Hertfordshire HP2 7DN, United Kingdom
Tel: +44 (0)1442 213111 • Fax: +44 (0)1442 236945
E-mail: contact@emico.co • Website: www.emico.co
Certificate No. CFA-185 to LPS 1014

ENGIE Services Limited
20th Floor, 25 Canada Square, Canary Wharf, London E14 5LB, United Kingdom
Tel: +44 (0)20 7320 8600
E-mail: jordan.obrien@engie.com
Certificate No. CFA-205 to LPS 1014
PART 1: SECTION 1
LPS 1014 CERTIFIED FIRE DETECTION AND ALARM SYSTEM FIRMS

Fire Design Solutions Limited
Fire Design Solutions Limited, 152-154 London Road, Greenhithe, Dartford, Kent DA9 9JW, United Kingdom
Tel: +44 (0)1322 387411 • Fax: +44 (0)1322 386361
E-mail: ssheldon@firedesignsolutions.com • Website: www.firedesignsolutions.com
Certificate No. CFA-213 to LPS 1014

Firetecnics Systems Limited
Firetecnics House, 328 St James's Road, London SE1 5JX, United Kingdom
Tel: +44 (0) 20 7587 0927 • Fax: +44 (0) 20 7740 3567
E-mail: info@firetecnics.co.uk • Website: www.firetecnics.com
Certificate No. CFA-146 to LPS 1014

G.B. Electronics Limited trading as GBE Converge
GBEC House, 31 Barnett Way, Barnwood, Gloucester GL4 3RT, United Kingdom
Tel: +44 (0)845 220 8884 • Fax: +44 (0)845 1220885
E-mail: info@gbeconverge.com • Website: www.gbeconverge.com
Certificate No. CFA-180 to LPS 1014

Global Fire Systems Limited trading as Global Fire & Security Systems
15 The Triangle, NG2 Business Park, Queens Drive, Nottingham NG2 1AE, United Kingdom
Tel: +44 (0)870 220 8211 • Fax: +44 (0)115 943 8999
E-mail: g.shillingford@globalfireandsecurity.co.uk • Website: www.globalfireandsecurity.co.uk
Certificate No. CFA-189 to LPS 1014

Grainger Fire Systems
Thornley House, Carrington Business Park, Carrington, Manchester M31 4XL, United Kingdom
Tel: +44 (0)161 777 6700 • Fax: +44 (0)161 777 6638
E-mail: info@grainger-fire.co.uk

The following location is included within the scope of certification for servicing:
Unit 1A, Newton Court, Wavertree Technology Park, Wavertree, Liverpool L13 1EJ
Tel: +44 (0)151 220 4068 • Fax: +44 (0)151 259 4365
Certificate No. CFA-125 to LPS 1014
PART 1: SECTION 1
LPS 1014 CERTIFIED FIRE DETECTION AND ALARM SYSTEM FIRMS

Hall & Kay Fire Services Limited trading as Hall & Kay Fire Engineering (Ascot)
Unit E - Science Park, Silwood Business Park, Ascot, Berkshire SL5 7PW, United Kingdom
Tel: +44 (0)1344 203800 • Fax: +44 (0)1344 203801
E-mail: MatthewC.Jones@hkfire.co.uk • Website: www.hkfire.co.uk
Certificate No. CFA-147 to LPS 1014

Harmony Fire Limited
Clark House, Higher Kingsbury, Milborne Port, Somerset DT9 5EB, United Kingdom
Tel: +44 (0)1963 361250
E-mail: info@harmonyfire.co.uk • Website: www.harmonyfire.co.uk
Certificate No. CFA-211 to LPS 1014

I.C. Service & Maintenance Limited
Unit K3 Temple Court, Knights Park, Knight Road, Strood, Kent ME2 2LT, United Kingdom
Tel: +44 (0)1634 290300 • Fax: +44 (0)1634 290700
E-mail: sales@icservice.uk.com • Website: www.icservice.uk.com
Certificate No. CFA-158 to LPS 1014

Indigo Systems Limited
2A Croham Road, South Croydon, Surrey CR2 7BA, United Kingdom
Tel: +44 (0)208 681 1616
E-mail: lee@indigosystems.ltd.uk • Website: www.indigosystems.ltd.uk
Certificate No. CFA-203 to LPS 1014

Integr8 Building Services Limited
203-205 High Street, Orpington, Kent BR6 0PF, United Kingdom
Tel: +44 (0)1689 422423
E-mail: enquiries@i8.london • Website: i8.london
Certificate No. CFA-138 to LPS 1014

Integrated Fire Safety Systems Limited
26 Nightingale Crescent, Leatherhead, Surrey KT24 6PD, United Kingdom
Tel: +44 (0)1483 673173
E-mail: info@IFSSystems.co.uk • Website: www.ifssystems.co.uk
Certificate No. CFA-212 to LPS 1014
Kingfisher Security (UK) Limited trading as Kingfisher Fire & Security
1 Riverside Industrial Estate, Dogflud Way, Farnham GU9 7UG, United Kingdom
Tel: +44 (0)1252 710809 • Fax: +44 (0)1252 710816
E-mail: info@kingfishersecurity.co.uk • Website: www.kingfishersecurity.co.uk
Certificate No. CFA-176 to LPS 1014

Lloret Fire & Security Limited
Lloret House, Ullswater Crescent, Coulsdon, Surrey CR5 2HR, United Kingdom
Tel: +44 (0) 208 410 4600 • Fax: +44 (0) 208 668 9141
E-mail: info@lloret.co.uk • Website: www.lloret.co.uk
Certificate No. CFA-181 to LPS 1014

MECE Fire & Security Limited
Unit 12 Rochester Trade Park, Maidstone Road, Rochester, Kent ME1 3QY, United Kingdom
Tel: +44 (0)1634 260607 • Fax: +44 (0)1634 260278
E-mail: enquiries@mecefireandsecurity.co.uk • Website: www.mecefireandsecurity.co.uk
Certificate No. CFA-159 to LPS 1014

Mercury Engineering
Mercury House, Sandyford Industrial Estate, Foxrock, Dublin 18 D18 XH79, Ireland
Tel: +353 1 216 3000 • Fax: +353 1 216 3006
E-mail: fireprotection@mercuryeng.com • Website: www.mercuryeng.com
Certificate No. CFA-174 to LPS 1014

NG Bailey Limited
10th & 11th Floor, 20 Farringdon Street, London EC4A 4AB, United Kingdom
Tel: +44 (0)20 7843 0200
E-mail: martin.hall@ngbailey.co.uk • Website: www.ngbailey.com
Certificate No. CFA-209 to LPS 1014

NG Bailey Limited trading as Bailey Maintenance
7 Brown Lane West, Leeds LS12 6EH, United Kingdom
Tel: +44 (0)113 234 3443 • Fax: +44 (0)113 222 3925
E-mail: darrell.hawsworth@ngbailey.co.uk • Website: www.baileymaintenance.co.uk
Certificate No. CFA-165 to LPS 1014
PART 1: SECTION 1
LPS 1014 CERTIFIED FIRE DETECTION AND ALARM SYSTEM FIRMS

PEL Services Limited
Belvue Business Centre, Belvue Road, Northolt, Middlesex UB5 5QQ, United Kingdom
Tel: +44 (0)20 8839 2100 • Fax: +44 (0)20 8841 1948
E-mail: info@pel.co.uk • Website: www.pel.co.uk
Certificate No. CFA-179 to LPS 1014

PHF Fire a division of PHF
Unit 16, Twyford Business Centre, London Road, Bishops Stortford, Hertfordshire CM23 3YT, United Kingdom
Tel: +44 (0)1279 659125
E-mail: paul@phffire.com • Website: www.phffire.com
Certificate No. CFA-208 to LPS 1014

Protec Fire Detection plc
Protec House, Churchill Way, Nelson, Lancashire BB9 6RT, United Kingdom
Tel: +44 (0)1282 717171 • Fax: +44 (0)1282 717273
E-mail: sales@protec.co.uk • Website: www.protec.co.uk
Including the following satellite offices:
Unit 4, White Oak Square, London Road, Swanley, Kent BB8 1AG, United Kingdom
Tel: +44 (0)845 456 5394 • Fax: +44 (0)845 456 5395
Unit 10, Fulcrum 4, Solent Way, Whiteley, Fareham, Hampshire PO15 7FT, United Kingdom
Tel: +44 (0)845 456 5392 • Fax: +44 (0)845 456 5393
5 Morston Court, Blakeney Way, Kingswood Lakeside, Cannock, Staffordshire WS11 8JB, United Kingdom
Tel: +44 (0)845 456 5398 • Fax: +44 (0)845 456 5399
Unit 1, Ashfield Court, Whitehall Road, Leeds LS12 5JB, United Kingdom
Tel: +44 (0)845 456 5388 • Fax: +44 (0)845 456 5389
Certificate No. CFA-132 to LPS 1014

Pyrotec Fire Protection Limited
Unit 8, Caburn Enterprise Park, The Broyle, Ringmer, East Sussex BN8 5NP, United Kingdom
Tel: +44 (0)1273 812376
E-mail: sales@pyrotec.co.uk • Website: www.pyrotec.co.uk
Certificate No. CFA-202 to LPS 1014
Quinn Infrastructure Services Limited
Minster House, 42 Mincing Lane, London EC3R 7AE, United Kingdom
Tel: +44 (0)207 993 0731 • Fax: +44 (0)203 757 0580
E-mail: samantha.young@quinninfrastructure.co.uk • Website: www.quinninfrastructure.co.uk
Certificate No. CFA-143 to LPS 1014

Reed M & E Limited
M & E House, 135 Red Lion Road, Surbiton, Surrey KT6 7RQ, United Kingdom
Tel: +44 (0)20 8397 2161 • Fax: +44 (0)20 8974 1542
E-mail: robert@reedme.org.uk • Website: www.reedme.org.uk
Certificate No. CFA-196 to LPS 1014

Senseco Systems Limited
6 Ambley Green, Bailey Drive, Gillingham Business Park, Gillingham, Kent ME8 0NJ, United Kingdom
Tel: +44 (0)845 644 2888 • Fax: +44 (0)845 644 2899
E-mail: sales@sensecosystems.com • Website: www.sensecosystems.com
Certificate No. CFA-198 to LPS 1014

Sensetech Systems Limited
Langdale House, 11 Marshalsea Road, London SE1 1EN, United Kingdom
Tel: +44 (0)845 689 9099 • Fax: +44 (0)207 8633238
E-mail: info@sensetechsystems.co.uk • Website: www.sensetechsystems.co.uk
Certificate No. CFA-184 to LPS 1014

Siemens Plc, Smart Infrastructure (Regional Solutions & Service)
Brunel House, Sir William Siemens Square, Frimley, Camberley, Surrey GU16 8QD, United Kingdom
Tel: +44 (0)1276 696000 • Fax: +44 (0)1276 696133
E-mail: sales.uk.sbt@siemens.com • Website: www.siemens.co.uk/buildingtechnologies
Certificate No. CFA-100 to LPS 1014
PART 1: SECTION 1
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SPIE Scotshield Limited
1 Rutherglen Links, Rutherglen Links Business Park, Glasgow G73 1DF, United Kingdom
Tel: +44 (0)141 613 7400
E-mail: jim.martin@spie.com • Website: www.spieuk.com

Including the following satellite offices for service work only
9 Telford Court, Loansdean, Morpeth, Newcastle NE61 2DB, United Kingdom
Tel: +44 (0)1670 516291

Suite D - 10 Heron Road, Sydenham Business Park, Belfast BT3 9LE, Ireland
Tel: +44 (0)28 9045 7076

Leven House, Unit 10 Lochside Place, Edinburgh Park, South Gyle, Edinburgh EH12 9RG
Tel: +44 (0)131 4522420

Venus Building, 1 Old Park Lane, Stretford, Manchester M41 7HA
Tel: +44(0)161 8387200

Certificate No. CFA-150 to LPS 1014

Static Systems Group Plc
Heath Mill Road, Wombourne, Staffordshire WV5 8AN, United Kingdom
Tel: +44 (0)1902 895551
E-mail: QA@staticsystems.co.uk • Website: www.staticsystems.co.uk

Certificate No. CFA-135 to LPS 1014

T V F (UK) Limited
59-69 Queens Road, High Wycombe, Buckinghamshire HP13 6AH, United Kingdom
Tel: +44 (0)1494 450641 • Fax: +44 (0)1494 465378
E-mail: customer.service@tvfltd.co.uk • Website: www.tvfltd.co.uk

Certificate No. CFA-128 to LPS 1014

TClarke Contracting Limited
45, Moorfields, London EC2Y 9AE, United Kingdom
Tel: +44 (0)207 997 7400 • Fax: +44 (0)207 997 7405
E-mail: info@tclarke.co.uk • Website: www.tclarke.co.uk

Certificate No. CFA-188 to LPS 1014
PART 1: SECTION 1
LPS 1014 CERTIFIED FIRE DETECTION AND ALARM SYSTEM FIRMS

Thameside Fire Protection Co. Limited
Unit 4, Sovereign Park, Cranes Farm Road, Basildon, Essex SS14 3JD, United Kingdom
Tel: +44 (0)1268 597999 • Fax: +44 (0)1268 597998
E-mail: darko.petrovic@thamesidefire.co.uk • Website: www.thamesidefire.co.uk
Certificate No. CFA-171 to LPS 1014

Tri Management Limited
4 Park Parade, Park Road, Farnham Royal, Buckinghamshire SL2 3AU, United Kingdom
Tel: +44 (0)8443 350187 • Fax: +44 (0)1753 648647
E-mail: info@triman.co.uk • Website: www.triman.co.uk
Certificate No. CFA-204 to LPS 1014

Trinity Fire & Security Systems Limited
Little Bridge Business Park, Oil Mill Lane, Clyst St Mary, Exeter, Devon EX5 1AU, United Kingdom
Tel: +44 (0)1392 874455 • Fax: +44 (0)1392 875546
E-mail: info@trinityprotection.co.uk • Website: www.trinityprotection.co.uk
Certificate No. CFA-160 to LPS 1014

Trinity Fire and Security Systems Ltd (Abingdon)
Central Hub, 9E Nuffield Trade Park, Nuffield Way, Abingdon, Oxfordshire OX14 1RN, United Kingdom
Tel: +44 (0)1235 862456 • Fax: +44 (0)1235 834450
E-mail: info@trinityprotection.co.uk • Website: www.trinityprotection.co.uk
Certificate No. CFA-168 to LPS 1014

Trinity Fire and Security Systems Ltd (Diseworth)
West Acre, The Walnut Yard, Gelscoe Lane, Diseworth, Derbyshire DE74 2AN, United Kingdom
Tel: +44 (0)1926 485080 • Fax: +44 (0)1926 485090
E-mail: info@trinityprotection.co.uk • Website: www.trinityprotection.co.uk
Certificate No. CFA-167 to LPS 1014

Tyco Fire and Integrated Solutions (the trading company for Tyco Fire and Integrated Solutions (UK) Limited and Tyco Fire and Integrated Solutions (Ireland) Limited)
Mucklow Office Park, Mucklow Hill, Halesowen, West Midlands B62 8DA, United Kingdom
Tel: +44 (0)121 255 6000 • Fax: +44 (0)121 255 6100
Website: www.tycofis.com
Certificate No. CFA-103 to LPS 1014
PART 1: SECTION 1
LPS 1014 CERTIFIED FIRE DETECTION AND ALARM SYSTEM FIRMS

Tyco Fire and Integrated Solutions (the trading company for Tyco Fire and Integrated Solutions (UK) Limited and Tyco Fire and Integrated Solutions (Ireland) Limited)
180 Aztec West, Almondsbury, Bristol BS32 4TU, United Kingdom
Tel: +44 (0)1454 240071 • Fax: +44 (0)1454 626443
Website: www.tycofis.com
Certificate No. CFA-170 to LPS 1014

Tyco Fire and Integrated Solutions (the trading company for Tyco Fire and Integrated Solutions (UK) Limited and Tyco Fire and Integrated Solutions (Ireland) Limited)
Security House, The Summit, Hanworth Road, Sunbury on Thames, Middlesex TW16 5DB, United Kingdom
Tel: +44 (0)1753 574111 • Fax: +44 (0)1753 824226
Website: www.tycofis.com
Certificate No. CFA-157 to LPS 1014

Vindex Systems Limited
7 Lloyds Court, Manor Royal, Crawley, West Sussex RH10 9QU, United Kingdom
Tel: +44 (0) 1293 558830
E-mail: sales@vindexsystems.com • Website: www.vindexsystems.com
Certificate No. CFA-200 to LPS 1014

Vipond Fire Protection Limited
10-12 Glenfield Road, Kelvin Industrial Estate, East Kilbride, Lanarkshire G75 0RA, United Kingdom
Tel: +44 (0)1355 2375 25/80/88 • Fax: +44 (0)1355 263399
E-mail: admin.uk@vipondltd.co.uk • Website: www.vipondfire.co.uk
Certificate No. CFA-173 to LPS 1014

Zone Systems Limited
Global House, 60 Westcliff Road, Ruskington, Lincolnshire NG34 9AY, United Kingdom
Tel: +44 (0)1526 833999 • Fax: +44 (0)1526 833888
E-mail: sales@zonesystems.co.uk • Website: www.zonesystems.co.uk
Certificate No. CFA-194 to LPS 1014
A fire detection and fire alarm system is typically made up of a number of inter-linked components including detectors, manual call points, and alarm sounders connected to control and indicating equipment by means of one or more transmission paths. All system components, including the control and indicating equipment are also connected to a power supply directly or indirectly.

A fire detection and alarm system may be linked to other systems such as fire protection, or building management systems. These other systems are not considered as part of the fire detection and alarm systems.

The fire detection and alarm systems may be networked together.

Each of the components that constitute the fire detection and alarm system may be individually tested and approved against their appropriate standard to demonstrate their own performance and reliability but in order to ensure their compatibility and performance together within the system, certain system tests and requirements must be fulfilled.

The system standard specifies the requirements for compatibility and connectability assessment of system components that either comply with the requirements of EN 54 and/or with a manufacturer’s specification. The standard also includes requirements for the integrity of the fire detection and fire alarm system when connected to other systems.

This section lists approved fire detection and alarm systems suitable for use in buildings for the protection of people and property. The system requirements ensure the compatibility of the different components of the system work reliably together. Each component of the fire detection and alarm systems listed in this section are approved to the applicable product standard and are listed in Sections 3, 4.1, 5, 6, and 7. The approval process for the system is outlined in scheme document SD040.

Systems listed in this section have been approved to LPS 1054: 2001 Requirements for the evaluation of component compatibility for fire alarm systems

This standard was designed for the UK market and applies to systems incorporating control and indicating equipment and power supply equipment complying with EN 54-2 Fire detection and fire alarm systems - Control and indicating equipment and EN 54-4 Fire detection and fire alarm systems - Power supply equipment respectively.

Networked systems are evaluated by ensuring that each control panel connected to the network can operate as a stand alone unit, in the event of failure of the network connections, and that failure of a control panel will not affect other control panels on the network.

LPCB is now accepting products for approval to EN 54-13: 2005 Compatibility assessment for system components which is applicable to the EU market and to LPS 1653: 2011 Requirement for Network fire detection and alarm systems.

Note: Since LPCB uses national and international standards for the listing of products, in some instances, the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.

Hochiki Corporation
10-43, Kamiosaki 2 Chrome, Shinagawa-ku, Tokyo, 141-8660, Japan
Tel: (+81) 3 5488 8685
E-mail: info@hochiki.co.jp • Website: http://www.hochiki.co.jp

Certificate No: 360c-(cl-2) to EN 54-13:2005
The Hochiki Latitude Fire Detection and Alarm System comprises of the following:

**Control and Indicating Equipment**

Hochiki Latitude 2-8 Loop Analogue Addressable Control and Indicating Equipment (Hochiki Protocol)

Hochiki Latitude 2-16 Loop Analogue Addressable Control and Indicating Equipment (Hochiki Protocol)

The Hochiki Latitude CIE may be connected to the following equipment and devices:

**Commercial Detectors (Hochiki Protocol)**

- ACB-EW Weatherproof Intelligent Analogue Addressable Class P Detector (Ivory Colour)
- ACC-E(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACC-E(HFP) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACC-E(WHT)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACC-E(HFP)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACC-EN Intelligent Analogue Addressable Multi-Criteria Detector (Ivory Colour)
- ACC-EN(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACC-EN(SCI) Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACC-EN(WHT)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACD-E(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACD-E(HFP) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACD-EN Intelligent Analogue Addressable Multi-Criteria Detector (Ivory Colour)
- ACD-EN(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ALN-E(WHT) Intelligent Analogue Addressable Optical Smoke Detector (White Colour)
- ALN-E(HFP) Intelligent Analogue Addressable Optical Smoke Detector (White Colour)
- ALN-E(WHT)-SCI Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (White Colour)
- ALN-E(HFP)-SCI Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (White Colour)
- ATJ-E(WHT) Intelligent Analogue Addressable Call P Heat Detector (White Colour)
- ATJ-E(HFP) Intelligent Analogue Addressable Call P Heat Detector (White Colour)
- ATJ-E(WHT)-SCI Intelligent Analogue Addressable Call P Heat Detector with Short Circuit Isolator (White Colour)
- ATJ-E(HFP)-SCI Intelligent Analogue Addressable Call P Heat Detector with Short Circuit Isolator (White Colour)
- ATJ-EN Intelligent Analogue Addressable Call P Heat Detector (Ivory Colour)
- ATJ-EN(WHT) Intelligent Analogue Addressable Call P Heat Detector (White Colour)
- ATJ-EN(SCI) Intelligent Analogue Addressable Call P Heat Detector with Short Circuit Isolator (White Colour)
- ATJ-EN(WHT)-SCI Intelligent Analogue Addressable Call P Heat Detector with Short Circuit Isolator (White Colour)

**Alarm Warning Devices (Hochiki Protocol)**

- CHQ-CB (RED)/RL Intelligent Analogue Addressable Ceiling VAD (Red Light) (Red Colour)
- CHQ-CB (RED)/RL-HFP Intelligent Analogue Addressable Ceiling VAD (Red Light) (Red Colour)
- CHQ-CB (RED)/WL Intelligent Analogue Addressable Ceiling VAD (White Light) (Red Colour)
- CHQ-CB (RED)/WL-15 Intelligent Analogue Addressable Ceiling VAD (White Light) (Red Colour)
### FIRE DETECTION AND ALARM SYSTEMS

**Certificated Products**

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<th>LPCB Ref. No.</th>
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**20 Oct 2020**
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<td>CHQ-DIM/OEM(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator</td>
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PART 1: SECTION 2
FIRE DETECTION AND ALARM SYSTEMS

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2) For further information on each transmission path compatibility and connectability refer to the manufacturers EN54-13 Manual document ref MAN-1401H.

Hochiki Europe (UK) Limited
Grosvenor Road, Gillingham Business Park, Gillingham, Kent ME8 0SA, United Kingdom
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E-mail: info@hochikieurope.com • Website: www.hochikieurope.com

Certificate No: 360c-(cl-1) to EN 54-13:2005

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<td>The HFP Latitude Fire Detection and Alarm System comprises of the following:</td>
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<td>Control and Indicating Equipment</td>
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<td>HFP Latitude (Hochiki Protocol) 2-8 Loop Analogue Addressable Control and Indicating Equipment</td>
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<td>HFP Latitude (Hochiki Protocol) 2-16 Loop Analogue Addressable Control and Indicating Equipment</td>
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### Alarm Warning Devices (Hochiki Protocol)

| CHQ-CB (RED)/RL       |               |
| Intelligent Analogue Addressable Ceiling VAD (Red Light) (Red Colour) |
| CHQ-CB (RED)/RL-HFP   |               |
| Intelligent Analogue Addressable Ceiling VAD (Red Light) (Red Colour) |
| CHQ-CB (RED)/WL       |               |
| Intelligent Analogue Addressable Ceiling VAD (White Light) (Red Colour) |
| CHQ-CB (RED)/WL-15    |               |
| Intelligent Analogue Addressable Ceiling VAD (White Light) (Red Colour) - 15 Meter |
| CHQ-CB (RED)/WL-15-HFP|               |
| Intelligent Analogue Addressable Ceiling VAD (White Light) (Red Colour) - 15 Meter |
| CHQ-CB (WHIT)/RL-HFP  |               |
| Intelligent Analogue Addressable Ceiling VAD (Red Light) (White Colour) (White Colour) |
| CHQ-CB (WHIT)/WL-15-HFP|               |
| Intelligent Analogue Addressable Ceiling VAD (White Light) (White Colour) - 15 Meter |

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Certificated Products

CWST-WW-W5  Conventional Beacon
CWST-WR-S5  Conventional Beacon
CWST-WR-W5  Conventional Beacon

Line Units (Hochiki Protocol)
CHO-DIM/DIN(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN Rail Version)
CHO-DIM/OEM(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator
CHO-DIM/OEM(HFP)-SCI Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator
CHO-DIM2(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator
CHO-DIM2/DIN(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN Rail Version)
CHO-DRC/DIN(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator (DIN Rail Version)
CHO-DRC/OEM(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
CHO-DRC/OEM(HFP)-SCI Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
CHO-DRC2(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
CHO-DRC2/DIN(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator (DIN Rail Version)
CHO-DRC2(HFP)-SCI Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
CHO-DSC/OEM(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator
CHO-DSC/DIN(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator (DIN Rail Version)
CHO-DSC/OEM(HFP)-SCI Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator
CHO-DSC2(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator
CHO-DSC2/DIN(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator (DIN Rail Version)
CHO-DSC2(HFP)-SCI Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator
CHO-DZM(SCI) Intelligent Analogue Addressable Dual Zone Monitor with Short Circuit Isolator
CHO-DZM(HFP)-SCI Intelligent Analogue Addressable Dual Zone Monitor with Short Circuit Isolator
CHO-DZM(SCI)-IS Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator
CHO-DZM(HFP)-SCI-IS Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator
CHO-DZM/DIN(SCI) Intelligent Analogue Addressable Dual Zone Monitor with Short Circuit Isolator
CHO-DZM(DIN(SCI)) Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator

CHQ-FTM Intelligent Analogue 4-20mA Input/Output Module
CHQ-FTM/DIN Intelligent Analogue 4-20mA Input/Output Module (DIN Rail Version)
CHQ-FTM(HFP) Intelligent Analogue 4-20mA Input/Output Module
CHQ-MRC2(SCI) Intelligent Analogue Mains Relay Controller with Short Circuit Isolator
CHQ-MRC2/DIN(SCI) Intelligent Analogue Mains Relay Controller with Short Circuit Isolator (DIN Rail Version)
CHQ-MRC2(HFP)-SCI Intelligent Analogue Mains Relay Controller with Short Circuit Isolator

CHQ-PCM(SCI) Intelligent Analogue Addressable 4 Input 4 Output Plant Control Module with Short Circuit Isolator
CHQ-PCM/DIN(SCI) Intelligent Analogue Addressable 4 Input 4 Output Plant Control Module with Short Circuit Isolator (DIN Rail Version)
CHQ-PCM(HFP)-SCI Intelligent Analogue Addressable 4 Input 4 Output Plant Control Module with Short Circuit Isolator

CHQ-POM Intelligent Analogue Addressable Powered Output Module
CHQ-POM(HFP) Intelligent Analogue Addressable Powered Output Module

CHQ-SIM Intelligent Analogue Addressable Single Input Module
CHQ-SIM(HFP) Intelligent Analogue Addressable Single Input Module
CHQ-SOM Intelligent Analogue Addressable Single Output Module
CHQ-SOM(HFP) Intelligent Analogue Addressable Single Output Module
CHQ-SZM2(SCI) Intelligent Analogue Addressable Single Zone Module with Short Circuit Isolator
**Certificated Products**

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**Manual Call Points (Hochiki Protocol)**

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<tbody>
<tr>
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<td>HCP-E(HFP)-SCI Intelligent Analogue Addressable Manual Call point with Short Circuit Isolator (SR Mounting Box)</td>
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<td>SCP-W(DPS) Intelligent Analogue Addressable Type A Weatherproof Manual Call point with Short Circuit Isolator (SR Mounting Box)</td>
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**Short Circuit Isolating Bases**

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<td>YBO-R/SCI(RED) Short Circuit Isolating Base (Red Colour)</td>
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> 2) For further information on each transmission path compatibility and connectability refer to the manufacturers EN54-13 Manual document ref MAN-1401H.

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**Kentec Electronics Limited**

Units 25-27, Fawkes Avenue, Questor, Dartford, Kent DA1 1JQ, United Kingdom
Tel: +44 (0)1322 222121 • Fax: +44 (0)1322 291794
E-mail: sales@kentec.co.uk • Website: www.kentec.co.uk

**Certificate No: 360c to EN 54-13:2005**

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The Taktis Fire Detection and Alarm System comprises of the following:
- Control and Indicating Equipment Taktis 2-8 Loop Analogue Addressable Control and Indicating Equipment (Hochiki and Apollo Protocols)
- Taktis 2-16 Loop Analogue Addressable Control and Indicating Equipment (Hochiki and Apollo Protocols)

The Taktis CIE may be connected to the following equipment and devices:
- Commercial Detectors (Hochiki Protocol) ACB-EW Weatherproof Intelligent Analogue Addressable Class P Detector (Ivory Colour)
- ACC-E(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACC-E(HFP) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACC-E(WHT)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACC-E(HFP)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACC-EN Intelligent Analogue Addressable Multi-Criteria Detector (Ivory Colour)
- ACC-EN(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACC-EN(SCI) Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (Ivory Colour)
- ACC-EN(WHT)SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
- ACD-E(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
- ACD-E(HFP) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
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<td>CHQ-CB (RED)/RL</td>
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### FIRE DETECTION AND ALARM SYSTEMS

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<th>LPCB Ref. No.</th>
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<td>CHQ-CB/RL-HFP Intelligent Analogue Addressable Ceiling VAD (Red Light) (Ivory Colour)</td>
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<td>YBO-BSB2(WHT)/WL-HFP Intelligent Analogue Addressable Type A Base Sounder (White Light) Beacon (White Colour)</td>
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<td>YBO-BSB2(WHT)/RL Intelligent Analogue Addressable Type A Base Sounder (Red Light) Beacon (Ivory Colour)</td>
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<td>YBO-BSB2(WHT)/RL-HFP Intelligent Analogue Addressable Type A Base Sounder (Red Light) Beacon (Ivory Colour)</td>
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Certificated Products

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<td>CWST-RW-W5</td>
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<td>CWST-RR-S5</td>
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**Alarm Warning Devices (Apollo Protocol)**

- 45681-700 Discovery Sounder VAD Base with isolator
- 55000-006 XP95 Open-Area Sounder Visual indicator (WHITE)
- 56000-007 Discovery Open-Area Sounder Visual indicator (WHITE)
- 55000-005 XP95 Open-Area Sounder Visual indicator (RED)
- 58000-006 Discovery Open-Area Sounder Visual indicator (RED)
- 55000-002 XP95 Intelligent Open-Area Sounder W (WHITE)
- 55000-001 XP95 Intelligent Open-Area Sounder R (RED)
- 55000-741 Loop Powered Type A VAD 6m Red
- 55000-744 Loop Powered Type A VAD 6m White
- 55000-742 Loop Powered Type A VAD 8.5m Red
- 55000-745 Loop Powered Type A VAD 8.5m White
- 55000-743 Loop Powered Type A VAD 15m White
- 55000-740 Loop Powered Type A VAD 15m Red

**Line Units (Hochiki Protocol)**

- CHQ-DIM/DIN(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN Rail Version)
- CHQ-DIM/OEM(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator
- CHQ-DIM/OEM(HFP)-SCI Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator
- CHQ-DIM2(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator
- CHQ-DIM2/DIN(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN Rail Version)
- CHQ-DRC/DIN(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator (DIN Rail Version)
- CHQ-DRC/OEM(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
- CHQ-DRC/OEM(HFP)-SCI Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
- CHQ-DRC2(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
- CHQ-DRC2/DIN(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator (DIN Rail Version)
- CHQ-DRC2(HFP)-SCI Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator
- CHQ-DSC/OEM(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator
- CHQ-DSC/DIN(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator (DIN Rail Version)
- CHQ-DSC/SCI Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator
- CHQ-DSC/DIN(SCI)-IS Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator
- CHQ-DZM(SCI) Intelligent Analogue Addressable Dual Zone Monitor with Short Circuit Isolator
- CHQ-DZM(HFP)-SCI Intelligent Analogue Addressable Dual Zone Monitor with Short Circuit Isolator
- CHQ-DZM(SCI)-IS Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator
- CHQ-DZM(HFP)-SCI Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator
### PART 1: SECTION 2
FIRE DETECTION AND ALARM SYSTEMS

**Certificated Products**

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<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<td>CHQ-MRC2(Sci)</td>
<td>Intelligent Analogue Mains Relay Controller with Short Circuit Isolator</td>
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<tr>
<td>CHQ-MRC2(DIN(Sci))</td>
<td>Intelligent Analogue Mains Relay Controller with Short Circuit Isolator (DIN Rail Version)</td>
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<tr>
<td>CHQ-MRC2(HFP)-Sci</td>
<td>Intelligent Analogue Mains Relay Controller with Short Circuit Isolator</td>
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<tr>
<td>CHQ-PCM(Sci)</td>
<td>Intelligent Analogue Addressable 4 Input 4 Output Plant Control Module with Short Circuit Isolator</td>
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<tr>
<td>CHQ-PCM(DIN(Sci))</td>
<td>Intelligent Analogue Addressable 4 Input 4 Output Plant Control Module with Short Circuit Isolator (DIN Rail Version)</td>
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<td>CHQ-PCM(HFP)-Sci</td>
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<td>CHQ-POM</td>
<td>Intelligent Analogue Addressable Powered Output Module</td>
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<tr>
<td>CHQ-POM(HFP)</td>
<td>Intelligent Analogue Addressable Powered Output Module</td>
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<tr>
<td>CHQ-SIM</td>
<td>Intelligent Analogue Addressable Single Input Module</td>
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<tr>
<td>CHQ-SIM(HFP)</td>
<td>Intelligent Analogue Addressable Single Input Module</td>
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<td>CHQ-SOM</td>
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<td>CHQ-SOM(HFP)</td>
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<td>CHQ-SZM2(Sci)</td>
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<td>CHQ-SZM2(DIN(Sci))</td>
<td>Intelligent Analogue Addressable Single Zone Module with Short Circuit Isolator (DIN Rail Version)</td>
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<td>CHQ-SZM2(HFP)-Sci</td>
<td>Intelligent Analogue Addressable Single Zone Module with Short Circuit Isolator</td>
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<tr>
<td>SA4700-102</td>
<td>Soteria Input/Output Unit</td>
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<tr>
<td>SA4700-100</td>
<td>Soteria Switch Monitor</td>
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<td>SA4700-103</td>
<td>Soteria Mains Switching Input/Output Unit</td>
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<td>SA4700-104</td>
<td>Soteria Twin Input/Output Unit</td>
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<tr>
<td>SA6700-100</td>
<td>Soteria Twin Switch Monitor Plus</td>
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<td>SA4700-302</td>
<td>Soteria DIN-Rail Input/Output Unit</td>
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<td>SA4700-300</td>
<td>Soteria DIN-Rail Switch Monitor</td>
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<td>SA4700-403</td>
<td>Soteria DIN-Rail Mains Switching Input/Output Unit</td>
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<td>55000-760</td>
<td>Mini Switch Monitor</td>
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<td>55000-797</td>
<td>DIN-RAIL Mains Input/Output Unit</td>
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<td>55000-812</td>
<td>DIN-RAIL Zone Monitor Unit</td>
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<td>55000-182</td>
<td>DIN-RAIL Sounder Controller (5 Ampere)</td>
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<tr>
<td>55000-847</td>
<td>Input/Output Unit with Isolator</td>
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<td>55000-841</td>
<td>Switch Monitor Plus with Isolator</td>
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<td>55000-845</td>
<td>XP95 Zone Monitor with isolator</td>
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<td>55000-852</td>
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<td>FL6100-600</td>
<td>Soteria Dimension</td>
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<td>FL5100-600</td>
<td>Soteria Dimension Specialist</td>
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<td>55000-855APO</td>
<td>XP95 Analogue Addressable DIN-rail Protocol Translator - single channel</td>
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<td>YBN-R/3(SCI)-WHT</td>
<td>Short Circuit Isolating Base (White Colour)</td>
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<td>YBN-R/3(HFP)-SCI</td>
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<tr>
<td>YBO-R/SCI(RED)</td>
<td>Short Circuit Isolating Base (Red Colour)</td>
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Certificated Products

Notifier by Honeywell (Pittway Systems Technology Group (Europe) Ltd)

Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@notifiersystems.co.uk • Website: www.notifierfiresystems.co.uk

Certificate No: 154e to LPS 1054: Issue 2.1

Certificated Products

Notifier NFS2-8 Fire Alarm System

Comprising the following products:

Notifier Fire Systems Ltd
- 124-345-002 NFS2-8, 2 Zone Conventional Control and Indicating Equipment
- 124-345-004 NFS2-8, 4 Zone Conventional Control and Indicating Equipment
- 124-345-008 NFS2-8, 8 Zone Conventional Control and Indicating Equipment

Morley-IAS Fire Systems
- ECO 1002 Photoelectric smoke and heat detector
- ECO 1003 Photoelectric smoke detector
- ECO 1004T High Temperature 78°C heat detector class BS
- ECO 1005 Heat detector class A1R
- ECO 1005T Fixed temperature heat detector class A2S

KAC Alarm Company Ltd
- MCP1A-Rxxxx Indoor/outdoor surface/flush mounting conventional manual call point
- NS4/R Sounder 4 tone wall mounting conventional (red)
- NS4/W Sounder 4 tone wall mounting conventional (white)
- NS14/R Sounder 14 tones wall mounting conventional (red)
- NS14/W Sounder 14 tones wall mounting conventional (white)

Siemens Switzerland Ltd

Theilerstrasse 1a, , CH-6300 Zug, Switzerland
Website: www.siemens.com

Certificate No: 126bu to EN54-13: 2005
Certificate No: 126bs to EN54-13: 2005

Fire Detection and Alarm Systems

Certificated Products

FC121-ZA / FC122-ZA / FC123-ZA / FC124-ZA
FC360 Fire Detection System

LPCB Ref. No. 126bs/01

LPCB Ref. No. 126bu/01
### Tyco Fire & Security GmbH

Victor Von Bruns-Strasse 21, Neuhausen am Rheinfall, Schaffhausen 8212, Switzerland  
Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777  
E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com

Certificate No: 681ar-(cl-1) to EN 54-13: 2005
Certificate No: 681av-(cl-1) to EN 54-13: 2015
Certificate No: 681av-(cl-2) to EN 54-13: 2015

### Certificated Products

#### FireClass Fire Detection System

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<td>FC460PC</td>
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#### Manual Call Points

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<th>Indoor Surface/Flush Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator</th>
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<td>FC420CP-I</td>
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<tr>
<td>Outdoor Surface Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator</td>
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<td>FC421CP-I</td>
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#### Line Units

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<td>FC410QIO</td>
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<td>FC410QRM</td>
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<td>FC410QMO</td>
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<td>FC410DIM</td>
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<td>FC410SNSM</td>
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#### Alarm Warning Devices

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#### Visual Alarm Devices

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<th>Loop Powered Beacon Sounder Base with Short Circuit Isolator</th>
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#### Control and Indicating Equipment
FIRE DETECTION AND ALARM SYSTEMS

Zettler Profile Fire Detection and Alarm System

The Zettler Profile Fire Detection and Alarm System comprises of the following:

Certificated Products

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<th>LPCB Ref. No.</th>
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<th>Description</th>
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<tr>
<td>681av/01</td>
<td>FC32-1 FireClass (557.200.701) Analogue Addressable Control and Indicating Equipment, 1 Loop, 32 Zone</td>
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<td>FC64-4 FireClass (557.200.703) Analogue Addressable Control and Indicating Equipment, 4 Loop, 64 Zone</td>
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<td>FC240-4 FireClass (557.200.705) Analogue Addressable Control and Indicating Equipment, 4 Loop, 240 Zone</td>
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<td>FC64-2 FireClass (557.200.702) Analogue Addressable Control and Indicating Equipment, 2 Loop, 64 Zone</td>
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<td>FC64-4 FireClass (557.200.703) Analogue Addressable Control and Indicating Equipment, 4 Loop, 64 Zone</td>
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<td>FC240-2 FireClass (557.200.704) Analogue Addressable Control and Indicating Equipment, 2 Loop, 240 Zone</td>
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<tr>
<td></td>
<td>FC240-4 FireClass (557.200.705) Analogue Addressable Control and Indicating Equipment, 4 Loop, 240 Zone</td>
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Zettler Profile Control and Indicating Equipment

- Pro16xD
  - 4-16 Loops Analogue Addressable Control & Indicating Equipment
  - (Black Box)
- Pro16xBB
  - 4-16 Loops Analogue Addressable Control & Indicating Equipment
- Pro32xD
  - 4-32 Loops Analogue Addressable Control & Indicating Equipment
  - (Black Box)
- Pro32xBB
  - 4-32 Loops Analogue Addressable Control & Indicating Equipment
- Pro815D
  - 4-8 Loops Analogue Addressable Control & Indicating Equipment
- Pro885D
  - 4-8 Loops Analogue Addressable Control & Indicating Equipment
- Pro815D-CH
  - 4-8 Loops Analogue Addressable Control & Indicating Equipment

Profile Flexible Control and Indicating Equipment

- Pro215S
  - 1-2 Loops Analogue Addressable Control & Indicating Equipment, Shallow Housing
- Pro215D
  - 1-2 Loops Analogue Addressable Control & Indicating Equipment, Deep Housing
- Pro815D
  - 4-8 Loops Analogue Addressable Control & Indicating Equipment
- Pro885D
  - 4-8 Loops Analogue Addressable Control & Indicating Equipment
- Pro815D-CH
  - 4-8 Loops Analogue Addressable Control & Indicating Equipment

The Zettler Profile CIE may be connected to the following Equipment and devices:

Control and Indicating Equipment via MX Network

- MX4000
  - 2-8 Loop Analogue Addressable Control and Indicating Equipment
- MZX-250
  - Analogue Addressable Control and Indicating Equipment, 1 Loop, 32 Zone
- MZX-251
  - Analogue Addressable Control and Indicating Equipment, 1 Loop, 32 Zone
- MZX-252
  - Analogue Addressable Control and Indicating Equipment 2 Loop, 32 Zone
- MZX-253
  - Analogue Addressable Control and Indicating Equipment 2-4 Loop, 64 Zone
- MZX-254
  - Analogue Addressable Control and Indicating Equipment 2-4 Loop, 240 Zone

Commercial Detectors

- 830P MX Digital Addressable Photoelectric Smoke Detector
- 840P MX Digital Addressable Photoelectric Smoke Detector
- 850P MX digital Addressable Photoelectric Smoke Detector with Short Circuit Isolator
- 830H MX Digital Addressable Class P Heat Detector
- 840H MX Digital Addressable Class P Heat Detector
- 850H MX Digital Addressable Class P Heat Detector with Short Circuit Isolator
- 830PH MX Digital Addressable Photoelectric Smoke and Class P Heat Detector
- 840PH MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator
- 850PH MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator
- 851PH MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator [Marine Version]
- 830PC MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector
- 840PC MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector
- 850PC MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector with Short Circuit Isolator
- 851PCN MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector with Short Circuit Isolator
- 851PHN MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator
- 801F MX Addressable Class 2 Flame Detector
- 801FEX Conventional Class 2 Intrinsically Safe Flame Detector
- VESDA VLC-800 High Sensitivity Aspirating Smoke Detector
### Part 1: Section 2

#### Fire Detection and Alarm Systems

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<tr>
<th>Certificated Products</th>
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<tr>
<td>VESDA VLF-250</td>
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<td>VESDA VLF-500</td>
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<td>VESDA VLP</td>
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<td>VESDA VLS</td>
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</tr>
<tr>
<td>VESDA Laser Industrial</td>
<td>High Sensitivity Aspirating Smoke Detector</td>
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#### Manual Call Points
- MCP820 Indoor Surface/Flush Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator
- MCP830 Outdoor Surface Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator

#### Alarm Warning Devices
- LPSY865 Symphonix MX Addressable Loop Powered Type B Sounder (Red) with Short Circuit Isolator
- LPSY800-R Symphonix MX Addressable Loop Powered Type A Sounder (Red) with Short Circuit Isolator
- LPSY800-W Symphonix MX Addressable Loop Powered Type A Sounder (White) with Short Circuit Isolator
- LPAV865 Symphonix MX Addressable Loop Powered Type B Sounder Beacon (Red) with Short Circuit Isolator
- LPAV800-R Symphonix MX Addressable Loop Powered Type B Sounder Beacon (Red) with Short Circuit Isolator
- LPAV800-W Symphonix MX Addressable Loop Powered Type B Sounder Beacon (White) with Short Circuit Isolator
- LPBS800-R L/P Beacon Symphonix Type A Sounder with Short Circuit Isolator - Red Housing
- LPBS800-W L/P Beacon Symphonix Type A Sounder with Short Circuit Isolator - White Housing
- LPBS865 LP Circuit Isolator
- LPBS3000 Loop Powered Beacon Sounder Base with Short Circuit Isolator (Type A Mounting Flange)
- P80AVW Zettler Addressable Type A Indoor Wall Sounder Beacon VAD with Short Circuit Isolator, White Housing
- P80AVR Zettler Addressable Type A Indoor Wall Sounder Beacon VAD with Short Circuit Isolator, Red Housing
- P80AVB Zettler Addressable Type A Indoor Base Sounder Beacon VAD Standard Power with Short Circuit Isolator, Clear Housing
- P81AVB Zettler Addressable Type A Base Sounder Beacon VAD High Power with Short Circuit Isolator, Clear Housing
- P80SB Zettler Addressable Type A Indoor Base Sounder with Short Circuit Isolator, White Housing
- P80AIB Zettler Addressable Type A Indoor Base Sounder Beacon VID with Short Circuit Isolator (Red Flash), Clear Housing
- P80SW Zettler Addressable Type A Wall Sounder with Short Circuit Isolator, White Housing
- P80SR Zettler Addressable Type A Indoor Wall Sounder with Sort Circuit Isolator, Red Housing
- P80AIW Zettler Addressable Type A Indoor Wall Sounder Beacon VID with Short Circuit Isolator, White Housing
- P80AIR Zettler Addressable Type A Indoor Wall Sounder Beacon VID with Short Circuit Isolator, Red Housing
- P85SR Zettler Addressable Type B Outdoor Wall Sounder IP with Short Circuit Isolator, Red Housing
- P85AIR Zettler Addressable Type B Outdoor Wall Sounder Beacon VID IP with Short Circuit Isolator, Red Housing
- 80DSB Zettler Type A Indoor Detector Base Sounder, White Housing
- P85CAV Zettler Addressable Type B Outdoor Wall Sounder Beacon VAD BC with Short Circuit Isolator, Clear Housing
- P85CAVZ Addressable Type B Indoor Base Sounder Beacon VAD BC with Short Circuit Isolator, Clear housing

#### Line Units
- RJ7600 Relay Interface Module
- MIM800 Mini Input Module
- CIM800 Contact Input Module
- MIO800 Small Addressable Multi Input/Output Module
- QIO850 Quad Input/Output Module with Short Circuit isolator
- QR8500 Quad Relay Module with Short Circuit Isolator
- MQ8500 Quad Monitored Output Module with Short Circuit Isolator
- BDM800 Loop Powered Beam Detector Interface Module
Certificated Products

SNM800  Sounder Notification Module
LAV800  Extinguishing Input Module
HVR800  High Voltage Relay Module

Power Supplies
PSU-A17  Addressable 17Ah Power Supply Unit
PSU-A38  Addressable 38Ah Power Supply Unit

Bases
4B-I  Short Circuit Isolator Base
802SB  Analogue Addressable Type A Sounder Base

Notes:
1) For further information on each individual product including approved sensitivities, heat classification, sounder tones etc., refer to model reference number(s) in the appropriate section of the Red Book online.

2) For further information on each transmission path compatibility and connectability refer to the manufacturers EN54-13 Manual for profile panels document ref: PROFILE-PRO-SYS-EN54-13 Version 1.1 dated 18th May 2017.

VES Fire Detection Systems
620 Allendale Road, King of Prussia, Philadelphia, PA. 19406, USA
Tel: (+1) 6109922238
E-mail: info@ves-network.com • Website: http://www.ves-network.com

Certificate No: 360c-(cl-3) to EN 54-13:2005

Certificated Products

VES Latitude Fire Detection and Alarm System

The VES Latitude Fire Detection and Alarm System comprises of the following:

Control and Indicating Equipment
VES Latitude 2-8 Loop Analogue Addressable Control and Indicating Equipment
VES Latitude (Hochiki Protocol)
VES Latitude 2-16 Loop Analogue Addressable Control and Indicating Equipment
VES Latitude (Hochiki Protocol)

The VES Latitude CIE may be connected to the following equipment and devices:
Commercial Detectors (Hochiki Protocol)
ACB-EW Weatherproof Intelligent Analogue Addressable Class P Detector (Ivory Colour)
ACC-E(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
ACC-E(HFP) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
ACC-E(WHT)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
ACC-E(HFP)-SCI Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (White Colour)
ACC-EN Intelligent Analogue Addressable Multi-Criteria Detector (Ivory Colour)
ACC-EN(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (White Colour)
Certificated Products

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<tr>
<td>ACD-EN(WHT)</td>
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<td>Intelligent Analogue Addressable Optical Smoke Detector (White Colour)</td>
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Alarm Warning Devices (Hochiki Protocol)

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<td>CHQ-CB (RED)/RL-HFP</td>
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<td>CHQ-CB/WL</td>
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### PART 1: SECTION 2
### FIRE DETECTION AND ALARM SYSTEMS

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<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<td>CHQ-WB/(WHT)/WL Intelligent Analogue Addressable Type A Wall VAD (Red Light) (Ivory Colour)</td>
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<td>CHQ-WS2 Intelligent Analogue Addressable Type A Wall Sounder (Red Colour)</td>
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<tr>
<td>CHQ-DIM/OEM(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator</td>
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## FIRE DETECTION AND ALARM SYSTEMS

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### Manual Call Points (Hochiki Protocol)

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<td>HCP-E(SCI)</td>
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20 Oct 2020
Circuit Isolator (SR Mounting Box)
HCP-E(HFP)-SCI Intelligent Analogue Addressable Manual Call point with Short Circuit Isolator (SR Mounting Box)
SCP-W(DPS) Intelligent Analogue Addressable Type A Weatherproof Manual Call point
SCP-DPS Intelligent Analogue Addressable Type A Manual Call point
HCP-W(SCI) Weatherproof Intelligent Analogue Addressable Manual Call point with Short Circuit Isolator (SR Mounting Box)
HCP-W(HFP)-SCI Weatherproof Intelligent Analogue Addressable Manual Call point with Short Circuit Isolator (SR Mounting Box)

Short Circuit Isolating Bases
YBN-R/3(SCI)-WHT Short Circuit Isolating Base (White Colour)
YBN-R/3(Sci) Short Circuit Isolating Base (Ivory Colour)
YBN-R/3(HFP)-SCI Short Circuit Isolating Base (Ivory Colour)
YBO-R/SCI(RED) Short Circuit Isolating Base (Red Colour)

2) For further information on each transmission path compatibility and connectability refer to the manufacturers EN54-13 Manual document ref MAN-1401H.
Control and Indicating Equipment (CIE) is a component of a fire detection and alarm system through which other components may be connected to it such as detectors, manual call points, sounders, routing equipment, voice alarm equipment and fire protection equipment. It is supplied with power from power supply equipment which may be housed within the CIE enclosure or a separate enclosure.

CIE is used to receive and send out signals that are related to fire. CIE also monitors the system for faults (short and open circuit or power supply faults) and indicates the status of the fire detection and alarm system.

CIE designed to meet a European standard such as EN 54-2 or international standard such as ISO 7240-2 has certain options with requirements. For example, it may be designed to provide a signal to fire protection equipment or have dependencies on more than one alarm signal. Some CIEs have other functions which are not specified in the standard. These additional features are normally assessed such that they do not jeopardise compliance.

The choice of CIE is dependent on the specific applications as recommended in the application guidelines for a specific job or building.

Some CIEs have associated repeaters or mimic panels. These are normally used to repeat the indications given on the main CIE and sometimes they have control functions such as silencing sounders. There are no published standards that these repeaters or mimics can be tested against.

Voice Alarm Control and Indicating Equipment (VACIE) is a component of the fire alarm system which receives signals from the CIE or via manual control in order to activate messages via loudspeakers. VACIE may also include emergency microphone to broadcast live messages. The approval processes for this type of equipment is outlined in scheme document SD040.

This section lists Control and Indicating Equipment, Voice Alarm Control and Indicating Equipment approved for use in fire detection and fire alarm systems in buildings. Repeater or mimics and power supply equipment listed in this section are only approved with their associated CIE and are subjected to the same environmental tests as the CIE. The approval processes for this type of equipment is outlined in scheme document SD040.

Products listed in this section have been approved to:

- EN 54-2: 1997 Control and Indicating Equipment;
- EN 54-4: 1997 Power supply equipment;
- ISO 7240-2: 2003 Control and Indicating Equipment;
- ISO 7240-4: 2003 Power supply equipment;
- EN 54-16:2008 Voice Alarm Control and Indicating Equipment.

Audit:
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

Notes:
1. EN 54-2: 1997 is a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market from 1 August 2009. It is therefore recommended that control and Indicating Equipment are certificated to EN 54-2: 1997 + A1: 2002

2. EN 54-4: 1997 is a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market from 1 August 2009. It is therefore recommended that power supply equipment are certificated to EN 54-4: 1997 + A1: 2002 and A2: 2006.

3. Since LPCB uses national and international standards for the listing of products, in some instances the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.
4. Where the Control and Indicating Equipment is of modular construction, and the use of certain modules (or printed circuit boards PCBs) is optional, these are listed with the applicable equipment.

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E-mail: jim.clarke@honeywell.com • Website: www.adiglobal.com


### Control and indicating equipment

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Single Loop Control and Indicating Equipment</th>
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<tbody>
<tr>
<td>429c/13</td>
<td>CNX-1-S ADKFAP01S (Panel ADEMCO SINGLE LOOP A1) (System Sensor protocol)</td>
</tr>
<tr>
<td></td>
<td>ADKFAP01S2 (Panel ADEMCO SINGLE LOOP A2) (System Sensor protocol)</td>
</tr>
<tr>
<td></td>
<td>ADKFAP01S3 (Panel ADEMCO SINGLE LOOP A3) (System Sensor protocol)</td>
</tr>
<tr>
<td></td>
<td>Incorporating as modular units:</td>
</tr>
<tr>
<td></td>
<td>124-410-001 Base PCB 1 Loop</td>
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<tr>
<td></td>
<td>124-411 Display PCB</td>
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<tr>
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<td>010-115 PSU RS-50-24</td>
</tr>
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<tr>
<td></td>
<td>7.8 Output to fire alarm devices</td>
</tr>
<tr>
<td></td>
<td>7.11 Delays to outputs</td>
</tr>
<tr>
<td></td>
<td>7.12 Dependencies on more than one alarm signal-Type B</td>
</tr>
<tr>
<td></td>
<td>7.12.3 Dependencies on more than one alarm signal-Type C</td>
</tr>
<tr>
<td></td>
<td>7.13 Alarm counter</td>
</tr>
<tr>
<td></td>
<td>8.3 Fault signals from points</td>
</tr>
<tr>
<td></td>
<td>9.5 Disablement of each addressable point</td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
</tr>
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</table>

**Notes:**
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
3. The Ax appendix relates to different market areas.

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Two Loop Control and Indicating Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>429c/14</td>
<td>CNX-2-M ADKFAP02S (Panel ADEMCO TWO LOOP A1) (System Sensor protocol)</td>
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<td>ADKFAP02S2 (Panel ADEMCO TWO LOOP A2) (System Sensor protocol)</td>
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<td>ADKFAP02S3 (Panel ADEMCO TWO LOOP A3) (System Sensor protocol)</td>
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<td>Incorporating as modular units:</td>
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<tr>
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<td>124-410 Base PCB 2 Loop</td>
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<td>124-411 Display PCB</td>
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<td></td>
<td>010-116 PSU RS-100-24</td>
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<td>Incorporating as optional modular units:</td>
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<tr>
<td></td>
<td>124-414 DXn Zone Expansion PCB</td>
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<tr>
<td></td>
<td>124-429 Loop Splitter PCB</td>
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<td></td>
<td>124-430 DXc System I/O PCB (note: cannot be fitted with 124-414)</td>
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<td>124-300 RS232 I/F</td>
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<td>7.8 Output to fire alarm devices</td>
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<tr>
<td></td>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<tr>
<td></td>
<td>7.10.1 Output to fire protection equipment - Output type A</td>
</tr>
<tr>
<td></td>
<td>7.10.2 Output to fire protection equipment - Output type B</td>
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<tr>
<td></td>
<td>7.10.3 Output to fire protection equipment - Output type C</td>
</tr>
<tr>
<td></td>
<td>7.10.4 Fault monitoring of fire protection equipment</td>
</tr>
<tr>
<td></td>
<td>7.11 Delays to outputs</td>
</tr>
<tr>
<td></td>
<td>7.12.2 Dependencies on more than one alarm signal - Type B</td>
</tr>
<tr>
<td></td>
<td>7.12.3 Dependencies on more than one alarm signal - Type C</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

7.13 Alarm counter  
8.3 Fault signals from points  
8.9 Output to fault warning routing equipment  
9.5 Disablement of each address points  
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
3. The Ax appendix relates to different market areas.

CNX-4-M Four Loop Control and Indicating Equipment 429c/15

ADKFAP04SA1 PANEL ADEMCO FOUR LOOP A1 (System Sensor protocol)  
ADKFAP04SA2 PANEL ADEMCO FOUR LOOP A2 (System Sensor protocol)  
ADKFAP04SA3 PANEL ADEMCO FOUR LOOP A3 (System Sensor protocol)

Incorporating as modular units:
124-410 Base PCB 2 Loop  
124-411 Display PCB  
124-417 2 Loop PCB  
010-116 PSU RS-100-24

Incorporating as optional modular units:
124-414 DXn Zone Expansion PCB  
124-429 Loop Splitter PCB  
124-430 DXc System I/O PCB (note: cannot be fitted with 124-414)  
124-300 RS232 I/F

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices  
7.9.1 Output to fire alarm routing equipment  
7.9.2 Alarm confirmation input from fire alarm routing equipment  
7.10.1 Output to fire protection equipment - Output type A  
7.10.2 Output to fire protection equipment - Output type B  
7.10.3 Output to fire protection equipment - Output type C  
7.10.4 Fault monitoring of fire protection equipment  
7.11 Delays to outputs  
7.12.2 Dependencies on more than one alarm signal - Type B  
7.12.3 Dependencies on more than one alarm signal - Type C  
7.13 Alarm counter  
8.3 Fault signals from points  
8.9 Output to fault warning routing equipment  
9.5 Disablement of each address points  
10 Test condition

Notes:
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2. Scope of approval does not include the operation of the network functionality.
3. The Ax appendix relates to different market areas.

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Control and indicating equipment
Certificated Products
QuickZone 2 and 4 Zone conventional control and indicating equipment  
QuickZone 2 (QZ-2)  
Incorporating as modular units:

20 Oct 2020
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>QuickZone XL 16-32</th>
</tr>
</thead>
<tbody>
<tr>
<td>544b/03</td>
<td>16, 24 and 32 Zone Conventional Control and Indicating Equipment</td>
</tr>
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</table>

#### QuickZone XL 16-32

<table>
<thead>
<tr>
<th>Incorporating as modular units:</th>
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</tr>
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<tbody>
<tr>
<td>TPCA01- X4 QuickZoneXL 4 Zone Main PCB</td>
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<tr>
<td>TPCA03 QuickZoneXL Display Board</td>
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</tr>
<tr>
<td>QZXL-ZEC QuickZoneXL Standard 4 Zone Extension Board</td>
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<tr>
<td>QZXL-ZEO QuickZoneXL Standard 4 Zone Extension Board</td>
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</tr>
<tr>
<td>QZXL-ZEC QuickZoneXL High Spec 4 Zone Extension Board</td>
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<tr>
<td>QZXL-ZEO QuickZoneXL Standard 4 Zone Extension Board</td>
<td></td>
</tr>
<tr>
<td>PSM3.0-24 Power Supply</td>
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</tr>
<tr>
<td>QuickZoneXL 12 Conventional Control Panel (QZXL-12)</td>
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<tr>
<td>TPCA04- X4 QuickZoneXL 4 Zone Main PCB</td>
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<tr>
<td>TPCA03 QuickZoneXL Display Board</td>
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<tr>
<td>QZXL-HSZEC Two QuickZoneXL Standard 4 Zone Extension Board</td>
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<td>PSM3.0-24 Power Supply</td>
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<tr>
<td>QuickZoneXL 12 Conventional Control Panel (QZXL-12HS)</td>
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<td>TPCA01- X4 QuickZoneXL 4 Zone Main PCB</td>
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<td>QZXL-HSZEC Two QuickZoneXL Standard 4 Zone Extension Board</td>
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<tr>
<td>PSM3.0-24 Power Supply</td>
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Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 7.12.1 Dependency on more than one alarm signal type A
- 7.12.2 Dependency on more than one alarm signal type B
- 7.12.3 Dependency on more than one alarm signal type C
- 10 Test condition

Note:

1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

TPCA08 Output Card PCB
TPCA05 XLEN Communications Board
QuickZone XL24 (QZXL-24) 24 Zone Conventional Control Panel

Incorporating as modular units:
- TPCA10 32 Zone LED display PCB
- TPCA11-24 24 Zone Main PCB
- TPCA12 Power supply PCB

and as optional modules
- TPCR01 Relay PCB
- TPCR03 Isolate Switch PCB
- TPCA09 Sounder Card PCB
- TPCA08 Output Card PCB
- TPCA05 XLEN Communications Board

QuickZone XL32 (QZXL-32) 32 Zone Conventional Control Panel

Incorporating as modular units:
- TPCA10 32 Zone LED display PCB
- TPCA11-32 32 Zone Main PCB
- TPCA12 Power supply PCB

and as optional modules
- TPCR01 Relay PCB
- TPCR03 Isolate Switch PCB
- TPCA09 Sounder Card PCB
- TPCA08 Output Card PCB
- TPCA05 XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependence on more than one alarm signal (Type A)
7.12.2 Dependence on more than one alarm signal (Type B)
7.12.3 Dependence on more than one alarm signal (Type C)
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

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Certificated Products

SC-6831/16
16 Zone Conventional Control and Indicating Equipment
Incorporating the following units:
- VSL2.908.004 16 Zone Control Board
- VSL2.908.007 16 Zone Display Board
- PD-100-24 16 Zone Signal Output Board

Certified with the following Options with requirements from EN 54-2:1997
### PART 1: SECTION 3
**CONTROL AND INDICATING EQUIPMENT**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SC-6831/8</strong> 8 Zone Conventional Control and Indicating Equipment</td>
<td>1174e/02</td>
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<tr>
<td>Incorporating the following units:</td>
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<tr>
<td>VSL2.908.042 8 Zone Control Board</td>
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<tr>
<td>VSL2.908.043 8 Zone Display Board</td>
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<tr>
<td>PD-100-24 AC/DC Power Supply Module</td>
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<tr>
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<tr>
<td>7.8 Output to fire alarm device(s)</td>
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<tr>
<td>7.11 Delay to outputs</td>
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<tr>
<td>10 Test condition</td>
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<tr>
<td><strong>Note:</strong></td>
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<td>1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
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<tr>
<td><strong>SC-6831/4</strong> 4 Zone Conventional Control and Indicating Equipment</td>
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<td>Incorporating the following units:</td>
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<tr>
<td>VSL2.908.044 4 Zone Control Board</td>
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<tr>
<td>VSL2.908.045 4 Zone Display Board</td>
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<tr>
<td>PD-100-24 AC/DC Power Supply Module</td>
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<tr>
<td>Certified with the following Options with requirements from EN 54-2:1997</td>
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</tr>
<tr>
<td>7.8 Output to fire alarm device(s)</td>
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</tr>
<tr>
<td>7.11 Delay to outputs</td>
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<tr>
<td>10 Test condition</td>
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<tr>
<td><strong>Note:</strong></td>
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<td>1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
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<td><strong>SC-6831/2</strong> 2 Zone Conventional Control and Indicating Equipment</td>
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<td>VSL2.908.046 2 Zone Control Board</td>
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<td>VSL2.908.047 2 Zone Display Board</td>
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<td>PD-100-24 AC/DC Power Supply Module</td>
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<td>Certified with the following Options with requirements from EN 54-2:1997</td>
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<td>7.8 Output to fire alarm device(s)</td>
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<td><strong>Note:</strong></td>
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<td>1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
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<tr>
<td><strong>SI-6847</strong> 4 Loop Analogue Addressable Control and Indicating Equipment</td>
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<td>Incorporating the following modules:</td>
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<td>VSL2.908.146 Main Board</td>
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<td>VSL2.908.149 Indication board</td>
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<td>VSL2.908.155 Terminal board</td>
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<td>VSL2.908.162 Control Board</td>
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<td>VSL2.908.153 Loop Card</td>
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<td>VSL2.908.152 I/O Board</td>
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<td>VSL2.908.169 Power Board</td>
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<td>VSL7-820-150 Zone Board</td>
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<td>VSL7-820-154 Network Card</td>
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<td>LRS-150-24 MEAN-WELL Power Supply module</td>
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<td>7.10.1 Outputs to fire protection equipment (Type A)</td>
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<td>7.10.2 Outputs to fire protection equipment (Type B)</td>
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7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm Counter
9.5 Disablement of addressable point
10 Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

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E-mail: info.eu@ampac.net • Website: www.ampac.net


CONTROL AND INDICATING EQUIPMENT
Certificated Products

Zonefinder 2 and 4 Zone conventional control and indicating equipment
\[2183-0201, 2\text{ Zone conventional control and indicating equipment}\]

Incorporating as modular units:
- TPC A01- E2 ZoneFinder two zone main PCB applicable on 2 zone CIE only
- TPC A02 ZoneFinder LED display PCB
- PSM1.5 - 24 Power supply 1.5A rated

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition

2183-0401, 4 Zone conventional control and indicating equipment

Incorporating as modular units:
- TPC A01- E4 ZoneFinder four zone main PCB applicable on 4 zone CIE only
- TPC A02 ZoneFinder LED display PCB
- PSM1.5 - 24 Power supply 1.5A rated

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

Zonefinder Plus
2, 4, 6, 8 and 12 Zone conventional control and indicating equipment
\[2183-0202, 2\text{ Zone Conventional Control Panel}\]
Incorporating as modular units:

TPCA01-X 2 ZoneFinder Plus 2 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
PSM3.0-24 Power Supply

2183-0402, 2 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X 4 ZoneFinder Plus 4 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
PSM3.0-24 Power Supply

2183-0604, 6 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X2 ZoneFinder Plus 2 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-H ZoneFinder Plus High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

2183-0602, 6 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X2 ZoneFinder Plus 2 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-S ZoneFinder Plus Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

2183-0804, 8 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X4 ZoneFinder Plus 4 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-H ZoneFinder Plus High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

2183-0802, 8 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X4 ZoneFinder Plus 4 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-S ZoneFinder Plus Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

2183-1204, 12 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X4 ZoneFinder Plus 4 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-H ZoneFinder Plus High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

2183-1202, 12 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X4 ZoneFinder Plus 4 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-S ZoneFinder Plus Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

2183-1206 12 Zone Conventional Control Panel

Incorporating as modular units:

TPCA01-X4 ZoneFinder Plus 4 Zone Main PCB
TPCA03 ZoneFinder Plus Display Board
TPCA04-H Qty 2x ZoneFinder Plus High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Certified with the following options with requirements from EN 54 Part 2:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LoopSense 8281-0105
One loop, 32 Zone analogue addressable control and indicating equipment.
Incorporating the following units:
- BRD82MBA Main Termination Board
- BRD82ZICC Zone Interface & Control Card
- PSU2397 Power Supply Unit
- ASS82ZICC Zone Indicator & LCD Assembly (8210)

Certificated with the following options with requirements from EN54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal Type A
- 7.12.2 Dependencies on more than one alarm signal Type B
- 7.12.3 Dependencies on more than one alarm signal Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

LoopSense 8281-0205
Two loop, 32 Zone analogue addressable control and indicating equipment.
Incorporating the following units:
- BRD82MBA Main Termination Board
- BRD82ZICC Zone Interface & Control Card
- PSU2397 Power Supply Unit
- 8210-0001 2nd loop activation Key
- BRD82LSD Loop Activation Board
- ASS82ZICC Zone Indicator & LCD Assembly (8210)

Certificated with the following options with requirements from EN54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal Type A
- 7.12.2 Dependencies on more than one alarm signal Type B
- 7.12.3 Dependencies on more than one alarm signal Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

8681-0108 FireFinder Plus
One loop, 32 Zone analogue addressable control and indicating equipment
Incorporating as modular units:
- BRD68BPCS4-A FFP Brigade & Power supply control board (8610)
- BRD86DLTB4-A FFP Dual loop termination board (8610)
- BRD86FPB5-B FFP Front panel board EN54 (8610)
- BRD86MBA4-A FFP Main board LCD (8610)
- BRD86MCPU4-B FFP Main 64MB CPU card (8610)
- BRD43ZAMC2-A FFP 32 Zone alarm MIMIC internal card (4310)
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition

8681-0208 FireFinder Plus Two loop, 32 Zone analogue addressable control and indicating equipment

Incorporating as modular units:
BRD68BPS04-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Dual loop termination boards (8610)
BRD86FP05-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCP04-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Slave CPU card (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition

8681-0308 FireFinder Plus Three loop, 32 Zone analogue addressable control and indicating equipment

Incorporating as modular units:
BRD68BPS04-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
BRD86FP05-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCP04-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Two Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86SCB3-A FFP Slave CPU cards (8610)
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

7.9.2 Alarm confirmation input from fire alarm routine equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablment of each addressable point
10 Test condition

Incorporating as modular units:
BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Two Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86SCB3-A FFP Slave CPU cards (8610)
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routine equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablment of each addressable point
10 Test condition

8681-0408 FireFinder Plus Four loop, 32 Zone analogue addressable control and indicating equipment
8681-0408 FireFinder Plus Four loop, 32 Zone analogue addressable control and indicating equipment

Incorporating as modular units:
BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Three Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86SCB3-A FFP Slave CPU cards (8610)
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routine equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablment of each addressable point
10 Test condition

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**Part 1: Section 3**

**Control and Indicating Equipment**

**Ampac Pty Ltd**
7 Ledgar Road, Balcatta 6021, Australia
Tel: +618 (9242) 3333 • Fax: +618 (9242) 3334
E-mail: askellham@ampac.net • Website: www.ampac.net


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>966a/01</td>
<td>LoopSense 8281-0105</td>
<td>One loop, 32 Zone analogue addressable control and indicating equipment.</td>
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<tr>
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<td>Incorporating the following units:</td>
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<tr>
<td></td>
<td>BRD82MBA Main Termination Board</td>
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<td></td>
<td>BRD82ZICC Zone Interface &amp; Control Card</td>
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<td></td>
<td>PSU2397 Power Supply Unit</td>
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<td>ASS82ZICC Zone Indicator &amp; LCD Assembly (8210)</td>
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<td>Certificate with the following options with requirements from EN54-2:</td>
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<td>7.8 Output to fire alarm devices</td>
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<td>7.9.1 Output to fire alarm routing equipment</td>
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<td>7.9.2 Alarm confirmation input from fire alarm routing equipment</td>
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<td>7.11 Delay to outputs</td>
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<td>7.12.1 Dependencies on more than one alarm signal Type A</td>
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<td>9.5 Disablement of each addressable point</td>
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<td>10 Test condition</td>
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<td><strong>Note:</strong></td>
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<tr>
<td></td>
<td>1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
</tr>
</tbody>
</table>

| 966a/02       | LoopSense 8281-0205   | Two loop, 32 Zone analogue addressable control and indicating equipment. |
|               | Incorporating the following units: |
|               | BRD82MBA Main Termination Board |
|               | BRD82ZICC Zone Interface & Control Card |
|               | PSU2397 Power Supply Unit |
|               | 8210-0001 2nd loop activation Key |
|               | BRD82LSD Loop Activation Board |
|               | ASS82ZICC Zone Indicator & LCD Assembly (8210) |
|               | Certificate with the following options with requirements from EN54-2: |
|               | 7.8 Output to fire alarm devices |
|               | 7.9.1 Output to fire alarm routing equipment |
|               | 7.9.2 Alarm confirmation input from fire alarm routing equipment |
|               | 7.11 Delay to outputs |
|               | 7.12.1 Dependencies on more than one alarm signal Type A |
|               | 7.12.2 Dependencies on more than one alarm signal Type B |
|               | 7.12.3 Dependencies on more than one alarm signal Type C |
|               | 8.3 Fault signal from points |
|               | 8.9 Output to fault warning routing equipment |
|               | 9.5 Disablement of each addressable point |
|               | 10 Test condition |
|               | **Note:** |
|               | 1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |

| 966b/01       | 8681-0108 FireFinder Plus | One loop, 32 Zone analogue addressable control and indicating equipment |
|               | Incorporating as modular units: |
|               | BRD68BPS4-A FFP Brigade & Power supply control board (8610) |
|               | BRD86DLTB4-A FFP Dual loop termination board (8610) |
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routine equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

8681-0208 FireFinder Plus
Two loop, 32 Zone analogue addressable control and indicating equipment 966b/02

Incorporating as modular units:
BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Slave CPU card (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routine equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

8681-0308 FireFinder Plus
Incorporating as modular units: 966b/03

BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Dual loop termination boards (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Two Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86SCB3-A FFP Slave CPU cards (8610)
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition

Incorporating as modular units:
BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
BRD86FPPB5-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Three Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86SCB3-A FFP Slave CPU cards (8610)
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition

8681-0408 FireFinder Plus
Four loop, 32 Zone analogue addressable control and indicating equipment

Incorporating as modular units:
BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
BRD86FPPB5-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Three Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86SCB3-A FFP Slave CPU cards (8610)
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Application Solutions (Safety and Security) Ltd, East Sussex, United Kingdom
Unit 17, Cliffe Industrial Estate, Lewes, East Sussex BN8 6JL, United Kingdom
Tel: +44 (0) 1273 405411 • Fax: +44(0) 1273 405415
E-mail: sales@asl-control.co.uk • Website: www.asl-control.co.uk


Certificated Products

ASL Rack mount voice alarm system

Incorporating any of the following modules:

VAR Series Routers:
- VAR4(EN54) Router 4x4 DSP - EN54
- VAR12(EN54) Router 12x12 DSP - EN54
- VAR20(EN54) Router 20x20 DSP - EN54

VIPEDIA-12 Series Routers:
- VIPEDIA-12 VIPEDIA 12x12 IP Voice Alarm Router
- VIPEDIA-12-NET VIPEDIA 12x12 IP Voice Alarm Router with Networking Card (Consists of VIPEDIA-12 and VIPEDIA-NET)
- VIPEDIA-12-PRO VIPEDIA 12x12 IP Voice Alarm Router with Dante DSP Audio Processor (Consists of VIPEDIA-12 and VIPEDIA-PRO)

VIPEDIA-12 Optional modules:
- VIPEDIA-NET VIPEDIA-12 Network Card
- VIPEDIA-NET-4GB VIPEDIA-12 Network Card with 4GB Audio Storage Inc. VIPA-OS
- VIPEDIA-PRO VIPEDIA-12 Network Card with Dante DSP Audio Processor SFP

Optional Adaptors:
- SFP-CU1G SFP Module (Copper Ethernet)
- SFP-MM1GL SFP Module (Single-mode Fibre)
- SFP-SM1G SFP Module (Multi-mode Fibre)

Adaptors:
- BOA01 RJ45 DIN Terminal Breakout Adaptor - Single Port - With Terminations
- BOA02 RJ45 DIN Terminal Breakout Adaptor - Four Port - Straight Through

V2000 Amplifier Frame: V2000 Amplifier frame for housing D series amplifiers and amplifier interfaces

D Series amplifiers:
- D500 Amplifier Module 500w
- D150 Amplifier Module 150w

Amplifier interfaces for V2000 mainframe:
- LSZDC Dual Line surveillance interface
- V2000-STBY V2000 Standby Interface

V400 Amplifier frame: V400 Amplifier frame for housing M series amplifiers and amplifier interfaces

M series amplifiers:
- M100 Amplifier Module 100w
- M200 Amplifier Module 200w
- M400 Amplifier Module 400w

Amplifier interfaces for V400 mainframe:
- LSZDC Dual Line Surveillance Interface
- SSINT Standby Surveillance interface

Power supply:
- BPC65 Battery Charger with Mounting Tray - 65ah - Inc. Cables and Breakers
- BPC130 Battery Charger with Mounting Tray - 130ah - Inc. Cables and Breakers

Optional modules:
- BMB01 RS485 Interfaced Analogue and Digital I/O Expansion Unit
Certificated Products

**LPCB Ref. No.**

- **EMS01** (MK2) Emergency microphone station - All call
- **EMS01-EC(MK2)** Emergency microphone station - All call with euro-cylinder lock
- **EMS10** Emergency microphone station - 10 Button
- **EMS10-EC** Emergency microphone station - 10 Button with euro-cylinder lock
- **EMS20** Emergency microphone station - 20 Button
- **EMS20-EC** Emergency microphone station - 20 Button with euro-cylinder lock
- **EMS30** Emergency microphone station - 30 Button
- **EMS40** Emergency microphone station - 40 Button
- **EMS50** Emergency microphone station - 50 Button
- **EMX30** Expansion module for EMS20 - 30 Button
- **MPS01-F** Desk paging and emergency microphone - 1 Button Fist mic
- **MPS01-G** Desk paging and emergency microphone - 1 Button Gooseneck mic
- **MPS10-F** Desk paging and emergency microphone - 10 Button Fist mic
- **MPS10-G** Desk paging and emergency microphone - 10 Button Gooseneck mic
- **MPS20-F** Desk paging and emergency microphone - 20 Button Fist mic
- **MPS20-G** Desk paging and emergency microphone - 20 Button Gooseneck mic
- **MPS30-F** Desk paging and emergency microphone - 30 Button Fist mic
- **MPS30-G** Desk paging and emergency microphone - 30 Button Gooseneck mic
- **MPS40-F** Desk paging and emergency microphone - 40 Button Fist mic
- **MPS40-G** Desk paging and emergency microphone - 40 Button Gooseneck mic
- **MPS50-F** Desk paging and emergency microphone - 50 Button Fist mic
- **MPS50-G** Desk paging and emergency microphone - 50 Button Gooseneck mic
- **MPX10** Microphone expansion module for MPS01 - 10 Button
- **MPS01-MB** Wall mount bracket kit for MPS01
- **MPX10-MB** Wall mount bracket kit for MPS10 - MPS20

Certified with the following options with requirements from EN 54 Part 16:

- 7.6.2 Manual silencing of voice alarm condition
- 7.7.2 Manual reset of the voice alarm condition
- 7.9 Voice alarm condition output
- 8.3 Indication of faults related to the transmission path to the CIE
- 8.4 Indication of faults related to voice alarm zones
- 10 Voice Alarm Manual control (Except on VAR routers)
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifiers

**INTEGRA ASL Wall Mounting VACIE 1043a/02**

INTEGRATING the following:

**INTEGRA**
- All-in-one Wall Mount Voice Alarm System for D Series amplifiers and amplifier interfaces

Optional modules:

- **D500** Amplifier Module 500w
- **D150** Amplifier Module 150w
- **LSZDC** Dual Line surveillance interface
- **V2000-STBY** V2000 Standby Interface
- **BMB01** RS485 Interfaced Analogue and Digital I/O Expansion Unit
- **VIPEDIA-12** Optional Modules:
  - **VIPEDIA-NET** Vipedia-12 Network Card
  - **VIPEDIA-NET-4GB** Vipedia-12 Network Card with 4GB Audio Storage Inc. VIPA-QS
  - **VIPEDIA-PRO** Vipedia-12 Network Card with Dante DSP Audio Processor
- **SFP** Optional Modules:
  - **SFP-CU1G** SFP Module (Copper Ethernet)
  - **SFP-MM1GL** SFP Module (Single-mode Fibre)
  - **SFP-SM1G** SFP Module (Multi-mode Fibre)

Adaptors:

- **BOA01** RJ45 DIN Terminal Breakout Adaptor - Single Port - With Terminations
- **BOA02** RJ45 DIN Terminal Breakout Adaptor - Four Port - Straight Through

Optional Emergency Microphones:

- **EAP01** Emergency access point - All call emergency microphone
- **EMS01 (MK2)** Emergency microphone station - All call
- **EMS01-EC(MK2)** Emergency microphone station - All call with euro-cylinder lock
- **EMS10** Emergency microphone station - 10 Button
- **EMS10-EC** Emergency microphone station - 10 Button with euro-cylinder lock
- **EMS20** Emergency microphone station - 20 Button
- **EMS20-EC** Emergency microphone station - 20 Button with euro-cylinder lock
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMS30 Emergency microphone station - 30 Button</td>
</tr>
<tr>
<td></td>
<td>EMS40 Emergency microphone station - 40 Button</td>
</tr>
<tr>
<td></td>
<td>EMS50 Emergency microphone station - 50 Button</td>
</tr>
<tr>
<td></td>
<td>EMX30 Expansion module for EMS20 - 30 Button</td>
</tr>
<tr>
<td></td>
<td>MPS01-F Desk paging and emergency microphone - 1 Button Fist mic</td>
</tr>
<tr>
<td></td>
<td>MPS01-G Desk paging and emergency microphone - 1 Button Gooseneck mic</td>
</tr>
<tr>
<td></td>
<td>MPS10-F Desk paging and emergency microphone - 10 Button Fist mic</td>
</tr>
<tr>
<td></td>
<td>MPS10-G Desk paging and emergency microphone - 10 Button Gooseneck mic</td>
</tr>
<tr>
<td></td>
<td>MPS20-F Desk paging and emergency microphone - 20 Button Fist mic</td>
</tr>
<tr>
<td></td>
<td>MPS20-G Desk paging and emergency microphone - 20 Button Gooseneck mic</td>
</tr>
<tr>
<td></td>
<td>MPS30-F Desk paging and emergency microphone - 30 Button Fist mic</td>
</tr>
<tr>
<td></td>
<td>MPS30-G Desk paging and emergency microphone - 30 Button Gooseneck mic</td>
</tr>
<tr>
<td></td>
<td>MPS40-F Desk paging and emergency microphone - 40 Button Fist mic</td>
</tr>
<tr>
<td></td>
<td>MPS40-G Desk paging and emergency microphone - 40 Button Gooseneck mic</td>
</tr>
<tr>
<td></td>
<td>MPS50-F Desk paging and emergency microphone - 50 Button Fist mic</td>
</tr>
<tr>
<td></td>
<td>MPS50-G Desk paging and emergency microphone - 50 Button Gooseneck mic</td>
</tr>
<tr>
<td></td>
<td>MPX10 Microphone expansion module for MPS01 - 10 Button</td>
</tr>
<tr>
<td></td>
<td>MPX01-MB Wall mount bracket kit for MPS01</td>
</tr>
<tr>
<td></td>
<td>MPX10-MB Wall mount bracket kit for MPS10 - MPS20</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54 Part 16:
7.6.2 Manual silencing of voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10.0 Voice Alarm Manual control
12.0 Emergency microphone(s)
13.14 Redundant power amplifiers

Aras Security B.V
Thomas Edisonweg 5, DH Drunen 5151, The Netherlands
Tel: 01633 628 558
E-mail: info@aras.nl

Control and Indicating Equipment
Certificated Products

FIRAS2000 Intelligent Analogue Addressable 2 and 4 Loop Control and Indicating Equipment
Incorporating the following units:
<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ADF6 Back Assembled back box</td>
</tr>
<tr>
<td></td>
<td>YPCB2153 Motherboard PCB</td>
</tr>
<tr>
<td></td>
<td>YPCB2147 PSU PCB</td>
</tr>
<tr>
<td></td>
<td>YPCB2148 2 Loop Card (2 off)</td>
</tr>
<tr>
<td></td>
<td>ADF6Screen Touch Screen</td>
</tr>
<tr>
<td></td>
<td>YPCB2185 Complete Display + Micro PCB</td>
</tr>
<tr>
<td></td>
<td>ADF6 DISPCOVER Display PCB Cover</td>
</tr>
<tr>
<td></td>
<td>ADF6FACIA Front Moulding</td>
</tr>
<tr>
<td></td>
<td>ADF6PRINTDOOR Printer Door Moulding</td>
</tr>
<tr>
<td></td>
<td>BAT-NP12-12 Batteries (2 off)</td>
</tr>
<tr>
<td></td>
<td>ADF6HINGE Door Hinges</td>
</tr>
<tr>
<td></td>
<td>ADF6OPFACIA Optional Anti Tamper Cover</td>
</tr>
<tr>
<td></td>
<td>ADF6PRINTER Printer</td>
</tr>
<tr>
<td></td>
<td>YPCB2187 Fire Brigade Interface</td>
</tr>
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</table>

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment (Type A)
### PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW-FP300</td>
<td>1426g/01</td>
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</table>

#### Control and indicating equipment

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigil 2 Rack Mounted</td>
<td>1292a/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. The scope of approval does not include the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFMO1RM</td>
<td>Single Zone Rack Mount Fire Mic (1U) C/W BVRDIF2</td>
</tr>
<tr>
<td>BFMO1</td>
<td>400 Series Fire Mic. Single Zone</td>
</tr>
<tr>
<td>BFMO4</td>
<td>400 Series Fire Mic 4 Zone</td>
</tr>
<tr>
<td>BFMO8</td>
<td>400 Series Fire Mic 8 Zone</td>
</tr>
<tr>
<td>BMS8</td>
<td>Mic I/F Box RJ45 (BDM400 Series)</td>
</tr>
<tr>
<td>BV050Q</td>
<td>Vigil 2 50 Watt Quad Amplifier</td>
</tr>
<tr>
<td>BV125D</td>
<td>Vigil 125W Dual Amp</td>
</tr>
<tr>
<td>BV225</td>
<td>Vigil 225W Amp</td>
</tr>
<tr>
<td>BVRD2M</td>
<td>DSP Controlled Voice Alarm Routing Matrix</td>
</tr>
<tr>
<td>BVRD2M4</td>
<td>DSP VA Mini Router (4 Channel)</td>
</tr>
<tr>
<td>BVRD2M4ACO</td>
<td>Amp/Line Monitor &amp; Changeover Module for BVRD2M4</td>
</tr>
<tr>
<td>BVRD2S</td>
<td>DSP Controlled Voice Alarm Slave Router Unit</td>
</tr>
<tr>
<td>BVRD2SLT</td>
<td>DSP Controlled Voice Alarm Mini Slave Unit</td>
</tr>
<tr>
<td>BVRD8</td>
<td>Voice Alarm Mic 8 Zone</td>
</tr>
<tr>
<td>BVRD16</td>
<td>Voice Alarm Mic 16 Zone</td>
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<td>BVRD24</td>
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<td>BVRD32</td>
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<td>BVRD64</td>
<td>Voice Alarm Mic 64 Zone</td>
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<tr>
<td>BVRDCI</td>
<td>Control Input Interface Card</td>
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<tr>
<td>BVRD2F</td>
<td>Fibre Optic Interface for BVRDNET (Multi Mode)</td>
</tr>
<tr>
<td>BVRD2FS</td>
<td>Fibre Optic Interface for BVRDNET (Single Mode)</td>
</tr>
<tr>
<td>BVRDF1</td>
<td>Fire Panel Interface</td>
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<tr>
<td>BVRDF1F</td>
<td>Aux/Music Input Interface for EVAS racks</td>
</tr>
<tr>
<td>BVRDF2</td>
<td>Mic I/P Interface for EVAS Racks</td>
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<tr>
<td>BVRDF3</td>
<td>Data Mic I/P Interface for EVAS Racks</td>
</tr>
<tr>
<td>BVRDNET</td>
<td>BVRD2M Network Card</td>
</tr>
<tr>
<td>BVRDNET2M4</td>
<td>BVRD2M Network Card</td>
</tr>
<tr>
<td>BVSMPLT</td>
<td>Vigil 2 PSU/Charger Dual O/P</td>
</tr>
<tr>
<td>BVLAM</td>
<td>Impedance monitor</td>
</tr>
<tr>
<td>BVRDNCO</td>
<td>Amp/Line Monitor (No Changeover)</td>
</tr>
<tr>
<td>BVRDACO</td>
<td>Amp/Line Monitor (Automatic Changeover)</td>
</tr>
<tr>
<td>BVRDADC</td>
<td>EVAS DC Line Monitor</td>
</tr>
<tr>
<td>BVRDADIM</td>
<td>Master DC Line Monitor/Isolator/Changeover Module</td>
</tr>
<tr>
<td>BVRDADIS</td>
<td>Slave DC Line Monitor/Isolator/Changeover Module</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54-16:

7.5 Phased evacuation
   8.4 Indication of faults related to voice alarm zones
   10. Voice alarm manual control
   12 Emergency microphone(s)
   13.14 Redundant power amplifiers

Notes:
1. The Vigil 2 rack mount VACIE is approved when connected with the following monitoring modules
   - BEL1 EOL Monitor
   - BEL10 EOL Monitor x 10
   - BEL1IP EOL Monitor (Weatherproof)
2. The VACIE speaker lines are monitored by use of the following modules
   namely BEL1, BEL10, BEL1IP in combination with a BVRDNCO or BVRDACO, or via a
   BVLAM, BVRDADC or BVRDADIM / BVRDADIS.
3. The VACIE was tested when connected to BVRAMB / BVRAMBIP Ambient
   Noise Sensing Microphone.
4. The following cabinets have been approved for use with Vigil 2 Rack Mounted
   VACIE when modified by Baldwin Boxall to meet IP30:-
   - RK20UN
   - RK20UDN
   - RK25UN
   - RK25UDN
   - RK34UN
   - RK34UDN
   - RK38UN
   - RK38UDN
   - RK43UN
   - RK43UDN
   - RK47UN
   - RK47UDN

This certificate is valid only when the installation has been performed in accordance with
Vigil 2 Eclipse 3 Wall Mounted VACIE

Certificated Products

BVECASE3 Eclipse3 c/w BVRD2M4 & BVL4
BVECASE3FM Eclipse3 Fire Microphone Module (Red)
BFM401 400 Series Fire Mic. Single Zone
BFM404 400 Series Fire Mic 4 Zone
BFM408 400 Series Fire Mic 8 Zone
BMS8 Mic I/F Box RJ45 (BDM400 Series)
BV050Q Vigil 2 50 Watt Quad Amplifier
BV125D Vigil 125W Dual Amp
BV225 Vigil 225W Amp
BVRD2M4 DSP VA Mini Router (4 Channel)
BVRD2M4ACO Amp/Line Monitor & Changeover Module for BVRD2M4
BVRD8 Voice Alarm Mic 8 Zone
BVRD16 Voice Alarm Mic 16 Zone
BVRD24 Voice Alarm Mic 24 Zone
BVRD32 Voice Alarm Mic 32 Zone
BVRD40 Voice Alarm Mic 40 Zone
BVRD48 Voice Alarm Mic 48 Zone
BVRD56 Voice Alarm Mic 56 Zone
BVRD64 Voice Alarm Mic 64 Zone
BVRDCIF Copper Interface for BVRDNET
BVRDFIFS Fibre Optic Interface for BVRDNET (Multi Mode)
BVRDNET2M4 BVRD2M4 Network Card
BVSMPLT Vigil 2 PSU/Charger Single O/P
BVSMPLT Vigil 2 PSU/Charger Single O/P

Certified with the following options with requirements from EN 54-16:

- 7.5 Phased evacuation
- 8.4 Indication of faults related to voice alarm zones
- 10. Voice alarm manual control
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifiers

Notes:
1. The Vigil 2 Eclipse 3 Wall Mounted VACIE is approved when connected with the following monitoring modules:
   - BEL1 EOL Monitor
   - BEL10 EOL Monitor x 10
   - BEL1IP EOL Monitor (Weatherproof)
2. The VACIE speaker lines are monitored by use of the following modules namely BEL1, BEL10, or BEL1IP.
   The VACIE was tested when connected to BVRAMB / BVRAMBIP Ambient Noise Sensing Microphone.
### Control and Indicating Equipment

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.10.4</td>
<td>Fault monitoring of fire protection equipment</td>
</tr>
<tr>
<td>7.11.1</td>
<td>Delays to outputs</td>
</tr>
<tr>
<td>7.11.2</td>
<td>Manual or automatic switching of delays to outputs</td>
</tr>
<tr>
<td>7.12.2</td>
<td>Dependency on more than one alarm signal: Type B</td>
</tr>
<tr>
<td>8.9</td>
<td>Output to fault warning routing equipment</td>
</tr>
<tr>
<td>10</td>
<td>Test condition</td>
</tr>
</tbody>
</table>

**Zircon 4 Zone**

002-509-249 Bardic Zircon, 4 zone, region 2, black grey

- Incorporating the following units:
  - 020-747 8-way relay kit
  - 020-772 4-way monitored sounder kit

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Output to automatic fire protection equipment: Type A
- 7.10.2 Output to automatic fire protection equipment: Type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11.1 Delays to outputs
- 7.11.2 Manual or automatic switching of delays to outputs
- 7.12.2 Dependency on more than one alarm signal: Type B
- 8.9 Output to fault warning routing equipment
- 10 Test condition

**Zircon 8 Zone**

002-509-289 Bardic Zircon, 8 zone, region 2, black grey

- Incorporating the following units:
  - 020-747 8-way relay kit
  - 020-772 4-way monitored sounder kit

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Output to automatic fire protection equipment: Type A
- 7.10.2 Output to automatic fire protection equipment: Type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11.1 Delays to outputs
- 7.11.2 Manual or automatic switching of delays to outputs
- 7.12.2 Dependency on more than one alarm signal: Type B
- 8.9 Output to fault warning routing equipment
- 10 Test condition

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**Beijing Leader Huaxin Electronics Co. Ltd**

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Tel: +86 10 67876681 • Fax: +86 10 67863972

E-mail: hy.chen@beijingleader.com.cn • Website: www.beijingleader.com.cn


### Control and Indicating equipment

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>987b/01</td>
<td>Two loop analogue addressable control and indicating equipment</td>
</tr>
</tbody>
</table>

Incorporating the units:

- 200087-AU-1 CPU board
- 200101-AD-1 Main board
- 200101-AG-1 Multi-functional board
- 200101-AK-1 Linkage control board
- 200101-AP-1 Switch board
- 200101-AQ-1 Drive board
- 200101-AX-1 Zone indication board
- 200101-PS2 Power control board
- PDF-150-24 Switching power supply

Certified with the following options with requirements from EN 54-2: 1997

- 7.8 Output to fire alarm devices
- 7.10.3 Output to fire protection equipment - Output type A

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PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Beijing VSAIL Fire Protection Equipment Co Ltd
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Tel: +86 10-56691196 • Fax: +86 10-56691100
E-mail: erichenx@vsail.com.cn • Website: www.vsail.com.cn


Control and indicating equipment
Certificated Products

LPCB Ref. No.

VC-6831/16 16 Zone Conventional control and indicating equipment
Incorporating the following units:

VSL2.908.004 16 Zone Control Board
VSL2.908.007 16 Zone Display Board
PD-100-24 AC/DC Power Supply Module
VSL2.908.005 16 Zone Signal Output Board

Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

VC-6831/8 8 Zone Conventional control and indicating equipment
Incorporating the following units:

VSL2.908.042 8 Zone Control Board
VSL2.908.043 8 Zone Display Board
PD-100-24 AC/DC Power Supply Module

Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

VC-6831/4 4 Zone Conventional control and indicating equipment
Incorporating the following units:

VSL2.908.044 4 Zone Control Board
VSL2.908.045 4 Zone Display Board
PD-100-24 AC/DC Power Supply Module

Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

VC-6831/2 2 Zone Conventional control and indicating equipment
Incorporating the following units:
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSL2.908.046</td>
<td>2 Zone Control Board</td>
</tr>
<tr>
<td>VSL2.908.047</td>
<td>2 Zone Display Board</td>
</tr>
<tr>
<td>PD-100-24</td>
<td>AC/DC Power Supply Module</td>
</tr>
</tbody>
</table>

Certified with the following Options with requirements from EN 54-2:1997

- 7.8 Output to fire alarm device(s)
- 7.11 Delay to outputs
- 10 Test condition

**Note:**

1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

**VI-6847**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174j/01</td>
<td>4 Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
</tbody>
</table>

Incorporating the following modules:

- VSL2.908.146  Main Board
- VSL2.908.149  Indication board
- VSL2.908.155  Terminal board
- VSL2.908.152  Loop Card
- VSL2.908.153  Control Board
- VSL2.908.155  I/O Board
- VSL2.908.169  Power Board
- VSL7-820-150  Zone Board
- VSL7-820-154  Network Card
- LRS-150-24    MEAN-WELL Power Supply module

Certified with the following option with requirements for EN54-2:

- 7.8 Output to fire alarm devices
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal (Type A dependency)
- 7.12.2 Dependencies on more than one alarm signal (Type B dependency)
- 7.12.3 Dependencies on more than one alarm signal (Type C dependency)
- 7.13 Alarm Counter
- 9.5 Disablement of addressable point
- 10 Test condition

**Notes:**

1. The scope of the approval does not include the operation of the network functionality
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

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**Biamp Systems LLC**

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Website: www.biamp.com

Certificate No: 977a-(cl-1) to EN 54-16: 2008

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>977a/01</td>
<td>Vocia VACIE</td>
</tr>
</tbody>
</table>

Incorporating the following modules:

- LSI-16 / LSI-16e Life Safety Interface:
  - 700.P630.9 LSI-16 / LSI-16e Main Board
  - 700.P632.9 LSI-16 / LSI-16e Display Board
  - 700.P675.9 IM-16 Input Module
  - 700.P644.9 LSI-16 / LSI-16e Power Supply Board
- CI-1 Control Interface
  - 700.P669.9 CI-1 Main Board
- GPIO-1 General Purpose Input Output Device
  - 700.P806.9 GPO-1 Main Board
  - 700.P807.9 IM-16-2 Input Board
VA-8600c Amplifier:
700.0646.9 VA-8600 AM-600c Amplifier Module
700.0601.9 VA-8600 NM-1 Network Module
700.0598.9 VA-8600 Back Plane Board
700.0599.9 VA-8600 Power Supply Board
700.0633.9 VA-8600 Capacitor Board
700.0629.9 VA-8600 AC Inlet Board
700.0602.9 VA-8600 Display Board
700.P662.9 VA-8600 Device ID Board
700.P800.9 VFOM-1 Voica Fail Over Module

VA-8600c Amplifier:
700.0675.9 VPA-1 Amplifier Module
700.0677.9 VSW-1 Transformer Switch Board
700.P680.9 VNM-1 Network Module
700.0687.9 VAS-1 Aux DC Power Supply
700.0672.9 EIC-4 Input Module
700.P681.9 VAD-1 Display Board

VA-2060 Amplifier:
700.0676.9 VPA-2 Amplifier Module
700.0686.9 VSW-2 Transformer Switch Board
700.P680.9 VNM-1 Network Module
700.P686.9 VAD-4 Display Board

VA-8150CV Amplifier:
700.P851.9 VAPM-1 Network Card
700.P827.9 VADM-1 Display Board
700.0791.9 VAM-1 Power Amplifier
700.0785.9 PCIe Riser Card
700.0788.9 Abletec Power Supply A

VA-4300CV Amplifier:
700.P851.9 VAPM-1 Network Card
700.P828.9 VADM-3 Display Board
700.0790.9 VAM-1 Power Amplifier
700.0785.9 PCIe Riser Card
700.0788.9 Abletec Power Supply A

EWS-4 Emergency Paging Microphone
700.P625.9 WS-4 Main Board
700.P676.9 WS-4 Switch Board

EWS-10 Emergency Paging Microphone
700.P725.9 WS-10 Main Board
700.P776.9 WS-10 Switch Board

Certified with the following options with requirements from EN 54-16:
7.3 Audible warning
7.5 Phased evacuation
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
12 Emergency microphone
13.14 Redundant power amplifiers

Note: The certification is conditional upon the Vocia VACIE being supplied with power
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

from power supplies that meet the specifications detailed in the Vocia VACIE Reference Guide, and comply with the requirements of EN 54-4.

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E-mail: Henk.Goudsmits@nl.bosch.com • Website: www.boschsecurity.com

Certificate No: 1054a-(cl-1) to EN 54-16: 2008
Certificate No: 1054c-(cl-1) to ISO 7240-16:2007
Certificate No: 1054c-(cl-2) to ISO 7240-16:2007

Certificated Products

PROMATRIX 8000 Voice Alarm System
Incorporating the following modules:
DPM 8016 Controller
PMX-MM2 Message manager
DPM AO-1 Analog audio output module
DPM UI-1 Universal audio input module
DPA 8150 Power amplifier 1 x 500W
DPA 8225 Power amplifier 2 x 250W
DPA 8412 Power amplifier 4 x 125W
DPC 8015 Call station
DCS 400 DCS 19" Mounting Frame
DCS 801R Controller Module
DCS 407R AF Relay Module Ext
DCS 408R Loudspeaker relay Module
DCS 409R AF Relay Module
DCS 412R Logic Input Module
DCS 416R Analog I/O Module
NRS90231 Key lock switch
EB DPC Emergency button
DPC 8120 Call station extension
CM-1 Cobranet Network Module
LT802GBTME Network switch
PLN-24CH12 Power Supply

Certified with the following options with requirements from EN 54 Part 16:
7.3 Audible Warning
7.5 Phase evacuation
7.6.2 Manual silencing of the voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10 Voice alarm manual control
12 Emergency microphone(s)
13.14 Redundant power amplifier

Notes:
1. The certificate is conditional upon the PROMATRIX 8000 Voice Alarm System being supplied with power from PLN-24CH12 or a power supply that meets the power specifications detailed in the manual and complies with the requirements of EN54-4.

2. The VACIE is approved when connected to PLN-1EOL or EOL 8001

3. The VACIE speaker lines are monitored by use of end line modules namely PLN-1EOL or EOL 8001.

4. The following IP30 cabinets have been approved for use with PROMATRIX 8000:-
   - Rittal TS8 based rack, with a lockable glass door, side panels, temperature controlled top fans and having a fixed frame with a maximum height of 42 HU (i.e. TS-IT series) or a lockable swing frame with a maximum height of 40 HU (i.e. TS-series).
   - Schroff (20130073 PRAESIDEO)
   - Diamond range of floor standing modular enclosures (Manufacturer E.Lan)
   - Knuer Miracel 2 configurable rack platforms (manufacturer Knürr GmbH)

5. The DPC 8015 call station requires the NRS90231 and EB DPC in order to meet option with requirement clause 10 and 12 of EN 54-16.

6. The DPC 8120 is approved when connected with DPC 8015 call station

7. This certificate is valid only when the installation has been performed in accordance with the “EN54-16 Installer checklist”.

8. The following SFP Modules have been approved for use with PROMATRIX 8000 when connected to the network switch LT-802GBTME:-
   - AC-SFP-LX-E-10 Single mode 1310nm SFP Module
   - AC-SFP-SX-E Multi-mode 850nm SFP Module

Dynacord / PROMATRIX 6000 VACIE

Incorporating the following modules:
- PMX-4CR12 PROMATRIX 6000 Controller
- PMX-4R24 PROMATRIX 6000 Router
- PMX-2P500 PROMATRIX 6000 2x500 Watt Amp.
- PMX-15CST PROMATRIX 6000 Call Station
- PMX-15ECS PROMATRIX 6000 Call Station
- PMX-20CSE PROMATRIX 6000 Call Station Extension.
- NRS90231 Key Lock Switch
- EB DPC Emergency button DPC 8000 Series
- PLN-24CH12 Power Supply Module
- OM-1 Network Module
- LT-802GBTME Network Switch

Certified with the following options with requirements from EN54-16:
- 7.3 Audible Warning
- 7.5 Phase evacuation
- 7.6.2 Manual silencing of the voice alarm condition
- 7.7.2 Manual reset of the voice alarm condition
- 7.9 Voice alarm condition output
- 8.3 Indication of faults related to the transmission path to the CIE
- 8.4 Indication of faults related to voice alarm zones
- 10 Voice alarm manual control
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifier

Notes:
1. The VACIE is approved when connected to PLN-1EOL or EOL 8001 or with activated impedance measurement.
2. The VACIE speaker lines are monitored by use of end line modules namely PLN-1EOL End Of Line Board, EOL 8001 PROMATRIX EOL Module or by impedance measurement.
3. The PVA-15CST call station requires the NRS90231 and EB DPC in order to meet option with requirement clause 10 and 12 of EN 54-16.
4. The PMX-20CSE is approved when connected with PMX-15CST call station
5. The following IP30 cabinets have been approved for use with Dynacord/Promatrix 6000:-
   - Rittal TS8 based rack, with a lockable glass door, side panels, temperature controlled top fans and having a fixed frame with a maximum height of 42 HU (i.e. TS-IT series) or a lockable swing frame with a maximum height of 40 HU (i.e. TS-series).
   - Schroff (20130073 PRAESIDEO)
   - Diamond 19 Inch Cabinet (Manufacturer: E.Lan)
   - Knuerr Miracel 2 (Manufacturer: Knürr GmbH)
6. The following SFP Modules have been approved for use with Dynacord/Promatrix 6000 when connected to the network switch LT-802GBTME:-
   - AC-SFP-LX-E-10 Single mode 1310nm SFP Module
   - AC-SFP-SX-E Multi-mode 850nm SFP Module
7. This certificate is valid only when the installation has been performed in accordance with the “EN54-16 Installer checklist”.

Bosch / PAVIRO VACIE Voice Alarm Control and Indicating Equipment 1054b/02
Incorporating the following modules:
PVA-4CR12 PAVIRO Controller
PVA-4R24 PAVIRO Router
PVA-2P500 PAVIRO 2x500 W Amplifier
PVA-15CST PAVIRO Call Station
PVA-15ECS PAVIRO Call Station
PVA-20CSE PAVIRO Call Station Extension
PVA-1KS PAVIRO CST Key Switch
PVA-1EB PAVIRO CST Emergency button
PLN-24CH12 Power Supply Module
OM-1 Network Module
LT-802GBTME Network Switch
Certified with the following options with requirements from EN54-16:
7.3 Audible Warning
7.5 Phase evacuation
7.6.2 Manual silencing of the voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10 Voice alarm manual control
12 Emergency microphone(s)
13.14 Redundant power amplifier

Notes:
1. The VACIE is approved when connected to PLN-1EOL or PVA-1WEOL end of line board or with activated impedance measurement.
2. The VACIE speaker lines are monitored by use of end line modules namely PLN-1EOL end of line board, PVA-1WEOL addressable end of line board or impedance measurement.
3. The PVA-15CST call station requires the PVA-1KS and PVA-1EB in order to meet option with requirement clause 10 and 12 of EN 54-16.
4. The PVA-20CSE is approved when connected with PVA-15CST call station
5. The following IP30 cabinets have been approved for use with PAVIRO:-
   - Rittal TS8 based rack, with a lockable glass door, side panels, temperature controlled top fans and having a fixed frame with a maximum height of 42 HU (i.e. TS-IT series) or a lockable swing frame with a maximum height of 40 HU (i.e. TS-series).
   - Schroff (20130073 PRAESIDEO)
   - Diamond 19 Inch Cabinet (Manufacturer: E.Lan)
   - Knuerr Miracel 2 (Manufacturer: Knürr GmbH)
6. The following SFP Modules have been approved for use with PAVIRO when
Dynacord / PROMATRIX
6000 VACIE

Certificated with the following options with requirements from ISO7420-16:
7.2 Alert signal
7.5 Audible warning
7.8.2 Silencing of the voice-alarm condition with a manual control
7.9.2 Reset of the voice-alarm condition with a manual control
7.11 Voice-alarm condition output signal
8.2.6.1 Faults related to the transmission path to the emergency detection system
8.2.6.2 Faults related to emergency loudspeaker zones
11 Manual mode control
13.3 Microphone emergency loudspeaker zone control
14.14 Redundant power amplifiers

Notes:
1. The VACIE is approved when connected to PLN-1EOL or EOL 8001 or with activated impedance measurement.
2. The VACIE speaker lines are monitored by use of end line modules namely PLN-1EOL End Of Line Board, EOL 8001 PROMATRIX EOL Module or by impedance measurement.
3. The PVA-15CST call station requires the NRS90231 and EB DPC in order to meet option with requirement clause 10 and 12 of EN 54-16.
4. The PMX-20CSE is approved when connected with PMX-15CST call station
5. The following IP30 cabinets have been approved for use with PROMATRIX 6000:-
   - Rittal TS8 based rack, with a lockable glass door, side panels, temperature controlled top fans and having a fixed frame with a maximum height of 42 HU (i.e. TS-IT series) or a lockable swing frame with a maximum height of 40 HU (i.e. TS-series).
   - Schroff (20130073 PRAESIDEO)
6. This certificate is valid only when the installation has been performed in accordance with the ISO7420-16 Installer checklist.
7. Amplifier and Call Station are manufactured in Bosch China.
8. PLN-24CH12 is manufactured in SLAT, France.

Bosch / PAVIRO VACIE

Certificated with the following options with requirements from ISO7420-16:
7.2 Alert signal
7.5 Audible warning
7.8.2 Silencing of the voice-alarm condition with a manual control
7.9.2 Reset of the voice-alarm condition with a manual control
7.11 Voice-alarm condition output signal
8.2.6.1 Faults related to the transmission path to the emergency detection system
8.2.6.2 Faults related to emergency loudspeaker zones
11 Manual mode control
11.3 Indication of the emergency loudspeaker zones in the fault-warning condition
Certificated Products

13 Emergency microphone
13.2 Microphone priority
13.3 Microphone emergency loudspeaker zone control
14.14 Redundant power amplifiers

Notes:
1. The VACIE is approved when connected to PLN-1EOL or PVA-1WEOL end of line board or with activated impedance measurement.
2. The VACIE speaker lines are monitored by use of end line modules namely PLN-1EOL end of line board, PVA-1WEOL addressable end of line board or impedance measurement.
3. The PVA-15CST call station requires the PVA-1KS and PVA-1EB in order to meet option with requirement clause 10 and 12 of EN 54-16.
4. The PVA-20CSE is approved when connected with PVA-15CST call station.
5. The following IP30 cabinets have been approved for use with PAVIRO:-
   - Rittal TS8 based rack, with a lockable glass door, side panels, temperature controlled top fans and having a fixed frame with a maximum height of 42 HU (i.e. TS-IT series) or a lockable swing frame with a maximum height of 40 HU (i.e. TS-series).
   - Schroff (20130073 PRAESIDEO)
6. This certificate is valid only when the installation has been performed in accordance with the ISO7420-16 Installer checklist.
7. Amplifier and Call Station are manufactured in Bosch China.
8. PLN-24CH12 is manufactured in SLAT, France.

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Tel: +971 4 347 2426 • Fax: +971 4 347 2363
E-mail: sami@bristol-fire.com • Website: www.bristol-fire.com


Control and indicating equipment

Certificated Products

B61-801/16 16 Zone Conventional Control and Indicating Equipment
Incorporating the following units:
VSL2.908.004 16 Zone Control Board
VSL2.908.007 16 Zone Display Board
PD-100-24 AC/DC Power Supply Module
VSL2.908.005 16 Zone Signal Output Board
Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition
Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

B61-801/8 8 Zone Conventional Control and Indicating Equipment
Incorporating the following units:
VSL2.908.042 8 Zone Control Board
VSL2.908.043 8 Zone Display Board
PD-100-24 AC/DC Power Supply Module
Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition
Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

B61-801/4 4 Zone Conventional Control and Indicating Equipment
Incorporating the following units:
VSL2.908.044 4 Zone Control Board
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

B61-801/2
2 Zone Conventional Control and Indicating Equipment

Certificated with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10. Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

IGN250
1 to 4 loop Intelligent Addressable Control and Indicating Equipment

Certificated with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.10.1 Output to fire protection equipment - Type A
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.13 Alarm counter
9.5 Disablement of each address point
10. Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality
2. The product approval does not constitute compliance with the fire detection and alarm system requirements of EN54-13.

Ceasefire Industries Private Ltd
E6, Upsidc Industrial Area, Selaqui, Dehradun, Uttarakhand 24001, India
Tel: +911204223473
E-mail: amit@ceasefire.in

Control and indicating equipment
Certificated Products

Pro-Sense TI-002306, TI-002307
Pro-Sense 2 and 4 Zone Conventional Control and Indicating Equipment

TI-002306
Incorporating as modular units:
<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPC A01-E2 2 zone main PCB applicable on 2 zone CIE only</td>
<td>TPC A02 LED display PCB</td>
</tr>
<tr>
<td>PSM1.5-24 Power supply 1.5A rated</td>
<td></td>
</tr>
<tr>
<td>Certified with the following options with requirements from EN 54 Part 2:</td>
<td></td>
</tr>
<tr>
<td>7.8 Output to fire alarm devices</td>
<td>7.12.1 Dependency on more than one alarm signal type A</td>
</tr>
<tr>
<td>10 Test condition</td>
<td></td>
</tr>
<tr>
<td>TI-002307</td>
<td></td>
</tr>
<tr>
<td>Incorporating as modular units:</td>
<td></td>
</tr>
<tr>
<td>TPC A01-E4 4 zone main PCB applicable on 4 zone CIE only</td>
<td>TPC A02 LED display PCB</td>
</tr>
<tr>
<td>PSM1.5-24 Power supply 1.5A rated</td>
<td></td>
</tr>
<tr>
<td>Certified with the following options with requirements from EN 54 Part 2:</td>
<td></td>
</tr>
<tr>
<td>7.8 Output to fire alarm devices</td>
<td>7.12.1 Dependency on more than one alarm signal type A</td>
</tr>
<tr>
<td>10 Test condition</td>
<td></td>
</tr>
<tr>
<td>Note:</td>
<td>1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
</tr>
</tbody>
</table>

Pro-Sense TI-002310, TI-002311, TI-002312

<table>
<thead>
<tr>
<th>16, 24 and 32 Zone Conventional Control and Indicating Equipment</th>
<th>810a/08</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI-002310 16 Zone Conventional Control Panel</td>
<td></td>
</tr>
<tr>
<td>Incorporating as modular units:</td>
<td></td>
</tr>
<tr>
<td>TPCA10 32 Zone LED display PCB</td>
<td>TPCA11-16 16 Zone Main PCB</td>
</tr>
<tr>
<td>TPCA12 Power supply PCB</td>
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<tr>
<td>TPCR01 Relay PCB</td>
<td>TPCR03 Isolate Switch PCB</td>
</tr>
<tr>
<td>TPCA09 Sounder Card PCB</td>
<td>TPCA08 Output Card PCB</td>
</tr>
<tr>
<td>TPCA05 XLEN Communications Board</td>
<td></td>
</tr>
<tr>
<td>TI-002311 24 Zone Conventional Control Panel</td>
<td></td>
</tr>
<tr>
<td>Incorporating as modular units:</td>
<td></td>
</tr>
<tr>
<td>TPCA10 32 Zone LED display PCB</td>
<td>TPCA11-24 24 Zone Main PCB</td>
</tr>
<tr>
<td>TPCA12 Power supply PCB</td>
<td>and as optional modules</td>
</tr>
<tr>
<td>TPCR01 Relay PCB</td>
<td>TPCR03 Isolate Switch PCB</td>
</tr>
<tr>
<td>TPCA09 Sounder Card PCB</td>
<td>TPCA08 Output Card PCB</td>
</tr>
<tr>
<td>TPCA05 XLEN Communications Board</td>
<td></td>
</tr>
<tr>
<td>TI-002312 32 Zone Conventional Control Panel</td>
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</tr>
<tr>
<td>Incorporating as modular units:</td>
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</tr>
<tr>
<td>TPCA10 32 Zone LED display PCB</td>
<td>TPCA11-32 32 Zone Main PCB</td>
</tr>
<tr>
<td>TPCA12 Power supply PCB</td>
<td>and as optional modules</td>
</tr>
<tr>
<td>TPCR01 Relay PCB</td>
<td>TPCR03 Isolate Switch PCB</td>
</tr>
<tr>
<td>TPCA09 Sounder Card PCB</td>
<td>TPCA08 Output Card PCB</td>
</tr>
<tr>
<td>TPCA05 XLEN Communications Board</td>
<td>Certified with the following options with requirements from EN 54 Part 2:</td>
</tr>
<tr>
<td>7.8 Output to fire alarm devices</td>
<td>7.9.1 Output to fire alarm routing equipment</td>
</tr>
<tr>
<td>7.11 Delays to outputs</td>
<td>7.12.1 Dependency on more than one alarm signal type A</td>
</tr>
<tr>
<td>7.12.2 Dependency on more than one alarm signal type B</td>
<td></td>
</tr>
</tbody>
</table>
### PART 1: SECTION 3

**CONTROL AND INDICATING EQUIPMENT**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro-Sense TI-002308</td>
<td>8 Zone Conventional Control and Indicating Equipment</td>
</tr>
<tr>
<td>Pro-Sense TI-002309</td>
<td>12 Zone Conventional Control and Indicating Equipment</td>
</tr>
</tbody>
</table>

#### Channel Safety Systems Ltd

9 Petersfield Business Park, Petersfield GU32 3QA, United Kingdom  
Tel: 08458847000 • Fax: 08458846000  
E-mail: sales@channelsafety.co.uk • Website: www.channelsafety.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>CFP702-4/CHAN</td>
<td>Two zone conventional control and indicating equipment</td>
</tr>
</tbody>
</table>

Incorporating the units:

<table>
<thead>
<tr>
<th>Unit Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPF0702005 Power supply PCB</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPF0724851</td>
<td>2 Zone main control board</td>
</tr>
<tr>
<td>Certified with the following options with requirements from EN 54-2: 1997</td>
<td></td>
</tr>
<tr>
<td>7.8 Output to fire alarm devices(s)</td>
<td></td>
</tr>
<tr>
<td>7.11 Delays to outputs</td>
<td></td>
</tr>
<tr>
<td>10 Test condition</td>
<td></td>
</tr>
</tbody>
</table>

CFP704-4/CHAN

Four zone conventional control and indicating equipment 176b/08

Incorporating the units:

RPF0702005 Power supply PCB
SPF0724853 4 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997

7.8 Output to fire alarm devices(s)
7.11 Delays to outputs
10 Test condition

CFP708-4/CHAN

Eight zone conventional control and indicating equipment 176b/09

Incorporating the units:

RPF0702005 Power supply PCB
SPF0724855 8 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997

7.8 Output to fire alarm devices(s)
7.11 Delays to outputs
10 Test condition

Comelit Group S.p.a
5 Via Don Arrigoni, Rovetta 24020, Italy
Tel: +39 0346 750011
E-mail: luca.pedretti@comelit.it


Control and indicating equipment
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATENA ATENA - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel, metal housing</td>
<td></td>
</tr>
<tr>
<td>ATENA P - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel, plastic housing</td>
<td></td>
</tr>
<tr>
<td>Incorporating the following modular units:</td>
<td></td>
</tr>
<tr>
<td>uPC Board Module uPC</td>
<td></td>
</tr>
<tr>
<td>LCD Board Module LCD</td>
<td></td>
</tr>
<tr>
<td>LED Board Module Light Panel includes boards uPC, LCD and LED</td>
<td></td>
</tr>
<tr>
<td>Outputs Board Module Outputs</td>
<td></td>
</tr>
<tr>
<td>Relay Board Module 4 Relay</td>
<td></td>
</tr>
<tr>
<td>PSU Board Module Power supply</td>
<td></td>
</tr>
<tr>
<td>Redundant Network Board Module Redundant Network</td>
<td></td>
</tr>
<tr>
<td>Loop Comelit Board Loop Expander Comelit</td>
<td></td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN54-2:

7.8 Output to fire alarm devices (option with requirements)
7.9 Control of fire alarm routing equipment (options with requirements)
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10 Outputs to fire protection equipment (options with requirements)
7.10.1 Output type A (option with requirement)
7.11 Delays to outputs (option with requirements)
7.12 Dependencies on more than one alarm signal (option with requirements)
7.12.1 Type A dependency (option with requirement)
8.3 Fault signals from points (option with requirements)
### PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.5 Disablement of addressable point (option with requirements)</td>
<td></td>
</tr>
<tr>
<td>10 Test condition (option with requirements)</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. The scope of the approval does not include the operation of the network functionality.
2. The product approval does not constitute compliance with the fire detection and alarm system requirements of EN54-13.

<table>
<thead>
<tr>
<th>ATENA Repeater</th>
<th>1139h/R01</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATENA Repeater - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel</td>
<td></td>
</tr>
<tr>
<td>ATENA Repeater P - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel</td>
<td></td>
</tr>
<tr>
<td>Approved for use with the ATENA Intelligent Analogue Addressable Interactive Fire Alarm Control Panel</td>
<td></td>
</tr>
<tr>
<td>Incorporating the following modules:</td>
<td></td>
</tr>
<tr>
<td>uPC Board Module uPC</td>
<td></td>
</tr>
<tr>
<td>LCD Board Module LCD</td>
<td></td>
</tr>
<tr>
<td>LED Board Module Light Panel includes boards uPC, LCD and LED</td>
<td></td>
</tr>
<tr>
<td>PSU Board Module Power supply</td>
<td></td>
</tr>
<tr>
<td>Redundant Network Board Module Redundant Network</td>
<td></td>
</tr>
</tbody>
</table>

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**Computationics Limited (Trading as C-Tec)**
Challenge Way, Martland Park, Wigan, Lancashire WD5 0LD, United Kingdom
Tel: +44 (0)1942 322744/42444 • Fax: +44 (0)1942 829867
E-mail: sales@C-tec.co.uk • Website: www.c-tec.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XFP502/H</td>
<td>176b/01</td>
</tr>
<tr>
<td>2 loop, 32 zone analogue addressable control and indicating equipment using Hochiki Protocol, metal housing</td>
<td></td>
</tr>
<tr>
<td>Incorporating the following units:</td>
<td></td>
</tr>
<tr>
<td>SPF0501000 Switch mode power supply board</td>
<td></td>
</tr>
<tr>
<td>SPF0501202 XFP Hochiki 2 loop, main motherboard</td>
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| XFP502/X | 176b/02 |
| 2 Loop, 32 zone analogue addressable control and indicating equipment using Apollo Protocol, metal housing |
| Incorporating the following units: |
| SPF0501000 Switch mode power supply board |
| SPF0501201 XFP Apollo 2 loop, main motherboard |
| SPF0501200 Display board "Keypad display" |
| Optional language variants; |
| XFP502/X/ES Spanish language variant |
| XFP502/X/FR French language variant |
| XFP502/X/PORT Portuguese language variant |
| XFP502/X/SX Dutch language variant |
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Certified with the following options with requirements from EN54-2: 1997

7.8 Output to fire alarm device(s)
7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disenablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.

XFP501/H
1 Loop, 32 zone analogue addressable control and indicating equipment using Hochiki Protocol, metal housing

Incorporating the following units:
- SPF0501000 Switch mode power supply board
- SPF0501212 XFP Hochiki 1 loop, main motherboard
- SPF0501200 Display board "Keypad display"

Optional language variants:
- XFP501/H/NL Dutch language variant

Certified with the following options with requirements from EN54-2: 1997

7.8 Output to fire alarm device(s)
7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disenablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.

XFP501/X
1 Loop, 32 zone analogue addressable control and indicating equipment using Apollo Protocol, metal housing

Incorporating the following units:
- SPF0501000 Switch mode power supply board
- SPF0501211 XFP Apollo 1 loop, main motherboard
- SPF0501200 Display board "Keypad display"

Optional language variants:
- XFP501/X/ES Spanish language variant
- XFP501/X/FR French language variant
- XFP501/X/PORT Portuguese language variant
- XFP501/X/NL Dutch language variant
- XFP501/X/CZ Czech language variant

Certified with the following options with requirements from EN54-2: 1997

7.8 Output to fire alarm device(s)
7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disenablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.

XFP501E/H
1 Loop, 16 zone analogue addressable control and indicating equipment using Hochiki protocol, plastic housing

Incorporating the following units:

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SPF0702480 Switch mode power supply board
SPF0501102 XFP Hochiki 1 loop, main motherboard

Optional language variants:
XFP501E/H/NL Dutch language variant

Certified with the following options with requirements from EN54-2: 1997
7.8 Output to fire alarm device(s)
7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment
7.12.1 Dependencies on more than one alarm signal - Type A
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7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality

XFP501E/X
1 Loop, 16 zone analogue addressable control and indicating equipment using Apollo Protocol, plastic housing

Incorporating the following units:
SPF0702480 Switch mode power supply board
SPF0501101 XFP Apollo 1 loop, main motherboard

Optional language variants:
XFP501E/X/ES Spanish language variant
XFP501E/X/FR French language variant
XFP501E/X/PORT Portuguese language variant
XFP501E/X/NL Dutch language variant
XFP501E/X/CZ Czech language variant

Certified with the following options with requirements from EN54-2: 1997
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7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality

CFP702-4
Two zone conventional control and indicating equipment

Incorporating the units:
SPF0702480 Switch mode power supply unit board
SPF0724851 2 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm device(s)
7.11 Delays to outputs
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality

CFP704-4
Four zone conventional control and indicating equipment

Incorporating the units:
SPF0702480 Switch mode power supply unit board
SPF0724851 2 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm device(s)
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Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

XFP502/CA
2 Loop 32 Zone Analogue Addressable Control and Indicating Equipment using CAST protocol, metal housing
Incorporating the following modules:
- SPF0050210 2 Loop Main board
- SPF0501021 Switch mode power supply board
- SPF0501199 Display Board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices
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7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of addressable points
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.


Certificated Products

EP203 Conventional three zone class A extinguisher control panel
Incorporating the following units:
- SPF0000203 Main extinguisher control
- SPF0000212 External relay interface
- SPF0003613 Power supply unit
- SPF0000214 EP214 terminator

Incorporating as modular units:
- EP210S Remote Status Unit Surface Mount optional (See Note 1)
- EP211 Economy Status Unit optional (See Note 1)

Optional language variants;
- EP203/ES Spanish language variant
- EP203/FR French language variant
- EP203/IT Italian language variant
- EP203/DE German language variant

Certified with the following options with requirements from EN 12094-1:2003
4.17 Delay of extinguishing signal
4.18 Signal representing the flow of extinguishing agent
4.19 Monitoring of the status of components
4.20 Emergency hold device
4.21 Control of flooding time
4.23 Manual only mode
4.26 Triggering of equipment outside the system
4.27 Emergency abort device
4.30 Activation of alarm devices with different signals

Certified with the following options with requirements from EN-54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment
7.13 Alarm counter
10 Test condition
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Notes:
1. Optional Remote Status Unit part No. EP210S & Economy Status Unit part No. EP211 are not certified as meeting the requirements of the standards specified.
2. Meets the requirements of EN12094-3:2003, Class A - i.e. operational temperature range of -5°C to +40°C.


Power Supply Equipment

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF560-12</td>
<td>12V, 2A Boxed Power Supply Plastic Housing with 7Ah battery</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following units:</td>
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<tr>
<td></td>
<td>SPF5601204 - Power supply module</td>
</tr>
<tr>
<td></td>
<td>SPF0360000 - Display module</td>
</tr>
<tr>
<td>176p/01</td>
<td>Note:</td>
</tr>
<tr>
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<td>1. The unit is not intended to supply power to equipment that requires dual power paths such as control and indicating equipment</td>
</tr>
<tr>
<td>BF560-24</td>
<td>24V, 1.5A Boxed Power Supply Plastic Housing with 3.2Ah batteries</td>
</tr>
<tr>
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<td>Incorporating the following units:</td>
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<tr>
<td></td>
<td>SPF5602402 - Power supply module</td>
</tr>
<tr>
<td></td>
<td>SPF0360010 - Display module</td>
</tr>
<tr>
<td>176p/02</td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. The unit is not intended to supply power to equipment that requires dual power paths such as control and indicating equipment</td>
</tr>
<tr>
<td>BF562-1</td>
<td>24V, 1.5A Boxed Power Supply Metal Housing with 17Ah batteries</td>
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<td>SPF5602402 - Power supply module</td>
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<tr>
<td></td>
<td>SPF0003610 - Display module</td>
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<tr>
<td>176p/03</td>
<td>Note:</td>
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<td>1. The unit is not intended to supply power to equipment that requires dual power paths such as control and indicating equipment</td>
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<tr>
<td>NT560-12/E</td>
<td>12V, 2A Boxed Power Supply Metal Housing with 12Ah Battery</td>
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<td>Incorporating the following units:</td>
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<td>SPF5601204 - Power supply module</td>
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<td>176p/04</td>
<td>Note:</td>
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<td>1. The unit is not intended to supply power to equipment that requires dual power paths such as control and indicating equipment</td>
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<tr>
<td>BF562-5</td>
<td>24V, 5A Boxed Power Supply Metal Housing with 17Ah batteries</td>
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<td>Incorporating the following units:</td>
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<td>SPF0361020 - Power supply module</td>
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<td>SPF0003610 - Display module</td>
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<tr>
<td>176p/05</td>
<td>Note:</td>
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<td>1. The unit is not intended to supply power to equipment that requires dual power paths such as control and indicating equipment</td>
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<tr>
<td>BF562-3</td>
<td>24V, 3A Boxed Power Supply Metal Housing with 17Ah batteries</td>
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<td>SPF0361020 - Power supply module</td>
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<td>SPF0003610 - Display module</td>
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<td>176p/06</td>
<td>Note:</td>
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<tr>
<td>NC560-12/E</td>
<td>12V, 2A Boxed Power Supply Metal Housing with 12Ah Battery</td>
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<td>Incorporating the following units:</td>
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<td>SPF5601204 - Power supply module</td>
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<td>176p/07</td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. The unit is not intended to supply power to equipment that requires dual power paths such as control and indicating equipment</td>
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</tbody>
</table>
CONTROL AND INDICATING EQUIPMENT

Context Plus Ltd
Export House, 175 Mauldeth Road, Fallowfield, Manchester M14 6SG, United Kingdom
Tel: +44 (0)161 257 2541 • Fax: +44 (0)161 225 8817
E-mail: xportsales@xportsales.com • Website: www.xportsales.com


Control and indicating equipment
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>176b/02</td>
<td>XFP502/X/CON Two Loop, 32 Zone Analogue addressable control and indicating equipment using Apollo Protocol, Metal housing</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following units:</td>
</tr>
<tr>
<td></td>
<td>SPF0501000 Switch mode power supply board</td>
</tr>
<tr>
<td></td>
<td>SPF0501201 XFP Apollo 2 Loop, Main motherboard</td>
</tr>
<tr>
<td></td>
<td>SPF0501200 Display board Keypad Display</td>
</tr>
<tr>
<td></td>
<td>Certified with the following options with requirements from EN 54-2:1997</td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
</tr>
<tr>
<td></td>
<td>7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment</td>
</tr>
<tr>
<td></td>
<td>7.12.1 Dependencies on more than one alarm signal - Type A</td>
</tr>
<tr>
<td></td>
<td>7.12.2 Dependencies on more than one alarm signal - Type B</td>
</tr>
<tr>
<td></td>
<td>7.12.3 Dependencies on more than one alarm signal - Type C</td>
</tr>
<tr>
<td></td>
<td>7.13 Alarm counter</td>
</tr>
<tr>
<td></td>
<td>8.3 Fault signals from points</td>
</tr>
<tr>
<td></td>
<td>9.5 Disablement of each address point</td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
</tr>
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<td>Note:</td>
<td>1. Scope of approval does not include the operation of the network functionality.</td>
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<tr>
<td>176b/04</td>
<td>XFP501/X/CON One Loop, 32 Zone Analogue addressable control and indicating equipment using Apollo Protocol, Metal housing</td>
</tr>
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<td>Incorporating the following units:</td>
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<tr>
<td></td>
<td>SPF0501000 Switch mode power supply board</td>
</tr>
<tr>
<td></td>
<td>SPF0501211 XFP Apollo 1 Loop, Main motherboard</td>
</tr>
<tr>
<td></td>
<td>SPF0501200 Display board Keypad Display</td>
</tr>
<tr>
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<td>Certified with the following options with requirements from EN 54-2:1997</td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
</tr>
<tr>
<td></td>
<td>7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment</td>
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<tr>
<td></td>
<td>7.12.1 Dependencies on more than one alarm signal - Type A</td>
</tr>
<tr>
<td></td>
<td>7.12.2 Dependencies on more than one alarm signal - Type B</td>
</tr>
<tr>
<td></td>
<td>7.12.3 Dependencies on more than one alarm signal - Type C</td>
</tr>
<tr>
<td></td>
<td>7.13 Alarm counter</td>
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<tr>
<td></td>
<td>10 Test condition</td>
</tr>
<tr>
<td>Note:</td>
<td>1. Scope of approval does not include the operation of the network functionality.</td>
</tr>
<tr>
<td>176b/06</td>
<td>XFP501E/X/CON One Loop, 16 Zone Analogue addressable control and indicating equipment using Apollo protocol, Plastic housing</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following units:</td>
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<tr>
<td></td>
<td>SPF0702480 Switch mode power supply board</td>
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<tr>
<td></td>
<td>SPF0501101 XFP Apollo 1 Loop, Main motherboard</td>
</tr>
<tr>
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<td>Certified with the following options with requirements from EN 54-2:1997</td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

7.11 Delays to the actioning of outputs fire alarm devices and fire routing equipment

CFP702-4/CON
Two zone conventional control and indicating equipment

Incorporating the units:
SPF0702480 Switch mode power supply unit board
SPF0724851 2 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices(s)
7.11 Delays to outputs
10 Test condition

CFP704-4/CON
Four zone conventional control and indicating equipment

Incorporating the units:
SPF0702480 Switch mode power supply unit board
SPF0724853 4 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices(s)
7.11 Delays to outputs
10 Test condition

CFP708-4/CON
Eight zone conventional control and indicating equipment

Incorporating the units:
SPF0702480 Switch mode power supply unit board
SPF0724855 8 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices(s)
7.11 Delays to outputs
10 Test condition

EP203/CON
Conventional three zone class A extinguisher control panel under Context Plus Brand

Incorporating the following units:
SPF0000203 Main extinguisher control
SPF0000212 External relay interface
SPF0003613 Power supply unit
SPF0000214 EP214 terminator

Incorporating as modular units:
EP210S Remote Status Unit Surface Mount optional (See Note 1)
EP211 Economy Status Unit optional (See Note 1)

Certified with the following options with requirements from EN 12094-1:2003
4.17 Delay of extinguishing signal
4.18 Signal representing the flow of extinguishing agent
4.19 Monitoring of the status of components
4.20 Emergency hold device
4.21 Control of flooding time
4.23 Manual only mode
4.26 Triggering of equipment outside the system
4.27 Emergency abort device
4.30 Activation of alarm devices with different signals

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm device(s)
7.11 Delays to the auctioning of outputs fire alarm devices and fire routing equipment
7.13 Alarm counter
10 Test condition

Note:
1. Optional Remote Status Unit part No. EP210S & Economy Status Unit part No. EP211 are not certified meeting the requirements of the standards specified
2. Meets the requirements of EN12094-3:2003, Class A - i.e. operational temperature range of -5°C to +40°C.

FirePlus 2-12
2, 4, 6, 8 and 12 Zone conventional control and indicating equipment 810a/04

FirePlus 2 Zone Conventional Control Panel (Manufacturers internal code CPC-02)
Incorporating as modular units:
TPCA01-X 2 CPC 2 Zone Main PCB
TPCA03 CPC Display Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 CPC Communications Board

FirePlus 4 Zone Conventional Control Panel (Manufacturers internal code CPC-04)
Incorporating as modular units:
TPCA01-X4 CPC 4 Zone Main PCB
TPCA03 CPC Display Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 CPC Communications Board

FirePlus 6 Zone Conventional Control Panel (Manufacturers internal code CPC-06)
Incorporating as modular units:
TPCA01-X2 CPC 2 Zone Main PCB
TPCA03 CPC Display Board
TPCA04-S CPC Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 CPC Communications Board

FirePlus 8 Zone Conventional Control Panel (Manufacturers internal code CPC-08)
Incorporating as modular units:
TPCA01-X4 CPC 4 Zone Main PCB
TPCA03 CPC Display Board
TPCA04-H CPC High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 CPC Communications Board

FirePlus 12 Zone Conventional Control Panel (Manufacturers internal code CPC-12)
TPCA01-X4 CPC 4 Zone Main PCB
TPCA03 CPC Display Board
TPCA04-S CPC Standard 4 Zone Extension Board
TPCA04-H CPC High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 CPC Communications Board

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FirePlus 16-32
CPC-16 16 Zone Conventional Control Panel
Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-16 16 Zone Main PCB
TPCA12 Power supply PCB
and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
TPCA05 CPC Communications Board

CPC-24 24 Zone Conventional Control Panel
Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-24 24 Zone Main PCB
TPCA12 Power supply PCB
and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
TPCA05 CPC Communications Board

CPC-32 32 Zone Conventional Control Panel
Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-32 32 Zone Main PCB
TPCA12 Power supply PCB
and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
TPCA05 CPC Communications Board

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
Control and indicating equipment

CF2000

Analogue Addressable 2 Loop Control and Indicating Equipment

Incorporating the following units:
- PR202-50-2209 Power supply board
- PR202-50-2206 Main motherboard
- PR202-50-2205 Display board

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.10.1 Output to automatic fire protection equipment (Type A)
- 7.11 Delays to outputs
- 7.12.3 Dependencies on more than one alarm signal (Type C)
- 7.13 Alarm counter
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each address point

Test condition

Notes:
1. The scope of approval does not include the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

DF2000

Analogue Addressable 2 Loop Control and Indicating Equipment

Incorporating the following units:
- PR202-50-2209 Power supply board
- PR202-50-2206 Main motherboard
- PR202-50-2205 Display board

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.10.1 Output to automatic fire protection equipment (Type A)
- 7.11 Delays to outputs
- 7.12.3 Dependencies on more than one alarm signal (Type C)
- 7.13 Alarm counter
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each address point

Test condition

Notes:
1. The scope of approval does not include the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FX2000

Analogue Addressable 2 Loop Control and Indicating Equipment

Incorporating the following units:
- PR202-50-2209 Power supply board
- PR202-50-2206 Main motherboard
- PR202-50-2205 Display board

Certified with the following options with requirements from EN 54-2:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>CF3000</th>
<th>Intelligent Analogue Addressable 1-4 Loop Control and Indicating Equipment 714w/01</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Incorporating the following units:</td>
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</tr>
<tr>
<td></td>
<td>ADF6 Back</td>
<td>Assembled back box</td>
</tr>
<tr>
<td></td>
<td>YPCB2153</td>
<td>Motherboard PCB</td>
</tr>
<tr>
<td></td>
<td>YPCB2147</td>
<td>PSU PCB</td>
</tr>
<tr>
<td></td>
<td>YPCB2148</td>
<td>2 Loop Card (2 off)</td>
</tr>
<tr>
<td></td>
<td>ADF6Screen</td>
<td>Touch Screen</td>
</tr>
<tr>
<td></td>
<td>ZPCB2185</td>
<td>Complete Display + Micro PCB</td>
</tr>
<tr>
<td></td>
<td>ADF6 DISPCOVER</td>
<td>Display PCB Cover</td>
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<tr>
<td></td>
<td>ADF6FACIA</td>
<td>Front Moulding</td>
</tr>
<tr>
<td></td>
<td>ADF6PRINTDOOR</td>
<td>Printer Door Moulding</td>
</tr>
<tr>
<td></td>
<td>BAT-NP12-12</td>
<td>Batteries (2 off)</td>
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<tr>
<td></td>
<td>ADF6HINGE</td>
<td>Door Hinges</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following optional modules:</td>
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</tr>
<tr>
<td></td>
<td>ADF6OPFACIA</td>
<td>Optional Anti Tamper Cover</td>
</tr>
<tr>
<td></td>
<td>ADF6PRINTER</td>
<td>Printer</td>
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<tr>
<td></td>
<td>YPCB2187</td>
<td>Fire Brigade Interface</td>
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<tr>
<td></td>
<td>YPCB2137</td>
<td>Micro Display card</td>
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<tr>
<td></td>
<td>YPCB2319</td>
<td>Sounder loop card</td>
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<td></td>
<td>YPCB2433</td>
<td>FRE/FPE loop card</td>
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<td>YPCB2222</td>
<td>Loop splitter card</td>
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<td>YPCB2145LED</td>
<td>LED board</td>
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<td>YPCB2202</td>
<td>Single channel Network card</td>
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<tr>
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<td>YPCBNCNCDRUL</td>
<td>Dual channel Network card</td>
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<td>Certified with the following options with requirements from EN 54-2:</td>
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<tr>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
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<tr>
<td></td>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<td>7.10.1 Output to automatic fire protection equipment (Type A)</td>
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<td>7.10.2 Output to automatic fire protection equipment (Type B)</td>
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<td>7.11 Delays to outputs</td>
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<td></td>
<td>7.12.3 Dependencies on more than one alarm signal (Type C)</td>
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<td>7.13 Alarm counter</td>
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<td></td>
<td>8.9 Output to fault warning routing equipment</td>
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</tr>
<tr>
<td></td>
<td>9.5 Disablement of each address point</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td>1. The scope of approval does not include the network functionality.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
</tr>
</tbody>
</table>

COP3000

Incorporating the following units:

| ADF6 Back | Assembled back box |
| YPCB2153 | Motherboard PCB |
| YPCB2147 | PSU PCB |
| YPCB2148 | 2 Loop Card (2 off) |
| ADF6Screen | Touch Screen |
| ZPCB2185 | Complete Display + Micro PCB |
| ADF6 DISPCOVER | Display PCB Cover |
| ADF6FACIA | Front Moulding |
| ADF6PRINTDOOR | Printer Door Moulding |
| BAT-NP12-12 | Batteries (2 off) |
| ADF6HINGE | Door Hinges |
| Incorporating the following optional modules: |
Certificated Products

ADF6OPFACIA  Optional Anti Tamper Cover
ADF6PRINTER  Printer
YPCB2187    Fire Brigade Interface
YPCB2137    Micro Display card
YPCB2319    Sounder loop card
YPCB2433    FRE/FPE loop card
YPCB2222    Loop splitter card
YPCB2145LED LED board
YPCB2202    Single channel Network card
YPCBNCDRUL  Dual channel Network card

Certificated with the following options with requirements from EN 54-2:
7.8  Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment (Type A)
7.10.2 Output to automatic fire protection equipment (Type B)
7.11  Delays to outputs
7.12.3 Dependencies on more than one alarm signal (Type C)
7.13  Alarm counter
8.9  Output to fault warning routing equipment
9.5  Disablement of each address point
10  Test condition

Notes:
1. The scope of approval does not include the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

DF6000
Intelligent Analogue Addressable 1-4 Loop Control and Indicating Equipment 714w/01
Incorporating the following units:
ADF6 Back  Assembled back box
YPCB2153    Motherboard PCB
YPCB2147    PSU PCB
YPCB2148    2 Loop Card (2 off)
ADF6Screen  Touch Screen
ZPCB2185    Complete Display + Micro PCB
ADF6 DISPCOVER Display PCB Cover
ADF6FACIA   Front Moulding
ADF6PRINTDOOR Printer Door Moulding
BAT-NP12-12 Batteries (2 off)
ADF6HINGE   Door Hinges

Incorporating the following optional modules:
ADF6OPFACIA  Optional Anti Tamper Cover
ADF6PRINTER  Printer
YPCB2187    Fire Brigade Interface
YPCB2137    Micro Display card
YPCB2319    Sounder loop card
YPCB2433    FRE/FPE loop card
YPCB2222    Loop splitter card
YPCB2145LED LED board
YPCB2202    Single channel Network card
YPCBNCDRUL  Dual channel Network card

Certificated with the following options with requirements from EN 54-2:
7.8  Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment (Type A)
7.10.2 Output to automatic fire protection equipment (Type B)
7.11  Delays to outputs
7.12.3 Dependencies on more than one alarm signal (Type C)
7.13  Alarm counter
8.9  Output to fault warning routing equipment
9.5  Disablement of each address point
10  Test condition

Notes:
1. The scope of approval does not include the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FX6000
Intelligent Analogue Addressable 1-4 Loop Control and Indicating Equipment 714w/01
Incorporating the following units:
ADF6 Back  Assembled back box
## PART 1: SECTION 3
### CONTROL AND INDICATING EQUIPMENT

### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Motherboard PCB</td>
</tr>
<tr>
<td></td>
<td>PSU PCB</td>
</tr>
<tr>
<td></td>
<td>2 Loop Card (2 off)</td>
</tr>
<tr>
<td></td>
<td>Touch Screen</td>
</tr>
<tr>
<td></td>
<td>Complete Display + Micro PCB</td>
</tr>
<tr>
<td></td>
<td>Display PCB Cover</td>
</tr>
<tr>
<td></td>
<td>Front Moulding</td>
</tr>
<tr>
<td></td>
<td>Printer Door Moulding</td>
</tr>
<tr>
<td></td>
<td>Batteries (2 off)</td>
</tr>
<tr>
<td></td>
<td>Door Hinges</td>
</tr>
</tbody>
</table>

**Incorporating the following optional modules:**

- ADF6OPFACIA: Optional Anti Tamper Cover
- ADF6PRINTER: Printer
- YPCB2187: Fire Brigade Interface
- YPCB2137: Micro Display card
- YPCB2319: Sounder loop card
- YPCB2433: FRE/FPE loop card
- YPCB2222: Loop splitter card
- YPCB2145LED: LED board
- YPCB2220: Single channel Network card
- YPCB2187: Fire Brigade Interface
- YPCB2433: Sounder loop card
- YPCB2145LED: LED board
- YPCB2220: Single channel Network card

Certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.10.1 Output to automatic fire protection equipment (Type A)
- 7.10.2 Output to automatic fire protection equipment (Type B)
- 7.11 Delays to outputs
- 7.12.3 Dependencies on more than one alarm signal (Type C)
- 7.13 Alarm counter
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each address point
- 10 Test condition

Notes:
1. The scope of approval does not include the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

---

### Eaton Cooper Enterprise

<table>
<thead>
<tr>
<th>Rack Mount</th>
<th>714x/01</th>
</tr>
</thead>
</table>

**Incorporating any of the following modules:**

- **VAR Series Routers:**
  - EFC-VAR4(EN54): Router 4x4 DSP EN54

- **EFC-VIPEDIA-12 Series Routers:**
  - EFC-VIPEDIA-12: VIPEDIA 12x12 IP Voice Alarm Router

- **EFC-VIPEDIA-12 Optional modules:**
  - EFC-VIPEDIA-NET: VIPEDIA-12 Network Card
  - EFC-VIPEDIA-NET-4GB: VIPEDIA-12 Network Card with 4GB Audio Storage Inc.
  - VIPA-OS

**Adaptors:**

- EFC-BOA01: RJ45 DIN Terminal Breakout Adaptor Single Port With Terminations
- EFC-BOA02: RJ45 DIN Terminal Breakout Adaptor Four Port Straight Through

**EFC-V2000 Amplifier Frame:**

- EFC-V2000 Amplifier frame for housing D series amplifiers and amplifier interfaces
  - **D Series amplifiers:**
    - EFC-D500: Amplifier Module 500w
    - EFC-D150: Amplifier Module 150w

- **Amplifier interfaces for EFC-V2000 mainframe:**
  - EFC-LSZDC: Dual Line surveillance interface

**EFC-V400 Amplifier frame:**

- EFC-V400 Amplifier frame for housing M series amplifiers and amplifier interfaces
### Control and Indicating Equipment

**Certificated Products**

<table>
<thead>
<tr>
<th>Power supply:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EFC-BPC65</td>
<td>Battery Charger with Mounting Tray 65ah Inc. Cables and Breakers</td>
</tr>
<tr>
<td>EFC-BPC130</td>
<td>Battery Charger with Mounting Tray 130ah Inc. Cables and Breakers</td>
</tr>
</tbody>
</table>

**Optional modules:**

- EFC-EMS01 (MK2) Emergency microphone station - All call
- EFC-EMS01-EC(MK2) Emergency microphone station - All call with euro-cylinder lock
- EFC-EMS10 Emergency microphone station - 10 Button
- EFC-EMS10-EC Emergency microphone station - 10 Button with euro-cylinder lock
- EFC-EMS20 Emergency microphone station - 20 Button
- EFC-EMS20-EC Emergency microphone station - 20 Button with euro-cylinder lock
- EFC-EMS50 Emergency microphone station - 50 Button
- EFC-EMX30 Expansion module for EFC-EMS20 - 30 Button

- EFC-MPS01-F Desk paging and emergency microphone - 1 Button Fist mic
- EFC-MPS01-G Desk paging and emergency microphone - 1 Button Gooseneck mic
- EFC-MPS10-F Desk paging and emergency microphone - 10 Button Fist mic
- EFC-MPS10-G Desk paging and emergency microphone - 10 Button Gooseneck mic
- EFC-MPS20-F Desk paging and emergency microphone - 20 Button Fist mic
- EFC-MPS20-G Desk paging and emergency microphone - 20 Button Gooseneck mic
- EFC-MPS30-F Desk paging and emergency microphone - 30 Button Fist mic
- EFC-MPS30-G Desk paging and emergency microphone - 30 Button Gooseneck mic
- EFC-MPS40-F Desk paging and emergency microphone - 40 Button Fist mic
- EFC-MPS40-G Desk paging and emergency microphone - 40 Button Gooseneck mic
- EFC-MPS50-F Desk paging and emergency microphone - 50 Button Fist mic
- EFC-MPS50-G Desk paging and emergency microphone - 50 Button Gooseneck mic
- EFC-MPX10 Microphone expansion module for EFC-MPS01 - 10 Button

Certified with the following options with requirements from EN54 Part 16:

- 7.6.2 Manual silencing of voice alarm condition
- 7.7.2 Manual reset of the voice alarm condition
- 7.9 Voice alarm condition output
- 8.3 Indication of faults related to the transmission path to the CIE
- 8.4 Indication of faults related to voice alarm zones
- 10 Voice Alarm Manual control (Except on EFC-VAR routers)
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifiers

**Eaton Enterprise Rack Mount VACIE**

Incorporating any of the following modules:

**VAR Series Routers:**
- EF-VAR4(EN54) Router 4x4 DSP EN54

**EF-VIPEDIA-12 Series Routers:**
- EF-VIPEDIA-12 VIPEDIA 12x12 IP Voice Alarm Router

**EF-VIPEDIA-12 Optional modules:**
- EF-VIPEDIA-NET VIPEDIA-12 Network Card
- EF-VIPEDIA-NET-4GB VIPEDIA-12 Network Card with 4GB Audio Storage Inc. VIPA-OS

**Adaptors:**
- EF-BOA01 RJ45 DIN Terminal Breakout Adaptor Single Port With Terminations
- EF-BOA02 RJ45 DIN Terminal Breakout Adaptor Four Port Straight Through

**EF-V2000 Amplifier Frame:**
- EF-V2000 Amplifier frame for housing D series amplifiers and amplifier interfaces

**D Series amplifiers:**
- EF-D500 Amplifier Module 500w
- EF-D150 Amplifier Module 150w

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20 Oct 2020
Amplifier interfaces for EF-V2000 mainframe:
- EF-LSZDC: Dual Line surveillance interface

EF-V400 Amplifier frame: EF-V400 Amplifier frame for housing M series amplifiers and amplifier interfaces

Power supply:
- EF-BPC65: Battery Charger with Mounting Tray 65ah Inc. Cables and Breakers
- EF-BPC130: Battery Charger with Mounting Tray 130ah Inc. Cables and Breakers

Optional modules:
- EF-EMS01 (MK2): Emergency microphone station - All call
- EF-EMS01-EC (MK2): Emergency microphone station - All call with euro-cylinder lock
- EF-EMS10: Emergency microphone station - 10 Button
- EF-EMS10-EC: Emergency microphone station - 10 Button with euro-cylinder lock
- EF-EMS20: Emergency microphone station - 20 Button
- EF-EMS20-EC: Emergency microphone station - 20 Button with euro-cylinder lock
- EF-EMS50: Emergency microphone station - 50 Button
- EF-EMSX30: Expansion module for EF-EMS20 - 30 Button

- EF-MPS01-F: Desk paging and emergency microphone - 1 Button Fist mic
- EF-MPS01-G: Desk paging and emergency microphone - 1 Button Gooseneck mic
- EF-MPS10-F: Desk paging and emergency microphone - 10 Button Fist mic
- EF-MPS10-G: Desk paging and emergency microphone - 10 Button Gooseneck mic
- EF-MPS20-F: Desk paging and emergency microphone - 20 Button Fist mic
- EF-MPS20-G: Desk paging and emergency microphone - 20 Button Gooseneck mic
- EF-MPS30-F: Desk paging and emergency microphone - 30 Button Fist mic
- EF-MPS30-G: Desk paging and emergency microphone - 30 Button Gooseneck mic
- EF-MPS40-F: Desk paging and emergency microphone - 40 Button Fist mic
- EF-MPS40-G: Desk paging and emergency microphone - 40 Button Gooseneck mic
- EF-MPS50-F: Desk paging and emergency microphone - 50 Button Fist mic
- EF-MPS50-G: Desk paging and emergency microphone - 50 Button Gooseneck mic
- EF-MPX10: Microphone expansion module for EF-MPS01 - 10 Button
- EF-MPS01-MB: Wall mount bracket kit for EF-MPS01
- EF-MPS10-MB: Wall mount bracket kit for EF-MPS10 EF-MPS20

Certified with the following options with requirements from EN54 Part 16:
- 7.6.2 Manual silencing of voice alarm condition
- 7.7.2 Manual reset of the voice alarm condition
- 7.9 Voice alarm condition output
- 8.3 Indication of faults related to the transmission path to the CIE
- 8.4 Indication of faults related to voice alarm zones
- 10 Voice Alarm Manual control (Except on EF-VAR routers)
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifiers

Incorporating any of the following modules:
- VAR Series Routers:
  - EFJ-VAR4(EN54): Router 4x4 DSP EN54
- EFJ-VIPEDIA-12 Series Routers:
  - EFJ-VIPEDIA-12: VIPEDIA 12x12 IP Voice Alarm Router
- EFJ-VIPEDIA-12 Optional modules:
  - EFJ-VIPEDIA-NET: VIPEDIA-12 Network Card
  - EFJ-VIPEDIA-NET-4GB: VIPEDIA-12 Network Card with 4GB Audio Storage Inc.
  - VIPA-OS

Adaptors:
- EFJ-BOA01: RJ45 DIN Terminal Breakout Adaptor Single Port With Terminiations
- EFJ-BOA02: RJ45 DIN Terminal Breakout Adaptor Four Port Straight Through
### Certificated Products

**EFJ-V2000 Amplifier Frame:** EFJ-V2000 Amplifier frame for housing D series amplifiers and amplifier interfaces

<table>
<thead>
<tr>
<th>Amplifier Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFJ-D500</td>
<td>Amplifier Module 500w</td>
</tr>
<tr>
<td>EFJ-D150</td>
<td>Amplifier Module 150w</td>
</tr>
</tbody>
</table>

**Amplifier interfaces for EFJ-V2000 mainframe:**

<table>
<thead>
<tr>
<th>Interface Type</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>EFJ-LSZDC</td>
<td>Dual Line surveillance interface</td>
</tr>
<tr>
<td>EFJ-V2000-STBY</td>
<td>V2000 Standby Interface</td>
</tr>
</tbody>
</table>

**EFJ-V400 Amplifier Frame:** EFJ-V400 Amplifier frame for housing M series amplifiers and amplifier interfaces

**Power supply:**

<table>
<thead>
<tr>
<th>Power Supply Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFJ-BPC65</td>
<td>Battery Charger with Mounting Tray 65ah Inc. Cables and Breakers</td>
</tr>
<tr>
<td>EFJ-BPC130</td>
<td>Battery Charger with Mounting Tray 130ah Inc. Cables and Breakers</td>
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</table>

**Optional modules:**

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFJ-EMS01</td>
<td>Emergency microphone station - All call</td>
</tr>
<tr>
<td>EFJ-EMS01-EC</td>
<td>Emergency microphone station - All call with euro-cylinder lock</td>
</tr>
<tr>
<td>EFJ-EMS10</td>
<td>Emergency microphone station - 10 Button</td>
</tr>
<tr>
<td>EFJ-EMS10-EC</td>
<td>Emergency microphone station - 10 Button with euro-cylinder lock</td>
</tr>
<tr>
<td>EFJ-EMS20</td>
<td>Emergency microphone station - 20 Button</td>
</tr>
<tr>
<td>EFJ-EMS20-EC</td>
<td>Emergency microphone station - 20 Button with euro-cylinder lock</td>
</tr>
<tr>
<td>EFJ-EMX30</td>
<td>Expansion module for EFJ-EMS20 - 30 Button</td>
</tr>
<tr>
<td>EFJ-MPS01-F</td>
<td>Desk paging and emergency microphone - 1 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS01-G</td>
<td>Desk paging and emergency microphone - 1 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS10-F</td>
<td>Desk paging and emergency microphone - 10 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS10-G</td>
<td>Desk paging and emergency microphone - 10 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS20-F</td>
<td>Desk paging and emergency microphone - 20 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS20-G</td>
<td>Desk paging and emergency microphone - 20 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS30-F</td>
<td>Desk paging and emergency microphone - 30 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS30-G</td>
<td>Desk paging and emergency microphone - 30 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS40-F</td>
<td>Desk paging and emergency microphone - 40 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS40-G</td>
<td>Desk paging and emergency microphone - 40 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS50-F</td>
<td>Desk paging and emergency microphone - 50 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS50-G</td>
<td>Desk paging and emergency microphone - 50 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPX10</td>
<td>Microphone expansion module for EFJ-MPS01 - 10 Button</td>
</tr>
<tr>
<td>EFJ-MPS01-MB</td>
<td>Wall mount bracket kit for EFJ-MPS01</td>
</tr>
<tr>
<td>EFJ-MPX10-MB</td>
<td>Wall mount bracket kit for EFJ-MPS10 EFJ-MPS20</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN54 Part 16:

- 7.6.2 Manual silencing of voice alarm condition
- 7.7.2 Manual reset of the voice alarm condition
- 7.9 Voice alarm condition output
- 8.3 Indication of faults related to the transmission path to the CIE
- 8.4 Indication of faults related to voice alarm zones
- 10 Voice Alarm Manual control (Except on EFJ-VAR routers)
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifiers

Incorporating any of the following modules:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAR Series Routers: EFM-VAR4(EN54)</td>
<td>Router 4x4 DSP EN54</td>
</tr>
</tbody>
</table>

EFM-VIPEDIA-12 Series Routers:
EFM-VIPEDIA-12 VIPEDIA 12x12 IP Voice Alarm Router

EFM-VIPEDIA-12 Optional modules:
EFM-VIPEDIA-NET VIPEDIA-12 Network Card
EFM-VIPEDIA-NET-4GB VIPEDIA-12 Network Card with 4GB Audio Storage Inc. VIPA-OS

Adaptors:
EFM-BOA01 RJ45 DIN Terminal Breakout Adaptor Single Port With Terminations
EFM-BOA02 RJ45 DIN Terminal Breakout Adaptor Four Port Straight Through


D Series amplifiers:
EFM-D500 Amplifier Module 500w
EFM-D150 Amplifier Module 150w

Amplifier interfaces for EFM-V2000 mainframe:
EFM-LSZDC Dual Line surveillance interface
EFM-V2000-STBY V2000 Standby Interface

EFM-V400 Amplifier frame: EFM-V400 Amplifier frame for housing M series amplifiers and amplifier interfaces

Power supply:
EFM-BPC65 Battery Charger with Mounting Tray 65ah Inc. Cables and Breakers
EFM-BPC130 Battery Charger with Mounting Tray 130ah Inc. Cables and Breakers

Optional modules:
EFM-EMS01 (MK2) Emergency microphone station - All call
EFM-EMS01-EC(MK2) Emergency microphone station - All call with euro-cylinder lock
EFM-EMS10 Emergency microphone station - 10 Button
EFM-EMS10-EC Emergency microphone station - 10 Button with euro-cylinder lock
EFM-EMS20 Emergency microphone station - 20 Button
EFM-EMS20-EC Emergency microphone station - 20 Button with euro-cylinder lock
EFM-EMS30 Emergency microphone station - 30 Button
EFM-EMS30-EC Emergency microphone station - 30 Button with euro-cylinder lock
EFM-MPS01-F Desk paging and emergency microphone - 1 Button Fist mic
EFM-MPS01-G Desk paging and emergency microphone - 1 Button Gooseneck mic
EFM-MPS01-MB Wall mount bracket kit for EFM-MPS01
EFM-MPS30-F Desk paging and emergency microphone - 30 Button Fist mic
EFM-MPS30-G Desk paging and emergency microphone - 30 Button Gooseneck mic
EFM-MPS30-MB Wall mount bracket kit for EFM-MPS30
EFM-MPS40-F Desk paging and emergency microphone - 40 Button Fist mic
EFM-MPS40-G Desk paging and emergency microphone - 40 Button Gooseneck mic
EFM-MPS50-F Desk paging and emergency microphone - 50 Button Fist mic
EFM-MPS50-G Desk paging and emergency microphone - 50 Button Gooseneck mic
EFM-MPX10 Microphone expansion module for EFM-MPS01 - 10 Button
EFM-MPX10-MB Wall mount bracket kit for EFM-MPX10

Certified with the following options with requirements from EN54 Part 16:
7.6.2 Manual silencing of voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10 Voice Alarm Manual control (Except on EFM-VAR routers)
12 Emergency microphone(s)
13.14 Redundant power amplifiers

Incorporating the following:
EFCDAU2000 All-in-one Wall Mount VACIE for D Series amplifiers and amplifier interfaces

Optional modules:
EFC-D500 Amplifier Module 500w
EFC-D150 Amplifier Module 150w
EFC-LSZDC Dual Line surveillance interface
EFC-V2000-STBY V2000 Standby Interface
EFC-BM801 RS485 Interfaced Analogue and Digital I/O Expansion Unit

EFC-VIPEDIA-12 Optional Modules:
EFC-VIPEDIA-NET Vipedia-12 Network Card
EFC-VIPEDIA-NET-4GB Vipedia-12 Network Card with 4GB Audio Storage Inc. VIPA-OS

Adaptors:
EFC-BOA01 RJ45 DIN Terminal Breakout Adaptor Single Port With Terminations
EFC-BOA02 RJ45 DIN Terminal Breakout Adaptor Four Port Straight Through

Optional Emergency Microphones:
EFC-EMS01 (MK2) Emergency microphone station - All call
EFC-EMS01-EC(MK2) Emergency microphone station - All call with euro-cylinder lock
EFC-EMS10 Emergency microphone station - 10 Button
EFC-EMS10-EC Emergency microphone station - 10 Button with euro-cylinder lock
EFC-EMS20 Emergency microphone station - 20 Button
EFC-EMS20-EC Emergency microphone station - 20 Button with euro-cylinder lock
EFC-EMS50 Emergency microphone station - 50 Button
EFC-EMX30 Expansion module for EFC-EMS20 - 30 Button

EFC-MPS01-F Desk paging and emergency microphone - 1 Button Fist mic
EFC-MPS01-G Desk paging and emergency microphone - 1 Button Gooseneck mic
EFC-MPS10-F Desk paging and emergency microphone - 10 Button Fist mic
EFC-MPS10-G Desk paging and emergency microphone - 10 Button Gooseneck mic
EFC-MPS20-F Desk paging and emergency microphone - 20 Button Fist mic
EFC-MPS20-G Desk paging and emergency microphone - 20 Button Gooseneck mic
EFC-MPS30-F Desk paging and emergency microphone - 30 Button Fist mic
EFC-MPS30-G Desk paging and emergency microphone - 30 Button Gooseneck mic
EFC-MPS40-F Desk paging and emergency microphone - 40 Button Fist mic
EFC-MPS40-G Desk paging and emergency microphone - 40 Button Gooseneck mic
EFC-MPS50-F Desk paging and emergency microphone - 50 Button Fist mic
EFC-MPS50-G Desk paging and emergency microphone - 50 Button Gooseneck mic
EFC-MPX10 Microphone expansion module for EFC-MPS01 - 10 Button
EFC-MPS01-MB Wall mount bracket kit for EFC-MPS01
EFC-MPX10-MB Wall mount bracket kit for EFC-MPS10 EFC-MPS20

Certified with the following options with requirements from EN54 Part 16:
7.6.2 Manual silencing of voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10.0 Voice Alarm Manual control
12.0 Emergency microphone(s)
13.14 Redundant power amplifiers

Incorporating the following:
EFDAU2000 All-in-one Wall Mount VACIE for D Series amplifiers and amplifier interfaces
Certificated Products

interfaces

Optional modules:
EF-D500 Amplifier Module 500w
EF-D150 Amplifier Module 150w
EF-LSZDC Dual Line surveillance interface
EF-V2000-STBY V2000 Standby Interface
EF-BMB01 RS485 Interfaced Analogue and Digital I/O Expansion Unit

EF-VIPEDIA-12 Optional Modules:
EF-VIPEDIA-NET Vipedia-12 Network Card
EF-VIPEDIA-NET-4GB Vipedia-12 Network Card with 4GB Audio Storage Inc.
VIPA-OS

Adaptors:
EF-BOA01 RJ45 DIN Terminal Breakout Adaptor Single Port With Termination
EF-BOA02 RJ45 DIN Terminal Breakout Adaptor Four Port Straight Through

Optional Emergency Microphones:
EF-EMS01 (MK2) Emergency microphone station - All call
EF-EMS01-EC(MK2) Emergency microphone station - All call with euro-cylinder lock
EF-EMS10 Emergency microphone station - 10 Button
EF-EMS10-EC Emergency microphone station - 10 Button with euro-cylinder lock
EF-EMS20 Emergency microphone station - 20 Button
EF-EMS20-EC Emergency microphone station - 20 Button with euro-cylinder lock
EF-EMS50 Emergency microphone station - 50 Button
EF-ENX30 Expansion module for EF-EMS20 - 30 Button
EF-MPS01-F Desk paging and emergency microphone - 1 Button Fist mic
EF-MPS01-G Desk paging and emergency microphone - 1 Button Gooseneck mic
EF-MPS10-F Desk paging and emergency microphone - 10 Button Fist mic
EF-MPS10-G Desk paging and emergency microphone - 10 Button Gooseneck mic
EF-MPS20-F Desk paging and emergency microphone - 20 Button Fist mic
EF-MPS20-G Desk paging and emergency microphone - 20 Button Gooseneck mic
EF-MPS30-F Desk paging and emergency microphone - 30 Button Fist mic
EF-MPS30-G Desk paging and emergency microphone - 30 Button Gooseneck mic
EF-MPS40-F Desk paging and emergency microphone - 40 Button Fist mic
EF-MPS40-G Desk paging and emergency microphone - 40 Button Gooseneck mic
EF-MPS50-F Desk paging and emergency microphone - 50 Button Fist mic
EF-MPS50-G Desk paging and emergency microphone - 50 Button Gooseneck mic
EF-MPX10 Microphone expansion module for EF-MPS01 - 10 Button
EF-MPS01-MB Wall mount bracket kit for EF-MPS01
EF-MPS10-MB Wall mount bracket kit for EF-MPS10 EF-MPS20

Certified with the following options with requirements from EN54 Part 16:
7.6.2 Manual silencing of voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10.0 Voice Alarm Manual control
12.0 Emergency microphone(s)
13.14 Redundant power amplifiers

EFJDAU2000 Wall Mounting VACIE

Incorporating the following:
EFJDAU2000 All-in-one Wall Mount VACIE for D Series amplifiers and amplifier interfaces

Optional modules:
EF-JD500 Amplifier Module 500w
EF-JD150 Amplifier Module 150w
EF-JLSZDC Dual Line surveillance interface
EF-JV2000-STBY V2000 Standby Interface
EF-JBMB01 RS485 Interfaced Analogue and Digital I/O Expansion Unit
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>EFJ-VIPEDIA-12 Optional Modules:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EFJ-VIPEDIA-NET Vipedia-12 Network Card</td>
</tr>
<tr>
<td></td>
<td>EFJ-VIPEDIA-NET-4GB Vipedia-12 Network Card with 4GB Audio Storage Inc. VIPA-OS</td>
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#### Adaptors:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFJ-BOA01</td>
<td>RJ45 DIN Terminal Breakout Adaptor - Single Port With Terminations</td>
</tr>
<tr>
<td>EFJ-BOA02</td>
<td>RJ45 DIN Terminal Breakout Adaptor - Four Port Straight Through</td>
</tr>
</tbody>
</table>

#### Optional Emergency Microphones:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>EFJ-EMS01</td>
<td>Emergency microphone station - All call</td>
</tr>
<tr>
<td>EFJ-EMS01-EC</td>
<td>Emergency microphone station - All call with euro-cylinder lock</td>
</tr>
<tr>
<td>EFJ-EMS10</td>
<td>Emergency microphone station - 10 Button</td>
</tr>
<tr>
<td>EFJ-EMS10-EC</td>
<td>Emergency microphone station - 10 Button with euro-cylinder lock</td>
</tr>
<tr>
<td>EFJ-EMS20</td>
<td>Emergency microphone station - 20 Button</td>
</tr>
<tr>
<td>EFJ-EMS20-EC</td>
<td>Emergency microphone station - 20 Button with euro-cylinder lock</td>
</tr>
<tr>
<td>EFJ-EMS50</td>
<td>Emergency microphone station - 50 Button</td>
</tr>
<tr>
<td>EFJ-EMX30</td>
<td>Expansion module for EFJ-EMS20 - 30 Button</td>
</tr>
<tr>
<td>EFJ-MPS01-F</td>
<td>Desk paging and emergency microphone - 1 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS01-G</td>
<td>Desk paging and emergency microphone - 1 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS10-F</td>
<td>Desk paging and emergency microphone - 10 Button Fist mic</td>
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<tr>
<td>EFJ-MPS10-G</td>
<td>Desk paging and emergency microphone - 10 Button Gooseneck mic</td>
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<td>EFJ-MPS20-F</td>
<td>Desk paging and emergency microphone - 20 Button Fist mic</td>
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<td>EFJ-MPS20-G</td>
<td>Desk paging and emergency microphone - 20 Button Gooseneck mic</td>
</tr>
<tr>
<td>EFJ-MPS30-F</td>
<td>Desk paging and emergency microphone - 30 Button Fist mic</td>
</tr>
<tr>
<td>EFJ-MPS30-G</td>
<td>Desk paging and emergency microphone - 30 Button Gooseneck mic</td>
</tr>
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<td>EFJ-MPS40-F</td>
<td>Desk paging and emergency microphone - 40 Button Fist mic</td>
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<td>EFJ-MPS40-G</td>
<td>Desk paging and emergency microphone - 40 Button Gooseneck mic</td>
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<td>EFJ-MPS50-F</td>
<td>Desk paging and emergency microphone - 50 Button Fist mic</td>
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<tr>
<td>EFJ-MPS50-G</td>
<td>Desk paging and emergency microphone - 50 Button Gooseneck mic</td>
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<tr>
<td>EFJ-MPX10</td>
<td>Microphone expansion module for EFJ-MPS01 - 10 Button</td>
</tr>
</tbody>
</table>

**EFMDAU2000**

Incorporating the following:

- In all one Wall Mount VACIE for D Series amplifiers and amplifier interfaces

**EFMDAU2000**

- Amplifier Module 500w
- Amplifier Module 150w
- Dual Line surveillance interface
- V2000 Standby Interface
- RS485 Interfaced Analogue and Digital I/O Expansion Unit
- Vipedia-12 Network Card
- Vipedia-12 Network Card with 4GB Audio Storage Inc. VIPA-OS

#### Adaptors:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>EFM-BOA01</td>
<td>RJ45 DIN Terminal Breakout Adaptor - Single Port With Terminations</td>
</tr>
<tr>
<td>EFM-BOA02</td>
<td>RJ45 DIN Terminal Breakout Adaptor - Four Port Straight Through</td>
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</tbody>
</table>
Optional Emergency Microphones:
EFM-EMS01 (MK2) Emergency microphone station - All call
EFM-EMS01-EC (MK2) Emergency microphone station - All call with euro-cylinder lock
EFM-EMS10 Emergency microphone station - 10 Button
EFM-EMS10-EC Emergency microphone station - 10 Button with euro-cylinder lock
EFM-EMS20 Emergency microphone station - 20 Button
EFM-EMS20-EC Emergency microphone station - 20 Button with euro-cylinder lock
EFM-EMS50 Emergency microphone station - 50 Button
EFM-EMX30 Expansion module for EFM-EMS20 - 30 Button

EFM-MPS01-F Desk paging and emergency microphone - 1 Button Fist mic
EFM-MPS01-G Desk paging and emergency microphone - 1 Button Gooseneck mic
EFM-MPS10-F Desk paging and emergency microphone - 10 Button Fist mic
EFM-MPS10-G Desk paging and emergency microphone - 10 Button Gooseneck mic
EFM-MPS20-F Desk paging and emergency microphone - 20 Button Fist mic
EFM-MPS20-G Desk paging and emergency microphone - 20 Button Gooseneck mic
EFM-MPS30-F Desk paging and emergency microphone - 30 Button Fist mic
EFM-MPS30-G Desk paging and emergency microphone - 30 Button Gooseneck mic
EFM-MPS40-F Desk paging and emergency microphone - 40 Button Fist mic
EFM-MPS40-G Desk paging and emergency microphone - 40 Button Gooseneck mic
EFM-MPS50-F Desk paging and emergency microphone - 50 Button Fist mic
EFM-MPS50-G Desk paging and emergency microphone - 50 Button Gooseneck mic
EFM-MPX10 Microphone expansion module for EFM-MPS01 - 10 Button

Certified with the following options with requirements from EN54 Part 16:
7.6.2 Manual silencing of voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.9 Voice alarm condition output
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
10.0 Voice Alarm Manual control
12.0 Emergency microphone(s)
13.14 Redundant power amplifiers

EFCDP2Z 2 Zone Conventional Fire Alarm Control Panel 714y/01
Incorporating the following modules:
RS-35-24 1.5amp Internal Power Supply Module
TPCA024-2 2 Zone Main PCB
Incorporating the following optional modules:
SWK107 Activate Control Key Switch

Certified with the following options with requirements from EN54 Part 2:
7.8 Output to fire alarm devices
10 Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

EFCDP4Z 4 Zone Conventional Fire Alarm Control Panel 714y/02
Incorporating the following modules:
RS-35-24 1.5amp Internal Power Supply Module
TPCA024-4 4 Zone Main PCB
Incorporating the following optional modules:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
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<th>SWK107</th>
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Certificated with the following options with requirements from EN54 Part 2:

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Notes:

1. The scope of the approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

EFCDP8Z

8 Zone Conventional Fire Alarm Control Panel

Incorporating the following modules:

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<thead>
<tr>
<th>RS-35-24</th>
<th>1.5amp Internal Power Supply Module</th>
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<tbody>
<tr>
<td>TPCA024-8</td>
<td>8 Zone Main PCB</td>
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<tr>
<td>TPCA025</td>
<td>Expansion Card</td>
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Incorporating the following optional modules:

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<th>Activate Control Key Switch</th>
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Certificated with the following options with requirements from EN54 Part 2:

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<th>Test condition</th>
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Notes:

1. The scope of the approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

Elite Security Products (ESP)
Unit 7, Target Park, Shawbank Road, Redditch, Birmingham B98 8YN, United Kingdom
Tel: +44 (0)1527 515150
E-mail: info@espuk.com • Website: https://www.espuk.com/


Control and indicating equipment

Certificated Products

<table>
<thead>
<tr>
<th>MAGDUO2</th>
<th>2 Zone Twin Wire Control and Indicating Equipment</th>
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Incorporating the following units:

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Certificated with the following options with requirements from EN54-2:

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<th>Type A dependency on more than one alarm signal</th>
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<table>
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<th>Test condition</th>
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Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

<table>
<thead>
<tr>
<th>MAGDUO4</th>
<th>4 Zone Twin Wire Control and Indicating Equipment</th>
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</thead>
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Incorporating the following units:

LPCB Ref. No. 331q/06

331q/06
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>331q/08</td>
<td>MAGDUO8 8 Zone Twin Wire Control and Indicating Equipment</td>
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</table>

Incorporating the following units:
10-0067 Main Processor Card.

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm devices
7.10.1 Output type A to fire protection equipment
7.11 Delays to outputs
7.12.1 Type A dependency on more than one alarm signal
10 Test condition.

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13

Eurotech Fire Systems Limited
19/20 Stratfield Park, Elettra Avenue, Waterlooville, Hampshire PO7 7XN, United Kingdom
Tel: +44 (0)203 141 0999 • Fax: +44 (0)239 225 2554
E-mail: MICHELLE.AGIUS@eurotechfire.com • Website: www.eurotechfire.com


Control and indicating equipment

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1213b/01</td>
<td>510-0108A Odyssey Plus One loop, 32 Zone analogue addressable control and indicating equipment.</td>
</tr>
</tbody>
</table>

Incorporating as modular units:
BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Alarm confirmation input from fire alarm routine equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal Type A
7.12.2 Dependencies on more than one alarm signal Type B
7.12.3 Dependencies on more than one alarm signal Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition

510-0208A Odyssey Plus Two loop, 32 Zone analogue addressable control and indicating equipment. 1213b/02

94 20 Oct 2020
Incorporating as modular units:
BRD86BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Dual loop termination board (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Slave CPU card (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routine equipment
7.11 Delay to outputs
7.12 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition

Three loop, 32 Zone analogue addressable control and indicating equipment

Incorporating as modular units:
BRD86BPSC4-A FFP Brigade & Power supply control board (8610)
BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
BRD86FPBS-B FFP Front panel board EN54 (8610)
BRD86MBA4-A FFP Main board LCD (8610)
BRD86MCPU4-B FFP Main 64MB CPU card (8610)
BRD86SCB3-A FFP Two Slave CPU cards (8610)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
PSU1888 Power supply 5A (8610)

Optional Modules:
BRD43EZC2-A 8 Zone conventional module (4310)
BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routine equipment
7.11 Delay to outputs
7.12 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signal from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each addressable point
10 Test condition
### PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>510-0408A Odyssey Plus</td>
<td>1213b/04</td>
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</table>

Incorporating as modular units:
- BRD68BPSC4-A FFP Brigade & Power supply control board (8610)
- BRD86DLTB4-A FFP Two Dual loop termination boards (8610)
- BRD86FPBS-B FFP Front panel board EN54 (8610)
- BRD86MB4-A FFP Main board LCD (8610)
- BRD86MCPU4-B FFP Main 64MB CPU card (8610)
- BRD86SCB3-A FFP Three Slave CPU cards (8610)
- BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)
- PSU1888 Power supply 5A (8610)

Optional Modules:
- BRD86DLTB4-A FFP Dual loop termination board (8610)
- BRD86SCB3-A FFP Slave CPU cards (8610)
- BRD43EZC2-A 8 Zone conventional module (4310)
- BRD43ZAMC2-A 32 Zone alarm MIMIC internal card (4310)

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routine equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal Type A
- 7.12.2 Dependencies on more than one alarm signal Type B
- 7.12.3 Dependencies on more than one alarm signal Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition


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### Control and indicating equipment

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<th>Certificated Products</th>
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<tbody>
<tr>
<td>500-0105A Odyssey</td>
<td>1213a/01</td>
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</table>

Incorporating the following units:
- BRD82MBA Main Termination Board
- BRD82ZICC Zone Interface & Control Card
- PSU2397 Power Supply Unit
- ASS82ZICC Zone Indicator & LCD Assembly (8210)

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routine equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal Type A
- 7.12.2 Dependencies on more than one alarm signal Type B
- 7.12.3 Dependencies on more than one alarm signal Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

Note:
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<tr>
<td>500-0205A Odyssey</td>
<td>1213a/02</td>
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</table>

Incorporating the following units:
- BRD82MBA Main Termination Board
- BRD82ZICC Zone Interface & Control Card
### PART 1: SECTION 3  
CONTROL AND INDICATING EQUIPMENT

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<tr>
<th>Certificated Products</th>
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<tbody>
<tr>
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<td>8210-0001 2nd loop activation Key</td>
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<td>BRD82LSD Loop Activation Board</td>
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<tr>
<td>ASS82ZICC Zone Indicator &amp; LCD Assembly (8210)</td>
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Certificated with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.11 Delay to outputs
- 7.12 Dependencies on more than one alarm signal
- 7.12.1 Type A
- 7.12.2 Type B
- 7.12.3 Type C
- 8.3 Fault signal from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

**Note:**

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**Fike Safety Technology Ltd**  
Unit 31, Springvale Industrial Estate, Cwmbran, Gwent NP44 5BD, United Kingdom  
Tel: +44 (0)1633 865558 • Fax: +44 (0)1633 866656  
E-mail: fstinfo@fike.com • Website: www.fikesafetytechnology.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>507-0001 Quadnet, 4 loop analogue addressable control and indicating equipment</td>
<td>331q 01</td>
</tr>
</tbody>
</table>

Incorporating the following units:

- 10-0049 Main CIE Board
- 10-0050 LED Board
- SP14Q006-T LCD Module
- 10-0051 Backplane
- 10-0058 Loop Card
- 10-0053 PSU Interface

Certificated with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm devices
- 7.10.1 Output to fire protection equipment - Type A
- 7.11 Delays to outputs
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 8.3 Fault signals from points
- 8.9 Fault warning routing equipment
- 9.5 Disablement of each addressable point
- 10 Test condition

**Note:**

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<tr>
<td>510-0001 Duonet, 2 loop analogue addressable control and indicating equipment</td>
<td>331q 04</td>
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Incorporating the following units:

- 10-0049 Main CIE Board
- 10-0050 LED Board
- SP14Q006-T LCD Module
- 10-0069 Backplane
- 10-0058 Loop Card
- 10-0053 PSU Interface

Certificated with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm devices
Certificated Products

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<th>TWINFLEXpro, 2 Zone Twin Wire control and indicating equipment</th>
<th>331q/06</th>
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Incorporating: 10-0067 Main Processor Card.
Certified with the following options from EN 54 Part 2:

- Output to fire alarm devices
- Output type A to fire protection equipment
- Delays to outputs
- Type A dependency on more than one alarm signal
- Test condition.

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<th>TWINFLEXpro, 4 Zone Twin Wire control and indicating equipment</th>
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Incorporating: 10-0067 Main Processor Card.
Certified with the following options from EN 54 Part 2:

- Output to fire alarm devices
- Output type A to fire protection equipment
- Delays to outputs
- Type A dependency on more than one alarm signal
- Test condition.

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<th>TWINFLEXpro, 8 Zone Twin Wire control and indicating equipment</th>
<th>331q/08</th>
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Incorporating: 10-0067 Main Processor Card
10-0087 4 Zone expansion card.
Certified with the following options from EN 54 Part 2:

- Output to fire alarm devices
- Output type A to fire protection equipment
- Delays to outputs
- Type A dependency on more than one alarm signal
- Test condition.

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<th>TWINFLEXpro, 4 Zone Twin Wire and 4 Zone Conventional Control and Indicating Equipment</th>
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</table>
Incorporating the following units:
- 10-0067 Main Processor Card
- 10-0088 4 Zone Conventional Expansion Card
Certified with the following options with requirements from EN54-2:

- Output to fire alarm devices
- Output type A to fire protection equipment
- Delays to outputs
- Type A dependency on more than one alarm signal
- Test condition.

Note: 1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Finder Elektronik A.S.
Liman Mah., 6. Sok., No: 10 07070, Konyaalti, Antalya, Turkey
Tel: +90 242 259 04 20 • Fax: +90 242 259 28 88
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Control and indicating equipment
Certificated Products

FF CF608
8 Zone Conventional Control and Indicating Equipment Incorporating the following units:
Asenware Main Board Main Board
Asenware Interface Board Interface Board
Asenware PSE Power and Charger Board
Asenware Zonal Board 2 x 4 Zone Boards
Asenware EMI EMI Board

Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:
7.8 Output to fire alarm devices (option with requirements)
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FF FCP500
1-4 Loops Analogue Addressable Fire Alarm Control Panel

Incorporating the following modules:
TC5109-Main Main board
TC5109-Loop Loop board
TC5109-KZB Loop base board
TC5109-Key Keypad board
TC5109-ZX Zone and FPE indicator board
TC5109-LCD Display board
TC5109-SCR Indicator board
TC5120-RS485 RS485 board
TC5000-MAIN-CAN CAN board
TC5109-LB1 Filter board 1
TC5109-LB2 Filter board 2
TC5109-POW Power Supply Equipment

Certified with the following options with requirements:
7.8 Output to fire alarm device(s)
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
8.3 Fault signals from point
9.5 Disablement of addressable points

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.
2. Scope of approval does not include the operation of the network functionality.

Fire Fighter CO Security and Safety Equipment Trading LLC
Al Qusais Industry Area 4, P O Box 84926, Dubai, United Arab Emirates
Tel: 00971-4-2554494
E-mail: mutasem@firefighterco1.ae

Control and indicating equipment
Certificated Products

FST-6847

4 Loop Analogue Addressable Control and Indicating Equipment

Incorporating the following modules:
VSL2.908.146 Main Board
VSL2.908.149 Indication board
VSL2.908.155 Terminal board
VSL2.908.162 Control Board
VSL2.908.153 Loop Card
VSL2.908.152 I/O Board
VSL2.908.169 Power Board
VSL7-820-150 Zone Board
VSL7-820-154 Network Card
LRS-150-24 MEAN-WELL Power Supply module

Certified with the following option with requirements for EN54-2:
7.8 Output to fire alarm devices
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm Counter
9.5 Disablement of addressable point
10 Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

Firelite by Honeywell (Pittway Systems Technology Group (Europe) Ltd)
Honeywell Life Safety Systems, Charles Avenue, Burgess Hill, West Sussex RH15 9UF, United Kingdom
Tel: +44 1444 230 300 • Fax: +44 1444 230 888
E-mail: sales@morleyias.co.uk


Certificated Products

FLS2-8 2 Zone

002-475-122 Language region 1, light grey
002-489-122 Language region 1, light grey, English manual
002-475-222 Language region 2, light grey
002-489-222 Language region 2, light grey, English manual

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment: Type A
7.10.3 Output to automatic fire protection equipment: Type C
7.10.4 Fault monitoring of fire protection equipment
7.11.1 Delays to outputs
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

FLS2-8 4 Zone
002-475-142 Language region 1, light grey
002-489-142 Language region 1, light grey, English manual
002-475-242 Language region 2, light grey
002-489-242 Language region 2, light grey, English manual
Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment: Type A
7.10.3 Output to automatic fire protection equipment: Type C
7.10.4 Fault monitoring of fire protection equipment
7.11.1 Delays to outputs
7.11.2 Manual or automatic switching of delays to outputs
7.12.2 Dependency on more than one alarm signal: Type B
8.9 Output to fault warning routing equipment
10 Test condition

FLS2-8 8 Zone
002-475-182 Language region 1, light grey
002-489-182 Language region 1, light grey, English manual
002-475-282 Language region 2, light grey
002-489-282 Language region 2, light grey, English manual
Incorporating the following units:
020-747 8-way relay kit
020-772 4-way monitored sounder kit
Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment: Type A
7.10.3 Output to automatic fire protection equipment: Type C
7.10.4 Fault monitoring of fire protection equipment
7.11.1 Delays to outputs
7.11.2 Manual or automatic switching of delays to outputs
7.12.2 Dependency on more than one alarm signal: Type B
8.9 Output to fault warning routing equipment
10 Test condition

Firesafe
10 Sanderson Way, Marton, Blackpool, Lancashire FY4 4NB, United Kingdom
Tel: 01253 699500 • Fax: 01253 699550
E-mail: info@firesafe.co.uk • Website: www.firesafe.co.uk


Certificated Products

FXP502/X Two Loop, 32 Zone Analogue addressable control and indicating equipment using Apollo
Protocol, Metal housing
Incorporating the following units:
SPF0706000 Switch Mode Power supply board
SPF0501201 XFP Apollo 2 Loop, Main motherboard
SPF0501200 Display board Keypad Display
Certified with the following options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delays to the auctioning of outputs fire alarm devices and fire routing
equipment
7.12.1 Dependencies on more than one alarm signal - Type A
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>7.12.2 Dependencies on more than one alarm signal - Type B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.12.3 Dependencies on more than one alarm signal - Type C</td>
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<tr>
<td></td>
<td>7.13 Alarm counter</td>
</tr>
<tr>
<td></td>
<td>8.3 Fault signals from points</td>
</tr>
<tr>
<td></td>
<td>9.5 Disablement of each address point</td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
</tr>
</tbody>
</table>

Notes:
1. Scope of approval does not include the operation of the network functionality.

FXP501X
One Loop, 32 Zone Analogue addressable control and indicating equipment using Apollo Protocol, Metal housing

Incorporating the following units:

```
SPF0706000  Switch Mode Power supply board
SPF0501211  XFP Apollo 1 Loop, Main motherboard
SPF0501200  Display board Keypad Display
```

Certified with the following options with requirements from EN 54-2:1997

<table>
<thead>
<tr>
<th>7.8</th>
<th>Output to fire alarm device(s)</th>
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</thead>
<tbody>
<tr>
<td>7.11</td>
<td>Delays to the auctioning of outputs fire alarm devices and fire routing equipment</td>
</tr>
<tr>
<td>7.12.1</td>
<td>Dependencies on more than one alarm signal Type A</td>
</tr>
<tr>
<td>7.12.2</td>
<td>Dependencies on more than one alarm signal Type B</td>
</tr>
<tr>
<td>7.12.3</td>
<td>Dependencies on more than one alarm signal Type C</td>
</tr>
<tr>
<td>7.13</td>
<td>Alarm counter</td>
</tr>
<tr>
<td>8.3</td>
<td>Fault signals from points</td>
</tr>
<tr>
<td>9.5</td>
<td>Disablement of each address point</td>
</tr>
<tr>
<td>10</td>
<td>Test condition</td>
</tr>
</tbody>
</table>

Notes:
1. Scope of approval does not include the operation of the network functionality.

FXP501EX
One Loop, 16 Zone Analogue addressable control and indicating equipment using Apollo protocol, Plastic housing

Incorporating the following units:

```
SPF0702480  Switch Mode Power supply board
SPF0501101  XFP Apollo 1 Loop, Main motherboard
```

Certified with the following options with requirements from EN 54-2:1997

<table>
<thead>
<tr>
<th>7.8</th>
<th>Output to fire alarm device(s)</th>
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</thead>
<tbody>
<tr>
<td>7.11</td>
<td>Delays to the auctioning of outputs fire alarm devices and fire routing equipment</td>
</tr>
<tr>
<td>7.12.1</td>
<td>Dependencies on more than one alarm signal Type A</td>
</tr>
<tr>
<td>7.12.2</td>
<td>Dependencies on more than one alarm signal Type B</td>
</tr>
<tr>
<td>7.12.3</td>
<td>Dependencies on more than one alarm signal Type C</td>
</tr>
<tr>
<td>7.13</td>
<td>Alarm counter</td>
</tr>
<tr>
<td>8.3</td>
<td>Fault signals from points</td>
</tr>
<tr>
<td>9.5</td>
<td>Disablement of each address point</td>
</tr>
<tr>
<td>10</td>
<td>Test condition</td>
</tr>
</tbody>
</table>

Notes:
1. Scope of approval does not include the operation of the network functionality.

FCFP2N
Two zone conventional control and indicating equipment

Incorporating the units:

```
SPF0702480  Switch mode power supply unit board
SPF0724851  2 Zone main control board
```

Certified with the following options with requirements from EN 54-2: 1997

<table>
<thead>
<tr>
<th>7.8</th>
<th>Output to fire alarm device(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.11</td>
<td>Delays to outputs</td>
</tr>
<tr>
<td>10</td>
<td>Test condition</td>
</tr>
</tbody>
</table>

FCFP4N
Four zone conventional control and indicating equipment

Incorporating the units:

```
SPF0702480  Switch mode power supply unit board
SPF0724853  4 Zone main control board
```
Certificated Products

FCFP8N Eight zone conventional control and indicating equipment
Incorporating the units:

- SPF0702480 Switch mode power supply unit board
- SPF0724855 8 Zone main control board

Certificated with the following options with requirements from EN 54-2: 1997

- Output to fire alarm devices(s)
- Delays to outputs
- Test condition

LPCB Ref. No.
176b/09

FSDG2 / FSDG4 Dualguard+ 2 and 4 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:

- TPC A01-E2 2 zone main PCB applicable on 2 zone CIE only
- TPC A02 LED display PCB
- PSM1.5-24 Power supply 1.5A rated

Certificated with the following options with requirements from EN 54 Part 2:

- Output to fire alarm devices
- Dependency on more than one alarm signal type A
- Test condition

LPCB Ref. No.
810a/03

FSDG4 Incorporating as modular units:

- TPC A01-E4 4 zone main PCB applicable on 4 zone CIE only
- TPC A02 LED display PCB
- PSM1.5-24 Power supply 1.5A rated

Certificated with the following options with requirements from EN 54 Part 2:

- Output to fire alarm devices
- Dependency on more than one alarm signal type A
- Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

LPCB Ref. No.
810a/04

FSDG8 / FSDG12 Dualguard+ 8 and 12 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:

- TPC A01-X4 4 Zone Main PCB
- TPCA03 Display Board
- TPCA04-H High Spec 4 Zone Extension Board
- PSM3.0-24 Power Supply

Incorporating as optional module:

- TPCA05 Communications Board

FSDG12 12 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:

- TPCA01-X4 4 Zone Main PCB
- TPCA03 Display Board
- TPCA04-S Standard 4 Zone Extension Board
- TPCA04-H High Spec 4 Zone Extension Board
- PSM3.0-24 Power Supply

Incorporating as optional module:

- TPCA05 Communications Board

Certificated with the following options with requirements from EN 54 Part 2:

- Output to fire alarm devices
- Delays to outputs
- Dependency on more than one alarm signal type A
- Dependency on more than one alarm signal type B
- Dependency on more than one alarm signal type C
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

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<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>FX200-2 Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td></td>
<td>FX-IFP8 Intelligent 8 loop, 140 zone analogue addressable control and indicating equipment</td>
</tr>
<tr>
<td></td>
<td>FX102A 2 Zone conventional control and indicating equipment</td>
</tr>
</tbody>
</table>

FIREX Protection System Technology Ltd
28-38 Desborough St, High Wycombe, Buckinghamshire, United Kingdom
Tel: 00971 653 40300 • Fax: 00971 653 40090
E-mail: QC@firexuae.com • Website: www.firexuae.com


Control and indicating equipment
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Control and indicating equipment</th>
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</thead>
<tbody>
<tr>
<td>548p/01</td>
<td>FX200-2 Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td>548p/02</td>
<td>FX-IFP8 Intelligent 8 loop, 140 zone analogue addressable control and indicating equipment</td>
</tr>
<tr>
<td>548p/03</td>
<td>FX102A 2 Zone conventional control and indicating equipment</td>
</tr>
</tbody>
</table>

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Control and indicating equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incorporating as optional modular units: FX9930/ F7.820.913a RS-232 board for configuration FX9901A Printer module kit</td>
</tr>
<tr>
<td>548p/01</td>
<td>Certified with the following options with requirements from EN 54 part 2: 7.8 Output to Fire Alarm Devices 7.10.1 Output to automatic Fire Protection Equipment Type A 7.11 Delays to outputs 8.3 Fault signals from points 9.5 Disablement of addressable points</td>
</tr>
</tbody>
</table>

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Control and indicating equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FX-IFP8 Incorporating the following units: SB-800/ F7.820.1238 Indication board LCIFP8/ F7.820.1239 Loop board PB-800/ F7.820.1311 Power board ZP-800/ F7.820.1312 ZCP board KB-800/ F7.820.1326 Keypad board MB-800/ F7.820.1237 Main board MO-800/ F7.820.1310 Mother board</td>
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<tr>
<td></td>
<td>Incorporating as optional modular units: FX9935/ F7.820.1313 USB communication board</td>
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<tr>
<td>548p/02</td>
<td>Certified with the following options with requirements from EN 54 part 2: 7.8 Output to fire alarm devices 7.9.1 Output to fire routing equipment 7.9.2 Alarm confirmation input from fire routing equipment 7.10.1 Output type A 7.10.2 Output type B 7.11 Delays to outputs 7.12.1 Dependencies on more than one alarm signal - Type A 7.12.2 Dependencies on more than one alarm signal - Type B 7.13 Alarm counter 8.3 Fault signals from points 9.5 Disablement of each address point</td>
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Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Control and indicating equipment</th>
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</thead>
<tbody>
<tr>
<td>548p/03</td>
<td>FX102A Incorporating the following modules: FC-102A/ F7.843.399 Membrane CB-102A/ F2.908.1719 Control board with integrated PSE</td>
</tr>
</tbody>
</table>
## PART 1: SECTION 3
### CONTROL AND INDICATING EQUIPMENT

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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB-102A F2.908.1722 Display board</td>
<td>548p/04</td>
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<tr>
<td>Certified with the following options with requirements from EN 54 Part 2:</td>
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<tr>
<td>7.8 Output to fire alarm devices</td>
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<tr>
<td>7.9.1 Output to fire routing equipment</td>
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<tr>
<td>7.11 Delays to outputs</td>
<td>Test condition</td>
</tr>
<tr>
<td>FX104A 4 Zone Conventional Control and Indicating Equipment</td>
<td>548p/05</td>
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<tr>
<td>Incorporating the following modules:</td>
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<tr>
<td>FC-104A F7.843.400 Membrane</td>
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<tr>
<td>CB-104A F2.908.1675 Control board with integrated PSE</td>
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<tr>
<td>DB-104A F2.908.1720 Display board</td>
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<tr>
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<tr>
<td>7.8 Output to fire alarm devices</td>
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<tr>
<td>7.9.1 Output to fire routing equipment</td>
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<tr>
<td>7.11 Delays to outputs</td>
<td>Test condition</td>
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<tr>
<td>FX108A 8 Zone Conventional Control and Indicating Equipment</td>
<td>548p/06</td>
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<td>Incorporating the following modules:</td>
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<td>FC-108A F7.843.401 Membrane</td>
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<tr>
<td>CB-108A F2.908.1675 Control board with integrated PSE</td>
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<tr>
<td>DB-108A F2.908.1676 Display board</td>
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<tr>
<td>DB-108A F2.908.1720 Display board</td>
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<td>7.8 Output to fire alarm devices</td>
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<td>7.9.1 Output to fire routing equipment</td>
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<td>7.11 Delays to outputs</td>
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<td>FX116A 16 Zone Conventional Control and Indicating Equipment</td>
<td>548p/07</td>
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<td>Incorporating the following modules:</td>
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<td>FC-116A F7.843.402 Membrane</td>
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<tr>
<td>CB-116A F2.908.1724 Control board with integrated PSE</td>
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<tr>
<td>DB-116A F2.908.1676 Display board</td>
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<td>DB-116A F2.908.1720 Display board</td>
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<td>DB-116A F2.908.1677 Expansion board</td>
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<td>7.8 Output to fire alarm devices</td>
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<td>7.9.1 Output to fire routing equipment</td>
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<td>7.11 Delays to outputs</td>
<td>Test condition</td>
</tr>
<tr>
<td>FX200N-2 Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</td>
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<tr>
<td>Incorporating the following units:</td>
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<tr>
<td>MB-220N Main board</td>
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<td>PS-220N Power management board</td>
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<td>OX-220 Terminal board</td>
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<td>ZP-220 Zone indication and intervention board</td>
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<td>SB-220 Switch board</td>
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<tr>
<td>TB-220N Loop interface board</td>
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<tr>
<td>LC200 Loop board</td>
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<td>PDF-150-27.5 Powered SMPS 100-240V power supply</td>
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<tr>
<td>Incorporating as optional modular units:</td>
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<tr>
<td>P-9930 RS-232 board for configuration</td>
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<tr>
<td>P-9901A Printer module kit</td>
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</tr>
<tr>
<td>P-9960A CAN network card loop type board</td>
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</tr>
<tr>
<td>P-9940A Class A network card</td>
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<tr>
<td>P-9930ModBus RS232 Modbus interface card</td>
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<td>P-9960 CAN Class B network card</td>
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<tr>
<td>7.8 Output to Fire Alarm Devices</td>
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<td>7.10.1 Output to automatic Fire Protection Equipment Type A</td>
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<td>7.11 Delays to outputs</td>
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</tr>
<tr>
<td>8.3 Fault signals from points</td>
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<tr>
<td>9.5 Disablement of addressable points</td>
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CONTROL AND INDICATING EQUIPMENT

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<table>
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<tr>
<th>FX200-2/1</th>
<th>Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</th>
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<tbody>
<tr>
<td>Note:</td>
<td>1. Scope of approval does not include the operation of the network functionality</td>
</tr>
<tr>
<td></td>
<td>2. This product approval does not constitute compliance with the fire detection</td>
</tr>
<tr>
<td></td>
<td>and alarm systems requirements of EN54-13</td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>548p/08</td>
</tr>
</tbody>
</table>

Incorporating the following units:
- MB-220/ F7.820.826 Main board
- SB-220/ F7.820.827 Switch board
- TB-220/ F7.820.828 Loop interface board
- PS-220/ F7.820.829b Power supply unit
- ZP-220/ F7.820.312d Zone indication and intervention board

Incorporating as optional modular units:
- FX9930/ F7.820.913a RS-232 board for configuration
- FX9901A Printer module kit
- LC200/ F7.820.1125 Loop board (for loop expansion)

Certified with the following options with requirements from EN 54 part 2:
- 7.8 Output to Fire Alarm Devices
- 7.10.1 Output to automatic Fire Protection Equipment Type A
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of addressable points

Note: can be extended to 2 loop panel by adding LC200 Loop board

Certificated Products

<table>
<thead>
<tr>
<th>FX200N-1</th>
<th>Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note:</td>
<td>1. Can be converted to 2 loop by adding LC200 Loop board</td>
</tr>
<tr>
<td></td>
<td>2. Scope of approval does not include the operation of the network functionality</td>
</tr>
<tr>
<td></td>
<td>3. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13</td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>548p/11</td>
</tr>
</tbody>
</table>

Incorporating the following units:
- MB-220N Main board
- PS-220N Power management board
- OX-220 Terminal board
- ZP-220 Zone indication and intervention board
- SB-220 Switch board
- TB-220N Loop interface board
- PDF-150-27.5 Powered SMPS 100-240V power supply

Incorporating as optional modular units:
- P-9930 RS-232 board for configuration
- P-9901A Printer module kit
- P-9960A CAN network card loop type board
- P-9940A RS485 Class A network card
- P-9930ModBus RS232 Modbus interface card
- P-9960 CAN Class B network card

Certified with the following options with requirements from EN 54 part 2:
- 7.8 Output to Fire Alarm Devices
- 7.10.1 Output to automatic Fire Protection Equipment Type A
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of addressable points

Notes:
- Can be converted to 2 loop by adding LC200 Loop board
- Scope of approval does not include the operation of the network functionality
- This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Frontier Safety Ltd UK
85 Great Portland Street, London, England W1W 7, United Kingdom
Tel: 00447708000050
E-mail: mikefrontiersafety@gmail.com • Website: www.frontierpumps.com

Control and indicating equipment
Certificated Products

FRN 3002
Addressable Fire Alarm Control Panel
Incorporating the following modules:
- SEC3002_IO IO Board
- SEC3002_B Monitoring Board (B Board)
- ZB-9100-A Main CPU Board (A Board)
- PSE10_KZ Power Supply
- SEC3002_OK Zone Indication Board
- SEC3002_KEY Key Board
- SEC3002_FL1 Loop SPU Board

Incorporating the following optional modules:
- SEC3002_COM Communication Board

Certified with the following options with requirements from EN54-2:
- 7.8 Output to fire alarm devices
- 7.10.1 Output type A
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of addressable point
- 10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.
2. Scope of approval does not include the operation of the network functionality.

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Tel: +44 (0)116 246 2000 • Fax: +44 (0)116 246 2300
E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk

Middle East Sales Enquiries
E-mail: gent.export@honeywell.com

Certificate No: 042x to EN 54: Parts 2 & 4: 1997
Certificate No: 042bb to EN 54-2: 1997 and EN 54-4: 1997

Certificated Products

AS-2000
Two loop analogue addressable control and indicating equipment
Incorporating as modular units:
- 2434-824 Power supply
- 2434-710 Loop Processor Card
- 2434-833 Master Control Card
- 2434-825 Optical Network Card*
- 2434-821 Message Store Card*
- 2434-822 Mother board
- 2434-835 H.M.I
- 2434-840 Cold fire card
- 2434-796 Addressable speaker card (Optional Card)*
- 2434-826 Addressable daughter speaker card (Optional Card)*
- 2434-780 Audio Input Card (Optional Card)*
- 2434-781 Audio Output Card (Optional Card)*

Scope of approval does not include the functionality of the network card and optional voice alarm system cards.

Certified with the following options from EN 54 Part 2: 1997
- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Nano-24
Single loop analogue addressable control and indicating equipment

042bb/01
042bc/01
### PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nano-24-SP</strong> Single loop analogue addressable control and indicating equipment (Spanish Language Variant)</td>
<td>042bc/02</td>
</tr>
<tr>
<td>Incorporating as modular units:</td>
<td></td>
</tr>
<tr>
<td>2434-881 Mother board</td>
<td></td>
</tr>
<tr>
<td>2434-862 Power supply</td>
<td></td>
</tr>
<tr>
<td>2434-887 H.M.I (Human Machine Interface)</td>
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</tr>
<tr>
<td>Certified with the following options with requirements from EN 54 Part 2:</td>
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</tr>
<tr>
<td>7.8  Output to fire alarm devices</td>
<td></td>
</tr>
<tr>
<td>7.11 Delays to outputs</td>
<td></td>
</tr>
<tr>
<td>8.3  Fault signals from points</td>
<td></td>
</tr>
<tr>
<td>10  Test condition</td>
<td></td>
</tr>
</tbody>
</table>

| **Nano-24-PO** Single loop analogue addressable control and indicating equipment (Portuguese Language Variant) | 042bc/03      |
| Incorporating as modular units:                            |               |
| 2434-881 Mother board                                      |               |
| 2434-862 Power supply                                      |               |
| 2434-887 H.M.I (Human Machine Interface)                   |               |
| Certified with the following options with requirements from EN 54 Part 2: |               |
| 7.8  Output to fire alarm devices                          |               |
| 7.11 Delays to outputs                                     |               |
| 8.3  Fault signals from points                             |               |
| 10  Test condition                                         |               |

| **Vigilon Compact-24-N** Two loop analogue addressable control and indicating equipment (English language) | 042bc/04      |
| Incorporating as modular units:                            |               |
| 2434-859 Master Controller Board (MCB)                     |               |
| 2434-862 Power Supply Unit                                 |               |
| 2434-762 Display and Key card (DKC)                        |               |
| 2434-669 Loop processor card                               |               |
| 4374-161 Text Membrane (English)                           |               |
| 2434-861 Copper network card                               |               |
| (Note: Scope of approval does not include the operation of the network card) |               |
| Certified with the following options with requirements from EN 54-2: |               |
| 7.8  Output to fire alarm devices                          |               |
| 7.11 Delays to outputs                                     |               |
| 8.3  Fault signals from points                             |               |
| 9.6  Disablement of each address point                     |               |
| 10  Test condition                                         |               |

| **Vigilon Compact-24-PO** Two loop analogue addressable control and indicating equipment (Portuguese language variant) | 042bc/05      |
| Incorporating as modular units:                            |               |
| 2434-859 Master Controller Board (MCB)                     |               |
| 2434-862 Power Supply Unit                                 |               |
| 2434-762 Display and Key card (DKC)                        |               |
| 2434-669 Loop processor card                               |               |
| 4374-163 Text Membrane (Portuguese)                        |               |
| 2434-861 Copper network card                               |               |
| (Note: Scope of approval does not include the operation of the network card) |               |
| Certified with the following options with requirements from EN 54-2: |               |
| 7.8  Output to fire alarm devices                          |               |
| 7.11 Delays to outputs                                     |               |
| 8.3  Fault signals from points                             |               |
| 9.6  Disablement of each address point                     |               |
| 10  Test condition                                         |               |

| **Vigilon Compact-24-SP** Two loop analogue addressable control and indicating equipment (Spanish language variant) | 042bc/06      |
| Incorporating as modular units:                            |               |
| 2434-859 Master Controller Board (MCB)                     |               |
| 2434-862 Power Supply Unit                                 |               |
| 2434-762 Display and Key card (DKC)                        |               |
| 2434-669 Loop processor card                               |               |
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Vigilon VIG1-24</td>
<td>One to Four loop analogue addressable control and indicating equipment</td>
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<tr>
<td>042bc/07</td>
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<tr>
<td>Vigilon VIG1-24-NP</td>
<td>One to Four loop analogue addressable control and indicating equipment</td>
</tr>
<tr>
<td>042bc/08</td>
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<tr>
<td>Vigilon VIG1-24-PO</td>
<td>One to Four loop analogue addressable control and indicating equipment</td>
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<tr>
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<tr>
<td>Vigilon VIG1-24-SP</td>
<td>One to Four loop analogue addressable control and indicating equipment</td>
</tr>
<tr>
<td>042bc/10</td>
<td></td>
</tr>
</tbody>
</table>

Certificated with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Note: Scope of approval does not include the operation of the network card.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2434-710 Loop card</td>
</tr>
<tr>
<td></td>
<td>2434-831 Power supply PCB</td>
</tr>
<tr>
<td></td>
<td>2434-854 Backplane PCB</td>
</tr>
<tr>
<td></td>
<td>2434-861 Display and Key card (D.K.C)</td>
</tr>
<tr>
<td></td>
<td>2434-864 Terminal card</td>
</tr>
<tr>
<td></td>
<td>4374-158 Text Membrane (Spanish)</td>
</tr>
<tr>
<td></td>
<td>2434-674 Copper network card</td>
</tr>
</tbody>
</table>

(Note: Scope of approval does not include the operation of the network card)

Certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Vigilon VIG1-72

One to Six loop analogue addressable control and indicating equipment
(English Language)

Incorporating as modular units:

- 2434-863 Master controller card (M.C.C)
- 2434-710 Loop card
- 2434-992 Thermistor board
- 2434-860 Battery terminal board
- 2434-832 Power supply PCB
- 2434-854 Backplane PCB
- 2434-761 Display and Key card (D.K.C)
- 2434-864 Terminal card
- 2434-565 Printer module
- 4374-157 Text Membrane (English)
- 2434-674 Copper network card

(Note: Scope of approval does not include the operation of the network card)

Certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Vigilon VIG1-72-PO

One to Six loop analogue addressable control and indicating equipment
(Portuguese Language Variant without printer module)

Incorporating as modular units:

- 2434-863 Master controller card (M.C.C)
- 2434-710 Loop card
- 2434-992 Thermistor board
- 2434-860 Battery terminal board
- 2434-832 Power supply PCB
- 2434-854 Backplane PCB
- 2434-761 Display and Key card (D.K.C)
- 2434-864 Terminal card
- 4374-159 Text Membrane (Portuguese)
- 2434-674 Copper network card

(Note: Scope of approval does not include the operation of the network card)

Certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Vigilon VIG1-72-SP

One to Six loop analogue addressable control and indicating equipment
(Spanish Language Variant without printer module)

Incorporating as modular units:

- 2434-863 Master controller card (M.C.C)
- 2434-710 Loop card
- 2434-992 Thermistor board
- 2434-860 Battery terminal board
- 2434-832 Power supply PCB
- 2434-854 Backplane PCB
- 2434-761 Display and Key card (D.K.C)
- 2434-864 Terminal card
- 4374-158 Text Membrane (Spanish)
- 2434-674 Copper network card

(Note: Scope of approval does not include the operation of the network card)
Certificated Products

Certificated with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Nano-24-NO
Single Loop Analogue Addressable Control and Indicating Equipment (Norwegian Language Variant)

Notes:
Incorporating as modular units:
2434-881 Mother board
2434-862 Power supply
2434-887 H.M.I (Human Machine Interface)

Certificated with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
8.3 Fault signals from points
10 Test condition

Compact VA
Two loop voice alarm CIE with distributed mains powered amplifier

Incorporating as modular units within the Compact-VA:
2434-669LUGI Compact Loop Card
2434-859LUGI Compact Network Control Card
2434-862LUGI Compact Network PSU Card
2434-870LUGI Multiformat DKC Compact VA
2434-792 Audio Control Card
2434-023 MPEG Speech Card
2434-722 ACU DKC Card

Incorporating as modular units within the Distributed Amplifier Unit:
2434-897LUGI Mains powered DAU PSU Card
2434-875 Mains Powered DAU Control Card
2434-876 Mains Powered DAU Amplifier
2434-880 MPEG Speech Card

Certificated with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Certificated with the following options with requirements from EN 54-16:
7.3 Audible warning
7.6.2 Manual silencing of the voice alarm condition
7.7.2 Manual reset of the voice alarm condition
7.8 Output to fire alarm devices
8.3 Indication of faults related to the transmission path to the CIE
8.4 Indication of faults related to voice alarm zones
12.0 Emergency microphones
13.14 Redundant power amplifiers

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

13270-02
2 zone conventional control and indicating equipment

Certificated with the following options from EN 54 Part 2: 1997
7.8 Output to fire alarm devices
7.11 Delays of actioning to outputs to fire alarm routing equipment
10 Test condition

Xenex 2 13270-02LB
2 zone conventional control and indicating equipment

(Xenex brand)
Certificated with the following options from EN 54 Part 2: 1997
7.8 Output to fire alarm devices
7.11 Delays of actioning to outputs to fire alarm routing equipment
10 Test condition

13270-04
4 zone conventional control and indicating equipment

Certificated with the following options from EN 54 Part 2: 1997
Certificated Products | LPCB Ref. No.
--- | ---
Xenex 4 13270-04LB | 042x/03
Certified with the following options from EN 54 Part 2: 1997
7.8 Output to fire alarm devices
7.11 Delays of actioning to outputs to fire alarm routing equipment
10 Test condition

13270-08 | 042x/04
8 zone conventional control and indicating equipment
Certified with the following options from EN 54 Part 2: 1997
7.8 Output to fire alarm devices
7.11 Delays of actioning to outputs to fire alarm routing equipment
10 Test condition

Xenex 8 13270-08LB | 042x/04
8 zone conventional control and indicating equipment
(Xenex brand)
Certified with the following options from EN 54 Part 2: 1997
7.8 Output to fire alarm devices
7.11 Delays of actioning to outputs to fire alarm routing equipment
10 Test condition

Gulf Security Technology Co., Ltd.
No 80 Changjiang East Road, QETDZ, Qinhuangdao, Hebei Province 066004, China
Tel: +86 0335 8502434 • Fax: +86 0335 8502532
E-mail: sales@carrier.com • Website: www.gst.com.cn

Control and indicating equipment


Certificated Products | LPCB Ref. No.
--- | ---
GST200-2 | 548p/01
Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment
Incorporating the following units:
MB-220/ F7.820.826 Main board
SB-220/ F7.820.827 Switch board
TB-220/ F7.820.828 Loop interface board
PS-220/ F7.820.829b Power supply unit
ZP-220/ F7.820.312d Zone indication and intervention board
LC200/ F7.820.1125 Loop board
Incorporating as optional modular units:
P-9930/ F7.820.913a RS-232 board for configuration
P-9901A Printer module kit
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment
Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

GST-IFP8 | 548p/02
Intelligent 8 loop, 140 zone analogue addressable control and indicating equipment
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Incorporating the following units:
- SB-800 Indication board
- LCIFFP8 Loop board
- PB-800 Power board
- ZP-800 ZCP board
- KB-800 Keypad board
- MB-800 Main board
- MO-800 Mother board
- PS-800 Switch Mode Power Supply SP-320-27

Incorporating as optional modular units:
- P-9935 USB communication board
- P-9935 Modbus RS232 ModBus Communication Card
- P-9945RP Repeater Card
- P-9945A Class A RS485 Network Card
- P-9965 Class B CAN Network Card
- P-9965A Class A CAN Network Card
- P-9904 Printer Interface Card

Optional language variants:
- GST-IFP8-PT Portuguese language variant
- GST-IFP8-HU Hungarian language variant
- GST-IFP8-FR French language variant
- GST-IFP8-IT Italian language variant
- GST-IFP8-SP Spanish language variant
- GST-IFP8-TK Turkish language variant

Certified with the following options with requirements from EN54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire routing equipment
7.9.2 Alarm confirmation input from fire routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

GST102A 2 Zone conventional control and indicating equipment

Incorporating the following modules:
- FC-102A/ F7.843.399 Membrane
- CB-102A/ F2.908.1719 Control board with integrated PSE
- DB-102A/ F2.908.1722 Display board

Optional modules:
- GST102A-HK Traditional Chinese text variant
- CF-102A/ F7.843.421 Membrane

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire routing equipment
7.11 Delays to outputs
10 Test condition

GST104A 4 Zone conventional control and indicating equipment

Incorporating the following modules:
- FC-104A/ F7.843.400 Membrane
- CB-104A/ F2.908.1718 Control board with integrated PSE
- DB-104A/ F2.908.1721 Display board

Optional modules:
- GST104A-HK Traditional Chinese text variant
- CF-104A/ F7.843.422 Membrane

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products Lpcb Ref. No.

7.9.1 Output to fire routing equipment
7.11 Delays to outputs
10 Test condition

GST108A 8 Zone conventional control and indicating equipment 548p/05
Incorporating the following modules:
FC-108A/ F7.843.401 Membrane
CB-108A/ F2.908.1675 Control board with integrated PSE
DB-108A/ F2.908.1720 Display board

Optional modules:
GST108A-HK Traditional Chinese text variant
CF-108A/ F7.843.423 Membrane

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire routing equipment
7.11 Delays to outputs
10 Test condition

GST116A 16 Zone Conventional Control and Indicating Equipment 548p/06
Incorporating the following modules:
FC-116A/ F7.843.402 Membrane
CB-116A/ F2.908.1724 Control board with integrated PSE
DB-116A/ F2.908.1676 Display board
XB-116A/ F7.820.1677 Expansion board

Optional modules:
GST116A-HK Traditional Chinese text variant
CF-116A/ F7.843.424 Membrane

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire routing equipment
7.11 Delays to outputs
10 Test condition

GST200N-2 Intelligent 2 loop, 30 zone analogue addressable control and indicating equipment 548p/07
Incorporating the following units:
MB-220N Main board
PS-220N Power management board
OX-220 Terminal board
ZP-220 Zone indication and intervention board
SB-220 Switch board
TB-220N Loop interface board
LC200 Loop board
PDF-150-27.5 Powered SMPS 100-240V power supply

Incorporating as optional modular units:
P-9930 RS-232 board for configuration
P-9901A Printer module kit
P-9960A CAN network card loop type board
P-9940A RS485 Class A network card
P-9930ModBus RS232 Modbus interface card
P-9960 CAN Class B network card

Certified with the following options with requirements from EN54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

GST200-2/1 Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment 548p/08
Incorporating the following units:
MB-220/ F7.820.826 Main board
SB-220/ F7.820.827 Switch board
TB-220/ F7.820.828 Loop interface board
PS-220/ F7.820.829b Power supply unit
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

GST200-2/1PT
Incorporating the following units:
- MB-220/ F7.820.826 Main board
- SB-220/ F7.820.827 Switch board
- TB-220/ F7.820.828 Loop interface board
- PS-220/ F7.820.829b Power supply unit
- ZP-220/ F7.820.312d Zone indication and intervention board

Incorporating as optional modular units:
- P-9901A Printer module kit
- P-9930/ F7.820.913a RS-232 board for configuration
- LC200/ F7.820.1125 Loop board (for loop expansion)

Certified with the following options with requirements from EN 54 part 2:
- 7.8 Output to Fire Alarm Devices
- 7.10.1 Output to automatic Fire Protection Equipment
- Type A
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of addressable points

Note: Can be extended to 2-loop panel by adding LC200

GST200-2/1HU
Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
- MB-220/ F7.820.826 Main board
- SB-220/ F7.820.827 Switch board
- TB-220/ F7.820.828 Loop interface board
- PS-220/ F7.820.829b Power supply unit
- ZP-220/ F7.820.312d Zone indication and intervention board

Incorporating as optional modular units:
- P-9901A Printer module kit
- P-9930/ F7.820.913a RS-232 board for configuration
- LC200/ F7.820.1125 Loop board (for loop expansion)

Certified with the following options with requirements from EN 54 part 2:
- 7.8 Output to Fire Alarm Devices
- 7.10.1 Output to automatic Fire Protection Equipment
- Type A
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of addressable points

Note: Can be extended to 2-loop panel by adding LC200

GST200N-1
Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
- MB-220N Main board
- PS-220N Power management board
- OX-220 Terminal board
- ZP-220 Zone indication and intervention board
## PART 1: SECTION 3

### CONTROL AND INDICATING EQUIPMENT

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB-220</td>
<td>Switch board</td>
</tr>
<tr>
<td>TB-220N</td>
<td>Loop interface board</td>
</tr>
<tr>
<td>PDF-150-27.5</td>
<td>Powered SMPS 100-240V power supply</td>
</tr>
</tbody>
</table>

Incorporating as optional modular units:

- P-9930: RS-232 board for configuration
- P-9901A: Printer module kit
- P-9960A: CAN network card loop type board
- P-9940A: RS485 Class A network card
- P-9930ModBus: RS232 Modbus interface card
- P-9960: CAN Class B network card
- ZP-220-GY: Indicator Board (for use with GST200N-HK only)
- ZP-220-RY: Indicator Board (for use with GST200N-HK only)
- ZP-220-GYRY: Indicator Board (for use with GST200N-HK only)
- ZP-220-NULL: Blank Board (for use with GST200N-HK only)

Optional language variants:

- GST200N-PT: Portuguese language variant
- GST200N-HU: Hungarian language variant
- GST200N-FR: French language variant
- GST200N-IT: Italian language variant
- GST200N-SP: Spanish language variant
- GST200N-TK: Turkish language variant
- GST200N-HK: Traditional Chinese language variant
- GST200N-RO: Romanian language variant

Certified with the following options with requirements from EN54 part 2:

- 7.8 Output to Fire Alarm Devices
- 7.10.1 Output to automatic Fire Protection Equipment Type A
- 7.11 Delays to outputs
- 8.3 Fault signals from points
- 9.5 Disablement of addressable points

Notes:

- Can be converted to 2 loops by adding LC200 Loop board
- Scope of approval does not include the operation of the network functionality
- This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

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**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclipse</td>
<td>4 and 2 Zone conventional control and indicating equipment</td>
</tr>
<tr>
<td>ECL-2</td>
<td>Incorporating as modular units:</td>
</tr>
</tbody>
</table>

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CONTROL AND INDICATING EQUIPMENT

Certificated Products

TPC A01- E2 Eclipse two zone main PCB applicable on 2 zone CIE only
TPC A02 ZoneFinder LED display PCB
PSM1.5 - 24 Power supply 1.5A rated

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition
ECL-4

Incorporating as modular units:

TPC A01- E4 Eclipse four zone main PCB applicable on 4 zone CIE only
TPC A02 Eclipse LED display PCB
PSM1.5 - 24 Power supply 1.5A rated

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire
detection and alarm systems requirements of EN 54-13.

Excel-EN

2, 4, 6, 8 and 12 Zone conventional control and indicating equipment

Excel-EN 2 Zone Conventional Control Panel (Manufacturers internal code XLEN-2)
Incorporating as modular units:
TPCA01-X 2 XLEN 2 Zone Main PCB
TPCA03 XLEN Display Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 XLEN Communications Board

Excel-EN 4 Zone Conventional Control Panel (Manufacturers internal code XLEN-4)
Incorporating as modular units:
TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
PSM3.0-24 Power Supply

Excel-EN 6 Zone Conventional Control Panel (Manufacturers internal code XLEN-6H)
Incorporating as modular units:
TPCA01-X2 XLEN 2 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-H XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Excel-EN 8 Zone Conventional Control Panel (Manufacturers internal code XLEN-6)
Incorporating as modular units:
TPCA01-X2 XLEN 2 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-S XLEN Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

Excel-EN 8 Zone Conventional Control Panel (Manufacturers internal code XLEN-8L)
Incorporating as modular units:
TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-S XLEN Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

Excel-EN 8 Zone Conventional Control Panel (Manufacturers internal code XLEN-8)
Excel-EN 12 Zone Conventional Control Panel (Manufacturers internal code XLEN-12)
Incorporating as modular units:
TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-S XLEN Standard 4 Zone Extension Board
TPCA04-H XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Excel-EN 12 Zone Conventional Control Panel (Manufacturers internal code XLEN-12L)
Incorporating as modular units:
TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-S Two XLEN Standard 4 Zone Extension Board
PSM3.0-24 Power Supply

Excel-EN 12 Zone Conventional Control Panel (Manufacturers internal code XLEN-12H)
Incorporating as modular units:
TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-H Two XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

AlarmSense ALS-2 2 Zone AlarmSense conventional control and indicating equipment ALS-4 4 Zone AlarmSense conventional control and indicating equipment

Incorporating as modular units:
TPCA02 Eclipse LED Display & Controls Board
TPCA06-A2 AlarmSense, 2 Zone main PCB
TPCA06-A4 AlarmSense, 4 Zone main PCB (applicable on 4 zone CE only)
PSM1.5 - 24 Power supply 1.5A rated

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm type A
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

AlarmSense Plus 2, 4, 6, 8 and 12 Zone AlarmSense conventional control and indicating equipment

Incorporating as modular units:
TPCA03 XLEN LED Display & Controls Board
TPCA06-P2 AlarmSense Plus, 2 Zone main PCB
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 XLEN Communications Board

ASP-2 2 Zone AlarmSense Conventional Control Panel

Incorporating as modular units:
TPCA03 XLEN LED Display & Controls Board

ASP-4 4 Zone AlarmSense Conventional Control Panel

Incorporating as modular units:
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
</table>
|               | TPCA06-P4 AlarmSense Plus, 4 Zone main PCB  
PSM3.0-24 Power Supply |
|               | Incorporating as optional module:  
TPCA05 XLEN Communications Board |
|               | ASP-6 6 Zone AlarmSense Conventional Control Panel |
|               | Incorporating as modular units:  
TPCA03 XLEN LED Display & Controls Board  
TPCA06-P2 AlarmSense Plus, 2 Zone main PCB  
TPCA07 AlarmSense Plus, 4 zone extension card  
PSM3.0-24 Power Supply |
|               | Incorporating as optional module:  
TPCA05 XLEN Communications Board |
|               | ASP-8 8 Zone AlarmSense Conventional Control Panel |
|               | Incorporating as modular units:  
TPCA03 XLEN LED Display & Controls Board  
TPCA06-P4 AlarmSense Plus, 4 Zone main PCB  
TPCA07 AlarmSense Plus, 4 zone extension card  
PSM3.0-24 Power Supply |
|               | Incorporating as optional module:  
TPCA05 XLEN Communications Board |
|               | ASP-12 12 Zone AlarmSense Conventional Control Panel |
|               | Incorporating as modular units:  
TPCA03 XLEN LED Display & Controls Board  
TPCA06-P4 AlarmSense Plus, 4 Zone main PCB  
TPCA07 AlarmSense Plus, 4 zone extension card x 2  
PSM3.0-24 Power Supply |
|               | Incorporating as optional module:  
TPCA05 XLEN Communications Board |

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 7.12.1 Dependency on more than one alarm signal type A
- 7.12.2 Dependency on more than one alarm signal type B
- 7.12.3 Dependency on more than one alarm signal type C

**Note:**

1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

### XL32

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16, 24 and 32 Zone conventional control and indicating equipment</td>
</tr>
<tr>
<td>810a/08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Zone Conventional Control Panel</td>
</tr>
</tbody>
</table>

Incorporating as modular units:

- TPCA10 32 Zone LED display PCB
- TPCA11-16 16 Zone Main PCB
- TPCA12 Power supply PCB

and as optional units:

- TPCR01 Relay PCB
- TPCR03 Isolate Switch PCB
- TPCA09 Sounder card PCB
- TPCA08 Output Card PCB
- TPCA05 XLEN Communications Board
Certificated Products

XL32-24  24 Zone Conventional Control Panel

Incorporating as modular units:

TPCA10  32 Zone LED display PCB
TPCA11-24  24 Zone Main PCB
TPCA12  Power supply PCB

and as optional units:

TPCR01  Relay PCB
TPCR03  Isolate Switch PCB
TPCA09  Sounder card PCB
TPCA08  Output Card PCB
TPCA05  XLEN Communications Board

XL32-32  32 Zone Conventional Control Panel

Incorporating as modular units:

TPCA10  32 Zone LED display PCB
TPCA11-32  32 Zone Main PCB
TPCA12  Power supply PCB

and as optional units:

TPCR01  Relay PCB
TPCR03  Isolate Switch PCB
TPCA09  Sounder card PCB
TPCA08  Output Card PCB
TPCA05  XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-2 / 4  2 Zone conventional control and indicating equipment

ESEN-2
Incorporating as modular units: TPC A01- S2 Eclipse two zone main PCB applicable on 2 zone CIE only
TPC A02 Eclipse LED display PCB
PSM1.5 - 24 Power supply 1.5A rated
Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition

Note: 1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-4
Incorporating as modular units: TPC A01- S4 Eclipse four zone main PCB applicable on 4 zone CIE only
TPC A02 Eclipse LED display PCB
PSM1.5 - 24 Power supply 1.5A rated
Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition

Note: 1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-8  8 Zone conventional control and indicating equipment

ESENTO 8 Zone Conventional Control Panel (Manufacturers internal code ESEN-8)
PART 1: SECTION 3
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Certificated Products

Incorporating as modular units:
TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-H XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 7.12.1 Dependency on more than one alarm signal type A
- 7.12.2 Dependency on more than one alarm signal type B
- 7.12.3 Dependency on more than one alarm signal type C
- 10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-12
12 Zone conventional control and indicating equipment

TPCA01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-H XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply

Incorporating as optional module:
TPCA05 XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.11 Delays to outputs
- 7.12.1 Dependency on more than one alarm signal type A
- 7.12.2 Dependency on more than one alarm signal type B
- 7.12.3 Dependency on more than one alarm signal type C
- 10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-16
16 Zone conventional control and indicating equipment

Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-16 16 Zone Main PCB
TPCA12 Power supply PCB

and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
TPCA05 XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.11 Delays to outputs
- 7.12.1 Dependency on more than one alarm signal type A
- 7.12.2 Dependency on more than one alarm signal type B
- 7.12.3 Dependency on more than one alarm signal type C
- 10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
Certificated Products

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-24
24 Zone conventional control and indicating equipment
ESENTO 24 Zone Conventional Control Panel
Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-24 24 Zone Main PCB
TPCA12 Power supply PCB

and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
TPCA05 XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-32
32 Zone conventional control and indicating equipment
ESENTO 32 Zone Conventional Control Panel
Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-32 32 Zone Main PCB
TPCA12 Power supply PCB

and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
TPCA05 XLEN Communications Board

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

ESEN-R-12MAR
12 Zone Repeater Panel is approved for use with the ESEN 8-12 Zone Control and Indicating Equipment
HEC-1 / HEC-1K
HEC-1 1 Zone Conventional Fire Alarm Control Panel
HEC-1K 1 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch

Incorporating the following modules:
RS-35-24 1.5amp Internal Power Supply Module
TPCA024-1 1 Zone Main PCB
<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td><strong>HEC-2 / HEC-2K</strong></td>
<td>810m/02</td>
</tr>
<tr>
<td>HEC-2 2 Zone Conventional Fire Alarm Control Panel</td>
<td></td>
</tr>
<tr>
<td>HEC-2K 2 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch</td>
<td></td>
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<tr>
<td>Incorporating the following modules:</td>
<td></td>
</tr>
<tr>
<td>RS-35-24 1.5amp Internal Power Supply Module</td>
<td></td>
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<tr>
<td>TPCA024-2 2 Zone Main PCB</td>
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<td>Incorporating the following optional modules:</td>
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<tr>
<td>SWK107 Activate Control Key Switch</td>
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<tr>
<td>Certified with the following options with requirements from EN54 Part 2:</td>
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<tr>
<td>7.8 Output to fire alarm devices</td>
<td></td>
</tr>
<tr>
<td>10 Test condition</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The scope of the approval does not include the operation of the network functionality</td>
<td></td>
</tr>
<tr>
<td>2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
</tr>
</tbody>
</table>

| **HEC-4 / HEC-4K**   | 810m/03      |
| HEC-4 4 Zone Conventional Fire Alarm Control Panel |                |
| HEC-4K 4 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch |                |
| Incorporating the following modules: |                |
| RS-35-24 1.5amp Internal Power Supply Module |                |
| TPCA024-4 4 Zone Main PCB |                |
| Incorporating the following optional modules: |                |
| SWK107 Activate Control Key Switch |                |
| Certified with the following options with requirements from EN54 Part 2: |                |
| 7.8 Output to fire alarm devices |                |
| 10 Test condition |                |
| Notes: |                |
| 1. The scope of the approval does not include the operation of the network functionality |                |
| 2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |                |

| **HEC-8 / HEC-8K**   | 810m/04      |
| HEC-8 8 Zone Conventional Fire Alarm Control Panel |                |
| HEC-8K 8 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch |                |
| Incorporating the following modules: |                |
| RS-35-24 1.5amp Internal Power Supply Module |                |
| TPCA024-8 8 Zone Main PCB |                |
| TPCA025 Expansion Card |                |
| Incorporating the following optional modules: |                |
| SWK107 Activate Control Key Switch |                |
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Certificated Products

Certificated with the following options with requirements from EN54 Part 2:

7.8 Output to fire alarm devices
10 Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

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Control and indicating equipment
Certificated Products

Hochiki Latitude 2 to 8 Loop Analogue Addressable Control and Indicating Equipment 2 to 16 Loop Analogue Addressable Control and Indicating Equipment
Incorporating the following units:

S721 LCD Main Processor Board
S722 Main Back Board
S723 Network, Ethernet & IFAM Interface Module
S758 Dual loop Module (Hochiki protocol)
S769 System Board A module
S770 System Board B Module
S771 Zone LED Board
S787 Vision Unit
S768 Thermal Printer Assembly
S406-06 5.25 Amp Power Supply Unit

Incorporating the following optional modules:

S408 10.25 Amp Power Supply Unit
S772 16 Channel I/O card
S791 8w Relay card
S792 8w conventional zone card
S788 Media gateway card
S793 4w sounder card
S786 4 slot expansion board (used for extension for the optional I/O boards)

Certificated with the following Options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.3 Output to type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of certification does not include the operation of the network functionality.
2. This certificate does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
### Control and indicating equipment

**Certificated Products**

<table>
<thead>
<tr>
<th>Description</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>HFP VA-RMV2</td>
<td>164v/01</td>
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</tbody>
</table>
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CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>BEL10</th>
<th>EOL Monitor x 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BEL1IP</td>
<td>EOL Monitor (Weatherproof)</td>
</tr>
</tbody>
</table>

2. The VACIE speaker lines are monitored by use of the following modules namely BEL1, BEL10, BEL1IP in combination with a BVRDNC or BVRDACO, or via a BVLAM, BVRDAC or BVRDADIM / BVRDADIS.

3. The VACIE was tested when connected to BVRAMB / BVRAMBIP Ambient Noise Sensing Microphone.

4. The following cabinets have been approved for use with Vigil 2 Rack Mounted VACIE when modified by Baldwin Boxall to meet IP30:
   - RK20UN
   - RK20UDN
   - RK25UN
   - RK25UDN
   - RK34UN
   - RK34UDN
   - RK38UN
   - RK38UDN
   - RK43UN
   - RK43UDN
   - RK47UN
   - RK47UDN

This certificate is valid only when the installation has been performed in accordance with the Vigil 2 Rack Mount VACIE EN54 System Design and Build Requirements LPCB.

HFP VA-WMV2

BVECASE3 ECLIPSE3 c/w BVRD2M4 & BVL4
BVECASE3FM Eclipse3 Fire Microphone Module (Red)
BFM401 400 Series Fire Mic. Single Zone
BFM404 400 Series Fire Mic 4 Zone
BFM408 400 Series Fire Mic 8 Zone
BMS8 Mic I/F Box RJ45 (BDM440 Series)
BV050Q Vigil 2 50 Watt Quad Amplifier
BV125D Vigil 125W Dual Amp
BV225 Vigil 225W Amp
BVRD2M4 DSP VA Mini Router (4 Channel)
BVRD2M4ACO Amp/Line Monitor & Changeover Module for BVRD2M4
BVRD8 Voice Alarm Mic 8 Zone
BVRD16 Voice Alarm Mic 16 Zone
BVRD24 Voice Alarm Mic 24 Zone
BVRD32 Voice Alarm Mic 32 Zone
BVRD40 Voice Alarm Mic 40 Zone
BVRD48 Voice Alarm Mic 48 Zone
BVRD56 Voice Alarm Mic 56 Zone
BVRD64 Voice Alarm Mic 64 Zone
BVRDOSIF Copper Interface for BVRDNET
BVRDOSIFIB Fibre Optic Interface for BVRDNET (Multi Mode)
BVRDOSOFFS Fibre Optic Interface for BVRDNET (Single Mode)
BVRDNET2M4 BVRD2M4 Network Card
BVSM Vigil 2 PSU/Charger Single O/P
BVSMPLT Vigil 2 PSU/Charger Single O/P

Certified with the following options with requirements from EN 54-16:
- 7.5 Phased evacuation
- 8.4 Indication of faults related to voice alarm zones
- 10. Voice alarm manual control
- 12 Emergency microphone(s)
- 13.14 Redundant power amplifiers

Notes:

1. The Vigil 2 Eclipse 3 Wall Mounted VACIE is approved when connected with the following monitoring modules
   - BEL1 EOL Monitor
   - BEL10 EOL Monitor x 10
   - BEL1IP EOL Monitor (Weatherproof)

2. The VACIE speaker lines are monitored by use of the following modules namely BEL1, BEL10, or BEL1IP.

   The VACIE was tested when connected to BVRAMB / BVRAMBIP Ambient Noise Sensing Microphone.

HFP Latitude

2 to 8 Loop Analogue Addressable Control and Indicating Equipment
2 to 16 Loop Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
- S721 LCD Main Processor Board
- S722 Main Back Board
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>S723</td>
<td>Network, Ethernet &amp; IFAM Interface Module</td>
</tr>
<tr>
<td>S758</td>
<td>Dual loop Module (Hochiki protocol)</td>
</tr>
<tr>
<td>S769</td>
<td>System Board A module</td>
</tr>
<tr>
<td>S770</td>
<td>System Board B Module</td>
</tr>
<tr>
<td>S771</td>
<td>Zone LED Board</td>
</tr>
<tr>
<td>S787</td>
<td>Vision Unit</td>
</tr>
<tr>
<td>S768</td>
<td>Thermal Printer Assembly</td>
</tr>
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<td>S766</td>
<td>5.25 Amp Power Supply Unit</td>
</tr>
<tr>
<td>S408</td>
<td>10.25 Amp Power Supply Unit</td>
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<tr>
<td>S772</td>
<td>16 Channel I/O card</td>
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<tr>
<td>S791</td>
<td>8w Relay card</td>
</tr>
<tr>
<td>S792</td>
<td>8w conventional zone card</td>
</tr>
<tr>
<td>S788</td>
<td>Media gateway card</td>
</tr>
<tr>
<td>S793</td>
<td>4w sounder card</td>
</tr>
<tr>
<td>S786</td>
<td>4 slot expansion board (used for extension for the optional I/O boards)</td>
</tr>
</tbody>
</table>

Incorporating the following optional modules:

- S408 10.25 Amp Power Supply Unit
- S772 16 Channel I/O card
- S791 8w Relay card
- S792 8w conventional zone card
- S788 Media gateway card
- S793 4w sounder card
- S786 4 slot expansion board (used for extension for the optional I/O boards)

Certified with the following Options with requirements from EN 54-2:1997
- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.3 Output to type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition

Notes:
- 1. Scope of certification does not include the operation of the network functionality.
- 2. This certificate does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
- 3. The HFP Latitude CIE is certified with the M5 shallow enclosure and D5 deep enclosure.

Honeywell Control Systems Ltd
Honeywell House, Arlington Business Park, Bracknell, Berkshire RG12 1EB, United Kingdom
Tel: 01344 655609 • Fax: 01344 655474
Website: www.honeywell.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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<tbody>
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<td>XLS80e</td>
<td>Basic Equipment Kit, (BEK): Modular analogue addressable control and indicating equipment.</td>
</tr>
<tr>
<td>020-538-101</td>
<td>XLS80e Basic Equipment Kit, Group 1</td>
</tr>
<tr>
<td>020-538-103</td>
<td>XLS80e Basic Equipment Kit, Group 3</td>
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<tr>
<td>020-538-104</td>
<td>XLS80e Basic Equipment Kit, Group 4</td>
</tr>
<tr>
<td>020-538-105</td>
<td>XLS80e Basic Equipment Kit, Group 5</td>
</tr>
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</table>

Incorporating the following as modular units:

Enclosures:
- 020-040-002 Cover Kit Extended Moulded, Light / Grey
- 020-472-002 Backbox Kit Standard, Light Grey
- 020-473-002 Backbox Kit Extended, Light Grey
- 020-474-002 Backbox Kit Extended Deep, Light Grey
- 020-476-002 Backbox Kit Double Extended, Light Grey
- 020-480-102 Main Cover Kit, Light / Grey
**Certificated Products**

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<thead>
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<th>Description</th>
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<td>Extension Cover Kit, Light / Grey</td>
</tr>
<tr>
<td>020-509-002</td>
<td>Backbox Extension Deep Assembly Light / Grey</td>
</tr>
<tr>
<td>020-621-002</td>
<td>256 Zone Extension Cover, Light / Grey</td>
</tr>
<tr>
<td>020-541-102</td>
<td>PSU7A / 78Ah Battery Enclosure</td>
</tr>
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</table>

**Modules:**

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<th>Description</th>
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<td>Extension Chassis with Printer Kit</td>
</tr>
<tr>
<td>020-644-009</td>
<td>Printer Assembly</td>
</tr>
<tr>
<td>020-559-101</td>
<td>Zone Extension Chassis Kit 1-64 Zone C/W Display Module</td>
</tr>
<tr>
<td>020-559-102</td>
<td>Zone Extension Chassis Kit 65-128 Zone C/W Display Module</td>
</tr>
<tr>
<td>020-612-100</td>
<td>Double Extended Chassis Kit 256 Zone</td>
</tr>
<tr>
<td>020-708-009</td>
<td>Extension Chassis with Printer</td>
</tr>
<tr>
<td>020-644-009</td>
<td>Printer Assembly</td>
</tr>
<tr>
<td>020-588-100</td>
<td>Honeywell Dual Loop Interface Board, (LIB)</td>
</tr>
<tr>
<td>020-549-100</td>
<td>Honeywell Dual Enhanced Loop Interface Board, (ELIB)</td>
</tr>
<tr>
<td>020-478</td>
<td>RS232 Interface</td>
</tr>
<tr>
<td>020-479</td>
<td>RS485 Interface</td>
</tr>
<tr>
<td>020-648</td>
<td>PSU3A</td>
</tr>
<tr>
<td>020-559-101</td>
<td>Zone Extension Chassis Kit 1-64 Zone C/W Display Module</td>
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<td>020-559-102</td>
<td>Zone Extension Chassis Kit 65-128 Zone C/W Display Module</td>
</tr>
<tr>
<td>020-612-100</td>
<td>Double Extended Chassis Kit 256 Zone</td>
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</table>

Certified with the following options with requirements:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
7.10.3 Output to fire protection equipment type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablements of addressable points
10 Test condition

**Note 1:** Products are available in language variants as follows:

- **Group 1:** English, Spanish, Portuguese, Icelandic and Italian
- **Group 3:** English, Swedish, Danish, Norwegian and Finnish
- **Group 4:** English, Czech and Polish
- **Group 5:** English and Cyrillic

**Note 2:** Fixed build products incorporate a corresponding Basic Equipment Kit.

**XLS80e-2L**

Fixed build 2 loop analogue addressable control and indicating equipment.

- 020-692 XLS80e-2L-1, 2 Loop, PSU3A, Group 1
- 020-692-103 XLS80e-2L-3, 2 Loop, PSU3A, Group 3
- 020-692-104 XLS80e-2L-4, 2 Loop, PSU3A, Group 4
- 020-692-105 XLS80e-2L-5, 2 Loop, PSU3A, Group 5

Incorporating the following as modular units:

**Enclosures:**

- 020-040-002 Cover Kit Extended Moulded, Light / Grey
- 020-472-002 Backbox Kit Standard, Light Grey
- 020-473-002 Backbox Kit Extended, Light Grey
- 020-474-002 Backbox Kit Extended Deep, Light Grey
- 020-475-002 Backbox Kit Double Extended, Light Grey
- 020-476-002 Backbox Kit Double Extended Deep, Light Grey
- 020-480-102 Main Cover Kit, Light / Grey
- 020-601-002 Extension Cover Kit, Light / Grey
- 020-559-102 Backbox Extension Deep Assembly Light / Grey
- 020-621-002 256 Zone Extension Cover, Light / Grey
- 020-541-102 PSU7A / 78Ah Battery Enclosure

**Modules:**

- 020-708-100 Extension Chassis with Printer Kit
- 020-644-009 Printer Assembly
- 020-559-101 Zone Extension Chassis Kit 1-64 Zone C/W Display Module
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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<tbody>
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<td>Zone Extension Chassis Kit 65-128 Zone C/W Display Module</td>
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<tr>
<td>020-612-100</td>
<td>Double Extended Chassis Kit 256 Zone</td>
</tr>
<tr>
<td>020-708-009</td>
<td>Extension Chassis with Printer</td>
</tr>
<tr>
<td>020-644-009</td>
<td>Printer Assembly</td>
</tr>
<tr>
<td>020-588-100</td>
<td>Honeywell Dual Loop Interface Board, (LIB)</td>
</tr>
<tr>
<td>020-549-100</td>
<td>Honeywell Dual Enhanced Loop Interface Board, (ELIB)</td>
</tr>
<tr>
<td>020-478</td>
<td>RS232 Interface</td>
</tr>
<tr>
<td>020-479</td>
<td>RS485 Interface</td>
</tr>
<tr>
<td>020-648</td>
<td>PSU3A</td>
</tr>
<tr>
<td>020-579</td>
<td>PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)</td>
</tr>
<tr>
<td>020-548</td>
<td>PSU7A Status Indication</td>
</tr>
<tr>
<td>020-543</td>
<td>Dual Transmission Path / Booster, PSU Interface</td>
</tr>
<tr>
<td>020-773</td>
<td>Routing Termination Unit (DEOL)</td>
</tr>
<tr>
<td>020-877</td>
<td>Extinguishing Interface Module M221-SI</td>
</tr>
<tr>
<td>020-643</td>
<td>XLS80e-NI Fibre Optic Interface Kit</td>
</tr>
<tr>
<td>020-647-100</td>
<td>XLS80e-NI Network Gateway Module, (NGM) for use in XLS80e Panel</td>
</tr>
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</table>

Certified with the following options with requirements:

7.8  Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
7.10.3 Output to fire protection equipment type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disabilities of addressable points
10 Test condition

Note 1: Products are available in language variants as follows:
Group 1: English, Spanish, Portuguese, Icelandic and Italian
Group 3: English, Swedish, Danish, Norwegian and Finish
Group 4: English, Czech and Polish
Group 5: English and Cyrillic

XLS80e-4L

Certificated products incorporate a corresponding Basic Equipment Kit.
Fixed build products incorporate a corresponding Basic Equipment Kit.

XLS80e-4L Fixed build 4 loop analogue addressable control and indicating equipment.

020-693 XLS80e-4L-1, 4 Loop, PSU3A, Group 1
020-693-103 XLS80e-4L-3, 4 Loop, PSU3A, Group 3
020-693-104 XLS80e-4L-4, 4 Loop, PSU3A, Group 4
020-693-105 XLS80e-4L-5, 4 Loop, PSU3A, Group 5

Incorporating the following as modular units:

Enclosures:
020-040-002 Cover Kit Extended Moulded, Light / Grey
020-472-002 Backbox Kit Standard, Light Grey
020-473-002 Backbox Kit Extended, Light Grey
020-474-002 Backbox Kit Extended Deep, Light Grey
020-475-002 Backbox Kit Double Extended, Light Grey
020-476-002 Backbox Kit Double Extended Deep, Light Grey
020-480-102 Main Cover Kit, Light / Grey
020-481-002 Extension Cover Kit, Light / Grey
020-509-002 Backbox Extension Deep Assembly Light / Grey
020-621-002 256 Zone Extension Cover, Light / Grey
020-541-102 PSU7A / 78Ah Battery Enclosure

Modules:
020-708-100 Extension Chassis with Printer Kit
020-644-009 Printer Assembly
020-559-101 Zone Extension Chassis Kit 1-64 Zone C/W Display Module
020-559-102 Zone Extension Chassis Kit 65-128 Zone C/W Display Module
020-612-100 Double Extended Chassis Kit 256 Zone
020-708-009 Extension Chassis with Printer
020-644-009 Printer Assembly
020-588-100 Honeywell Dual Loop Interface Board, (LIB)
020-549-100 Honeywell Dual Enhanced Loop Interface Board, (ELIB)
020-478 RS232 Interface
020-479 RS485 Interface
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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<td>PSU3A</td>
</tr>
<tr>
<td>020-579</td>
<td>PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)</td>
</tr>
<tr>
<td>020-548</td>
<td>PSU7A Status Indication</td>
</tr>
<tr>
<td>020-543</td>
<td>Dual Transmission Path / Booster, PSU Interface</td>
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<tr>
<td>020-773</td>
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<td>XLS80e-NI Fibre Optic Interface Kit</td>
</tr>
<tr>
<td>020-647-100</td>
<td>XLS80e-NI Network Gateway Module, (NGM) for use in XLS80 Panel</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements:

7.8  Output to fire alarm devices
7.9  Output to fire alarm routing equipment
7.9.1 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
7.10.3 Output to fire protection equipment type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
7.13 Alarm counter
8.3  Fault signals from points
8.9  Output to fault warning routing equipment
9.5  Disablaments of addressable points
10  Test condition

Note 1: Products are available in language variants as follows:
- Group 1: English, Spanish, Portuguese, Icelandic and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
- Group 4: English, Czech and Polish
- Group 5: English and Cyrillic

Note 2: Fixed build products incorporate a corresponding Basic Equipment Kit. XLS80e-6L

Fixed build 6 loop analogue addressable control and indicating equipment.

<table>
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<th>Description</th>
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</thead>
<tbody>
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<td>XLS80e-6L-1, 6 Loop, PSU7A, Group 1</td>
</tr>
<tr>
<td>020-694-104</td>
<td>XLS80e-6L-4, 6 Loop, PSU7A, Group 4</td>
</tr>
<tr>
<td>020-694-105</td>
<td>XLS80e-6L-5, 6 Loop, PSU7A, Group 5</td>
</tr>
</tbody>
</table>

Incorporating the following as modular units:

Enclosures:
- 020-040-002 Cover Kit Extended Moulded, Light / Grey
- 020-472-002 Backbox Kit Standard, Light Grey
- 020-473-002 Backbox Kit Extended, Light Grey
- 020-474-002 Backbox Kit Extended Deep, Light Grey
- 020-475-002 Backbox Kit Double Extended, Light Grey
- 020-476-002 Backbox Kit Double Extended Deep, Light Grey
- 020-480-102 Main Cover Kit, Light / Grey
- 020-481-002 Extension Cover Kit, Light / Grey
- 020-509-002 Backbox Extension Deep Assembly Light / Grey
- 020-621-002 256 Zone Extension Cover, Light / Grey
- 020-541-102 PSU7A / 78Ah Battery Enclosure

Modules:
- 020-708-100 Extension Chassis with Printer Kit
- 020-644-009 Printer Assembly
- 020-559-101 Zone Extension Chassis Kit 1-64 Zone CW Display Module
- 020-559-102 Zone Extension Chassis Kit 65-128 Zone CW Display Module
- 020-612-100 Double Extended Chassis Kit 256 Zone
- 020-708-009 Extension Chassis with Printer
- 020-644-009 Printer Assembly
- 020-588-100 Honeywell Dual Loop Interface Board, (LIB)
- 020-549-100 Honeywell Dual Enhanced Loop Interface Board, (ELIB)
- 020-478 RS232 Interface
- 020-479 RS485 Interface
- 020-648 PSU3A
- 020-579 PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Certificated with the following options with requirements:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
7.10.3 Output to fire protection equipment type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablements of addressable points
10 Test condition

Note 1: Products are available in language variants as follows:
Group 1: English, Spanish, Portuguese, Icelandic and Italian
Group 3: English, Swedish, Danish, Norwegian and Finish
Group 4: English, Czech and Polish
Group 5: English and Cyrillic

Note 2: Fixed build products incorporate a corresponding Basic Equipment Kit.

XLS80e-8L Fixed build 8 loop analogue addressable control and indicating equipment.

Incorporating the following as modular units:

Enclosures:
020-040-002 Cover Kit Extended Moulded, Light / Grey
020-472-002 Backbox Kit Standard, Light Grey
020-473-002 Backbox Kit Extended, Light Grey
020-474-002 Backbox Kit Extended Deep, Light Grey
020-475-002 Backbox Kit Double Extended, Light Grey
020-476-002 Backbox Kit Double Extended Deep, Light Grey
020-480-102 Main Cover Kit, Light / Grey
020-481-002 Extension Cover Kit, Light / Grey
020-481-002 Extension Cover Kit, Light / Grey
020-509-002 Backbox Extension Deep Assembly Light / Grey
020-621-002 256 Zone Extension Cover, Light / Grey
020-541-102 PSU7A / 78Ah Battery Enclosure

Modules:
020-708-100 Extension Chassis with Printer Kit
020-644-009 Printer Assembly
020-559-101 Zone Extension Chassis Kit 1-64 Zone C/W Display Module
020-559-102 Zone Extension Chassis Kit 65-128 Zone C/W Display Module
020-612-100 Double Extended Chassis Kit 256 Zone
020-708-009 Extension Chassis with Printer
020-644-009 Printer Assembly
020-588-100 Honeywell Dual Loop Interface Board, (LIB)
020-549-100 Honeywell Dual Enhanced Loop Interface Board, (ELIB)
020-478 RS232 Interface
020-479 RS485 Interface
020-648 PSU3A
020-579 PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)
020-548 PSU7A Status Indication
020-543 Dual Transmission Path / Booster, PSU Interface
020-773 Routing Termination Unit (DEOL)
020-877 Extinguishing Interface Module M221-SI
020-643 XLS80e-NI Fibre Optic Interface Kit
020-647-100 XLS80e-NI Network Gateway Module, (NGM) for use in XLS80e Panel

Certificated with the following options with requirements:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.10.3 Output to fire protection equipment type C</td>
</tr>
<tr>
<td>7.10.4 Fault monitoring of fire protection equipment</td>
</tr>
<tr>
<td>7.11 Delays to outputs</td>
</tr>
<tr>
<td>7.12.2 Dependency on more than one alarm signal type B</td>
</tr>
<tr>
<td>7.12.3 Dependency on more than one alarm signal type C</td>
</tr>
<tr>
<td>7.13 Alarm counter</td>
</tr>
<tr>
<td>8.3 Fault signals from points</td>
</tr>
<tr>
<td>8.9 Output to fault warning routing equipment</td>
</tr>
<tr>
<td>9.5 Disablements of addressable points</td>
</tr>
<tr>
<td>10 Test condition</td>
</tr>
</tbody>
</table>

Note 1: Products are available in language variants as follows:
- Group 1: English, Spanish, Portuguese, Icelandic and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
- Group 4: English, Czech and Polish
- Group 5: English and Cyrillic

Note 2: Fixed build products incorporate a corresponding Basic Equipment Kit.

XLS80e-NI 002-467-002 Network Gateway Unit, (NGU) Honeywell Protocol
Incorporating the following as modular units:
- 020-643 XLS80e-NI Fibre Optic Interface Kit
- 020-647-100 XLS80e-NI Network Gateway Module, (NGM) for use in XLS80e Panel
- 020-648 PSU3A

Note 1: Products are available in language variants as follows:
- Group 1: English, Spanish, Portuguese, Icelandic and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
- Group 4: English, Czech and Polish
- Group 5: English and Cyrillic

Note 2: Fixed build products incorporate a corresponding Basic Equipment Kit.

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E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk


Control and indicating equipment
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigilon Compactplus One to Two Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td>Incorporating the following modules:</td>
</tr>
<tr>
<td>VCS-MCB-N PCB Assembly VIGILON COMPACT Network control</td>
</tr>
<tr>
<td>VCS-PSU-N Power Supply Unit</td>
</tr>
<tr>
<td>VCS-IDOOR-PLUS Display and Key card (DKC)</td>
</tr>
<tr>
<td>COMPACT-LPC-EN Loop processor card</td>
</tr>
<tr>
<td>COMPACT-NC Copper network card</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN54-2:
- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.10.1 Output type A
- 7.11 Delays to outputs
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13
2. Scope of approval does not include the operation of the network functionality.

Vigilon Compactplus-PO One to Two Loop Analogue Addressable Control and Indicating Equipment (Portuguese)
042cb/02
Certificated Products

Language Variant)

Incorporating the following modules:

VCS-MCB-N  PCB Assembly VIGILON COMPACT Network control
VCS-PSU-N  Power Supply Unit
VCS-IDOOOR-PLUS  Display and Key card (DKC)
COMPACT-LPC-EN  Loop processor card
COMPACT-NC  Copper network card

Certified with the following options with requirements from EN54-2:

7.8  Output to fire alarm device(s)
7.9.1  Output to fire alarm routing equipment
7.11  Delays to outputs
7.12.3  Dependencies on more than one alarm signal - Type C
8.3  Fault signals from points
9.5  Disablement of each address point
10  Test condition

Notes:

1. This product approval does not constitute compliance with the fire detection
and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

Vigilon Compactplus-SP

One to Two Loop Analogue Addressable Control and Indicating Equipment (Spanish
Language Variant)

Incorporating the following modules:

VCS-MCB-N  PCB Assembly VIGILON COMPACT Network control
VCS-PSU-N  Power Supply Unit
VCS-IDOOOR-PLUS  Display and Key card (DKC)
COMPACT-LPC-EN  Loop processor card
COMPACT-NC  Copper network card

Certified with the following options with requirements from EN54-2:

7.8  Output to fire alarm device(s)
7.9.1  Output to fire alarm routing equipment
7.11  Delays to outputs
7.12.3  Dependencies on more than one alarm signal - Type C
8.3  Fault signals from points
9.5  Disablement of each address point
10  Test condition

Notes:

1. This product approval does not constitute compliance with the fire detection
and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

VIGPLUS-24

One to Four Loop Analogue Addressable Control and Indicating Panel

Incorporating the following modules:

Vig-LPC-EN  Vigilon Loop Card
Vigplus-MCC  Local controller card
Vig-NC  Copper network card
VS-PSU-24  Power supply unit
VS-BPlane  Backplane
VS-IDOOOR-PLUS Vigilon Display Board - D.K.C
VS-PRIN  Printer Assembly
Vig-NC-SMF  Single Mode Fibre Network Card
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

VIGPLUS-24-NP
One to Four Loop Analogue Addressable Control and Indicating Panel (No Printer)
042cc/02
Incorporating the following modules:
Vig-LPC-EN Vigilon Loop Card
Vigplus-MCC Local controller card
Vig-NC Copper network card
VS-PSU-24 Power supply unit
VS-BPlane Backplane
VS-IDOOR-PLUS Vigilon Display Board - D.K.C
Vig-NC-SMF Single Mode Fibre Network Card

Certificated with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.10.1 Output type A
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

VIGPLUS-24-PO
One to Four Loop Analogue Addressable Control and Indicating Panel (Portuguese Language Variant)
042cc/03
Incorporating the following modules:
Vig-LPC-EN Vigilon Loop Card
Vigplus-MCC Local controller card
Vig-NC Copper network card
VS-PSU-24 Power supply unit
VS-BPlane Backplane
VS-IDOOR-PLUS Vigilon Display Board - D.K.C
VS-PRIN Printer Assembly
Vig-NC-SMF Single Mode Fibre Network Card

Certificated with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
<table>
<thead>
<tr>
<th>Part 1: Section 3</th>
</tr>
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</table>

**Control and Indicating Equipment**

### Certificated Products

<table>
<thead>
<tr>
<th>Model</th>
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<tbody>
<tr>
<td>VIGPLUS-24-SP</td>
<td>042cc/04</td>
</tr>
<tr>
<td>VIGPLUS-72</td>
<td>042cc/05</td>
</tr>
</tbody>
</table>

#### VIGPLUS-24-SP
One to Four Loop Analogue Addressable Control and Indicating Panel (Spanish Language Variant)

- **Incorporating the following modules:**
  - Vig-LPC-EN (Vigilon Loop Card)
  - Vigplus-MCC (Local controller card)
  - Vig-NC (Copper network card)
  - VS-PSU-24 (Power supply unit)
  - VS-BPlane (Backplane)
  - VS-IDOOR-PLUS (Vigilon Display Board - D.K.C)
  - VS-PRIN (Printer Assembly)
  - Vig-NC-SMF (Single Mode Fibre Network Card)

**Certified with the following options with requirements from EN54-2:**

- **7.8** Output to fire alarm device(s)
- **7.9.1** Output to fire alarm routing equipment
- **7.10.1** Output type A
- **7.11** Delays to outputs
- **7.12.2** Dependencies on more than one alarm signal - Type B
- **7.12.3** Dependencies on more than one alarm signal - Type C
- **8.3** Fault signals from points
- **9.5** Disablement of each address point
- **10** Test condition

**Notes:**

1. **This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.**
2. **Scope of approval does not include the operation of the network functionality.**

#### VIGPLUS-72
One to Six Loop Analogue Addressable Control and Indicating Panel

- **Incorporating the following modules:**
  - Vig-LPC-EN (Vigilon Loop Card)
  - Vigplus-MCC (Local controller card)
  - Vig-NC (Copper network card)
  - VS-PSU-72 (Power supply unit)
  - VS-BPlane (Backplane)
  - VS-IDOOR-PLUS (Vigilon Display Board - D.K.C)
  - VS-PRIN (Printer Assembly)
  - Vig-NC-SMF (Single Mode Fibre Network Card)

**Certified with the following options with requirements from EN54-2:**

- **7.8** Output to fire alarm device(s)
- **7.9.1** Output to fire alarm routing equipment
- **7.10.1** Output type A

**Notes:**

1. **This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.**
2. **Scope of approval does not include the operation of the network functionality.**

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20 Oct 2020
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>VIGPLUS-72-PO</th>
<th>One to Six Loop Analogue Addressable Control and Indicating Panel (Portuguese Language Variant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>042cc/06</td>
<td>Vig-LPC-EN</td>
<td>Vigilon Loop Card</td>
</tr>
<tr>
<td></td>
<td>Vigplus-MCC</td>
<td>Local controller card</td>
</tr>
<tr>
<td></td>
<td>Vig-NC</td>
<td>Copper network card</td>
</tr>
<tr>
<td></td>
<td>VS-PSU-72</td>
<td>Power supply unit</td>
</tr>
<tr>
<td></td>
<td>VS-BPlane</td>
<td>Backplane</td>
</tr>
<tr>
<td></td>
<td>VS-IDOOR-PLUS</td>
<td>Vigilon Display Board - D.K.C</td>
</tr>
<tr>
<td></td>
<td>VS-PRIN</td>
<td>Printer Assembly</td>
</tr>
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<td></td>
<td>Vig-NC-SMF</td>
<td>Single Mode Fibre Network Card</td>
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Certified with the following options with requirements from EN54-2:

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<th>Requirement</th>
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<td>7.8</td>
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<td>8.3</td>
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<td>9.5</td>
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Notes:

1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>VIGPLUS-72-SP</th>
<th>One to Six Loop Analogue Addressable Control and Indicating Panel (Spanish Language Variant)</th>
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<tbody>
<tr>
<td>042cc/07</td>
<td>Vig-LPC-EN</td>
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<td>Vigplus-MCC</td>
<td>Local controller card</td>
</tr>
<tr>
<td></td>
<td>Vig-NC</td>
<td>Copper network card</td>
</tr>
<tr>
<td></td>
<td>VS-PSU-72</td>
<td>Power supply unit</td>
</tr>
<tr>
<td></td>
<td>VS-BPlane</td>
<td>Backplane</td>
</tr>
<tr>
<td></td>
<td>VS-IDOOR-PLUS</td>
<td>Vigilon Display Board - D.K.C</td>
</tr>
<tr>
<td></td>
<td>VS-PRIN</td>
<td>Printer Assembly</td>
</tr>
<tr>
<td></td>
<td>Vig-NC-SMF</td>
<td>Single Mode Fibre Network Card</td>
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</tbody>
</table>

Certified with the following options with requirements from EN54-2:

<table>
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<tr>
<th>Requirement</th>
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<tbody>
<tr>
<td>7.8</td>
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<tr>
<td>7.9.1</td>
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<tr>
<td>7.10.1</td>
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<td>7.11</td>
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</table>

Notes:

1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

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Control and indicating equipment

Certificated Products

LPCB Ref. No.

DXc1-S Single loop control and indicating equipment
714-001-111 PANEL DXc1-S SINGLE LOOP REGION 1 (UK & Iceland)
714-001-112 PANEL DXc1-S SINGLE LOOP REGION 2 (Iberia, India & ME)
714-001-113 PANEL DXc1-S SINGLE LOOP REGION 3 (Dutch, French, Italian, Slovenian)
714-001-115 PANEL DXc1-S SINGLE LOOP REGION 5 (ASEAN, & India)
714-001-117 PANEL DXc1-S SINGLE LOOP REGION 7 (Turkey, Poland, Romania, Czech Republic, Slovakia, Croatia, Austria, Hungary, Slovenia, Latvia, Estonia, Lithuania)
714-001-118 PANEL DXc1-S SINGLE LOOP REGION 8 (Russia & Bulgaria)
714-001-119 PANEL DXc1-S SINGLE LOOP REGION 9 (Greek)
Incorporating as modular units:
124-410-003 Base PCB 1 Loop
124-411 Display PCB
010-115 PSU RS-50-24

DXc1-M Single loop control and indicating equipment
714-001-111 PANEL DXc1-M SINGLE LOOP REGION 1 (UK & Iceland)
714-001-112 PANEL DXc1-M SINGLE LOOP REGION 2 (Iberia, India & ME)
714-001-113 PANEL DXc1-M SINGLE LOOP REGION 3 (Dutch, French, Italian, Slovenian)
714-001-115 PANEL DXc1-M SINGLE LOOP REGION 5 (ASEAN, & India)
714-001-117 PANEL DXc1-M SINGLE LOOP REGION 7 (Turkey, Poland, Romania, Czech Republic, Slovakia, Croatia, Austria, Hungary, Slovenia, Latvia, Estonia, Lithuania)
714-001-118 PANEL DXc1-M SINGLE LOOP REGION 8 (Russia & Bulgaria)
714-001-119 PANEL DXc1-M SINGLE LOOP REGION 9 (Greek)
Incorporating as modular units:
124-410-003 Base PCB 1 Loop
124-411 Display PCB
010-115 PSU RS-50-24

DXc2-M Two loop control and indicating equipment
714-001-221 PANEL DXc2-M TWO LOOP REGION 1 (UK & Iceland)
714-001-222 PANEL DXc2-M TWO LOOP REGION 2 (Iberia, India & ME)
714-001-223 PANEL DXc2-M TWO LOOP REGION 3 (Dutch, French, Italian, Slovenian)
714-001-225 PANEL DXc2-M TWO LOOP REGION 5 (ASEAN, & India)
714-001-227 PANEL DXc2-M TWO LOOP REGION 7 (Turkey, Poland, Romania, Czech Republic, Slovakia, Croatia, Austria, Hungary, Slovenia, Latvia, Estonia, Lithuania)
714-001-228 PANEL DXc2-M TWO LOOP REGION 8 (Russia & Bulgaria)
714-001-229 PANEL DXc2-M TWO LOOP REGION 9 (Greek)
Incorporating as modular units:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

124-410-002 Base PCB 2 Loop
124-411 Display PCB
010-116 PSU RS-100-24

DXc4-M
Four loop control and indicating equipment
714-001-241 PANEL DXc4-M FOUR LOOP REGION 1 (UK & Iceland)
714-001-242 PANEL DXc4-M FOUR LOOP REGION 2 (Iberia, India & ME)
714-001-243 PANEL DXc4-M FOUR LOOP REGION 3 (Dutch, French, Italian, Slovenian)
714-001-245 PANEL DXc4-M FOUR LOOP REGION 5 (ASEAN, & India)
714-001-247 PANEL DXc4-M FOUR LOOP REGION 7 (Turkey, Poland, Romania, Czech Republic, Slovakia, Croatia, Austria, Hungary, Slovenia, Latvia, Estonia, Lithuania)
714-001-248 PANEL DXc4-M FOUR LOOP REGION 8 (Russia & Bulgaria)
714-001-249 PANEL DXc4-M FOUR LOOP REGION 9 (Greek)

Incorporating as modular units:
124-410-002 Base PCB 2 Loop
124-411 Display PCB
124-417 2 Loop PCB
010-116 PSU RS-100-24

Incorporating as optional modular units:
795-099 KIT DXc NETWORK CARD
795-102 KIT DXc 40 ZONE LED CARD
795-103 KIT DXc 80 ZONE LED CARD WITH COVER
795-111 KIT DXc 2 LOOP EXPANSION CARD (Applicable to the two loop CIE only)
795-117 KIT DXc PERFORMANCE CARD
795-118 KIT DXc KEYSWITCH
795-122 KIT DXc RS232
795-123 KIT DXc RS485
795-124 KIT DXc 80 ZONE LED CARD

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12 Dependencies on more than one alarm signal-Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each addressable point
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

124-410-002 Base PCB 1 Loop
124-411 Display PCB
010-115 PSU RS-50-24

DXc0-S

Incorporating as modular units:
124-410-003 Base PCB 1 Loop
124-411 Display PCB
010-115 PSU RS-50-24

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12 Dependencies on more than one alarm signal-Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each addressable point
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

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Tel: +39 0735 705007 • Fax: +39 0735 704912
E-mail: info@inim.biz • Website: www.inim.biz


Control and indicating equipment

Certificated Products

LPCB Ref. No. 991k/01

Previdia 216 2 - 16 Loop Analogue Addressable Control and Indicating Equipment and Extinguishing Control Panel (e.c.d)

Incorporating the following modular units:
- IFM24160 CAN power-supply module
- IFM2L CAN module with 2 loops
- IFMNET CAN module for Hornet network connection
- IFM4R CAN module with 4 relays
- IFM4IO CAN module with 4 I/O
- IFMDIAL CAN dialler module
- IFM16IO CAN module with 16 I/O
- IFMLAN CAN LAN module
- IFMEXT CAN extinguishant module
- FPMCPU CPU module
- FPMLED LED module
- FPMLEDPRN LED module with printer
- FPMEXT LED module for extinguishant module

Optional colour variant:
Previdia 216R Red Cabinet

Incorporating the following mechanical units:
- FPMNUL Blind-plate module
- PRcab spare cabinet
- PRcabR Spare Cabinet RED
- PRREP Metal box for FPMCPU assembly in REPEATER configuration
- PRcabSP SPACER For back cabinet
- PRcabSPR SPACER For back cabinet Red Colour

Certified with the following options with requirements from EN 54-2:1997 + A1: 2002 + A2: 2006:

- 7.8 Output to fire alarm devices (option with requirements)
- 7.9.1 Output to fire alarm routing equipment (option with requirements)
- 7.9.2 Alarm confirmation input from fire alarm routing equipment (option with requirements)
- 7.10 Outputs to fire protection equipment (options with requirements)
- 7.10.1 Output type A (option with requirement)
- 7.10.2 Output type B (option with requirement)
- 7.10.3 Output type C (option with requirement)
- 7.10.4 Fault monitoring of fire protection equipment (option with requirement)
- 7.11 Delays to outputs (option with requirements)
- 7.12 Dependencies on more than one alarm signal (option with requirements)
- 7.12.1 Type A dependency (option with requirement)
- 7.12.2 Type B dependency (option with requirement)
- 7.12.3 Type C dependency (option with requirement)
- 7.13 Alarm Counter (option with requirements)
- 8.3 Fault signals from points (option with requirements)
- 8.9 Output to fault warning routing equipment (option with requirements)
- 9.5 Disablement of addressable point (option with requirements)
- 10 Test condition (option with requirements)

Certified with the following options with requirements from EN 12094-1:2003

- 4.17 Delay of extinguishing signal
- 4.18 Signal representing the flow of extinguishing agent
- 4.19 Monitoring of the status of components
- 4.20 Emergency hold device
- 4.21 Control of flooding time
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
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<td>Certificated Products</td>
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<tr>
<td></td>
<td>IST-1 / IST-1K</td>
</tr>
<tr>
<td></td>
<td>IST-1  1 Zone Conventional Fire Alarm Control Panel</td>
</tr>
<tr>
<td></td>
<td>IST-1K 1 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch</td>
</tr>
<tr>
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<td>Incorporating the following modules:</td>
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<tr>
<td></td>
<td>RS-35-24  1.5amp Internal Power Supply Module</td>
</tr>
<tr>
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<td>TPCA024-1  1 Zone Main PCB</td>
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<tr>
<td></td>
<td>Incorporating the following optional modules:</td>
</tr>
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<td>SWK107  Activate Control Key Switch</td>
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<tr>
<td>810m/01</td>
<td>Certified with the following options with requirements from EN54 Part 2:</td>
</tr>
<tr>
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<td>7.8  Output to fire alarm devices</td>
</tr>
<tr>
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<td>10  Test condition</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
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<td>1. The scope of the approval does not include the operation of the network functionality</td>
</tr>
<tr>
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<td>2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13</td>
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<tr>
<td></td>
<td>IST-2 / IST-2K</td>
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<tr>
<td></td>
<td>IST-2  2 Zone Conventional Fire Alarm Control Panel</td>
</tr>
<tr>
<td></td>
<td>IST-2K 2 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch</td>
</tr>
<tr>
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<td>Incorporating the following modules:</td>
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<tr>
<td></td>
<td>RS-35-24  1.5amp Internal Power Supply Module</td>
</tr>
<tr>
<td></td>
<td>TPCA024-2  2 Zone Main PCB</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following optional modules:</td>
</tr>
<tr>
<td></td>
<td>SWK107  Activate Control Key Switch</td>
</tr>
<tr>
<td>810m/02</td>
<td>Certified with the following options with requirements from EN54 Part 2:</td>
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<td>7.8  Output to fire alarm devices</td>
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</tr>
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<td>1. The scope of the approval does not include the operation of the network functionality</td>
</tr>
<tr>
<td></td>
<td>2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13</td>
</tr>
<tr>
<td></td>
<td>IST-4 / IST-4K</td>
</tr>
<tr>
<td></td>
<td>IST-4  4 Zone Conventional Fire Alarm Control Panel</td>
</tr>
<tr>
<td></td>
<td>IST-4K 4 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following modules:</td>
</tr>
<tr>
<td></td>
<td>RS-35-24  1.5amp Internal Power Supply Module</td>
</tr>
</tbody>
</table>

Notes:  
1. Scope of approval does not include the operation of the network functionality.  
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.  
3. The e.c.d is approved to EN12094-1 for more than 1 flooding zone when 2 FPMCPU modules are used.  
4. The CIE is also approved when connected with FPMCPU as a CPU/Repeater module.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPCA024-4</td>
<td>4 Zone Main PCB</td>
</tr>
</tbody>
</table>

Incorporating the following optional modules:

- SWK107 Activate Control Key Switch

Certified with the following options with requirements from EN54 Part 2:

- 7.8 Output to fire alarm devices
- 10 Test condition

Notes:

1. The scope of the approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

IST-8 / IST-8K

IST-8  8 Zone Conventional Fire Alarm Control Panel
IST-8K 8 Zone Conventional Fire Alarm Control Panel with Activate Control Key Switch

Incorporating the following modules:

- RS-35-24 1.5amp Internal Power Supply Module
- TPCA024-8 8 Zone Main PCB
- TPCA025 Expansion Card

Incorporating the following optional modules:

- SWK107 Activate Control Key Switch

Certified with the following options with requirements from EN54 Part 2:

- 7.8 Output to fire alarm devices
- 10 Test condition

Notes:

1. The scope of the approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

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Kentec Electronics Limited
Units 25-27, Fawkes Avenue, Questor, Dartford, Kent DA1 1JQ, United Kingdom
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E-mail: sales@kentec.co.uk • Website: www.kentec.co.uk


Control and indicating equipment

Certificated Products

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>360b/01</td>
<td>Taktis 2 to 8 Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td></td>
<td>2 to 16 Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
</tbody>
</table>

Incorporating the following units:

- S721 LCD Main Processor Board
- S722 Main Back Board
- S723 Taktis Network, Ethernet & IFAM Interface Module
- S758 Dual Loop Module
- S769 System Board A module
- S770 System Board B Module
- S771 Zone LED Board
- S787 Taktis Vision Unit
- S768 Taktis Thermal Printer Assembly
- S406-06 5.25 Amp Power Supply Unit

Incorporating the following optional modules:

- S408-10 10.25 Amp Power Supply
- S772 16 Channel I/O card
- S791 8w Relay card
- S792 8w conventional zone card
- S788 Media gateway card
- S793 4w sounder card
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>S786</th>
<th>4 slot expansion board (used for extension for the optional I/O boards)</th>
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</thead>
</table>

Certified with the following Options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.3 Output to type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delay to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Note:
1. Scope of certification does not include the operation of the network functionality.
2. This certificate does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

KMW Systems S.R.L.
Str. Sambetei, Nr. 6 Iasi, Romania
Tel: 0040232247288
E-mail: marius.gavriluta@kmw.ro


Control and indicating equipment

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>KM-FC5016</th>
<th>Incorporating the following units:</th>
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<tbody>
<tr>
<td></td>
<td>VSL2.908.004</td>
<td>16 Zone Control Board</td>
</tr>
<tr>
<td></td>
<td>VSL2.908.007</td>
<td>16 Zone Display Board</td>
</tr>
<tr>
<td></td>
<td>PD-100-24</td>
<td>AC/DC Power Supply Module</td>
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<td></td>
<td>VSL2.908.005</td>
<td>16 Zone Signal Output Board</td>
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Certified with the following Options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

KM-FC5008
8 Zone Conventional Control and Indicating Equipment

Incorporating the following units:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>KM-FC5008</th>
<th>8 Zone Control Board</th>
</tr>
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<tbody>
<tr>
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<td>VSL2.908.042</td>
<td>8 Zone Control Board</td>
</tr>
<tr>
<td></td>
<td>VSL2.908.043</td>
<td>8 Zone Display Board</td>
</tr>
<tr>
<td></td>
<td>PD-100-24</td>
<td>AC/DC Power Supply Module</td>
</tr>
</tbody>
</table>

Certified with the following Options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

KM-FC5004
4 Zone Conventional Control and Indicating Equipment

Incorporating the following units:

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>KM-FC5004</th>
<th>4 Zone Control Board</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VSL2.908.044</td>
<td>4 Zone Control Board</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VSL2.908.045 4 Zone Display Board PD-100-24 AC/DC Power Supply Module</td>
</tr>
</tbody>
</table>

Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

KM-FC5002
2 Zone Conventional Control and Indicating Equipment 1174e/04

Incorporating the following units:
VSL2.908.046 2 Zone Control Board
VSL2.908.047 2 Zone Display Board PD-100-24 AC/DC Power Supply Module

Certified with the following Options with requirements from EN 54-2:1997
7.8 Output to fire alarm device(s)
7.11 Delay to outputs
10 Test condition

Note:
1. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

KM-FA6000
4 Loop Analogue Addressable Control and Indicating Equipment 1174j/01

Incorporating the following modules:
VSL2.908.146 Main Board
VSL2.908.149 Indication board VSL2.908.155 Terminal board VSL2.908.162 Control Board

Certified with the following option with requirements for EN54-2:
7.8 Output to fire alarm devices
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm Counter
9.5 Disablement of addressable point
10 Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

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Serifali Mah, Kutup Sok, No: 27-; 1-2-4 Ümraniye, Istanbul TR 34775, Turkey
Tel: +90 216 4664 505 • Fax: +90 216 4664 510
E-mail: mavili@mavili.com.tr • Website: www.mavili.com.tr

PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

ML-1231.EN Maxlogic intelligent analogue addressable 1 Loop, 127 addressable devices, 64 Zone control and indicating equipment.

Incorporating the following units:

- MLY-1202.EN Main MCU module
- MLY-1203 Zone LED module
- MLY-1200 SLCU module
- MLY-0500-EN PSU unit
- ML-1201 Optional Network module
- 542.188 Optional Turkish text membrane
- 542.189 Optional English text membrane
- 542.190 Optional Russian text membrane

Certified with the following options with requirements from EN 54-2:1997

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.11 Delays to the auctioning of outputs fire alarm devices and fire routing equipment
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

ML-1231.P.EN Maxlogic intelligent analogue addressable 1 Loop, 127 addressable devices, 64 Zone control and indicating equipment with printer

Incorporating the following units:

- MLY-1202.EN Main MCU module
- MLY-1203 Zone LED module
- MLY-1200 SLCU module
- MLY-0500-EN PSU unit
- ML-1203 Printer module
- ML-1201 Optional Network module
- 542.188 Optional Turkish text membrane
- 542.189 Optional English text membrane
- 542.190 Optional Russian text membrane

Certified with the following options with requirements from EN 54-2:1997

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.11 Delays to the auctioning of outputs fire alarm devices and fire routing equipment
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 9.5 Disablement of each address point
- 10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

ML-1232.EN Maxlogic intelligent analogue addressable 2 Loop, 254 addressable devices, 64 Zone control and indicating equipment

Incorporating the following units:

- MLY-1202.EN Main MCU module
- MLY-1203 Zone LED module
- MLY-1200 SLCU module
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>MLY-0500-EN</td>
<td>PSU unit</td>
</tr>
<tr>
<td>ML-1201</td>
<td>Optional Network module</td>
</tr>
<tr>
<td>542.188</td>
<td>Optional Turkish text membrane</td>
</tr>
<tr>
<td>542.189</td>
<td>Optional English text membrane</td>
</tr>
<tr>
<td>542.190</td>
<td>Optional Russian text membrane</td>
</tr>
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</table>

Certified with the following options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.11 Delays to the auctioning of outputs fire alarm devices and fire routing equipment
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

ML-1242.P.EN Maxlogic intelligent analogue addressable 2 Loop, 254 addressable devices, 64 Zone control and indicating equipment with printer.

Incorporating the following units:

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<th>Description</th>
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<td>MLY-1202.EN</td>
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<td>MLY-1203</td>
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<td>MLY-1200</td>
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<td>MLY-0500-EN</td>
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<tr>
<td>ML-1203</td>
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<td>ML-1201</td>
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<tr>
<td>542.188</td>
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<td>542.189</td>
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<td>542.190</td>
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Certified with the following options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.11 Delays to the auctioning of outputs fire alarm devices and fire routing equipment
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

ML-1233.EN Maxlogic intelligent analogue addressable 3 Loop, 381 addressable devices, 64 Zone control and indicating equipment.

Incorporating the following units:

<table>
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<th>Description</th>
</tr>
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<tbody>
<tr>
<td>MLY-1202.EN</td>
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<tr>
<td>MLY-1203</td>
</tr>
<tr>
<td>MLY-1200</td>
</tr>
<tr>
<td>MLY-0500-EN</td>
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<tr>
<td>ML-1201</td>
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<td>542.188</td>
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</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Certified with the following options with requirements from EN 54-2:1997

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<th>No.</th>
<th>Description</th>
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<tr>
<td>7.9.1</td>
<td>Output to fire alarm routing equipment</td>
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<tr>
<td>7.11</td>
<td>Delays to the auctioning of outputs fire alarm devices and fire routing equipment</td>
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<td>7.12.1</td>
<td>Dependencies on more than one alarm signal - Type A</td>
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<tr>
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<td>7.12.3</td>
<td>Dependencies on more than one alarm signal - Type C</td>
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<td>7.13</td>
<td>Alarm counter</td>
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<tr>
<td>8.3</td>
<td>Fault signals from points</td>
</tr>
<tr>
<td>9.5</td>
<td>Disablement of each address point</td>
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<td>10</td>
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Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

ML-1243.P.EN
Maxlogic intelligent analogue addressable 3 Loop, 381 addressable devices, 64 Zone control and indicating equipment with printer.
Incorporating the following units:

- MLY-1202.EN Main MCU module
- MLY-1203 Zone LED module
- MLY-1200 SLCU module
- MLY-0500-EN PSU unit
- ML-1203 Printer module
- ML-1201 Optional Network module
- 542.188 Optional Turkish text membrane
- 542.189 Optional English text membrane
- 542.190 Optional Russian text membrane

Certified with the following options with requirements from EN 54-2:1997

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<th>No.</th>
<th>Description</th>
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<tr>
<td>7.9.1</td>
<td>Output to fire alarm routing equipment</td>
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<tr>
<td>7.11</td>
<td>Delays to the auctioning of outputs fire alarm devices and fire routing equipment</td>
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<tr>
<td>7.12.1</td>
<td>Dependencies on more than one alarm signal - Type A</td>
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<td>7.12.2</td>
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<td>7.12.3</td>
<td>Dependencies on more than one alarm signal - Type C</td>
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<td>7.13</td>
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<tr>
<td>8.3</td>
<td>Fault signals from points</td>
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<tr>
<td>9.5</td>
<td>Disablement of each address point</td>
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<tr>
<td>10</td>
<td>Test condition</td>
</tr>
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Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

ML-1234.EN
Maxlogic intelligent analogue addressable 4 Loop, 508 addressable devices, 64 Zone CIE
Incorporating the following units:

- MLY-1202.EN Main MCU module
- MLY-1203 Zone LED module
- MLY-1200 SLCU module
- MLY-0500-EN PSU unit
- ML-1201 Optional Network module
- 542.188 Optional Turkish text membrane
- 542.189 Optional English text membrane
- 542.190 Optional Russian text membrane

Certified with the following options with requirements from EN 54-2:1997

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>7.8</td>
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<tr>
<td>7.9.1</td>
<td>Output to fire alarm routing equipment</td>
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<tr>
<td>7.11</td>
<td>Delays to the auctioning of outputs fire alarm devices and fire routing equipment</td>
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<td>7.12.1</td>
<td>Dependencies on more than one alarm signal - Type A</td>
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<tr>
<td>7.12.2</td>
<td>Dependencies on more than one alarm signal - Type B</td>
</tr>
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</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

ML-1244.P.EN  Maxlogic intelligent analogue addressable 4 Loop, 508 addressable devices, 64 Zone control and indicating equipment with printer.

Incorporating the following units:

MLY-1202.EN  Main MCU module
MLY-1203  Zone LED module
MLY-1200  SLCU module
MLY-0500-EN  PSU unit
ML-1203  Printer module
ML-1201  Optional Network module
542.188  Optional Turkish text membrane
542.189  Optional English text membrane
542.190  Optional Russian text membrane

Certified with the following options with requirements from EN 54-2:1997

7.8  Output to fire alarm device(s)
7.9.1  Output to fire alarm routing equipment
7.11  Delays to the auctioning of outputs fire alarm devices and fire routing equipment
7.12.1  Dependencies on more than one alarm signal - Type A
7.12.2  Dependencies on more than one alarm signal - Type B
7.12.3  Dependencies on more than one alarm signal - Type C
7.13  Alarm counter
8.3  Fault signals from points
9.5  Disablement of each address point
10  Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

MI-22102  Maxlogic Two Zone Conventional Control and Indicating Equipment
Incorporating the units:
ML-221XX_V1.1 / ML-22102  Main Board Module
MLY-0511_1 / MLY-0511  Power Supply Board

and as optional modules:
542.212 / ML-22102  English text membrane
542.211 / ML-22102  Turkish text membrane
542.213 / ML-22102  Russian text membrane

Certified with the following options with requirements from EN 54-2: 1997
7.8  Output to fire alarm devices

MI-22104  Maxlogic Four Zone Conventional Control and Indicating Equipment
Incorporating the units:
ML-221XX_V1.1 / ML-22104  Main Board Module
MLY-0511_1 / MLY-0511  Power Supply Board

and as optional modules:
542.215 / ML-22104  English text membrane
542.214 / ML-22104  Turkish text membrane
542.216 / ML-22104  Russian text membrane

Certified with the following options with requirements from EN 54-2: 1997
7.8  Output to fire alarm devices

MI-22108  Maxlogic Eight Zone Conventional Control and Indicating Equipment
Incorporating the units:
ML-221XX_V1.1 / ML-22108  Main Board Module
MLY-0511_1 / MLY-0511  Power Supply Board

and as optional modules:
542.218 / ML-22108  English text membrane
**PART 1: SECTION 3**
CONTROL AND INDICATING EQUIPMENT

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
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<tbody>
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<td>542.217 / ML-22108</td>
<td>Turkish text membrane</td>
</tr>
<tr>
<td>542.219 / ML-22108</td>
<td>Russian text membrane</td>
</tr>
<tr>
<td>926d/08</td>
<td>ML-22116 Maxlogic Sixteen Zone Conventional Control and Indicating Equipment</td>
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<td>ML-221XX_V1.1 / ML-22116 Main Board Module</td>
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<td>ML_Zone_Extand_V1 / ML-22116 Expansion Board Module</td>
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<tr>
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<td>MLY-051I_V1 / MLY-0511 Power Supply Board</td>
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<td>and as optional modules:</td>
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<td></td>
<td>542.221 / ML-22116 English text membrane</td>
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<td>542.220 / ML-22116 Turkish text membrane</td>
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<td>542.222 / ML-22116 Russian text membrane</td>
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<td>7.8 Output to fire alarm devices</td>
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<td>926n/01</td>
<td>ML-322 Maxlogic Conventional 4 Zone Control and Indicating Equipment and 1 Flooding Zone Extinguishing Control Panel (e.c.d)</td>
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<td>Incorporating the following modules:</td>
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<td>ML-32X41 V2.1 Main Board Module</td>
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<td>MLY-0511 V1 Power Supply Board</td>
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<td>7.11 Delays to outputs</td>
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<td>4.18 Signal representing the flow of extinguishing agent</td>
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<td>4.19 Monitoring of the status of components</td>
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<td>4.20 Emergency hold device</td>
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<td>4.21 Control of flooding time</td>
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<td>4.23 Manual only mode</td>
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<td>4.26 Triggering of equipment outside the system</td>
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<td>4.30 Activation of alarm devices with different signals</td>
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Morley-IAS Fire Systems by Honeywell (Pittway Systems Technology Group (Europe) Ltd)

Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@morleyias.co.uk • Website: www.morley-ias.co.uk


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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<tr>
<td>429c/04</td>
<td>ZX1Se 1 loop analogue addressable control and indicating equipment</td>
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<tr>
<td>722-001-301</td>
<td>1 loop multi-protocol control panel, language group M100</td>
</tr>
<tr>
<td>722-002-302</td>
<td>1 loop multi-protocol control panel, language group M200</td>
</tr>
<tr>
<td>722-002-301</td>
<td>Stainless Steel</td>
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<tr>
<td>722-101-301</td>
<td>1 loop multi-protocol control panel, language group H100</td>
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<tr>
<td>722-101-302</td>
<td>1 loop multi-protocol control panel, language group H200</td>
</tr>
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</table>

Incorporating the following units:

| 795-072-100 | Morley-IAS Loop Driver Card |
| 795-068-100 | System Sensor Loop Driver Card |
| 795-058-105 | Hochiki Loop Driver Card |
| 795-066-100 | Apollo XP95 / Discovery Loop Driver Card |
| 795-044-001 | Nittan Loop Driver Card |
| 795-004-001 | RS 485 Communication Module |
| 795-005 | RS232 Communication Module |
| 124-206 | Processor Card |
## PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

### Certificated Products

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<thead>
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<th>Description</th>
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<td>124-209-005</td>
<td>1 Loop Base Card</td>
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<tr>
<td>124-370</td>
<td>4 Line Display Card</td>
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<tr>
<td>PS82-2-NFR</td>
<td>2A PSU</td>
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Certificated with the following options with requirements from EN 54-2:7.8

- **Output to fire alarm devices**
- **7.11 Delays to outputs**
- **7.12.3 Dependency on more than one alarm signal: Type C**
- **8.3 Fault signals from points**
- **9.5 Disablement of addressable points**
- **10 Test condition**

**ZX2Se**

- 1-2 loop analogue addressable control and indicating equipment

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<thead>
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<td>720-001-302</td>
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<td>720-002-301</td>
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<tr>
<td>720-101-301</td>
</tr>
<tr>
<td>720-101-302</td>
</tr>
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</table>

Incorporating the following units:

| 795-072-100  | Morley-IAS Loop Driver Card |
| 795-068-100  | System Sensor Loop Driver Card |
| 795-058-105  | Hochiki Loop Driver Card |
| 795-066-100  | Apollo XP95 / Discovery Loop Driver Card |
| 795-044-001  | Nittan Loop Driver Card |
| 795-004-001  | RS 485 Communication Module |
| 795-005      | RS232 Communication Module |
| 124-206      | Processor Card |
| 124-209-004  | 2 Loop Base Card |
| 124-370      | 4 Line Display Card |
| PS82-2-NFR   | 2A PSU |

Certificated with the following options with requirements from EN 54-2:

- **7.8 Output to fire alarm devices**
- **7.11 Delays to outputs**
- **7.12.3 Dependency on more than one alarm signal: Type C**
- **8.3 Fault signals from points**
- **9.5 Disablement of addressable points**
- **10 Test condition**

**ZX5Se**

- 1-5 loop analogue addressable control and indicating equipment

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<td>721-002-301</td>
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<td>721-101-301</td>
</tr>
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<td>721-101-302</td>
</tr>
</tbody>
</table>

Incorporating the following units:

| 795-072-100  | Morley-IAS Loop Driver Card |
| 795-068-100  | System Sensor Loop Driver Card |
| 795-058-105  | Hochiki Loop Driver Card |
| 795-066-100  | Apollo XP95 / Discovery Loop Driver Card |
| 795-044-001  | Nittan Loop Driver Card |
| 795-004-001  | RS 485 Communication Module |
| 795-005      | RS232 Communication Module |
| 124-206      | Processor Card |
| 124-403      | 5 Loop Base Card |
| 124-370      | 4 Line Display Card |
| PS196-4-NFR  | PSU |

Certificated with the following options with requirements from EN 54-2:

- **7.8 Output to fire alarm devices**
- **7.11 Delays to outputs**
- **7.12.3 Dependency on more than one alarm signal: Type C**
- **8.3 Fault signals from points**
- **9.5 Disablement of addressable points**
- **10 Test condition**
**PART 1: SECTION 3**

**CONTROL AND INDICATING EQUIPMENT**

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<tr>
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<td>HRZ2-8e 2 Zone</td>
<td>002-479-122</td>
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<td>Language region 1, English manual</td>
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<td>429c/10</td>
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<td>002-479-222</td>
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<td>Language region 2, dual relay</td>
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<td></td>
<td>002-479-322</td>
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<td>Language region 3, dual relay</td>
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<td>002-492-222</td>
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<td>Language region 2, English manual, dual relay</td>
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<td>002-506-222</td>
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<td>020-747</td>
<td>8-way relay kit</td>
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<tr>
<td>020-772</td>
<td>4-way monitored sounder kit</td>
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<td>7.9.1</td>
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<td>Alarm confirmation input from fire alarm routing equipment</td>
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<td>Alarm confirmation input from fire alarm routing equipment</td>
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<td>Output to automatic fire protection equipment: Type A</td>
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<td>Manual or automatic switching of delays to outputs</td>
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<td>Dependency on more than one alarm signal: Type B</td>
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<td>Delays to outputs</td>
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<td>Dependency on more than one alarm signal: Type B</td>
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CONTROL AND INDICATING EQUIPMENT

Certificated Products

714-001-114 PANEL DXc1-S SINGLE LOOP REGION 4 (MIAS protocol)
714-001-115 PANEL DXc1-S SINGLE LOOP REGION 5 (MIAS protocol)

Incorporating as modular units:
124-410-001 Base PCB 1 Loop
124-411 Display PCB
010-115 PSU RS-50-24

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address points
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
3. The regions are related to different market areas.

DXc2-M

714-001-221 PANEL DXc2-M TWO LOOP REGION 1 (MIAS/Apollo/System Sensor protocol)
714-001-222 PANEL DXc2-M TWO LOOP REGION 2 (MIAS protocol)
714-001-223 PANEL DXc2-M TWO LOOP REGION 3 (MIAS protocol)
714-001-224 PANEL DXc2-M TWO LOOP REGION 4 (MIAS protocol)
714-001-225 PANEL DXc2-M TWO LOOP REGION 5 (MIAS protocol)
714-001-226 PANEL DXc2-M TWO LOOP REGION 6 (System Sensor protocol)

Incorporating as modular units:
124-410 Base PCB 2 Loop
124-411 Display PCB
010-116 PSU RS-100-24

Incorporating as optional modular units:
124-414 DXn Zone Expansion PCB
124-429 Loop Splitter PCB
124-430 DXc System I/O PCB (note: cannot be fitted with 124-414)
124-300 RS232 I/F

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment - Output type A
7.10.2 Output to fire protection equipment - Output type B
7.10.3 Output to fire protection equipment - Output type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address points
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
3. The regions are related to different market areas.

DXc4-M

714-001-241 PANEL DXc4-M FOUR LOOP REGION 1 (MIAS/Apollo/System Sensor protocol)
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

714-001-242 PANEL DXc4-M FOUR LOOP REGION 2 (MIAS protocol)
714-001-243 PANEL DXc4-M FOUR LOOP REGION 3 (MIAS protocol)
714-001-244 PANEL DXc4-M FOUR LOOP REGION 4 (MIAS protocol)
714-001-245 PANEL DXc4-M FOUR LOOP REGION 5 (MIAS protocol)

Incorporating as modular units:
124-410 Base PCB 2 Loop
124-411 Display PCB
124-417 2 Loop PCB
010-116 PSU RS-100-24

Incorporating as optional modular units:
124-414 DXn Zone Expansion PCB
124-429 Loop Splitter PCB
124-430 DXc System I/O PCB (note: cannot be fitted with 124-414)
124-300 RS232 I/F

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment - Output type A
7.10.2 Output to fire protection equipment - Output type B
7.10.3 Output to fire protection equipment - Output type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address points
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
3. The regions are related to different market areas.

DXc1-M

714-001-213 PANEL DXc1-M SINGLE LOOP REGION 3 (MIAS protocol)
714-001-214 PANEL DXc1-M SINGLE LOOP REGION 4 (MIAS protocol)

Incorporating as modular units:
124-410-001 Base PCB 1 Loop
124-411 Display PCB
010-115 PSU RS-50-24

Incorporating as optional modular units:
124-414 DXn Zone Expansion PCB
124-429 Loop Splitter PCB
124-430 DXc System I/O PCB (note: cannot be fitted with 124-414)
124-300 RS232 I/F

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address points
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.
3. The regions are related to different market areas.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Multron Systems Pte Ltd
217 Kallang Bahru, Multron Building, Singapore 339 347, Singapore
Tel: +65 6743 2555 / 6395 6868 • Fax: +65 6743 2777 / 6395 6869
E-mail: info@multron.com • Website: www.multron.com


Certificated Products
LPCB Ref. No.

MX704 1 to 4 loop Intelligent Addressable Control and Indicating Equipment
1330h/01
Incorporating the following modules:
7010200004 Mother Board
7020100022 Main Board
7010700017 Loop Board
7010400011 Power Management Board
7010600019 Communication Board
7010400012 Power Wiring Board
PDF-150-27.5 Power Supply Unit
7021300007 Key Board
7020800009 Led Board
7010300010 Regional Display Board
814400002 Printer Module

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.10.1 Output to fire protection equipment - Type A
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.13 Alarm counter
9.5 Disablement of each address point
10 Test condition

Notes:
1. The scope of the approval does not include the operation of the network functionality
2. The product approval does not constitute compliance with the fire detection and alarm
system requirements of EN54-13.

MPC-101 Single zone conventional control and indicating equipment 548j/02
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
10 Test condition

MPC-102 Two zone conventional control and indicating equipment 548j/03
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
10 Test condition

MPC-104 Four zone conventional control and indicating equipment 548j/04
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
10 Test condition

MPC-108 Eight zone conventional control and indicating equipment 548j/05
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
10 Test condition

MPC-116 Sixteen zone conventional control and indicating equipment 548j/06
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
10 Test condition
**PART 1: SECTION 3**

**CONTROL AND INDICATING EQUIPMENT**

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**Notifier by Honeywell (Pittway Systems Technology Group (Europe) Ltd)**

Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom  
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888  
E-mail: sales@notifiersystems.co.uk • Website: www.notifierfiresystems.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID3000 Basic Equipment Kit, (BEK): Modular analogue addressable control and indicating equipment.</td>
<td>154g/01</td>
</tr>
<tr>
<td>020-538 Basic Equipment Kit ID3000, Group 0</td>
<td></td>
</tr>
<tr>
<td>020-538-001 ID3000 Basic Equipment Kit, Group 1</td>
<td></td>
</tr>
<tr>
<td>020-538-003 ID3000 Basic Equipment Kit, Group 3</td>
<td></td>
</tr>
<tr>
<td>020-538-004 ID3000 Basic Equipment Kit, Group 4</td>
<td></td>
</tr>
<tr>
<td>020-538-005 ID3000 Basic Equipment Kit, Group 5</td>
<td></td>
</tr>
</tbody>
</table>

Incorporating the following as modular units:

**Enclosures:**

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<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>154g/01</td>
</tr>
</tbody>
</table>

- 020-472-009 Backbox Kit Standard, Black / Grey
- 020-473-009 Backbox Kit Extended, Black / Grey
- 020-474-009 Backbox Kit Extended Deep, Black / Grey
- 020-476-009 Backbox Kit Double Extended Deep, Black / Grey
- 020-480-009 Cover Kit Main Moulded, Black / Grey
- 020-481-009 Cover Kit Extended Moulded, Black / Grey
- 020-508-009 Backbox Extension Standard Assembly Black / Grey
- 020-509-009 Backbox Extension Deep Assembly Black / Grey
- 020-513-009 High Security Cover Kit Main, Black / Grey
- 020-514-009 High Security Cover Kit Extension
- 020-576 Main Cover, Stainless Steel
- 020-577 Extension Cover Stainless Steel
- 020-621-256 Zone Extension Cover, Stainless / Steel
- 020-621-009 256 Zone Extension Cover, Black / Grey
- 020-541-009 PSU7A / 78Ah Battery Enclosure
- 020-559-001 Zone Extension Chassis Kit 1-64 Zone C/W Display Module
- 020-559-002 Zone Extension Chassis Kit 65-128 Zone C/W Display Module
- 020-612 Double Extended Chassis Kit 256 Zone
- 020-708-009 Extension Chassis with Printer
- 020-644-009 Printer Assembly
- 020-588 Notifier Dual Loop Interface Board, (LIB)
- 020-549 Notifier Dual Enhanced Loop Interface Board, (ELIB)
- 020-478 RS232 Interface
- 020-479 RS485 Interface
- 020-548 PSU3A
- 020-579 PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)
- 020-548 PSU7A Status Indication
- 020-543 Dual Transmission Path / Booster, PSU Interface
- 020-477 Routing Termination Unit (DEOL)
- 020-877 Extinguishing Interface Module M221-SI
- 020-643 ID’net Fibre Optic Interface Kit
- 020-647 ID’net Network Gateway Module, (NGM) for use in ID3000 Panel

**Note 1:** Products are available in language variants as follows:

- Group 0: English and Icelandic, with English manuals
- Group 1: English, Spanish, Portuguese, Icelandic and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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</thead>
<tbody>
<tr>
<td>154g/01</td>
<td>Group 4: English and Polish</td>
</tr>
<tr>
<td></td>
<td>Group 5: English and Cyrillic</td>
</tr>
</tbody>
</table>

#### Note 2:
Fixed build products incorporate a corresponding Basic Equipment Kit.

<table>
<thead>
<tr>
<th>ID3002</th>
<th>Fixed build 2 loop analogue addressable control and indicating equipment.</th>
</tr>
</thead>
<tbody>
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<td>002-473</td>
<td>ID3002, 2 Loop, PSU3A, Group 0, Red</td>
</tr>
<tr>
<td>002-474</td>
<td>ID3002, 2 Loop, PSU3A, Group 0</td>
</tr>
<tr>
<td>002-474-001</td>
<td>ID3002, 2 Loop, PSU3A, Group 1</td>
</tr>
<tr>
<td>002-474-003</td>
<td>ID3002, 2 Loop, PSU3A, Group 3</td>
</tr>
<tr>
<td>002-474-004</td>
<td>ID3002, 2 Loop, PSU3A, Group 4</td>
</tr>
<tr>
<td>002-474-005</td>
<td>ID3002, 2 Loop, PSU3A, Group 5</td>
</tr>
</tbody>
</table>

Incorporating the following as modular units:

#### Enclosures:
- 020-472-009 Backbox Kit Standard, Black / Grey
- 020-473-009 Backbox Kit Extended, Black / Grey
- 020-474-009 Backbox Kit Extended Deep, Black / Grey
- 020-475-009 Backbox Kit Double Extended, Black / Grey
- 020-476-009 Backbox Kit Double Extended Deep, Black / Grey
- 020-480-009 Cover Kit Main Moulded, Black / Grey
- 020-481-009 Cover Kit Extended Moulded, Black / Grey
- 020-508-009 Backbox Extension Standard Assembly Black / Grey
- 020-509-009 Backbox Extension Deep Assembly Black / Grey
- 020-513-009 High Security Cover Kit Main, Black / Grey
- 020-514-009 High Security Cover Kit Extension
- 020-576 Main Cover, Stainless Steel
- 020-577 Extension Cover Stainless Steel
- 020-621-256 Zone Extension Cover, Stainless / Steel
- 020-621-009 256 Zone Extension Cover, Black / Grey
- 020-541-009 PSU7A / 78Ah Battery Enclosure

#### Modules:
- 020-559-001 Zone Extension Chassis Kit 1-64 Zone C/W Display Module
- 020-559-002 Zone Extension Chassis Kit 65-128 Zone C/W Display Module
- 020-612 Double Extended Chassis Kit 256 Zone
- 020-708-009 Extension Chassis with Printer
- 020-644-009 Printer Assembly
- 020-588 Notifier Dual Loop Interface Board, (LIB)
- 020-549 Notifier Dual Enhanced Loop Interface Board, (ELIB)
- 020-478 RS232 Interface
- 020-479 RS485 Interface
- 020-648 PSU3A
- 020-579 PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)
- 020-548 PSU7A Status Indication
- 020-543 Dual Transmission Path / Booster, PSU Interface
- 020-773 Routing Termination Unit (DEOL)
- 020-877 Extinguishing Interface Module M221-SI
- 020-643 ID²net Fibre Optic Interface Kit
- 020-647 ID²net Network Gateway Module, (NGM) for use in ID3000 Panel

#### Note 1:
Products are available in language variants as follows:
- Group 0: English and Icelandic, with English manuals
- Group 1: English, Spanish, Portuguese, Icelandic and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
- Group 4: English and Polish
- Group 5: English and Cyrillic

#### Note 2:
Fixed build products incorporate a corresponding Basic Equipment Kit.

<table>
<thead>
<tr>
<th>ID3004</th>
<th>Fixed build 4 loop analogue addressable control and indicating equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-727</td>
<td>ID3004, 4 Loop, PSU7A, Group 0, LIB</td>
</tr>
<tr>
<td>020-728</td>
<td>ID3004, 4 Loop, PSU7A, Group 0, ELIB</td>
</tr>
<tr>
<td>020-729</td>
<td>ID3004, 4 Loop, PSU7A, Group 0, LIB, printer</td>
</tr>
<tr>
<td>020-730</td>
<td>ID3004, 4 Loop, PSU7A, Group 0, LiB, 64 zone LED</td>
</tr>
</tbody>
</table>
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CONTROL AND INDICATING EQUIPMENT

Certificated Products

Incorporating the following as modular units:

Enclosures:

020-472-009 Backbox Kit Standard, Black / Grey
020-473-009 Backbox Kit Extended, Black / Grey
020-474-009 Backbox Kit Extended Deep, Black / Grey
020-475-009 Backbox Kit Double Extended, Black / Grey
020-476-009 Backbox Kit Double Extended Deep, Black / Grey
020-480-009 Cover Kit Main Moulded, Black / Grey
020-481-009 Cover Kit Extended Moulded, Black / Grey
020-508-009 Backbox Extension Standard Assembly Black / Grey
020-509-009 Backbox Extension Deep Assembly Black / Grey
020-513-009 High Security Cover Kit Main, Black / Grey
020-514-009 High Security Cover Kit Extension
020-576 Main Cover, Stainless Steel
020-577 Extension Cover Stainless Steel
020-621-256 Zone Extension Cover, Stainless / Steel
020-621-009 256 Zone Extension Cover, Black / Grey
020-541-009 PSU7A / 78Ah Battery Enclosure

Modules:

020-559-001 Zone Extension Chassis Kit 1-64 Zone C/W Display Module
020-559-002 Zone Extension Chassis Kit 65-128 Zone C/W Display Module
020-612 Double Extended Chassis Kit 256 Zone
020-708-009 Extension Chassis with Printer
020-644-009 Printer Assembly
020-588 Notifier Dual Loop Interface Board, (LIB)
020-549 Notifier Dual Enhanced Loop Interface Board, (ELIB)
020-478 RS232 Interface
020-479 RS485 Interface
020-648 PSU3A
020-579 PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)
020-548 PSU7A Status Indication
020-543 Dual Transmission Path / Booster, PSU Interface
020-773 Routing Termination Unit (DEOL)
020-877 Extinguishing Interface Module M221-SI
020-643 ID²net Fibre Optic Interface Kit
020-647 ID²net Network Gateway Module, (NGM) for use in ID3000 Panel

Note 1: Products are available in language variants as follows:

Group 0: English and Icelandic, with English manuals
Group 1: English, Spanish, Portuguese, Icelandic and Italian
Group 3: English, Swedish, Danish, Norwegian and Finish
Group 4: English and Polish
Group 5: English and Cyrillic

Note 2: Fixed build products incorporate a corresponding Basic Equipment Kit.

ID3006

Fixed build 6 loop analogue addressable control and indicating equipment.

020-731 ID3006, 6 Loop, PSU7A, Group 0, 2xLIB
020-732 ID3006, 6 Loop, PSU7A, Group 0, 2xELIB
020-733 ID3006, 6 Loop, PSU7A, Group 0, 2xLIB, printer
020-734 ID3006, 6 Loop, PSU7A, Group 0, 2xLIB, 64 zone LED

Incorporating the following as modular units:

Enclosures:

020-472-009 Backbox Kit Standard, Black / Grey
020-473-009 Backbox Kit Extended, Black / Grey
020-474-009 Backbox Kit Extended Deep, Black / Grey
020-475-009 Backbox Kit Double Extended, Black / Grey
020-476-009 Backbox Kit Double Extended Deep, Black / Grey
020-480-009 Cover Kit Main Moulded, Black / Grey
020-481-009 Cover Kit Extended Moulded, Black / Grey
020-508-009 Backbox Extension Standard Assembly Black / Grey
020-509-009 Backbox Extension Deep Assembly Black / Grey
020-513-009 High Security Cover Kit Main, Black / Grey
020-514-009 High Security Cover Kit Extension
020-576 Main Cover, Stainless Steel
020-577 Extension Cover Stainless Steel
020-621-256 Zone Extension Cover, Stainless / Steel
020-621-009 256 Zone Extension Cover, Black / Grey
020-541-009 PSU7A / 78Ah Battery Enclosure
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Certificated Products

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<th>LPCB Ref. No.</th>
<th>Description</th>
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<td>020-514-009</td>
<td>High Security Cover Kit Extension</td>
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<tr>
<td>020-576</td>
<td>Main Cover, Stainless Steel</td>
</tr>
<tr>
<td>020-577</td>
<td>Extension Cover Stainless Steel</td>
</tr>
<tr>
<td>020-621-256</td>
<td>Zone Extension Cover, Stainless / Steel</td>
</tr>
<tr>
<td>020-621-009</td>
<td>256 Zone Extension Cover, Black / Grey</td>
</tr>
<tr>
<td>020-541-009</td>
<td>PSU7A / 78Ah Battery Enclosure</td>
</tr>
</tbody>
</table>

Modules:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-599-001</td>
<td>Zone Extension Chassis Kit 1-64 Zone C/W Display Module</td>
</tr>
<tr>
<td>020-599-002</td>
<td>Zone Extension Chassis Kit 65-128 Zone C/W Display Module</td>
</tr>
<tr>
<td>020-612</td>
<td>Double Extended Chassis Kit 256 Zone</td>
</tr>
<tr>
<td>020-708-009</td>
<td>Extension Chassis with Printer</td>
</tr>
<tr>
<td>020-644-009</td>
<td>Printer Assembly</td>
</tr>
<tr>
<td>020-588</td>
<td>Notifier Dual Loop Interface Board, (LIB)</td>
</tr>
<tr>
<td>020-549</td>
<td>Notifier Dual Enhanced Loop Interface Board, (ELIB)</td>
</tr>
<tr>
<td>020-478</td>
<td>RS232 Interface</td>
</tr>
<tr>
<td>020-479</td>
<td>RS485 Interface</td>
</tr>
<tr>
<td>020-648</td>
<td>PSU3A</td>
</tr>
<tr>
<td>020-579</td>
<td>PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)</td>
</tr>
<tr>
<td>020-548</td>
<td>PSU7A Status Indication</td>
</tr>
<tr>
<td>020-543</td>
<td>Dual Transmission Path / Booster, PSU Interface</td>
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<tr>
<td>020-773</td>
<td>Routing Termination Unit (DEOL)</td>
</tr>
<tr>
<td>020-577</td>
<td>Extinguishing Interface Module M221-SI</td>
</tr>
<tr>
<td>020-543</td>
<td>ID(^2)net Fibre Optic Interface Kit</td>
</tr>
<tr>
<td>020-547</td>
<td>ID(^2)net Network Gateway Module, (NGM) for use in ID3000 Panel</td>
</tr>
</tbody>
</table>

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- Group 3: English, Swedish, Danish, Norwegian and Finish
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- Group 5: English and Cyrillic

Note 2: Fixed build products incorporate a corresponding Basic Equipment Kit.

ID3008
Fixed build 8 loop analogue addressable control and indicating equipment.

<table>
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<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-735</td>
<td>ID3008, 8 Loop, PSU7A, Group 0, 3xLIB, 78Ah Battery Enclosure</td>
</tr>
<tr>
<td>020-736</td>
<td>ID3008, 8 Loop, PSU7A, Group 0, 3xELIB, 78Ah Battery Enclosure</td>
</tr>
<tr>
<td>020-737</td>
<td>ID3008, 8 Loop, PSU7A, Group 0, 3xLIB, 78Ah Battery Enclosure, Printer</td>
</tr>
<tr>
<td>020-738</td>
<td>ID3008, 8 Loop, PSU7A, Group 0, 3xLIB, 78Ah Battery enclosure, printer, 64 Zone LED</td>
</tr>
</tbody>
</table>

Incorporating the following as modular units:

Enclosures:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-472-009</td>
<td>Backbox Kit Standard, Black / Grey</td>
</tr>
<tr>
<td>020-473-009</td>
<td>Backbox Kit Extended, Black / Grey</td>
</tr>
<tr>
<td>020-474-009</td>
<td>Backbox Kit Extended Deep, Black / Grey</td>
</tr>
<tr>
<td>020-475-009</td>
<td>Backbox Kit Double Extended, Black / Grey</td>
</tr>
<tr>
<td>020-476-009</td>
<td>Backbox Kit Double Extended Deep, Black / Grey</td>
</tr>
<tr>
<td>020-480-009</td>
<td>Cover Kit Main Moulded, Black / Grey</td>
</tr>
<tr>
<td>020-481-009</td>
<td>Cover Kit Extended Moulded, Black / Grey</td>
</tr>
<tr>
<td>020-508-009</td>
<td>Backbox Extension Standard Assembly Black / Grey</td>
</tr>
<tr>
<td>020-509-009</td>
<td>Backbox Extension Deep Assembly Black / Grey</td>
</tr>
<tr>
<td>020-513-009</td>
<td>High Security Cover Kit Main, Black / Grey</td>
</tr>
<tr>
<td>020-514-009</td>
<td>High Security Cover Kit Extension</td>
</tr>
<tr>
<td>020-576</td>
<td>Main Cover, Stainless Steel</td>
</tr>
<tr>
<td>020-577</td>
<td>Extension Cover Stainless Steel</td>
</tr>
<tr>
<td>020-621-256</td>
<td>Zone Extension Cover, Stainless / Steel</td>
</tr>
<tr>
<td>020-621-009</td>
<td>256 Zone Extension Cover, Black / Grey</td>
</tr>
<tr>
<td>020-541-009</td>
<td>PSU7A / 78Ah Battery Enclosure</td>
</tr>
</tbody>
</table>

Modules:

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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-599-001</td>
<td>Zone Extension Chassis Kit 1-64 Zone C/W Display Module</td>
</tr>
<tr>
<td>020-599-002</td>
<td>Zone Extension Chassis Kit 65-128 Zone C/W Display Module</td>
</tr>
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</table>

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<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
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<td>020-612 Double Extended Chassis Kit 256 Zone</td>
<td>020-708-009 Extension Chassis with Printer</td>
</tr>
<tr>
<td>020-644-009 Printer Assembly</td>
<td>020-588 Notifier Dual Loop Interface Board, (LIB)</td>
</tr>
<tr>
<td>020-549 Notifier Dual Enhanced Loop Interface Board, (ELIB)</td>
<td>020-478 RS232 Interface</td>
</tr>
<tr>
<td>020-479 RS485 Interface</td>
<td>020-648 PSU3A</td>
</tr>
<tr>
<td>020-579 PSU7A, (Requires Dual Transmission Path / Booster, PSU Interface)</td>
<td>020-548 PSU7A Status Indication</td>
</tr>
<tr>
<td>020-543 Dual Transmission Path / Booster, PSU Interface</td>
<td>020-773 Routing Termination Unit (DEOL)</td>
</tr>
<tr>
<td>020-877 Extinguishing Interface Module M221-SI</td>
<td>020-643 ID²net Fibre Optic Interface Kit</td>
</tr>
<tr>
<td>020-647 ID²net Network Gateway Module, (NGM) for use in ID3000 Panel</td>
<td></td>
</tr>
</tbody>
</table>

**Note 1:** Products are available in language variants as follows:
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- Group 1: English, Spanish, Portuguese, Icelandic and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
- Group 4: English and Polish
- Group 5: English and Cyrillic

**Note 2:** Fixed build products incorporate a corresponding Basic Equipment Kit.

**ID50**
Single loop analogue addressable control and indicating equipment 154g/02

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>002-455</td>
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</tr>
<tr>
<td>002-455-001</td>
<td>ID50 Panel Group 1</td>
</tr>
<tr>
<td>002-455-003</td>
<td>ID50 Panel Group 3</td>
</tr>
<tr>
<td>002-455-004</td>
<td>ID50 Panel Group 4</td>
</tr>
</tbody>
</table>

May also incorporate the following optional modular unit:

002-553 RS485 Communication Kit

Certified with the following options with requirements:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input
- 7.10.1 Outputs from fire alarm routing equipment
- 7.10.3 Outputs to fire protection equipment: Type A
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to Outputs
- 7.12.2 Dependencies on more than one alarm signal: Type B
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition

**Note:** Products are available in various language groups as follows:
- Group 0: English, Icelandic, French, Italian, Portuguese and Spanish,
  (shipped with English manuals)
- Group 1: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 2: English, Dutch, German, French and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finish
- Group 4: English and Polish

**ID60**
Single loop analogue addressable control and indicating equipment 154g/03

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>002-456</td>
<td>ID60 Panel Group 0</td>
</tr>
<tr>
<td>002-456-001</td>
<td>ID60 Panel Group 1</td>
</tr>
<tr>
<td>002-456-003</td>
<td>ID60 Panel Group 3</td>
</tr>
<tr>
<td>002-456-004</td>
<td>ID60 Panel Group 4</td>
</tr>
</tbody>
</table>

May also incorporate the following optional modular unit:

002-553 RS485 Communication Kit

Certified with the following options with requirements:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input
- 7.10.1 Outputs from fire alarm routing equipment
- 7.10.3 Outputs to fire protection equipment: Type A
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to Outputs
- 7.12.2 Dependencies on more than one alarm signal: Type B
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of
Certificated Products

PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

ID61
Single loop analogue addressable control and indicating equipment

- LPCB Ref. No.: 154g/04
- Test condition: 10
- Addressable points: 10

Note: Products are available in various language groups as follows:
- Group 0: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 1: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 2: English, Dutch, German, French and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finnish
- Group 4: English and Polish

002-463 ID61 Panel Group 0
002-463-001 ID61 Panel Group 1
002-463-004 ID61 Panel Group 4
002-485-001 ID61 Panel Group 1 (Red)

Incorporating the following modular unit:
- 020-648 PSU3A Kit

May also incorporate the following optional modular units:
- 020-479 RS485 Communication Kit
- 020-644-009 Printer Kit

Certified with the following options with requirements:
- 7.8 Output to fire alarm devices
- 7.9.1 Output from fire alarm
- 7.10.1 Fault monitoring of fire protection equipment
- 7.12.2 Delays to Outputs
- 7.13 Alarm counter
- 8.9 Fault signals from points
- 9.5 Disablement of addressable points

ID62
Single loop analogue addressable control and indicating equipment

- LPCB Ref. No.: 154g/05
- Test condition: 10
- Addressable points: 10

Note: Products are available in various language groups as follows:
- Group 0: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 1: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 2: English, Dutch, German, French and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finnish
- Group 4: English and Polish

002-461 ID62 Panel Group 0
002-461-001 ID62 Panel Group 1
002-461-004 ID62 Panel Group 4

Incorporating the following modular unit:
- 020-648 PSU3A Kit

May also incorporate the following optional modular units:
- 020-479 RS485 Communication Kit
- 020-644-009 Printer Kit

Certified with the following options with requirements:
- 7.8 Output to fire alarm devices
- 7.9.1 Output from fire alarm
- 7.10.1 Fault monitoring of fire protection equipment
- 7.12.2 Delays to Outputs
- 7.13 Alarm counter
- 8.9 Fault signals from points
- 9.5 Disablement of addressable points

NFS2-8 2 Zone

- Language region 1, light grey
- Language region 1, black & grey
- Language region 2, light grey
- Language region 2, black & grey
- Language region 3, light grey, dual relay
- Language region 3, black & grey, dual relay, English manual

Note: Products are available in various language groups as follows:
- Group 0: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 1: English, Icelandic, French, Italian, Portuguese and Spanish
- Group 2: English, Dutch, German, French and Italian
- Group 3: English, Swedish, Danish, Norwegian and Finnish
- Group 4: English and Polish

154g/06

PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

| LPCB Ref. No. | Language region, color scheme, relay type, manual
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<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>002-490-129</td>
<td>1, black &amp; grey, dual relay, English manual</td>
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<tr>
<td>002-490-229</td>
<td>2, black &amp; grey, dual relay, English manual</td>
</tr>
<tr>
<td>002-490-222</td>
<td>2, light grey, English manual</td>
</tr>
</tbody>
</table>

Incorporating the following units:
- 020-747 8-Way relay kit
- 020-772 4-way monitored sounder kit
- Certified with the following options from EN 54 Part 2:
  - 7.8 Output to fire alarm devices
  - 7.9.1 Output to fire alarm routing equipment
  - 7.9.2 Alarm confirmation input from fire alarm routing equipment
  - Type A 7.10.3 Output to automatic fire protection equipment: Type C
  - 7.10.4 Fault monitoring of fire protection equipment
  - 7.11.1 Delays to outputs
  - 7.11.2 Manual or automatic switching of delays to outputs
  - Dependency on more than one alarm signal: Type B 8.9 Output to fault warning routing equipment

Note 1: fixed build products incorporate a corresponding Basic equipment Kit.

NFS2-8 4 Zone

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Language region, color scheme, relay type, manual</th>
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<tbody>
<tr>
<td>002-477-142</td>
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<td>002-477-149</td>
<td>1, black &amp; grey</td>
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<td>002-477-242</td>
<td>2, light grey</td>
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<tr>
<td>002-477-249</td>
<td>2, black &amp; grey</td>
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<td>002-477-342</td>
<td>3, light grey, dual relay</td>
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<tr>
<td>002-477-349</td>
<td>3, black &amp; grey, dual relay</td>
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<tr>
<td>002-490-149</td>
<td>1, black &amp; grey, dual relay</td>
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<tr>
<td>002-490-249</td>
<td>2, light grey, English manual</td>
</tr>
</tbody>
</table>

Incorporating the following units:
- 020-747 8-Way relay kit
- 020-772 4-way monitored sounder kit
- Certified with the following options from EN 54 Part 2:
  - 7.8 Output to fire alarm devices
  - 7.9.1 Output to fire alarm routing equipment
  - 7.9.2 Alarm confirmation input from fire alarm routing equipment
  - Type A 7.10.3 Output to automatic fire protection equipment: Type C
  - 7.10.4 Fault monitoring of fire protection equipment
  - 7.11.1 Delays to outputs
  - 7.11.2 Manual or automatic switching of delays to outputs
  - Dependency on more than one alarm signal: Type B 8.9 Output to fault warning routing equipment

Note 1: fixed build products incorporate a corresponding Basic equipment Kit.

NFS2-8 8 Zone

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Language region, color scheme, relay type, manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>002-477-182</td>
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<td>002-477-189</td>
<td>1, black &amp; grey</td>
</tr>
<tr>
<td>002-477-282</td>
<td>2, light grey</td>
</tr>
<tr>
<td>002-477-289</td>
<td>2, black &amp; grey</td>
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<tr>
<td>002-477-382</td>
<td>3, light grey, dual relay</td>
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<td>002-477-389</td>
<td>3, black &amp; grey, dual relay</td>
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<tr>
<td>002-490-189</td>
<td>1, black &amp; grey, dual relay</td>
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<tr>
<td>002-490-289</td>
<td>2, black &amp; grey, dual relay</td>
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<tr>
<td>002-490-282</td>
<td>2, light grey, English manual</td>
</tr>
</tbody>
</table>

Incorporating the following units:
- 020-747 8-Way relay kit
- 020-772 4-way monitored sounder kit

Incorporating the following units:
- 020-747 8-Way relay kit
- 020-772 4-way monitored sounder kit
- Certified with the following options from EN 54 Part 2:
  - 7.8 Output to fire alarm devices
  - 7.9.1 Output to fire alarm routing equipment
  - 7.9.2 Alarm confirmation input from fire alarm routing equipment
  - Type A 7.10.3 Output to automatic fire protection equipment: Type C
  - 7.10.4 Fault monitoring of fire protection equipment
  - 7.11.1 Delays to outputs
  - 7.11.2 Manual or automatic switching of delays to outputs
  - Dependency on more than one alarm signal: Type B 8.9 Output to fault warning routing equipment

Note 1: fixed build products incorporate a corresponding Basic equipment Kit.

ID2000

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>002-628</td>
<td>Basic Equipment Kit (BEK): Modular analogue addressable control and indicating equipment</td>
</tr>
<tr>
<td>020-628-001</td>
<td>Basic equipment kit ID2000 Group 1, UK ES PT IT</td>
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<tr>
<td>020-628-002</td>
<td>Basic equipment kit ID2000 Group 2, UK NL FR</td>
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Incorporating the following as optional modular units:
## PART 1: SECTION 3

### CONTROL AND INDICATING EQUIPMENT

### Certificated Products

<table>
<thead>
<tr>
<th>Enclosures:</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backbox Kit Standard, Black / Grey</td>
<td>020-472-009</td>
</tr>
<tr>
<td>Backbox Kit Extended, Black / Grey</td>
<td>020-474-009</td>
</tr>
<tr>
<td>Backbox Kit Extended Deep, Black / Grey</td>
<td>020-475-009</td>
</tr>
<tr>
<td>Backbox Kit Double Extended Deep, Black / Grey</td>
<td>020-481-009</td>
</tr>
<tr>
<td>Cover Kit Main Moulded, Black / Grey</td>
<td>020-476-009</td>
</tr>
<tr>
<td>Backbox Extension Standard Assembly Black / Grey</td>
<td>020-509-009</td>
</tr>
<tr>
<td>Backbox Extension Deep Assembly Black / Grey</td>
<td>020-576</td>
</tr>
<tr>
<td>Main Cover, Stainless Steel</td>
<td>020-577</td>
</tr>
<tr>
<td>PSU7A / 78Ah Battery Enclosure</td>
<td>020-541-009</td>
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### Modules:

<table>
<thead>
<tr>
<th>Module</th>
<th>Description</th>
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<tbody>
<tr>
<td>020-649-009</td>
<td>64 Zone Extension Chassis Kit 64 Zone C/W Display</td>
</tr>
<tr>
<td>020-708-009</td>
<td>Extension Chassis with Printer</td>
</tr>
<tr>
<td>020-588</td>
<td>Notifier Dual Loop Interface Board, (LIB)</td>
</tr>
<tr>
<td>020-478</td>
<td>RS232 Interface</td>
</tr>
<tr>
<td>020-479</td>
<td>RS485 Interface</td>
</tr>
<tr>
<td>020-648</td>
<td>PSU3A, (Requires Dual Transmission Path / Booster, PSU Interface)</td>
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<tr>
<td>020-543</td>
<td>Dual Transmission Path / Booster, PSU Interface</td>
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<tr>
<td>020-548</td>
<td>PSU7A Status Indication</td>
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</tbody>
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Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.9.1 Alarm confirmation input from fire alarm routing equipment
- 7.11 Delays to outputs
- 7.12.3 Dependency on more than one alarm signal type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 9.5 Disablements of addressable points

Test condition

Note 2: Products are available in language variants as follows:

- Group 0: English, Spanish, Portuguese and Italian (shipped with English manuals)
- Group 1: English, Spanish, Portuguese and Italian
- Group 2: English, Dutch, and French

Fixed build 2 loop analogue addressable control and indicating equipment.

ID2002 002-459 154g/09 ID2002, 2 loop control and indicating equipment, Group 1

Incorporating the following as optional modular units:

### Enclosures:

<table>
<thead>
<tr>
<th>Enclosures:</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>020-475-009</td>
</tr>
<tr>
<td>Backbox Kit Double Extended Deep, Black / Grey</td>
<td>020-481-009</td>
</tr>
<tr>
<td>Cover Kit Main Moulded, Black / Grey</td>
<td>020-476-009</td>
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<tr>
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<td>020-509-009</td>
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<tr>
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<td>020-576</td>
</tr>
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<td>020-577</td>
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<td>64 Zone Extension Chassis Kit 64 Zone C/W Display</td>
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<td>RS232 Interface</td>
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<tr>
<td>020-479</td>
<td>RS485 Interface</td>
</tr>
<tr>
<td>020-648</td>
<td>PSU3A, (Requires Dual Transmission Path / Booster, PSU Interface)</td>
</tr>
<tr>
<td>020-543</td>
<td>Dual Transmission Path / Booster, PSU Interface</td>
</tr>
<tr>
<td>020-548</td>
<td>PSU7A Status Indication</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54 Part 2:

- 7.8 Output to fire alarm devices
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.11 Delays to outputs
- 7.12.3 Dependency on more than one alarm signal type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 9.5 Disablements of addressable points

Test condition

Note 2: Products are available in language variants as follows:

- Group 0: English, Spanish, Portuguese and Italian (shipped with English manuals)
- Group 1: English, Spanish, Portuguese and Italian
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Italian Group 2: English, Dutch, and French

Pearl Two loop analogue addressable control and indicating equipment 154g/10

Incorporating the following units:
- 772489-NE CPU board 124-408 3A PSU board
- 124-412 Network gateway module 124-421 Base board incorporating two loops 124-422 Display board 124-423
- VdS I/O Module 124-426 Communications module PRL-
- Box Extended Back box

Incorporating the following optional regional language text inserts:
- PRL-LED-EN (English) PRL-D (German) PRL-IB (Iberia) PRL-BNL (Benelux) PRL-LCD-NRD (Swedish) PRL-MEA (Middle East and Africa) PRL-IT (Italian)

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices 7.9.1 Output to fire alarm routing equipment 7.9.2 Alarm confirmation input from fire alarm routing equipment 7.10.1 Output to fire protection equipment type A 7.10.3 Output to fire protection equipment type C 7.10.4 Fault monitoring of fire protection equipment 7.11 Delays to outputs 7.12.2 Dependency on more than one alarm signal type B 7.12.3 Dependency on more than one alarm signal type C 7.13 Alarm counter 8.3 Fault signals from points 8.9 Output to fault warning routing equipment 9.5 Disablements of addressable points 10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. 2. Scope of approval does not include the operation of the network functionality.

Pearl Single loop analogue addressable control and indicating equipment 154g/11

Incorporating the following units:
- 772489-NE CPU board 124-408 3A PSU board
- 124-412 Network gateway module 124-421-001 Single loop base board incorporating one loop 124-422 Display board 124-
- 423 VdS I/O Module 124-426 Communications module PRL-
- Box Extended Back box

Incorporating the following optional regional language text inserts:
- PRL-LED-EN-1 (English) PRL-D-1 (German) PRL-IB-1 (Iberia) PRL-BNL-1 (Benelux) PRL-LCD-NRD-1 (Swedish) PRL-MEA-1 (Middle East and Africa) PRL-IT-1 (Italian)

Certified with the following options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices 7.9.1 Output to fire alarm routing equipment 7.9.2 Alarm confirmation input from fire alarm routing equipment 7.10.1 Output to fire protection equipment type A 7.10.3 Output to fire protection equipment type C 7.10.4 Fault monitoring of fire protection equipment 7.11 Delays to outputs 7.12.2 Dependency on more than one alarm signal type B 7.12.3 Dependency on more than one alarm signal type C 7.13 Alarm counter 8.3 Fault signals from points 8.9 Output to fault warning routing equipment 9.5 Disablements of addressable points 10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. 2. Scope of approval does not include the operation of the network functionality.

002-467 ID ² net Network Gateway Unit, (NGU) Notifier Protocol 154g/NO1
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Incorporating the following as modular units:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-643</td>
<td>ID(^2) net Fibre Optic Interface Kit</td>
</tr>
<tr>
<td>020-647</td>
<td>ID(^2) net Network Gateway Module, (NGM) for use in ID3000 Panels</td>
</tr>
<tr>
<td>020-648</td>
<td>PSU3A</td>
</tr>
</tbody>
</table>

Certificated with the following options with requirements:

- Output to fire alarm devices
- Output to fire alarm routing equipment
- Alarm confirmation input from fire alarm routing equipment
- Output to fire protection equipment type A
- Output to fire protection equipment type C
- Fault monitoring of fire protection equipment
- Delays to outputs
- Dependency on more than one alarm signal type B
- Dependency on more than one alarm signal type C
- Alarm counter
- Fault signals from points
- Output to fault warning routing equipment
- Disablements of addressable points
- Test condition

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Olympia Electronics S.A.
Kolindros Pierias, 60061, Greece
Tel: (+30) 2353051200 • Fax: (+30) 2353051486
E-mail: info@olympia-electronics.gr • Website: www.olympia-electronics.gr


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>BSR-2104</td>
<td>Two loop analogue addressable control and indicating equipment.</td>
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<tr>
<td>1010a/01</td>
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Incorporating the following units:

<table>
<thead>
<tr>
<th></th>
<th>Main board</th>
<th>Main processor board</th>
<th>Input / Output Unit</th>
<th>LED PCB board</th>
<th>Loop 1 incorporating power control board</th>
<th>Lambda PSU block</th>
</tr>
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<tbody>
<tr>
<td>1702091</td>
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Certificated with the following options with requirements from EN 54 part 2:

- Output to fire alarm devices
- Output to fire alarm routing equipment
- Output to fire protection equipment (Type A)
- Fault monitoring of fire protection equipment
- Delays to outputs
- Alarm counter
- Fault signals from points
- Output to fault warning routing equipment
- Disablements of each address point
- Test condition

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<td>BSR-2114</td>
<td>Four loop analogue addressable control and indicating equipment.</td>
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Incorporating the following units:

<table>
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<tr>
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<th>Main board</th>
<th>Main processor board</th>
<th>Input / Output Unit</th>
<th>LED PCB board</th>
<th>Loop 1 incorporating power control board</th>
<th>Loop 2 board</th>
<th>Lambda PSU block</th>
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</tbody>
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Certificated with the following options with requirements from EN 54 part 2:

- Output to fire alarm devices
- Output to fire alarm routing equipment
### Control and Indicating Equipment

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>7.10.1</th>
<th>Output to fire protection equipment (Type A)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>7.10.4</td>
<td>Fault monitoring of fire protection equipment</td>
</tr>
<tr>
<td></td>
<td>7.11</td>
<td>Delays to outputs</td>
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<td></td>
<td>7.13</td>
<td>Alarm counter</td>
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<td></td>
<td>8.3</td>
<td>Fault signal from points</td>
</tr>
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<td></td>
<td>8.9</td>
<td>Output to fault warning routing equipment</td>
</tr>
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<td></td>
<td>9.5</td>
<td>Disablement of each address point</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Test condition</td>
</tr>
</tbody>
</table>

**Orient Corporation Pte. Ltd.**

Block 3018, Bedok North Street 5, #05-51, Eastlink Light Industrial Building 486132, Singapore

Tel: (+65) 6242 5489 • Fax: (+65) 6241 2291

E-mail: corporate@orientcorp.net


**Control and indicating equipment**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>EP203/ORIENT</th>
<th>Conventional three zone class A extinguisher control panel</th>
</tr>
</thead>
</table>

Incorporating the following units:

- SPF0000203 Main extinguisher control
- SPF0000212 External relay interface
- SPF0003613 Power supply unit
- SPF0000214 EP214 terminator

Incorporating as modular units:

- EP210S Remote Status Unit Surface Mount optional (See Note 1)
- EP211 Economy Status Unit optional (See Note 1)

Certified with the following options with requirements from EN 12094-1:2003

- 4.17 Delay of extinguishing signal
- 4.18 Signal representing the flow of extinguishing agent
- 4.19 Monitoring of the status of components
- 4.20 Emergency hold device
- 4.21 Control of flooding time
- 4.23 Manual only mode
- 4.26 Triggering of equipment outside the system
- 4.27 Emergency abort device
- 4.30 Activation of alarm devices with different signals

Certified with the following options with requirements from EN 54-2:1997

- 7.8 Output to fire alarm device(s)
- 7.11 Delays to the auctioning of outputs fire alarm devices and fire routing equipment
- 7.13 Alarm counter
- 10 Test condition

**Note:**

1. Optional Remote Status Unit part No. EP210S & Economy Status Unit part No. EP211 are not certified as meeting the requirements of the standards specified.

2. Meets the requirements of EN12094-3:2003, Class A - i.e. operational temperature range of -5°C to +40°C.
Paradox Hellas S.A.
Korinthou 3, Metamorfosi, Athens 14451, Greece
Tel: +30 210 285 55 000
E-mail: rnd@paradox.gr • Website: www.paradox.gr


Control and indicating equipment
Certificated Products

SMARTX
SMARTX 116 HO Single Loop 16 Zones Analogue Addressable Control and Indicating Equipment (Hochiki's ESP Protocol)
SMARTX 132 HO Single Loop 32 Zones Analogue Addressable Control and Indicating Equipment (Hochiki's ESP Protocol)
SMARTX 116 AP Single Loop 16 Zones Analogue Addressable Control and Indicating Equipment (Apollo's XP95/Discovery Protocol)
SMARTX 132 AP Single Loop 32 Zones Analogue Addressable Control and Indicating Equipment (Apollo's XP95/Discovery Protocol)

Incorporating the following modules:
PH.SM.1LP.MN Addressable Main Board
PH.KP.132.GR 32 Zones Keypad / Display Board (Applicable to SMARTX 132)
PH.KP.116.GR 16 Zones Keypad / Display Board (Applicable to SMARTX 116)
PH.PS.006.V1 FPS-6 Power Supply

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment Output type A
7.10.2 Outputs to fire protection equipment Output type B
7.10.3 Outputs to fire protection equipment Output type C
7.10.4 Fault monitoring of fire protection equipment
7.12.2 Dependencies on more than one alarm signal Type B dependency
8.3 Fault signals from points
9.5 Disablement of addressable point

Note:
This product approval does not constitute compliance with the fire detection and alarms systems requirements of EN54-13.

Photain Controls
8 New Market Court, Chippenham Drive, Kingston, Milton Keynes MK10 0AQ, United Kingdom
Tel: 01908 281981 • Fax: 01908 282554
E-mail: Joanna.wyrwich@fs.utc.com

N.B This certificate is to a withdrawn standard. Control and indicating equipment conforming to this standard is not suitable for use within the jurisdiction of the European Union (EU). This certificate, to the withdrawn standard, is maintained because control and indicating equipment meeting the withdrawn standard is still requested by some regulators outside of the EU.

Certificated Products

ZP3
1, 2 and 4 loop analogue addressable control and indicating equipment

Incorporating as modular units:
ZP3-MB2-4L 4 Loop Main board
ZP3-MB2-2L 2 Loop Main board
ZP3-MB2-1L 1 Loop Main board
ZP3-CPU1 CPU board
ZP3-DB1 Display board
ZP3-ZB60 50 Zone LED board

20 Oct 2020
**PART 1: SECTION 3**

**CONTROL AND INDICATING EQUIPMENT**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZP3-CB1  Commissioning key switch board</td>
<td></td>
</tr>
<tr>
<td>ZP3-PR1  Printer Kit</td>
<td></td>
</tr>
<tr>
<td>ZP3AB-SCB-D Control bus driver</td>
<td></td>
</tr>
<tr>
<td>ZP3AB-RL8 Programmable relay output board, 8 way</td>
<td></td>
</tr>
<tr>
<td>ZP3-AB-MA8 Programmable monitored output board, 8 way</td>
<td></td>
</tr>
<tr>
<td>ZP3AB-OP24 Programmable transistor output board, 24 way</td>
<td></td>
</tr>
<tr>
<td>ZP3AB-MIP8 Programmable input board, 8 way</td>
<td></td>
</tr>
<tr>
<td>ZP3-Xl  230Vac Power supply unit</td>
<td></td>
</tr>
</tbody>
</table>

Approved with the following options from BS EN54 Part 2:

7.8  Output to fire alarm devices
7.9  Output to fire alarm routing equipment
7.10 Output to fire protection equipment
7.11 Delays to outputs
7.12 Co-incidence detection
7.13 Alarm counter
8.3  Fault signals from points
8.4  Total loss of power
8.9  Output to fault routing equipment
9.5  Disablement of addressable points
10 Test condition
11 Standardised input/output interface

---

**PT.Servvo Fire Indonesia**

Pusat Niaga Roxy Mas Blok D5/17,, Jl.K.H. Hasyim Ashari Blok 125, Cideng, Gambir, Jakarta Pusat, DKI Jakarta Raya 10150, Indonesia

Tel: +62216330330

E-mail: info@servvo.com Info@servvo.co.id • Website: www.servvo.com or www.servvo.co.id


**Control and indicating equipment**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFS 2640E Single Loop Analogue Addressable Fire Alarm Control Panel</td>
<td>1426g/01</td>
</tr>
</tbody>
</table>

Incorporating the following modules:

- SEC3002_IO IO Board
- SEC3002_B Monitoring Board (B Board)
- ZB-9100-A Main CPU Board (A Board)
- PSE10_KZ Power Supply
- SEC3002_OK Zone Indication Board
- SEC3002_KEY Key Board
- SEC3002_FL1 Loop SPU Board

Incorporating the following optional modules:

- SEC3002_COM Communication Board

Certified with the following options with requirements from EN54-2:

7.8  Output to fire alarm devices
7.10.1 Output type A
7.11 Delays to outputs
8.3  Fault signals from points
9.5  Disablement of addressable point
10 Test condition

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.
2. Scope of approval does not include the operation of the network functionality.
**Schneider Electric Buildings Sweden AB**  
Dialoggatan 16, 126 37, Hägersten, Norway  
Tel: +4687752700 • Fax: +4687449802  
E-mail: info.eurotherm.se@schneider-electric.com • Website: www.schneider-electric.com  


<table>
<thead>
<tr>
<th>Certified Products</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CFP704-4/SCAN/S</td>
<td>176b/08</td>
</tr>
</tbody>
</table>

Four zone conventional control and indicating equipment

Incorporating the units:
- RPF0702005 Power supply PCB
- SPF0724853 4 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
- 7.8 Output to fire alarm devices(s)
- 7.11 Delays to outputs
- 10 Test condition

**Schneider Electric Fire & Security Oy**  
Palkkite 1 D, 04300 Tuusula, Finland  
Tel: +358 10 446511 • Fax:  
E-mail: FI-FireSecurity-Info@schneider-electric.com • Website: www.schneider-electric.com  


<table>
<thead>
<tr>
<th>Certified Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX</td>
<td>883b/01</td>
</tr>
</tbody>
</table>

8 Loop Analogue Addressable CIE

Basic unit incorporates the following modules:
- FX-MC2 Master controller
- FX-UI2 User interface
- FX-PSB 4.5 A Power Supply
- or
- FX-PS2 4.8 A Power Supply

Optional Modules -The following modules are optional additions to the basic unit:
- FX-ALCB Two loop addressable controller Apollo protocol card
- FX-ALCA One loop addressable controller Apollo protocol card
- FX-LC Two loop addressable controller System Sensor protocol card
- FX-SLC Two loop addressable controller System Sensor advanced protocol card
- FX-CLC Sixteen loop conventional Controller
- FX-I0C I/O controller board
- FX-OCA 16 clean output module
- FX-LB80 80 Zone LED indication card
- FX2-LB32 32 Panel LED indication card
- FX-BAT Separate battery box (4x17Ah, 12V)
- FXM-BAT Separate battery box (4x12Ah, 12V)

Certified with the following options with requirements from EN 54-2:
- 7.8 Outputs to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.10.3 Output to Fire Protection Equipment (Output Type C)
- 7.11 Delays to outputs
- 7.12.2 Dependencies on more than one alarm signal (Type B)
- 7.13 Alarm counter
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

8.3 Fault signals from points
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points

10 Test condition

Notes:

1) Scope of approval does not include the operation of the network functionality.

2) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FXL 8 Loop Analogue addressable CIE 883b/02
Basic unit incorporates the following modules:

FX-MC2 Master controller
FX-UI2 User interface
FX-PSB 4.5 A Power Supply

or

FX-PS2 4.8 A Power Supply

Optional Modules - The following modules are optional additions to the basic unit:

FX-ALCB Two loop addressable controller Apollo protocol card
FX-ALCA One loop addressable controller Apollo protocol card
FX-LC Two loop addressable controller System Sensor protocol card
FX-SLC Two loop addressable controller System Sensor advanced protocol card
FX-CLC Sixteen loop conventional Controller
FX-IOC I/O controller board
FX-OCA 16 clean output module
FX-LB80 80 Zone LED indication card
FX2-LB32 32 Panel LED indication card
FX-BAT Separate battery box (4x17Ah, 12V)
FXM-BAT Separate battery box (4x12Ah, 12V)

Certified with the following options with requirements from EN 54-2:

7.8 Outputs to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.10.3 Output to Fire Protection Equipment (Output Type C)
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal (Type B)
7.13 Alarm counter
8.3 Fault signals from points
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points

10 Test condition

Notes:

1) Scope of approval does not include the operation of the network functionality.

2) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FXM 4 Loop Analogue addressable CIE 883b/03
Basic unit incorporates the following modules:

FX-MC2 Master Controller
FX-UI2 User Interface
FX-PSA 2.2 A Power Supply

or

FX-PS2 4.8 A Power Supply

Optional Modules - The following modules are optional additions to the basic unit:
**PART 1: SECTION 3**

**CONTROL AND INDICATING EQUIPMENT**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX-ALCB Two loop addressable controller - Apollo protocol card</td>
<td></td>
</tr>
<tr>
<td>FX-ALCA One loop addressable controller - Apollo protocol card</td>
<td></td>
</tr>
<tr>
<td>FX-LC Two loop addressable controller - System Sensor protocol card</td>
<td></td>
</tr>
<tr>
<td>FX-SLC Two loop addressable controller - System Sensor advanced protocol card</td>
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</tr>
<tr>
<td>FX-CLC Sixteen loop conventional Controller</td>
<td></td>
</tr>
<tr>
<td>FX-IOC I/O controller board</td>
<td></td>
</tr>
<tr>
<td>FX-OCA 16 clean output module</td>
<td></td>
</tr>
<tr>
<td>FX-LB80 80 Zone LED indication card</td>
<td></td>
</tr>
<tr>
<td>FX2-LB32 32 Panel LED indication card</td>
<td></td>
</tr>
<tr>
<td>FX-BAT Separate battery box (4x17Ah, 12V)</td>
<td></td>
</tr>
<tr>
<td>FXM-BAT Separate battery box (4x12Ah, 12V)</td>
<td></td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54-2:

- 7.8 Outputs to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.10.3 Output to Fire Protection Equipment (Output Type C)
- 7.11 Delays to outputs
- 7.12.2 Dependencies on more than one alarm signal (Type B)
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.4 Total loss of the power supply
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition

**Notes:**

1) Scope of approval does not include the operation of the network functionality.

2) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

---

**Schneider Electronic Buildings AS**

Luhrtoppen 2, N-1470, Lørenskog, Norway

*Website: www.schneider-electric.no*


<table>
<thead>
<tr>
<th>Certificated Products</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EPC4 Four zone conventional control and indicating equipment</td>
<td>176b/08</td>
</tr>
</tbody>
</table>

Incorporating the units:

- RPF0702005 Power supply PCB
- SPF0724853 4 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997

- 7.8 Output to fire alarm devices(s)
- 7.11 Delays to outputs
- 10 Test condition
**Control and indicating equipment**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Status</th>
<th>Description</th>
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<tbody>
<tr>
<td>1159h/01</td>
<td>Approved</td>
<td>Addressable Fire Alarm Control Panel Incorporating the following modules: SEC3002_IO IO Board SEC3002_B Monitoring Board (B Board) ZB-9100-A Main CPU Board (A Board) PSE10_KZ Power Supply SEC3002_OK Zone Indication Board SEC3002_KEY Key Board SEC3002_FL1 Loop SPU Board Incorporating the following optional modules: SEC3002_COM Communication Board Certified with the following options with requirements from EN54-2: 7.8 Output to fire alarm devices 7.10.1 Output type A 7.11 Delays to outputs 8.3 Fault signals from points 9.5 Disablement of addressable point 10 Test condition Notes: 1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. 2. Scope of approval does not include the operation of the network functionality.</td>
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**Control and indicating equipment**

**Certificated Products**

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<tr>
<th>LPCB Ref. No.</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1369a/01</td>
<td>Approved</td>
<td>Mikro 216 Single Loop 16 Zones Analogue Addressable Control and Indicating Equipment (Hochiki's ESP Protocol) Mikro 232 Single Loop 32 Zones Analogue Addressable Control and Indicating Equipment (Hochiki's ESP Protocol) Mikro 16 Single Loop 16 Zones Analogue Addressable Control and Indicating Equipment (Apollo's XP95/Discovery Protocol) Mikro 32 Single Loop 32 Zones Analogue Addressable Control and Indicating Equipment (Apollo's XP95/Discovery Protocol) Incorporating the following modules: MK.SA.1LP.EN Addressable Main Board MK.SA.32D.EN 32 Zones Keypad / Display Board (Applicable to Mikro 32 Zones) MK.SA.32D.EN 16 Zones Keypad / Display Board (Applicable to Mikro 16 Zones) MK.SA.PSU.EN Power Supply Certified with the following options with requirements from EN54-2:</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tr>
<td></td>
<td>Trident 2 to 8 Loop Analogue Addressable Control and Indicating Equipment</td>
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<tr>
<td></td>
<td>Trident 2 to 16 Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td>360b/01</td>
<td>Incorporating the following units: TEN-9021 LCD Main Processor Board TEN-9022 Main Back Board TEN-9023 Trident Network, Ethernet &amp; IFAM Interface Module TEN-9058 Dual loop Module TEN-9069 System Board A module TEN-9070 System Board B Module TEN-9071 Zone LED Board TEN-9087 Trident Vision Unit TEN-9066 Trident Thermal Printer Assembly TEN-9066 5.25 Amp Power Supply Unit</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following optional modules: TEN-9810 10.25 Amp Power Supply Unit TEN-9072 16 Channel I/O card TEN-9091 8w Relay card TEN-9092 8w conventional zone card TEN-9088 Media gateway card TEN-9093 4w sounder card TEN-9096 4 slot expansion board (used for extension for the optional I/O boards)</td>
</tr>
<tr>
<td></td>
<td>Certified with the following Options with requirements from EN 54-2:1997</td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
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<tr>
<td></td>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<tr>
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<td>7.9.2 Alarm confirmation input from fire alarm routing equipment</td>
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<tr>
<td></td>
<td>7.10.1 Outputs to fire protection equipment Output type A</td>
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<td>7.10.2 Outputs to fire protection equipment Output type B</td>
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<tr>
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<td>7.10.3 Outputs to fire protection equipment Output type C</td>
</tr>
<tr>
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<td>7.10.4 Fault monitoring of fire protection equipment</td>
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<tr>
<td></td>
<td>7.11 Delay to outputs</td>
</tr>
<tr>
<td></td>
<td>7.12.1 Dependencies on more than one alarm signal - Type A</td>
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<tr>
<td></td>
<td>7.12.2 Dependencies on more than one alarm signal - Type B</td>
</tr>
<tr>
<td></td>
<td>7.12.3 Dependencies on more than one alarm signal - Type C</td>
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<tr>
<td></td>
<td>7.13 Alarm counter</td>
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<td>8.3 Fault signals from points</td>
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<td></td>
<td>8.9 Output to fault warning routing equipment</td>
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<tr>
<td></td>
<td>9.5 Disablement of addressable points</td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
</tr>
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</table>

SHIELD FIRE, SAFETY AND SECURITY LTD
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
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Control and indicating equipment
Certificated Products

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<tr>
<td>360b/01</td>
<td>Trident 2 to 8 Loop Analogue Addressable Control and Indicating Equipment</td>
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<td>Trident 2 to 16 Loop Analogue Addressable Control and Indicating Equipment</td>
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<td>Incorporating the following units: TEN-9021 LCD Main Processor Board TEN-9022 Main Back Board TEN-9023 Trident Network, Ethernet &amp; IFAM Interface Module TEN-9058 Dual loop Module TEN-9069 System Board A module TEN-9070 System Board B Module TEN-9071 Zone LED Board TEN-9087 Trident Vision Unit TEN-9066 Trident Thermal Printer Assembly TEN-9066 5.25 Amp Power Supply Unit</td>
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<td>Incorporating the following optional modules: TEN-9810 10.25 Amp Power Supply Unit TEN-9072 16 Channel I/O card TEN-9091 8w Relay card TEN-9092 8w conventional zone card TEN-9088 Media gateway card TEN-9093 4w sounder card TEN-9096 4 slot expansion board (used for extension for the optional I/O boards)</td>
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<td>7.10.1 Outputs to fire protection equipment Output type A</td>
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<td>7.10.2 Outputs to fire protection equipment Output type B</td>
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<td>7.12.2 Dependencies on more than one alarm signal - Type B</td>
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<td>7.12.3 Dependencies on more than one alarm signal - Type C</td>
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<td></td>
<td>8.3 Fault signals from points</td>
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<td>8.9 Output to fault warning routing equipment</td>
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<tr>
<td></td>
<td>9.5 Disablement of addressable points</td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
</tr>
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20 Oct 2020
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Notes:
1. Scope of certification does not include the operation of the network functionality.
2. This certificate does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
3. The Taktis CIE is certified with the M5 & M6 shallow enclosure and D5 & D6 deep enclosure.

Certificated Products

P-A2M
Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
MB-220/ F7.820.826 Main board
SB-220/ F7.820.827 Switch board
TB-220/ F7.820.828 Loop interface board
PS-220/ F7.820.829b Power supply unit
ZP-220/ F7.820.312d Zone indication and intervention board
LC-A2M/ F7.820.1125 Loop board

Incorporating as optional modular units:
DB-A300/ F7.820.913a RS-232 board for configuration
P-A300P Printer module kit

Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
7.9.1 Output to fire routing equipment
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

P-A8M
Intelligent 8 loop, 140 zone analogue addressable control and indicating equipment

Incorporating the following units:
SB-800 Indication board
LC-A8M Loop board
PB-800 Power board
ZP-800 ZCP board
KB-800 Keypad board
MB-800 Main board
MO-800 Mother board
PS-800 Switch Mode Power Supply SP-320-27

Incorporating as optional modular units:
DB-A8M USB communication board
DB-A8MModbus RS232 ModBus Communication Card
RB-A8M Repeater Card
NB-A8MA Class A RS485 Network Card
NB-CAN8AM Class B CAN Network Card
NB-CAN8M Class A CAN Network Card
IC-A8MP Printer Interface Card

Certified with the following options with requirements from EN54 Part 2:
7.8 Output to fire alarm devices
7.9.2 Alarm confirmation input from fire routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.11 Delays to outputs
7.12 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

P-C202A
2 Zone Conventional Control and Indicating Equipment

Incorporating the following modules:
FC-102A/ F7.843.399 Membrane
CB-102A/ F2.908.1719 Control board with integrated PSE
DB-102A/ F2.908.1722 Display board

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20 Oct 2020
Certificated Products

Optional modules:
10104648  Traditional Chinese text variant
CF-102A/ F7.843.421  Membrane

Certified with the following options with requirements from EN 54 Part 2:
7.8  Output to fire alarm devices
7.9.1  Output to fire routing equipment
7.11  Delays to outputs
10  Test condition

P-C204A  4 Zone Conventional Control and Indicating Equipment
Incorporating the following modules:
FC-104A/ F7.843.400  Membrane
CB-104A/ F2.908.1718  Control board with integrated PSE
DB-104A/ F2.908.1721  Display board

Certified with the following options with requirements from EN 54 Part 2:
7.8  Output to fire alarm devices
7.9.1  Output to fire routing equipment
7.11  Delays to outputs
10  Test condition

P-C208A  8 Zone Conventional Control and Indicating Equipment
Incorporating the following modules:
FC-108A/ F7.843.401  Membrane
CB-108A/ F2.908.1675  Control board with integrated PSE
DB-108A/ F2.908.1720  Display board

Certified with the following options with requirements from EN 54 Part 2:
7.8  Output to fire alarm devices
7.9.1  Output to fire routing equipment
7.11  Delays to outputs
10  Test condition

P-C216A  16 Zone Conventional Control and Indicating Equipment
Incorporating the following modules:
FC-116A/ F7.843.402  Membrane
CB-116A/ F2.908.1724  Control board with integrated PSE
DB-116A/ F2.908.1676  Display board
XB-116A/ F7.820.1677  Expansion board

Certified with the following options with requirements from EN 54 Part 2:
7.8  Output to fire alarm devices
7.9.1  Output to fire routing equipment
7.11  Delays to outputs
10  Test condition

P-A300N-2  Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment
Incorporating the following units:
MB-220N Main board
PS-220N Power management board
OX-220  Terminal board
ZP-220  Zone indication and intervention board
SB-220  Switch board
TB-220N Loop interface board
LC200  Loop board
PDF-150-27.5  Powered SMPS 100-240V power supply

Incorporating as optional modular units:
DB-A300  RS-232 board for configuration
P-A300P  Printer module kit
NB-CAN300A  CAN network card loop type board
DB-A300ModBus RS232 Modbus interface card
NB-A300N  Class A RS485 network card
NB-CAN300  Class B CAN network card
Certificated Products

Certificated with the following options with requirements from EN54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

P-A2M/1 Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
- MB-220/ F7.820.826 Main board
- SB-220/ F7.820.827 Switch board
- TB-220/ F7.820.828 Loop interface board
- PS-220/ F7.820.829b Power supply unit
- ZP-220/ F7.820.312d Zone indication and intervention board

Incorporating as optional modular units:
- DB-A300/ F7.820.913a RS-232 board for configuration
- P-A300P Printer module kit
- LC-A2M/ F7.820.1125 Loop board (for loop expansion)

Certificated with the following options with requirements from EN54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

Note: Can be extended to 2-loop panel by adding LC-A2M

P-A300N-1 Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
- MB-220N Main board
- PS-220N Power management board
- OX-220 Terminal board
- ZP-220 Zone indication and intervention board
- SB-220 Switch board
- TB-220N Loop interface board
- PDF-150-27.5 Powered SMPS 100-240V power supply

Incorporating as optional modular units:
- DB-A300 RS-232 board for configuration
- P-A300P Printer module kit
- NB-CAN300A CAN network card loop type board
- DB-A300ModBus RS232 Modbus interface card
- NB-A300N Class A RS485 network card
- NB-CAN300 Class B CAN network card

Certificated with the following options with requirements from EN54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Notes:
1. Can be converted to 2 loop by adding LC200 Loop board
2. Scope of approval does not include the operation of the network functionality
3. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

NS-EN2 / NS-EN4
2 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:
TPC A01-S2 Eclipse two zone main PCB applicable on 2 zone CIE only
TPC A02 Eclipse LED display PCB
PSM1.5-24 Power supply 1.5A rated

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.12.1 Dependency on more than one alarm signal type A
10 Test condition

NS-EN8
8 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:
TPC A01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-H XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply
Incorporating as optional module:
NS-EN-NCB Network Communication Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

NS-EN12
12 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:
TPC A01-X4 XLEN 4 Zone Main PCB
TPCA03 XLEN Display Board
TPCA04-S XLEN Standard 4 Zone Extension Board
TPCA04-H XLEN High Spec 4 Zone Extension Board
PSM3.0-24 Power Supply
Incorporating as optional module:
NS-EN-NCB Network Communication Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
Certificated Products

7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

NS-EN16
16 Zone Conventional Control and Indicating Equipment 810a/12

Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-16 16 Zone Main PCB
TPCA12 Power supply PCB

and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
NS-EN-NCB Network Communication Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

NS-EN24
24 Zone Conventional Control and Indicating Equipment 810a/13

Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-24 24 Zone Main PCB
TPCA12 Power supply PCB

and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
NS-EN-NCB Network Communication Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

NS-EN32
32 Zone Conventional Control and Indicating Equipment 810a/14

Incorporating as modular units:
TPCA10 32 Zone LED display PCB
TPCA11-32 32 Zone Main PCB
TPCA12 Power supply PCB

and as optional modules
TPCR01 Relay PCB
TPCR03 Isolate Switch PCB
TPCA09 Sounder Card PCB
TPCA08 Output Card PCB
NS-EN-NCB Network Communication Board
Certificated Products

Certified with the following options with requirements from EN 54 Part 2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.11 Delays to outputs
7.12.1 Dependency on more than one alarm signal type A
7.12.2 Dependency on more than one alarm signal type B
7.12.3 Dependency on more than one alarm signal type C
10 Test condition

Note:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

Siemens Switzerland Ltd
Theilerstrasse 1a, CH-6300 Zug, Switzerland
Website: www.siemens.com


Control and indicating equipment

Certificated Products

FC2020 Control and-indicating equipment

Incorporating as modular units:
- FCM2027 PMI- & Mainboard
- FCM2028-A2 Operating unit
- FCM2037-A2 Operating unit (w/o accs.)
- FP2015-A1 70W Power supply
- FCI2002-A1 Periphery board (2-Loop)

and as optional modular units:
- FCA2001-A1 RS232 Module (isolated)
- FCA2002-A1 RS485 Module (isolated)
- FCA2031-A1 Connection Module (MoNet)
- FCI2001-D1 Fire brigade periphery module
- FCI2003-A1 Loop expansion (FDnet)
- FCM2036-A2 Operating add-on (4xLED indication)
- FCM2038-A2 Operating add-on (2xLED indication)
- FN2001-A1 Network module (SAFEDLINK) (See note 1)
- FN2008-A1 Ethernet Switch (MM) (see note 1)
- FN2009-A1 Ethernet Switch (SM)
- FTO2001-A1 Event printer set
- FTO2008-A1 LED module
- SV24V-150W Power Supply
- VN2002-A1 Ethernet module (MM)
- VN2003-A1 Ethernet module (SM)
- FHA2002-A1 Rear housing standard
- FHA2003-A1 Rear Housing Comfort

Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection Equipment
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal type B (only for FDnet- & MS9i-line technology)
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

Certificated Products

8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC2030
Control and Indicating Equipment 126bn/02

Incorporating as modular units:

FCM2027 PMI- & Mainboard
FCM2028-A2 Operating unit
FCM2037-A2 Operating unit (w/o accs.)
SV24V-150W 150W Power supply
FCI2002-A1 Periphery board (2-Loop)
FCA2007-A1 Card cage (2 slot)

and as optional modular units:

FCA2001-A1 RS232 Module (isolated)
FCA2002-A1 RS485 Module (isolated)
FCA2006-A1 Connection mod. (card cage)
FCA2007-A1 Card cage
FCA2031-A1 Connection Module (MoNet)
FCI2001-D1 Fire brigade periphery module
FCI2003-A1 Loop expansion (Fdnet)
FCI2007-A1 I/O Card RT
FCI2008-A1 I/O Card (programmable)
FCI2009-A1 I/O Card Horn
FCL2001-A1 Line Card (Fdnet)
FCL2002-A1 Line Card (collective)
FCL2003-A1 Line Card (MS9i)
FCL2005-A1 Linecard (AnalogPlus)
FCL2006-A1 Linecard (Interactive)
FCL2007-A1 Linecard (InteractiveEx)
FCM2036-A2 Operating addition (4 xLED indication)
FCM2015-D1 Operating add-on (DA ind)
FCA2008-A1 Ethernet Switch (MM) (see note 1)
FN2001-A1 Network module (SAFEDLINK) (See note 1)
FN2007-A1 Ethernet Switch (modular)
FTO2001-A1 Event printer set
FTO2008-A1 LED module
VN2002-A1 Ethernet module (MM)
VN2003-A1 Ethernet module (SM)
FC2030-CR Housing Rear (CH)
FHA2003-A1 Rear housing comfort

Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection Equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal type A (only for MS9i-, collective-, AnalogPlus-, Interactive - & InteractiveEx-line Technology)
7.12.2 Dependencies on more than one alarm signal type B
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC2040
Control and Indicating Equipment 126bn/03

178 20 Oct 2020
Incorporating as modular units:
- FCM2027 PMI- & Mainboard
- FCM2028-A2 Operating unit
- FCM2037-A2 Operating unit (w/o accs.)
- SV24V-150W 150W Power supply
- FCI2004-A1 Periphery board (4-Loop)

and as optional modular units:
- FCA2001-A1 RS232 Module (isolated)
- FCA2002-A1 RS485 Module (isolated)
- FCA2031-A1 Connection Module (MoNet)
- FCI2001-D1 Fire brigade periphery module
- FCI2003-A1 Loop expansion (FDnet)
- FCM2038-A2 Operating add-on (4xLED indication) optional
- FCM2036-A2 Operating add-on (2xLED indication) optional
- FN2001-A1 Network module (SAFEDLINK) (See note 1)
- FN2008-A1 Ethernet Switch (MM) (see note 1)
- FN2012-A1 Ethernet Switch (modular)
- FTO2001-A1 Event printer set
- FTO2008-A1 LED module
- VN2002-A1 Ethernet module (MM)
- VN2003-A1 Ethernet module (SM)
- FHA2003-A1 Rear housing comfort
- FHA2005-A1 Rear Housing Large

Certified with the following Options with requirements from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm Confirmation from fire alarm routing equipment
- 7.10.1 Output to automatic fire protection equipment Type A
- 7.10.2 Output to automatic fire protection equipment Type B
- 7.10.3 Output to automatic fire protection equipment Type C
- 7.10.4 Fault monitoring of automatic fire protection equipment
- 7.11 Delays to output
- 7.12.2 Dependencies on more than one alarm signal type B (only for FDnet- & MS9i-line Technology)
- 7.12.3 Dependencies on more than one alarm signal type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td></td>
<td>FCL2006-A1 Linecard (Interactive)</td>
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<td>FCL2007-A1 Linecard (InteractiveEx)</td>
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<td>FCM2036-A2 Operating add-on (4xLED indication)</td>
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<td>FN2001-A1 Network module (SAFEDLINK) (See note 1)</td>
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<td>FN2008-A1 Ethernet Switch (MM) (see note 1)</td>
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<td>FN2012-A1 Ethernet Switch (modular)</td>
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<td>FTO2001-A1 Event printer set</td>
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<tr>
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<td>FHA2005-A1 Rear housing large</td>
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</table>

Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal type A (only for MS9i-, collective-, AnalogPlus-, interactive- & InteractiveEx-line Technology)
7.12.2 Dependencies on more than one alarm signal type B
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC721 Control and Indicating Equipment

Incorporating as modular units:

<table>
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<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>FCM7204-Z3 Operating unit</td>
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<tr>
<td></td>
<td>FCM7216-Y3 Operating unit (w/o acces.)</td>
</tr>
<tr>
<td></td>
<td>FP2015-A1 70W Power supply</td>
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<tr>
<td></td>
<td>FCI2010-A1 Periphery board (1-Loop)</td>
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<tr>
<td></td>
<td>FCM2027 PMI- &amp; Mainboard</td>
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</tbody>
</table>

and as optional modular units:

<table>
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<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FCA2001-A1 RS232 Module (isolated)</td>
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<tr>
<td></td>
<td>FCA2002-A1 RS485 Module (isolated)</td>
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<tr>
<td></td>
<td>FCM7213-Y3 Operating add-on (2xLED indication)</td>
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<tr>
<td></td>
<td>FCM7214-Y3 Operating add-on (4xLED indication)</td>
</tr>
<tr>
<td></td>
<td>FTO2001-A1 Event printer set</td>
</tr>
<tr>
<td></td>
<td>FTO2008-A1 LED module</td>
</tr>
<tr>
<td></td>
<td>FHA2001-A1 Rear Housing (Eco)</td>
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Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection equipment
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal type B (only for FDnet- & MS9i-line Technology)
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
Certificated Products

FC722 Control and Indicating Equipment

Incorporating as modular units:
- FCM2027 PMI- & Mainboard
- FCM7204-Z3 Operating unit
- FCM7215-Y3 Operating unit (w/o acces.)
- SV24V/150W 150W Power supply
- FCI2002-A1 Periphery board (2-Loop)

and as optional modular units:
- FCA2001-A1 RS232 Module (isolated)
- FCA2002-A1 RS485 Module (isolated)
- FCA2031-A1 Connection Module (MoNet)
- FCI2001-D1 Fire brigade periphery module
- FCI2003-A1 Loop expansion (FDnet)
- FCM7213-Y3 Operating add-on (2xLED indication)
- FCM7214-Y3 Operating add-on (4xLED indication)
- FN2001-A1 Network module (SAFEDLINK) (See note 1)
- FN2008-A1 Ethernet Switch (MM) (see note 1)
- FN2012-A1 Ethernet Switch (modular)
- FP2015-A1 Power Supply 70W
- FTO2001-A1 Event printer set
- FTO2008-A1 LED module
- VN2002-A1 Ethernet module (MM)
- VN2003-A1 Ethernet module (SM)
- FHA2002-A1 Rear wall Standard
- FHA2003-A1 Rear Housing Comfort

Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection equipment
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal type B (only for FDnet- & MS9i-line Technology)
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC724 Control and Indicating Equipment

Incorporating as modular units:
- FCM7204-Z3 Operating unit
- FCM7215-Y3 Operating unit (w/o acces.)
- SV24V/150W 150W Power supply
- FCI2004-A1 Periphery board (4-Loop)
- FCM2027 PMI- & Mainboard

and as optional modular units:
- FCA2001-A1 RS232 Module (isolated)
- FCA2002-A1 RS485 Module (isolated)
- FCA2031-A1 Connection Module (MoNet)
- FCI2001-D1 Fire brigade periphery module
- FCI2003-A1 Loop expansion (FDnet)
- FCM7213-Y3 Operating add-on (2xLED indication)
- FCM7214-Y3 Operating add-on (4xLED indication)
- FN2001-A1 Network module (SAFEDLINK) (See note 1)
- FN2008-A1 Ethernet Switch (MM) (see note 1)
Certificated Products

FN2012-A1 Ethernet Switch (modular)
FTO2001-A1 Event printer set
FTO2008-A1 LED module
VN2002-A1 Ethernet module (MM)
VN2003-A1 Ethernet module (SM)
FHA2003-A1 Rear housing comfort

Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection equipment
7.11 Delays to outputs
7.12.2 Dependencies on more than one alarm signal type B (only for FDnet- & MS9i-line Technology)
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC726 Control and Indicating Equipment

Incorporating as modular units:
FCM7204-Z3 Operating unit
FCM7215-Y3 Operating unit (w/o acces.)
FCA2006-A1 Connection mod. (card cage)
SV24V/150W 150W Power supply
FCI2004-A1 Periphery board (4-Loop)
FCA2008-A1 Card cage (5 slot)
FCM2027 PMI- & Mainboard

and as optional modular units:
FCA2001-A1 RS232 Module (isolated)
FCA2002-A1 RS485 Module (isolated)
FCA2031-A1 Connection Module (MoNet)
FCI2001-D1 Fire brigade periphery module
FCI2003-A1 Loop expansion (FDnet)
FCI2007-A1 I/O Card RT
FCI2008-A1 I/O Card (programmable)
FCI2009-A1 I/O Card Horn
FCL2001-A1 Line Card (FDnet)
FCL2002-A1 Line Card (collective)
FCL2003-A1 Line Card (MS9i)
FCL2006-A1 Linecard (Interactive)
FCL2007-A1 Linecard (InteractiveEx)
FCL7201-Z3 Linecard (SynoLoop)
FCM7213-Y3 Operating add-on (2xLED indication)
FCM7214-Y3 Operating add-on (4xLED indication)
FN2001-A1 Network module (SAFEDLINK) (See note 1)
FN2008-A1 Ethernet Switch (MM) (see note 1)
FN2012-A1 Ethernet Switch (MM/SM))
FTO2001-A1 Event printer set
FTO2003-D1 LED emergency alarm indicator
FTO2008-A1 LED module
VN2002-A1 Ethernet module (MM)
VN2003-A1 Ethernet module (SM)
FHA2005-A1 Rear housing large

Certified with the following Options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
Certificated Products

LPCB Ref. No.

7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal A (only for MS9i-, collective-, SynoLoop-, Interactive- & InteractiveEx-line Technology)
7.12.2 Dependencies on more than one alarm signal type B
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13

FC723 Control and Indicating Equipment 126bn/09

Incorporating as modular units:
FCM7204-Z3 Operating unit
FCM7215-Y3 Operating unit (w/o acces.)
FCA2006-A1 Connection mod. (card cage)
FCA2007-A1 Card cage (2slot)
SV24V/150W 150W Power supply
FCI2002-A1 Periphery board (2-Loop)
FCM2027 PMI- & Mainboard

and as optional modular units:
FCA2001-A1 RS232 Module (isolated)
FCA2002-A1 RS485 Module (isolated)
FCA2031-A1 Connection Module (MoNet)
FCI2001-D1 Fire brigade periphery module
FCI2003 Loop expansion (Fdnet)
FCI2007-A1 I/O Card RT
FCI2008-A1 I/O Card (programmable)
FCI2009-A1 I/O Card Horn
FCL2001-A1 Line Card (Fdnet)
FCL2002-A1 Line Card (collective)
FCL2003-A1 Line Card (MS9h)
FCL2006-A1 Linecard (Interactive)
FCL2007-A1 Linecard (InteractiveEx)
FCL7201-Z3 Linecard (SynoLoop)
FCM7204-Z3 Control unit
FCM7213-Y3 Operating add-on (2xLED indication)
FCM7214-Y3 Operating add-on (4xLED indication)
FN2001-A1 Network module (SAFEDLINK) (See note 1)
FN2008-A1 Ethernet Switch (MM) (see note 1)
FN2012-A1 Ethernet Switch (modular)
FTO2001-A1 Event printer set
FTO2008-A1 LED module
VN2002-A1 Ethernet module (MM)
VN2003-A1 Ethernet module (SM)
FHA2003-A1 Rear housing comfort

Certified with the following Options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm Confirmation from fire alarm routing equipment
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
7.10.4 Fault monitoring of automatic fire protection Equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal type A (only for MS9i-, collective-, SynoLoop-, Interactive- & InteractiveEx-line Technology)
7.12.2 Dependencies on more than one alarm signal type B
7.12.3 Dependencies on more than one alarm signal type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
### PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT2040 Fire detection terminal for use with FC2020, FC2030, FC2040 &amp; FC2060 Control and Indicating Equipment</td>
<td>126bn/R01</td>
</tr>
<tr>
<td>FT724 Fire detection terminal for use with FC721, FC722, FC723, FC724 &amp; FC726 Control and Indicating Equipment</td>
<td>126bn/R02</td>
</tr>
<tr>
<td>FC121-ZA and FC122-ZA Two Zone Conventional Control and Indicating Equipment</td>
<td>531q/01</td>
</tr>
</tbody>
</table>

**Note:**
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

Incorporating as modular units:
- FCM2027 PMI- & Mainboard
- FCM2028-A2 Operating unit
- FCM2037-A2 Operating unit (w/o accs.)
- FTI2001-A1 Fire terminal board
- FP2015-A1 Power Supply 70W

and as optional modular units:
- FCA2001-A1 RS232 Module (isolated)
- FCA2002-A1 RS485 Module (isolated)
- FCA2031-A1 Connection Module (MoNet)
- FCM2038-A2 Operating add-on (4xLED indication)
- FN2008-A1 Ethernet Switch (MM) (see note 1)
- FN2012-A1 Ethernet Switch (MM/SM)
- FTO2001-A1 Event printer set
- FTO2008-A1 LED module
- VN2002-A1 Ethernet module (MM)
- VN2003-A1 Ethernet module (SM)
- FHA2001-A1 Rear housing (Eco)
- H28G200 Housing base

### Notes:
1. Scope of approval does not include the operation of the network functionality.
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

Incorporating the units:
- PCBA FC121-ZA Two zone main control board with integrated power supply
- PCBA FC122-ZA Four zone main control board with integrated power supply

Optional modules:
- FCA1203-Z1 Output card 2M2R
- FTO1201-H1 EVAC module (applicable on NL model only)
- FCA1206-Z1 Key switch set (applicable on Nordic SE model only)
Certificated Products

Certificated with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.13 Alarm counter
8.9 Output to fault warning routing equipment
10 Test condition

FC123-ZA and FC124-ZA
FC123-ZA Eight Zone Conventional Control and Indicating Equipment
FC124-ZA Twelve Zone Conventional Control and Indicating Equipment

Incorporating the units:
PCBA FC123-ZA Eight zone main control board
PCBA FC124-ZA Twelve zone main control board
FP2015-A1 Power supply (70W)

Optional modules:
FCA1203-Z1 Output card 2M2R
FTO1202-Z1 Zone indication field 12x2 LED
FTO1203-H1 EVAC module (applicable on NL model only)
FCA1206-Z1 Key switch set (applicable on Nordic SE model only)

Certificated with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.13 Alarm counter
8.9 Output to fault warning routing equipment
10 Test condition

FC361-xx
FC361-ZZ Analogue Addressable Control and Indicating Equipment
FC361-YZ Analogue Addressable Control and Indicating Equipment
FC361-ZA Analogue Addressable Control and Indicating Equipment
FC361-YA Analogue Addressable Control and Indicating Equipment

Incorporating the following modules:
A5Q00060781 Main Board
A5Q00058210 PMI Personnel Machine Interface
S54400-B121-A1 FP2015-A1 Power Supply (70 W)

and as optional modules:
FCA3602-Z1 Output card 4M
FCA3601-Z1 Key switch (no pcb assembly)
FCA3603-Z1 Key switch - Nordic (no pcb assembly)
FCA2001-A1 RS232 module
FCA2002-A1 RS485 module
FTO3601-H1 Evacuation-NL card

FC361-YZ Control and Indicating Equipment Compact LED (Standard Housing)
Incorporating the following modules:
A5Q00060781 Main Board
A5Q00058210 PMI Personnel Machine Interface
S54400-B121-A1 FP2015-A1 Power Supply (70 W)
FTO3602-Z1 LED module (16 LEDs)

and as optional modules:
FCA3602-Z1 Output card 4M
FCA3601-Z1 Key switch (no pcb assembly)
FCA3603-Z1 Key switch - Nordic (no pcb assembly)
FCA2001-A1 RS232 module
FCA2002-A1 RS485 module

FC361-ZA Control and Indicating Equipment Comfort (Large Housing)
Incorporating the following modules:
CERTIFICATED PRODUCTS

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
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<td>Main Board</td>
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<tr>
<td>A5Q0056210</td>
<td>PMI Personnel Machine Interface</td>
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<tr>
<td>S54400-B121-A1</td>
<td>FP2015-A1 Power Supply (70 W)</td>
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<td><strong>As optional modules:</strong></td>
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<tr>
<td>FCA3602-Z1</td>
<td>Output card 4M</td>
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<tr>
<td>FCA3601-Z1</td>
<td>Key switch (no pcb assembly)</td>
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<tr>
<td>FCA3603-Z1</td>
<td>Key switch - Nordic (no pcb assembly)</td>
</tr>
<tr>
<td>FCA2001-A1</td>
<td>RS232 module</td>
</tr>
<tr>
<td>FCA2002-A1</td>
<td>RS485 module</td>
</tr>
<tr>
<td>FTO3601-H1</td>
<td>Evacuation-NL card</td>
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<tr>
<td></td>
<td><strong>FC361-YA Control and Indicating Equipment Comfort LED (Large Housing)</strong></td>
</tr>
<tr>
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<td><strong>Incorporating the following modules:</strong></td>
</tr>
<tr>
<td>A5Q0060781</td>
<td>Main Board</td>
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<tr>
<td>A5Q0056210</td>
<td>PMI Personnel Machine Interface</td>
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<tr>
<td>S54400-B121-A1</td>
<td>FP2015-A1 Power Supply (70 W)</td>
</tr>
<tr>
<td>FTO3602-Z1</td>
<td>LED module (16 LEDs)</td>
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<tr>
<td></td>
<td><strong>As optional modules:</strong></td>
</tr>
<tr>
<td>FCA3602-Z1</td>
<td>Output card 4M</td>
</tr>
<tr>
<td>FCA3601-Z1</td>
<td>Key switch (no pcb assembly)</td>
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<tr>
<td>FCA3603-Z1</td>
<td>Key switch - Nordic (no pcb assembly)</td>
</tr>
<tr>
<td>FCA2001-A1</td>
<td>RS232 module</td>
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<tr>
<td>FCA2002-A1</td>
<td>RS485 module</td>
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<td></td>
<td>7.8 Output to fire alarm devices</td>
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<tr>
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<td>7.9.1 Output to fire alarm routing equipment</td>
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<tr>
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<td>7.9.2 Alarm confirmation input from fire alarm routing equipment</td>
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<td>7.10.1 Outputs to fire protection equipment (Output Type A)</td>
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<td>7.11 Delays to outputs</td>
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<td></td>
<td>7.12.1 Dependencies on more than one alarm signal (Type A dependency)</td>
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<tr>
<td></td>
<td>7.13 Alarm counter</td>
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<tr>
<td></td>
<td>8.3 Fault signals from points</td>
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<tr>
<td></td>
<td>8.9 Output to fault warning routing equipment</td>
</tr>
<tr>
<td></td>
<td>9.5 Disablement of each address point</td>
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<td></td>
<td>10 Test condition</td>
</tr>
<tr>
<td></td>
<td><strong>Notes:</strong></td>
</tr>
<tr>
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<td>1. FC361-x1x2 denotes the following:</td>
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<tr>
<td></td>
<td>- x1: Z = No LED module; Y = With LED module</td>
</tr>
<tr>
<td></td>
<td>- x2: Z = Housing for 12 Ah Battery; A = Housing for 25 Ah battery</td>
</tr>
<tr>
<td></td>
<td>2. This product approval does not constitute compliance with the fire detection and alarm system requirements of EN54-13</td>
</tr>
</tbody>
</table>

SMS (Novar Systems Ltd)

Hamilton Industrial Park, 140 Waterside Road, Leicester LE5 1TN, United Kingdom

Tel: +44 (0)116 246 2100 • Fax: +44 (0)116 246 2016

Website: www.smsfire.co.uk


CERTIFICATED PRODUCTS

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>042bc/01</td>
<td>Single loop analogue addressable control and indicating equipment</td>
</tr>
<tr>
<td></td>
<td>Incorporating as modular units:</td>
</tr>
<tr>
<td></td>
<td>2434-881 Mother board</td>
</tr>
<tr>
<td></td>
<td>2434-862 Power supply</td>
</tr>
<tr>
<td></td>
<td>2434-887 H.M.I (Human Machine Interface)</td>
</tr>
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<td><strong>Certified with the following options with requirements from EN 54 Part 2:</strong></td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm devices</td>
</tr>
<tr>
<td></td>
<td>7.11 Delays to outputs</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>042bc/04</td>
<td>Two loop analogue addressable control and indicating equipment (English language)</td>
</tr>
<tr>
<td>042bc/07</td>
<td>One to Four loop analogue addressable control and indicating equipment (English language)</td>
</tr>
<tr>
<td>042cb/01</td>
<td>One to Two Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td>042cc/01</td>
<td>One to Four Loop Analogue Addressable Control and Indicating Panel</td>
</tr>
<tr>
<td>548p/01</td>
<td>Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</td>
</tr>
</tbody>
</table>

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2. Scope of approval does not include the operation of the network functionality.

SS Fire & Security Sdn Bhd
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Tel: +60167788888
E-mail: ss@ssfiresecurity.com

Control and indicating equipment
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>548p/01</td>
<td>Intelligent 2 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment</td>
</tr>
</tbody>
</table>

Incorporating the following units:
MB-220/ F7.820.826 Main board
SB-220/ F7.820.827 Switch board
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>548p/02</td>
<td>SP-IFP8 Intelligent 8 Loop, 140 Zone Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td>548p/03</td>
<td>SP-102A 2 Zone Conventional Control and Indicating Equipment</td>
</tr>
<tr>
<td>548p/04</td>
<td>SP-104A 4 Zone Conventional Control and Indicating Equipment</td>
</tr>
</tbody>
</table>

TB-220/ F7.820.828 Loop interface board
PS-220/ F7.820.829 Power supply unit
ZP-220/ F7.820.312d Zone indication and intervention board
LC200/ F7.820.1125 Loop board
Incorporating as optional modular units:
P-9930/ F7.820.913a RS-232 board for configuration
P-9901A Printer module kit
Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

SP-102A

Incorporating the following modules:
FC-102A/ F7.843.399 Membrane
CB-102A/ F2.908.1719 Control board with integrated PSE
DB-102A/ F2.908.1722 Display board
Optional modules:
CF-102A/ F7.843.421 Membrane

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.13 Alarm counter
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

SP-104A

Incorporating the following modules:
FC-104A/ F7.843.400 Membrane
CB-104A/ F2.908.1718 Control board with integrated PSE
DB-104A/ F2.908.1721 Display board
Optional modules:
CF-104A/ F7.843.422 Membrane
## PART 1: SECTION 3
### CONTROL AND INDICATING EQUIPMENT

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SP-108A</strong> 8 Zone Conventional Control and Indicating Equipment</td>
<td>548p/05</td>
</tr>
<tr>
<td>Incorporating the following modules: FC-108A/ F.7.843.401 Membrane</td>
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<tr>
<td>CB-108A/ F.2.908.1675 Control board with integrated PSE</td>
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<tr>
<td>DB-108A/ F.2.908.1720 Display board</td>
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<td>Optional modules: CF-108A/ F.7.843.423 Membrane</td>
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<td>7.8 Output to fire alarm devices</td>
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<td>7.9.1 Output to fire routing equipment</td>
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<tr>
<td>7.11 Delays to outputs</td>
<td></td>
</tr>
<tr>
<td>10 Test condition</td>
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</tbody>
</table>

| **SP-116A** 16 Zone Conventional Control and Indicating Equipment | 548p/06 |
| Incorporating the following modules: FC-116A/ F.7.843.402 Membrane | |
| CB-116A/ F.2.908.1724 Control board with integrated PSE | |
| DB-116A/ F.7.820.1676 Display board | |
| XB-116A/ F.7.820.1677 Expansion board | |
| Optional modules: CF-116A/ F.7.843.424 Membrane | |
| Certified with the following options with requirements from EN 54 Part 2: | |
| 7.8 Output to fire alarm devices | |
| 7.9.1 Output to fire routing equipment | |
| 7.11 Delays to outputs | |
| 10 Test condition | |

| **SP-200N-2 Intelligent 2 loop, 30 Zone Analogue Addressable Control and Indicating Equipment** | 548p/07 |
| Incorporating the following units: MB-220N Main board | |
| PS-220N Power management board | |
| OX-220 Terminal board | |
| ZP-220 Zone indication and intervention board | |
| SB-220 Switch board | |
| TB-220N Loop interface board | |
| LC200 Loop board | |
| PDF-150-27.5 Powered SMPS 100-240V power supply | |
| Incorporating as optional modular units: SI-9930 RS-232 board for configuration | |
| SI-9901A Printer module kit | |
| SI-9960A CAN network card loop type board | |
| SI-9930ModBus RS232 Modbus interface card | |
| SI-9940A RS485 Class A network card | |
| SI-9960 CAN Class B network card | |
| Certified with the following options with requirements from EN 54 part 2: | |
| 7.8 Output to Fire Alarm Devices | |
| 7.10.1 Output to automatic Fire Protection Equipment Type A | |
| 7.11 Delays to outputs | |
| 8.3 Fault signals from points | |
| 9.5 Disablement of addressable points | |

**Notes:**
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

| **SP-200-2/1 Intelligent 1 Loop, 30 Zone Analogue Addressable Control and Indicating Equipment** | 548p/08 |
| Incorporating the following units: MB-220/ F.7.820.826 Main board | |
| SB-220/ F.7.820.827 Switch board | |
| TB-220/ F.7.820.828 Loop interface board | |
| PS-220/ F.7.820.829b Power supply unit | |
| ZP-220/ F.7.820.913a Zone indication and intervention board | |
| Incorporating as optional modular units: P-9930 F.7.820.913a RS-232 board for configuration | |
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

P-9901A Printer module kit
LC200/ F.7.820.1125 Loop board (for loop expansion)

Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

Note: can be extended to 2 loop panel by adding LC200

SP-200N-1
Intelligent 2 loop, 30 Zone Analogue Addressable Control and Indicating Equipment

Incorporating the following units:
MB-220N Main board
PS-220N Power management board
OX-220 Terminal board
ZP-220 Zone indication and intervention board
SB-220 Switch board
TB-220N Loop interface board
PDF-150-27.5 Powered SMPS 100-240V power supply

Incorporating as optional modular units:
SI-9930 RS-232 board for configuration
SI-9901A Printer module kit
SI-9960A CAN network card loop type board
SI-9930ModBus RS232 Modbus interface card
SI-9940A RS485 Class A network card
SI-9960 CAN Class B network card
LC200 Loop board (for loop expansion)

Certified with the following options with requirements from EN 54 part 2:
7.8 Output to Fire Alarm Devices
7.10.1 Output to automatic Fire Protection Equipment Type A
7.11 Delays to outputs
8.3 Fault signals from points
9.5 Disablement of addressable points

Notes:
1. Can be extended to 2-loop panel by adding LC200
2. Scope of approval does not include the operation of the network functionality
3. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Syncoln Ltd
3rd Floor, 14 Hanover Street, Mayfair, London W1S 1YH, United Kingdom
Tel: +44 (0)207 514 5813
E-mail: sales@syncoln.com • Website: www.syncoln.com


Control and indicating equipment
Certificated Products

CFP702-4/SYN Two Zone Red Conventional Control and Indicating Equipment

Incorporating the following units:
SPF0702480 Switch mode power supply unit board
SPF0724851 2 Zone main control board

Certified with the following options with requirements from EN 54-2: 1997
7.8 Output to fire alarm devices(s)
7.11 Delays to outputs
10 Test condition

CFP704-4/SYN Four Zone Red Conventional Control and Indicating Equipment

Incorporating the following units:
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Tanda (UK) Limited</td>
<td></td>
</tr>
<tr>
<td>Fourth Floor, 30-31 Furnival Street, London EC4A 1JQ, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Tel: +44 8451162945 • Website: <a href="http://www.tandauk.com">www.tandauk.com</a></td>
<td></td>
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**Control and indicating equipment**

**Certificated Products**

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<tr>
<td>TX7004</td>
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<tr>
<td>1 to 4 loop Intelligent Addressable Control and Indicating Equipment</td>
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<tr>
<td>Incorporating the following modules:</td>
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<tr>
<td>7010200004 TX7004 Mother Board</td>
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<tr>
<td>7020100022 TX7004 Main Board</td>
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<tr>
<td>7010700017 TX7004 Loop Board</td>
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<tr>
<td>7010400011 TX7004 Power Management Board</td>
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<td>7010600019 TX7004 Communication Board</td>
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<td>7010400012 TX7004 Power Wiring Board</td>
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<td>PDF-150-27.5 Power Supply Unit</td>
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<td>7021300007 TX7004 Key Board</td>
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<td>7020800009 TX7004 Led Board</td>
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<td>814400002 TX6940E Printer Module</td>
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Certified with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm device(s)
- 7.10.1 Output to fire protection equipment - Type A
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.13 Alarm counter
- 9.5 Disablement of each address point
- 10 Test condition

**Note:**

1. The scope of the approval does not include the operation of the network functionality
2. The product approval does not constitute compliance with the fire detection and alarm system requirements of EN54-13.
Tanda Development Pte Ltd  
21 Bukit Batok Crescent, #15-75 Wcega Tower, Singapore 658065, Singapore  
Tel: +65013223307015  
E-mail: Wanyuemin@tandatech.com • Website: www.tnafirealarm.com  


Control and indicating equipment  
Certificated Products  

| 1 to 4 loop Intelligent Addressable Control and Indicating Equipment |
| TX7004 |  |

Incorporating the following modules:  
7010200004 TX7004 Mother Board  
7020100022 TX7004 Main Board  
7010700017 TX7004 Loop Board  
7010400011 TX7004 Power Management Board  
7010600019 TX7004 Communication Board  
7010400012 TX7004 Power Wiring Board  
PDF-150-27.5 Power Supply Unit  
7021300007 TX7004 Key Board  
7020800009 TX7004 Led Board  
7010300010 TX7004 Regional Display Board  
814400002 TX6940E Printer Module  

Certified with the following options with requirements from EN54-2:  
7.8 Output to fire alarm device(s)  
7.10.1 Output to fire protection equipment - Type A  
7.11 Delays to outputs  
7.12.1 Dependencies on more than one alarm signal - Type A  
7.12.2 Dependencies on more than one alarm signal - Type B  
7.13 Alarm counter  
9.5 Disablement of each address point  
10 Test condition  

Note:  
1. The scope of the approval does not include the operation of the network functionality  
2. The product approval does not constitute compliance with the fire detection and alarm system requirements of EN54-13.

Teletek Electronics JSC  
14A Srebarna Street, Sofia 1407, Bulgaria  
Tel: +359 2 9694 700 • Fax: +359 2 9625 213  
E-mail: info@teletek-electronics.bg • Website: www.teletek-electronics.com  


Control and indicating equipment  
Certificated Products  

| IRIS (1-4)L M - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel, metal housing | 1139h/01 |

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<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRIS (1-4)LP - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel, plastic housing</td>
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<tr>
<td>Incorporating the following modular units:</td>
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<tr>
<td>uPC Board Module IRIS uPC</td>
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<tr>
<td>LCD Board Module IRIS LCD</td>
<td></td>
</tr>
<tr>
<td>LED Board Module IRIS Light Panel includes boards uPC, LCD and LED</td>
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<tr>
<td>Outputs Board Module IRIS Outputs</td>
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</tr>
<tr>
<td>Relay Board Module IRIS 4 Relay</td>
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<tr>
<td>PSU Board IRIS Module Power supply</td>
<td></td>
</tr>
<tr>
<td>Redundant Network Board Module Redundant Network IRIS/SIMPO</td>
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</tr>
<tr>
<td>Loop TTE Board IRIS Loop Expander TTE</td>
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<tr>
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<tr>
<td>7.8 Output to fire alarm devices (option with requirements)</td>
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<tr>
<td>7.9 Control of fire alarm routing equipment (options with requirements)</td>
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</tr>
<tr>
<td>7.9.1 Output to fire alarm routing equipment (option with requirements)</td>
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</tr>
<tr>
<td>7.10 Outputs to fire protection equipment (options with requirements)</td>
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<tr>
<td>7.10.1 Output type A (option with requirement)</td>
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<td>7.11 Delays to outputs (option with requirements)</td>
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<tr>
<td>7.12 Dependencies on more than one alarm signal (option with requirements)</td>
<td></td>
</tr>
<tr>
<td>7.12.1 Type A dependency (option with requirement)</td>
<td></td>
</tr>
<tr>
<td>8.3 Fault signals from points (option with requirements)</td>
<td></td>
</tr>
<tr>
<td>9.5 Disablement of addressable point (option with requirements)</td>
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</tr>
<tr>
<td>10 Test condition (option with requirements)</td>
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<tr>
<td>Notes:</td>
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<td>1. The scope of the approval does not include the operation of the network functionality</td>
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</tr>
<tr>
<td>2. The product approval does not constitute compliance with the fire detection and alarm system requirements of EN54-13.</td>
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</tr>
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</table>

IRIS-0
IRIS (0) Repeater M - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel - Repeater, metal housing
IRIS (0) Repeater P - Intelligent Analogue Addressable Interactive Fire Alarm Control Panel- Repeater, plastic housing
Approved for use with the IRIS Intelligent Analogue Addressable Interactive Fire Alarm Control Panel
Incorporating the following modules:
| uPC Board Module IRIS uPC                                                             |               |
| LCD Board Module IRIS LCD                                                             |               |
| LED Board Module IRIS Light Panel includes boards uPC, LCD and LED                   |               |
| PSU Board IRIS Module Power supply                                                   |               |
| Redundant Network Board Module Redundant Network IRIS/SIMPO                           |               |
Tyco Fire & Security GmbH
Victor Von Bruns-Strasse 21, Neuhausen am Rheinfall, Schaffhausen 8212, Switzerland
Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777
E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com


Control and indicating equipment
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>681ac/01</th>
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<tbody>
<tr>
<td>PSU A17 Addressable 17Ah Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels 2) The maximum lead length for the fault output connection is 3m</td>
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<tr>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>PSU A38 Addressable 38Ah Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels 2) The maximum lead length for the fault output connection is 3m</td>
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<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>681ad /03</th>
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<tbody>
<tr>
<td>557.200.731 FIRECLASS 1.9A Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels</td>
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<td>557.200.530 PSU A17 Addressable 17Ah Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels 2) The maximum lead length for the fault output connection is 3m</td>
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<tr>
<td>557.200.732 PSU A17 Addressable 17Ah Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels 2) The maximum lead length for the fault output connection is 3m</td>
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<tr>
<td>557.200.531 PSU A38 Addressable 38Ah Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels 2) The maximum lead length for the fault output connection is 3m</td>
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<tbody>
<tr>
<td>557.200.733 PSU A38 Addressable 38Ah Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels 2) The maximum lead length for the fault output connection is 3m</td>
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<th>LPCB Ref. No.</th>
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<tr>
<td>557.200.731 FIRECLASS 1.9A Power Supply Unit</td>
<td>Notes: 1) The unit is not intended to supply power to Fire Alarm Control Panels</td>
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<tr>
<th>LPCB Ref. No.</th>
<th>681ae /01</th>
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<tbody>
<tr>
<td>508.031.004.xx MZXC 2 Zone, Twin Wire Conventional Control and Indicating Equipment Incorporating as modular units: C1694 2605508, 2 Zone Twin Wire Motherboard BAQ-35T24 Power Supply</td>
<td>Certified with the following options from EN 54-2: 7.8 Output to fire alarm devices 7.9.1 Output to fire alarm routing equipment 7.12.1 Dependencies on more than one alarm signal Type A 7.13 Alarm counter 10 Test condition</td>
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Note: xx indicates the language option EG = English facia overlay

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<tr>
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</table>
## PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

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<tbody>
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<td>C1694 2605509, 4 Zone Twin Wire Motherboard BAQ-35T24 Power Supply</td>
<td>681ae/03</td>
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<tr>
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<td>7.8 Output to fire alarm devices</td>
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<td>7.9.1 Output to fire alarm routing equipment</td>
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<td>7.12.1 Dependencies on more than one alarm signal Type A</td>
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<td>7.13 Alarm counter</td>
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<td>EG = English facia overlay</td>
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<tr>
<td>508.031.006.xx MZXC 8 Zone Twin Wire Conventional Control and Indicating Equipment</td>
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<tr>
<td>Incorporating as modular units:</td>
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<tr>
<td>C1694 2605510, 8 Zone Twin Wire Motherboard BAQ-35T24 Power Supply</td>
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<td>7.8 Output to fire alarm devices</td>
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<tr>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<td>EG = English facia overlay</td>
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<td>508.031.701 FIRECLASS Duo-CEL, 1 Zone Conventional Control and Indicating Equipment</td>
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<td>Incorporating as modular units:</td>
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<td>C1694 2605501, 1 Zone Motherboard BAQ-35T24 Power Supply</td>
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<td>Certified with the following options from EN 54-2:</td>
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<tr>
<td>7.8 Output to fire alarm devices</td>
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<tr>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<tr>
<td>7.13 Alarm counter</td>
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<tr>
<td>10 Test condition</td>
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<td>C1694 2605503, 4 Zone Motherboard BAQ-35T24 Power Supply</td>
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<tr>
<td>7.8 Output to fire alarm devices</td>
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<tr>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<tr>
<td>7.12.1 Dependencies on more than one alarm signal Type A</td>
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<tr>
<td>7.13 Alarm counter</td>
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<tr>
<td>10 Test condition</td>
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<td>Note: xx indicates the language option</td>
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<td>Blank = Blank facia overlay</td>
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<tr>
<td>508.031.703 FIRECLASS Duo-CEL, 4 zone Conventional Control and Indicating Equipment</td>
<td>681af/03</td>
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<tr>
<td>Incorporating as modular units:</td>
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<tr>
<td>C1694 2605503, 4 Zone Motherboard BAQ-35T24 Power Supply</td>
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<tr>
<td>Certified with the following options from EN 54-2:</td>
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<tr>
<td>7.8 Output to fire alarm devices</td>
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</tr>
<tr>
<td>7.9.1 Output to fire alarm routing equipment</td>
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<tr>
<td>7.12.1 Dependencies on more than one alarm signal Type A</td>
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<tr>
<td>7.13 Alarm counter</td>
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PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
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<tr>
<th>Test condition</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>681af/04</td>
</tr>
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</table>

508.031.006.xx  508.031.016.xx
MZXC 8 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:
- C1694 2605504, 8 Zone Motherboard
- BAQ-35T24 Power Supply

Certificated with the following options from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.12.1 Dependencies on more than one alarm signal Type A
- 7.13 Alarm counter
- 10 Test condition

Note: xx indicates the language option
Blank = Blank facia overlay

EG = English facia overlay

508.031.704  508.031.705  508.031.706
FIRECLASS Duo-CEL, 8 Zone Conventional Control and Indicating Equipment
Incorporating as modular units:
- C1694 2605504, 8 Zone Motherboard
- BAQ-35T24 Power Supply

Certificated with the following options from EN 54-2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.12.1 Dependencies on more than one alarm signal Type A
- 7.13 Alarm counter
- 10 Test condition

Note: xx indicates the language option
Blank = Blank facia overlay

EG = English facia overlay

557.200.501.F
MZX125.32Z Analogue Addressable Control and Indicating Equipment 1 Loop, 32 Zone
Incorporating as modular units:
- DCM832R Operator Control / Display Module
- CPU800 Main CPU module
- FIM801 Field Interface Module
- PMM800 Power Supply Monitor
- BAQ60T24 Power Supply

Certificated with the following options with requirements from EN 54 Part 2:
- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal (Type A dependency)
- 7.12.2 Dependencies on more than one alarm signal (Type B dependency)
- 7.12.3 Dependencies on more than one alarm signal (Type C dependency)
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
Certificated Products

9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection
and alarm systems requirements of EN 54-13.

FC32-1
MZX125.322 Analogue Addressable Control and Indicating Equipment 1 Loop, 32 Zone
(557.200.701)
Incorporating as modular units:
DCM832R Operator Control / Display Module
CPU800 Main CPU module
FIM801 Field Interface Module
PMM800 Power Supply Monitor
BAQ60T24 Power Supply

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
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7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection
and alarm systems requirements of EN 54-13.

557.200.502.F
MZX253 Analogue Addressable Control and Indicating Equipment 2 Loop, 64 Zone
Incorporating as modular units:
DCM864R Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
BAQ140T24 Power Supply
and as optional modular units:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
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7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection
and alarm systems requirements of EN 54-13.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

FC64-2
MZX253 Analogue Addressable Control and Indicating Equipment 2 Loop, 64 Zone
(557.200.702)
Incorporating as modular units:
DCM864R Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
BAQ140T24 Power Supply

and as optional modular units:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
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7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

557.200.508.F4
MZX253 Analogue Addressable Control and Indicating Equipment 4 Loop, 64 Zone
681ag/03
Incorporating as modular units:
DCM864R Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
BAQ140T24 Power Supply
PMM840 Power Supply Monitor
XLM800 Loop Expander Board

and as optional modular units:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC64-4
MZX253 Analogue Addressable Control and Indicating Equipment 4 Loop, 64 Zone
(557.200.703)
Incorporating as modular units:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>DCM864R Operator Control / Display Module</td>
</tr>
<tr>
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<td>CPU800 Main CPU module</td>
</tr>
<tr>
<td></td>
<td>FIM802 Field Interface Module</td>
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<tr>
<td></td>
<td>PMM800 Power Supply Monitor</td>
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<td>BAQ140T24 Power Supply</td>
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<td>PMM840 Power Supply Monitor</td>
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<td></td>
<td>XLM800 Loop Expander Board</td>
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<tr>
<td></td>
<td>and as optional modular units:</td>
</tr>
<tr>
<td></td>
<td>IOB800 Input/Output Expansion Board</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

557.200.509.F
MZX254 Analogue Addressable Control and Indicating Equipment 2 Loop, 240 Zone
Incorporating as modular units:
DCM832 Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
BAQ140T24 Power Supply
and as optional modular units:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

557.200.704
MZX254 Analogue Addressable Control and Indicating Equipment 2 Loop, 240 Zone
Incorporating as modular units:
DCM832 Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module

20 Oct 2020
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>PMM800</td>
<td>Power Supply Monitor</td>
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<tr>
<td>BAQ140T24</td>
<td>Power Supply</td>
</tr>
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</table>

and as optional modular units:

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOB800</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal (Type A dependency)
- 7.12.2 Dependencies on more than one alarm signal (Type B dependency)
- 7.12.3 Dependencies on more than one alarm signal (Type C dependency)
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition
- 11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

557.200.509.F4

MZX254 Analogue Addressable Control and Indicating Equipment 4 Loop, 240 Zone 681ag/05

Incorporating as modular units:

<table>
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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>DCM832</td>
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<tr>
<td>CPU800</td>
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<tr>
<td>FIM802</td>
</tr>
<tr>
<td>PMM800</td>
</tr>
<tr>
<td>BAQ140T24</td>
</tr>
<tr>
<td>PMM840</td>
</tr>
<tr>
<td>XLM800</td>
</tr>
</tbody>
</table>

and as optional modular units:

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOB800</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal (Type A dependency)
- 7.12.2 Dependencies on more than one alarm signal (Type B dependency)
- 7.12.3 Dependencies on more than one alarm signal (Type C dependency)
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition
- 11 Standardized input/output interface

Note:
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

FC240-4

MZX254 Analogue Addressable Control and Indicating Equipment 4 Loop, 240 Zone 681ag/05

(557.200.705)

Incorporating as modular units:

<table>
<thead>
<tr>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>DCM832</td>
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<tr>
<td>CPU800</td>
</tr>
<tr>
<td>FIM802</td>
</tr>
<tr>
<td>PMM800</td>
</tr>
<tr>
<td>BAQ140T24</td>
</tr>
<tr>
<td>PMM840</td>
</tr>
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</table>
Certificated Products

XLM800  Loop Expander Board
and as optional modular units:
IOB800  Input/Output Expansion Board

Certified with the following options with requirements from EN 54-2:
7.8  Output to fire alarm devices
7.9.1  Output to fire alarm routing equipment
7.9.2  Alarm confirmation input from fire alarm routing equipment
7.10.1  Outputs to fire protection equipment (Type A)
7.10.2  Outputs to fire protection equipment (Type B)
7.10.3  Outputs to fire protection equipment (Type C)
7.10.4  Fault monitoring of fire protection equipment
7.11  Delays to outputs
7.12.1  Dependencies on more than one alarm signal (Type A dependency)
7.12.2  Dependencies on more than one alarm signal (Type B dependency)
7.12.3  Dependencies on more than one alarm signal (Type C dependency)
7.13  Alarm counter
8.3  Fault signals from points
8.9  Output to fault warning routing equipment
9.5  Disablement of addressable points
10  Test condition
11  Standardized input/output interface

Note:
1)  This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

Pro16xD  4-16 Loops Analogue Addressable Control & Indicating Equipment

Incorporating the following units:
ProR1DS  Profile Reduced User Interface
PFI800  PROFILE Panel Field Interface Board
PSC400  PROFILE Backplane 4 Slots
PPM800  Profile Panel Mounting Frame
PBB801  PROFILE 5A Power Unit [With BAQ140T24 PSU]

Incorporating the following optional modules:
PNI800  PROFILE Network Interface Slot Card
PCS800  PROFILE Ethernet Switch
POS800-S  Fibre Optic Switch Single Mode
POS800-M  Fibre Optic Switch Multi-Mode
FB800  Fuse board (15 way)
PZ4x  PROFILE 40 Way Zonal Display
PZ8x  PROFILE 80 Way Zonal Display
TUD800  Triggering board for transmission unit
PLX800  PROFILE Loop Expansion Slot Card
PCH800  PROFILE Charger Slot Card
SM3  Serial Interface to FAT
SFK800  PROFILE Swiss Fire Brigade Interface
ICB800  Input/Output Expansion Board
FOM800  Fibre Optic Module
FBI800  Fire Brigade Interface

Incorporating the following mechanical parts:
PXB800  PROFILE Ancillary Expansion Box
PxD  Profile Extension Box For Pro32xD

Pro16xBB - Approved for use with the Pro16xD Control & Indicating Equipment

Incorporating the following units:
PFI800  PROFILE Panel Field Interface Board
PSC400  PROFILE Backplane 4 Slots
PPM800  Profile Panel Mounting Frame
PBB801  PROFILE 5A Power Unit [With BAQ140T24 PSU]

Incorporating the following optional modules:
PNI800  PROFILE Network Interface Slot Card
PCS800  PROFILE Ethernet Switch
POS800-S  Fibre Optic Switch Single Mode
POS800-M  Fibre Optic Switch Multi-Mode
FB800  Fuse board (15 way)
TUD800  Triggering board for transmission unit
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>PLX800</th>
<th>PROFILE Loop Expansion Slot Card</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>PCH800</td>
<td>PROFILE Charger Slot Card</td>
</tr>
<tr>
<td></td>
<td>SM3</td>
<td>Serial Interface to FAT</td>
</tr>
<tr>
<td></td>
<td>SFK800</td>
<td>PROFILE Swiss Fire Brigade Interface</td>
</tr>
<tr>
<td></td>
<td>IOB800</td>
<td>Input/Output Expansion Board</td>
</tr>
<tr>
<td></td>
<td>FOM800</td>
<td>Fibre Optic Module</td>
</tr>
</tbody>
</table>

Incorporating the following mechanical parts:

- PXB800 PROFILE Ancillary Expansion Box
- PxD Profile Extension Box For Pro32xD

Certified with the following options with requirements from EN54-2:

7.8 Output to fire alarm devices
7.9.1 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire controls for fire protection equipment - Output type A
7.10.2 Outputs to fire controls for fire protection equipment - Output type B
7.10.3 Outputs to fire controls for fire protection equipment - Output type C
7.10.4 Fault monitoring of fire controls for fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
10 Disablement of addressable points
11 Test condition
11 Output to standardised input/output interface

Pro32xD 4-32 Loops Analogue Addressable Control & Indicating Equipment 681ag/07

Incorporating the following units:

- ProR1DS Profile Reduced User Interface
- PFI800 PROFILE Panel Field Interface Board
- PSC800 PROFILE Backplane 6 Slots
- PPM800 Profile Panel Mounting Frame
- PBB801 PROFILE 5A Power Unit [With BAQ140T24 PSU]

Incorporating the following optional modules:

- PNI800 PROFILE Network Interface Slot Card
- POS800-S Fibre Optic Switch Single Mode
- POS800-M Fibre Optic Switch Multi-Mode
- FB800 Fuse board (15 way)
- PZ4x PROFILE 40 Way Zonal Display
- PZ8x PROFILE 80 Way Zonal Display
- TUD800 Triggering board for transmission unit
- PLX800 PROFILE Loop Expansion Slot Card
- PCH800 PROFILE Charger Slot Card
- SM3 Serial Interface to FAT
- SFK800 PROFILE Swiss Fire Brigade Interface
- IOB800 Input/Output Expansion Board
- FOM800 Fibre Optic Module
- FBI800 Fire Brigade Interface

Incorporating the following mechanical parts:

- PXB800 PROFILE Ancillary Expansion Box
- PxD Profile Extension Box For Pro32xD

Pro32xBB Approved for use with the Pro32xD Control & Indicating Equipment

Incorporating the following units:

- PFI800 PROFILE Panel Field Interface Board
- PSC800 PROFILE Backplane 6 Slots
- PPM800 Profile Panel Mounting Frame
- PBB801 PROFILE 5A Power Unit [With BAQ140T24 PSU]

Incorporating the following optional modules:

- PNI800 PROFILE Network Interface Slot Card
- PCS800 PROFILE Ethernet Switch
- POS800-S Fibre Optic Switch Single Mode
- POS800-M Fibre Optic Switch Multi-Mode
- FB800 Fuse board (15 way)
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PZ4x PROFILE 40 Way Zonal Display</td>
</tr>
<tr>
<td></td>
<td>PZ8x PROFILE 80 Way Zonal Display</td>
</tr>
<tr>
<td></td>
<td>TUD900 Triggering board for transmission unit</td>
</tr>
<tr>
<td></td>
<td>PLX800 PROFILE Loop Expansion Slot Card</td>
</tr>
<tr>
<td></td>
<td>PCH800 PROFILE Charger Slot Card</td>
</tr>
<tr>
<td></td>
<td>SM3 Serial Interface to FAT</td>
</tr>
<tr>
<td></td>
<td>SFK800 PROFILE Swiss Fire Brigade Interface</td>
</tr>
<tr>
<td></td>
<td>IOB800 Input/Output Expansion Board</td>
</tr>
<tr>
<td></td>
<td>FOM800 Fibre Optic Module</td>
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</tbody>
</table>

Incorporating the following mechanical parts:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PXB800 PROFILE Ancillary Expansion Box</td>
</tr>
<tr>
<td></td>
<td>PxD Profile Extension Box For Pro32xD</td>
</tr>
</tbody>
</table>

Certified with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire controls for fire protection equipment - Output type A
- 7.10.2 Outputs to fire controls for fire protection equipment - Output type B
- 7.10.3 Outputs to fire controls for fire protection equipment - Output type C
- 7.10.4 Fault monitoring of fire controls for fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition
- 11 Output to standardised input/output interface

557.200.520.F MZX16R, 32 Zone Repeater Panel 681ag/R01
Approved for use with the 557.200.701 FireClass 32-1 control and indicating equipment

Incorporating as modular units:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>DCM832R Operator Control / Display Module</td>
</tr>
<tr>
<td></td>
<td>PMM800 Power Supply Monitor</td>
</tr>
<tr>
<td></td>
<td>BAQ60T24 Power Supply</td>
</tr>
<tr>
<td>FC32RA</td>
<td>MZX16R, 32 Zone Repeater Panel (557.200.706) 681ag/R01</td>
</tr>
</tbody>
</table>

Approved for use with the 557.200.701 FireClass 32-1 control and indicating equipment

Incorporating as modular units:

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DCM832R Operator Control / Display Module</td>
</tr>
<tr>
<td></td>
<td>PMM800 Power Supply Monitor</td>
</tr>
<tr>
<td></td>
<td>BAQ60T24 Power Supply</td>
</tr>
<tr>
<td>557.200.521.F</td>
<td>MZX32R, 64 Zone Repeater Panel 681ag/R02</td>
</tr>
</tbody>
</table>

Approved for use with the 557.200.702 FireClass 64-2 and 557.200.703 FireClass 64-4 control and indicating equipment.

Incorporating as modular units:

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DCM832R Operator Control / Display Module</td>
</tr>
<tr>
<td></td>
<td>PMM800 Power Supply Monitor</td>
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<tr>
<td></td>
<td>BAQ60T24 Power Supply</td>
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<tr>
<td>FC64RA</td>
<td>MZX32R, 64 Zone Repeater Panel (557.200.707) 681ag/R02</td>
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Approved for use with the 557.200.702 FireClass 64-2 and 557.200.703 FireClass 64-4 control and indicating equipment.

Incorporating as modular units:

<table>
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<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DCM832R Operator Control / Display Module</td>
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<tr>
<td></td>
<td>PMM800 Power Supply Monitor</td>
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<tr>
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<td>BAQ60T24 Power Supply</td>
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<tr>
<td>557.200.521.F1</td>
<td>MZX32R, 240 Zone Repeater Panel 681ag/R03</td>
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</table>

Approved for use with the 557.200.704 FireClass 240-2 and 557.200.705 FireClass 240-4 control and indicating equipment.

Incorporating as modular units:

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</thead>
<tbody>
<tr>
<td></td>
<td>DCM832R Operator Control / Display Module</td>
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<td>PMM800 Power Supply Monitor</td>
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<td></td>
<td>BAQ60T24 Power Supply</td>
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<td>FC240RA</td>
<td>MZX32R, 240 Zone Repeater Panel (557.200.708) 681ag/R03</td>
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</table>

Approved for use with the 557.200.704 FireClass 240-2 and 557.200.705 FireClass 240-4 control and indicating equipment.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

4 control and indicating equipment.

Incorporating as modular units:
DCM832 Operator Control / Display Module
PMM800  Power Supply Monitor
BAQ60T24 Power Supply

MX4000 2-8 loop Analogue Addressable Control and Indicating Equipment

Notes:
1)The following product variants are approved -
Finished goods No. 557.200.003, MX4000 1-4 loop CIE, shallow housing
Finished goods No. 557.200.005, MX-BBX battery box, shallow housing
Finished goods No. 557.200.004, MX4000 1-8 loop CIE, deep housing
Finished goods No. 557.200.006, MX-DPBX battery box, deep housing (door access)
Finished goods No. 557.200.016, MX-DPBX battery box, deep housing (plain cover access)
Finished goods No. 557.200.009, MX4000 1-4 loop, flush housing
Finished goods No. 557.200.019, MX-BBX-F battery box, flush housing

Incorporating as modular units:
OCM800 Operator Control Module
ODM800 Operator Display Module
CPU800 Main CPU module
FIM802 Field Interface Module drives 1 or 2 loops
PSU830 Power Supply Module

and as optional modular units:
XLM800 Expansion Loop Module drives 1 or 2 additional loops
ANN840 40 + 40 LED Annunciator module
ANN880 80 LED Annunciator module
COM820 20 way Status Command Module
MPM800 Multi-Purpose Interface Module
IOB800 Input/Output Expansion Board
FB800 Fuse Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

MXR Repeater panel is approved for use with the MX4000 Control and Indicating

Notes:
1)The following product variants are approved -
Finished goods No. 557.200.013, MXR-PSU repeater
Finished goods No. 557.200.018, MXR-PSU-F repeater flush housing
Finished goods No. 557.200.012, MXR repeater
Finished goods No. 557.200.017, MXR-F repeater flush housing

Incorporating as modular units:
OCM800 (Operator Control Module)
ODM800 (Operator Display Module)
PSU830 (Power Supply Module)

and as optional modular units:
ANN840 (40 + 40 LED Annunciator)
ANN880 (80 LED Annunciator)
MPM800 (Multi Purpose Interface Module)
IOB800 (Input/Output Expansion Board)
FB800 (Fuse Board)
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

MZX-125
Analogue Addressable Control and Indicating Equipment, 1 loop, 16 Zone (557.200.501) 681ap/01
Incorporating as modular units:
DCMB16 Operator Control / Display Module
CPU800 Main CPU module
FIM801 Field Interface Module
PMM800 Power Supply Monitor
BAQ80T24 Power Supply

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

MZX-250
Analogue Addressable Control and Indicating Equipment, 1 loop, 32 Zone (557.200.502) 681ap/02
Incorporating as modular units:
DCMB32 Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module (1 loop version Part No. 2605053)
PMM800 Power Supply Monitor
BAQ140T24 Power Supply

and as an optional modular unit:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

MZX-251
Analogue Addressable Control and Indicating Equipment, 1 loop, 32 Zone (557.200.503) 681ap/03
Incorporating as modular units:
DCMB32 Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module (1 loop version Part No. 2605053)
PMM800 Power Supply Monitor
BAQ140T24 Power Supply

and as an optional modular unit:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
### PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MZX-250-CH</strong></td>
<td>681ap/04</td>
</tr>
</tbody>
</table>

Analogue Addressable Control and Indicating Equipment, 1 loop, 32 Zone (557.200.504)

**Incorporating as modular units:**

- **DCM832** - Operator Control / Display Module
- **CPU800** - Main CPU module
- **FIM802** - Field Interface Module (1 loop version Part No. 2605053)
- **PMM800** - Power Supply Monitor
- **FBF-CH** - Swiss Fire Brigade Interface
- **BAQ140T24** - Power Supply

**and as an optional modular unit:**

- **IOB800** - Input/Output Expansion Board

Certified with the following options with requirements from EN 54 Part 2:

- **7.8** - Output to fire alarm devices
- **7.9.1** - Output to fire alarm routing equipment
- **7.9.2** - Alarm confirmation input from fire alarm routing equipment
- **7.10.1** - Outputs to fire protection equipment (Type A)
- **7.10.2** - Outputs to fire protection equipment (Type B)
- **7.10.3** - Outputs to fire protection equipment (Type C)
- **7.10.4** - Fault monitoring of fire protection equipment
- **7.11** - Delays to outputs
- **7.12.1** - Dependencies on more than one alarm signal (Type A dependency)
- **7.12.2** - Dependencies on more than one alarm signal (Type B dependency)
- **7.12.3** - Dependencies on more than one alarm signal (Type C dependency)
- **7.13** - Alarm counter
- **8.3** - Fault signals from points
- **8.9** - Output to fault warning routing equipment
- **9.5** - Disablement of addressable points

**MZX-251-S** | 681ap/05 |

Analogue Addressable Control and Indicating Equipment, 1 loop, 32 Zone (557.200.505)

**Incorporating as modular units:**

- **DCM832 -S** - Operator Control / Display Module (Scandinavian Fire Brigade Interface/key)
- **CPU800** - Main CPU module
- **FIM802** - Field Interface Module (1 loop version Part No. 2605053)
- **PMM800** - Power Supply Monitor
- **BAQ140T24** - Power Supply

**and as an optional modular unit:**

- **IOB800** - Input/Output Expansion Board

Certified with the following options with requirements from EN 54 Part 2:

- **7.8** - Output to fire alarm devices
- **7.9.1** - Output to fire alarm routing equipment
- **7.9.2** - Alarm confirmation input from fire alarm routing equipment
- **7.10.1** - Outputs to fire protection equipment (Type A)
- **7.10.2** - Outputs to fire protection equipment (Type B)
- **7.10.3** - Outputs to fire protection equipment (Type C)
- **7.10.4** - Fault monitoring of fire protection equipment
- **7.11** - Delays to outputs
- **7.12.1** - Dependencies on more than one alarm signal (Type A dependency)
- **7.12.2** - Dependencies on more than one alarm signal (Type B dependency)
- **7.12.3** - Dependencies on more than one alarm signal (Type C dependency)
- **7.13** - Alarm counter
- **8.3** - Fault signals from points
- **8.9** - Output to fault warning routing equipment
- **9.5** - Disablement of addressable points

**MZX-252** | 681ap/06 |

Analogue Addressable Control and Indicating Equipment, 2 loop, 32 Zone (557.200.506)
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Incorporating as modular units:
DCM832 Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
BAQ140T24 Power Supply

and as an optional modular unit:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

MZX-252-CH
Analogue Addressable Control and Indicating Equipment, 2 loop, 32 Zone (557.200.507)
681ap/07

Incorporating as modular units:
DCM832 Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
FBF-CH Swiss Fire Brigade Interface
BAQ140T24 Power Supply

and as an optional modular unit:
IOB800 Input/Output Expansion Board

Certified with the following options with requirements from EN 54 Part 2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

MZX-253
Analogue Addressable Control and Indicating Equipment, 2-4 loop, 64 Zone (557.200.508)
681ap/08

Incorporating as modular units:
DCM864R Operator Control / Display Module
CPU800 Main CPU module
FIM802 Field Interface Module
PMM800 Power Supply Monitor
BAQ140T24 Power Supply
PM840 Power Supply Monitor
XLM900 Loop Expander Board

and as an optional modular units:
IOB800 Input/Output Expansion Board

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Certificated Products

Certificated with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal (Type A dependency)
- 7.12.2 Dependencies on more than one alarm signal (Type B dependency)
- 7.12.3 Dependencies on more than one alarm signal (Type C dependency)
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition
- 11 Standardized input/output interface

MZX-254
Analogue Addressable Control and Indicating Equipment, 2-4 loop, 240 Zone (557.200.509)

Incorporating as modular units:
- DCM832 Operator Control / Display Module
- CPU800 Main CPU module
- FIM802 Field Interface Module
- PMM800 Power Supply Monitor
- BAQ140T24 Power Supply

and as optional modular units:
- IOB800 Input/Output Expansion Board
- PMM840 Power Supply Monitor
- XLM800 Loop Expander Board

Certificated with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal (Type A dependency)
- 7.12.2 Dependencies on more than one alarm signal (Type B dependency)
- 7.12.3 Dependencies on more than one alarm signal (Type C dependency)
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition
- 11 Standardized input/output interface

MZX-254-S
Analogue Addressable Control and Indicating Equipment, 2-4 loop, 240 Zone (557.200.511)

Incorporating as modular units:
- DCM832 -S Operator Control / Display Module (Scandinavian Fire Brigade Interface/key)
- CPU800 Main CPU module
- FIM802 Field Interface Module
- PMM800 Power Supply Monitor
- BAQ140T24 Power Supply

and as optional modular units:
- IOB800 Input/Output Expansion Board
- PMM840 Power Supply Monitor
- XLM800 Loop Expander Board

Certificated with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm devices
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Outputs to fire protection equipment (Type A)
- 7.10.2 Outputs to fire protection equipment (Type B)
- 7.10.3 Outputs to fire protection equipment (Type C)
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<td>11 Standardized input/output interface</td>
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</tr>
</tbody>
</table>

**MZX-254-CH**
Analogue Addressable Control and Indicating Equipment, 2-4 loop, 240 Zone

Incorporating as modular units:
- DCM832 Operator Control / Display Module
- CPU800 Main CPU module
- FIM802 Field Interface Module
- PMM800 Power Supply Monitor
- BF-CH Swiss Fire Brigade Interface
- BAQ140T24 Power Supply

and as optional modular units:
- IOB800 Input/Output Expansion Board
- PMM840 Power Supply Monitor
- XLM800 Loop Expander Board

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm devices
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Outputs to fire protection equipment (Type A)
7.10.2 Outputs to fire protection equipment (Type B)
7.10.3 Outputs to fire protection equipment (Type C)
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal (Type A dependency)
7.12.2 Dependencies on more than one alarm signal (Type B dependency)
7.12.3 Dependencies on more than one alarm signal (Type C dependency)
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardized input/output interface

**MZX-16-R**
16 Zone Repeater Panel, (557.200.520)
Approved for use with the MZX-125 Control and Indicating Equipment

Incorporating as modular units:
- DCM816 Operator Control / Display Module
- PMM800 Power Supply Monitor
- BAQ60T24 Power Supply

**MZX-32-R**
32 Zone Repeater Panel, (557.200.521)
Approved for use with the MZX-250, MZX-250-CH, MZX-251, MZX-252 & MZX-252-CH Control and Indicating Equipment

Incorporating as modular units:
- DCM832 Operator Control / Display Module
- PMM800 Power Supply Monitor
- BAQ60T24 Power Supply

**MZX-32-SR**
32 Zone Repeater Panel, (557.200.522)
Approved for use with the MZX-251-S Control and Indicating Equipment

Incorporating as modular units:
- DCM832-S Operator Control / Display Module
- PMM800 Power Supply Monitor
- BAQ60T24 Power Supply

**MZX-64-DR**
64 Zone Repeater Panel, (557.200.526)
Approved for use with the MZX-253 Control and Indicating Equipment

Incorporating as modular units:
- DCM864R Operator Control / Display Module
- PMM805 Power Supply Monitor (24 VDC)

**MZX-DR**
240 Zone Repeater Panel, (557.200.523)
Approved for use with the MZX-254 Control and Indicating Equipment

Incorporating as modular units:
- DCM832 Operator Control / Display Module

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<td>MZX-CHDR</td>
<td>240 Zone Repeater Panel, (557.200.525) Approved for use with the MZX-254-CH Control and Indicating Equipment</td>
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<td>Pro215S</td>
<td>1-2 Loops Analogue Addressable Control &amp; Indicating Equipment, Shallow Housing (557.200.949)</td>
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Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Certified with the following options with requirements from EN54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.10.3 Output type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address point
10 Test condition
11 Output to standardised input/output interface

References:

1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13
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7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.10.3 Output type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
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7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address point
10 Test condition
11 Output to standardised input/output interface

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Incorporating the following units:
PR1DS Profile User Interface
PFI800 Profile Panel Field Interface Board
PSC400 Profile Backplane 4 Slots
PSU (BAQ140T24) Power Supply Unit
Incorporating the following optional units:
ProR1DS Profile Reduced User Interface
PN1800 Profile Network Interface Slot Card
FOM800 Fibre Optic Module
PCSB800 Profile Ethernet switch
POS800-S Fibre Optic Switch Single Mode
POS800-M Fibre Optic Switch Multi Mode
FB800 Fuse Board
CD5.241 DC-DC Converter (24V input and 24V output)
TUD800 Triggering Board for transmission unit
SM3 Serial Interface to FAT
IOB800 Input/ Output Expansion Board
FB1800 Fire Brigade Interface
PS-12380 2x38Ah Batteries

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.10.3 Output type C
7.10.4 Fault monitoring of fire protection equipment
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7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address point
10 Test condition
11 Output to standardised input/output interface

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Incorporating the following units:
PR1DS Profile User Interface
PFI800 Profile Panel Field Interface Board

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Certificated Products

PSC400  Profile Backplane 4 Slots
PSU (BAQ140T24) Power Supply Unit

Incorporating the following optional units:
ProR1DS  Profile Reduced User Interface
PNI800  Profile Network Interface Slot Card
FOM800  Fibre Optic Module
PCS800  Profile Ethernet switch
POS800-S  Fibre Optic Switch Single Mode
POS800-M  Fibre Optic Switch Multi Mode
FB800  Fuse Board
CD5.241  DC-DC Converter (24V input and 24V output )
TUD800  Triggering Board for transmission unit
SM3  Serial Interface to FAT
IOB800  Input/ Output Expansion Board
FBI800  Fire Brigade Interface
PS-12380 2x38Ah Batteries

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output type A
7.10.2 Output type B
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7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address point
10 Test condition
11 Output to standardised input/output interface

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

FC718D  4-8 Loops Analogue Addressable Control & Indicating Equipment (557.200.952) 681au/04

Incorporating the following units:
PR1DS  Profile User Interface
PFI800  Profile Panel Field Interface Board
PSC400  Profile Backplane 4 Slots
PSU (BAQ140T24) Power Supply Unit

Incorporating the following optional units:
ProR1DS  Profile Reduced User Interface
PNI800  Profile Network Interface Slot Card
FOM800  Fibre Optic Module
PLX800  Profile Loop Expansion Slot Card
PCS800  Profile Ethernet switch
POS800-S  Fibre Optic Switch Single Mode
POS800-M  Fibre Optic Switch Multi Mode
FB800  Fuse Board
CD5.241  DC-DC Converter (24V input and 24V output )
TUD800  Triggering Board for transmission unit
SM3  Serial Interface to FAT
IOB800  Input/ Output Expansion Board
FBI800  Fire Brigade Interface
PS-12380 2x38Ah Batteries

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.10.3 Output type C
7.10.4 Fault monitoring of fire protection equipment
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<td>FC708D 4-8 Loops Analogue Addressable Control &amp; Indicating Equipment (557.200.951)</td>
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Incorporating the following units:
- PR1DS Profile User Interface
- PFI800 Profile Panel Field Interface Board
- PSC400 Profile Backplane 4 Slots
- PSU (BAQ140T24) Power Supply Unit

Incorporating the following optional units:
- ProR1DS Profile Reduced User Interface
- PNI800 Profile Network Interface Slot Card
- FOM800 Fibre Optic Module
- PLX800 Profile Loop Expansion Slot Card
- PCS800 Profile Ethernet switch
- POS800-S Fibre Optic Switch Single Mode
- POS800-M Fibre Optic Switch Multi Mode
- FF800 Fuse Board
- CD5.241 DC-DC Converter (24V input and 24V output)
- TUD800 Triggering Board for transmission unit
- SM3 Serial Interface to FAT
- IOB800 Input/Output Expansion Board
- FBI800 Fire Brigade Interface
- PS-12380 2x38Ah Batteries

Certified with the following options with requirements from EN54-2:
- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Output type A
- 7.10.2 Output type B
- 7.10.3 Output type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each address point
- 10 Test condition
- 11 Output to standardised input/output interface

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Incorporating the following units:
- PR1DS Profile User Interface
- PFI800 Profile Panel Field Interface Board
- PSC400 Profile Backplane 4 Slots
- PSU (BAQ140T24) Power Supply Unit

Incorporating the following optional units:
- ProR1DS Profile Reduced User Interface
- PNI800 Profile Network Interface Slot Card
**Certificated Products**

- **FOM800** Fibre Optic Module
- **PLX800** Profile Loop Expansion Slot Card
- **PCS800** Profile Ethernet switch
- **POS800-S** Fibre Optic Switch Single Mode
- **POS800-M** Fibre Optic Switch Multi Mode
- **FB800** Fuse Board
- **CD5.241** DC-DC Converter (24V input and 24V output)
- **TUD800** Triggering Board for transmission unit
- **SM3** Serial Interface to FAT
- **IOB800** Input/Output Expansion Board
- **PZ4x** 40way Zonal Display
- **FB800** Fire Brigade Interface
- **PS-12380** 2x38Ah Batteries

Certified with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Output type A
- 7.10.2 Output type B
- 7.10.3 Output type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of each address point
- 10 Test condition
- 11 Output to standardised input/output interface

**Notes:**

1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

**Pro885D**

4-8 Loops Analogue Addressable Control & Indicating Equipment

Incorporating the following units:

- **PR1DS** Profile User Interface
- **PF1800** Profile Panel Field Interface Board
- **PSC400** Profile Backplane 4 Slots
- **PZ8x** 80way Zonal Display
- **PSU (BAQ140T24)** Power Supply Unit

Incorporating the following optional units:

- **Pro1RDS** Profile Reduced User Interface
- **PN1800** Profile Network Interface Slot Card
- **FOM800** Fibre Optic Module
- **PLX800** Profile Loop Expansion Slot Card
- **PCS800** Profile Ethernet switch
- **POS800-S** Fibre Optic Switch Single Mode
- **POS800-M** Fibre Optic Switch Multi Mode
- **FB800** Fuse Board
- **CD5.241** DC-DC Converter (24V input and 24V output)
- **TUD800** Triggering Board for transmission unit
- **SM3** Serial Interface to FAT
- **IOB800** Input/Output Expansion Board
- **PZ4x** 40way Zonal Display
- **FB800** Fire Brigade Interface
- **PS-12380** 2x38Ah Batteries

Certified with the following options with requirements from EN54-2:

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.1 Output type A
- 7.10.2 Output type B
- 7.10.3 Output type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delays to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
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7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address point
10 Test condition
11 Output to standardised input/output interface

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13

Pro815D-CH

4-8 Loops Analogue Addressable Control & Indicating Equipment

Incorporating the following units:
- PR1DS  Profile User Interface
- PF1800  Profile Panel Field Interface Board
- PS2400  Profile Backplane 4 Slots
- SFK800  Swiss Fire Brigade Interface
- PSU (BAQ140T24) Power Supply Unit

Incorporating the following optional units:
- ProR1DS Profile Reduced User Interface
- PN1800 Profile Network Interface Slot Card
- FOM800  Fibre Optic Module
- PLX800  Profile Loop Expansion Slot Card
- PCS800  Profile Ethernet switch
- POS800-S Fibre Optic Switch Single Mode
- POS800-M Fibre Optic Switch Multi Mode
- FB800  Fuse Board
- CD5.241 DC-DC Converter (24V input and 24V output)
- TUD800  Triggering Board for transmission unit
- SM3  Serial Interface to FAT
- IOB800  Input/Output Expansion Board
- FB800  Fire Brigade Interface
- PS-12260 2x26Ah Batteries

Certified with the following options with requirements from EN54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output type A
7.10.2 Output type B
7.10.3 Output type C
7.10.4 Fault monitoring of fire protection equipment
7.11 Delays to outputs
7.12.1 Dependencies on more than one alarm signal - Type A
7.12.2 Dependencies on more than one alarm signal - Type B
7.12.3 Dependencies on more than one alarm signal - Type C
7.13 Alarm counter
8.3 Fault signals from points
8.9 Output to fault warning routing equipment
9.5 Disablement of each address point
10 Test condition
11 Output to standardised input/output interface

Notes:
1. Scope of approval does not include the operation of the network functionality
2. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

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Tel: + 31 495 58 30 00 • Fax: + 31 495 55 00 42
E-mail: David.Perez@fs.utc.com • Website: www.utcfireandsecurity.com

N.B This certificate is to a withdrawn standard. Control and indicating equipment conforming to this standard is not suitable for use within the jurisdiction of the European Union (EU). This certificate, to the withdrawn standard, is maintained because control and indicating equipment meeting the withdrawn standard is still requested by some regulators outside of the EU.

N.B This certificate is to a withdrawn standard. Control and indicating equipment conforming to this standard is not suitable for use within the jurisdiction of the European Union (EU). This certificate, to the withdrawn standard, is maintained because control and indicating equipment meeting the withdrawn standard is still requested by some regulators outside of the EU.

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>ZP3 1, 2 and 4 loop analogue addressable control and indicating equipment</th>
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<tbody>
<tr>
<td>ZP3-MB2-4L</td>
<td>4 Loop Main board</td>
</tr>
<tr>
<td>ZP3-MB2-2L</td>
<td>2 Loop Main board</td>
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<tr>
<td>ZP3-MB2-1L</td>
<td>1 Loop Main board</td>
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<tr>
<td>ZP3-CPU1</td>
<td>CPU board</td>
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<tr>
<td>ZP3-DB1</td>
<td>Display board</td>
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<tr>
<td>ZP3-ZB50</td>
<td>50 Zone LED board</td>
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<tr>
<td>ZP3-CB1</td>
<td>Commissioning key switch board</td>
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<tr>
<td>ZP3-PR1</td>
<td>Printer Kit</td>
</tr>
<tr>
<td>ZP3AB-SCB-D</td>
<td>Control bus driver</td>
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<tr>
<td>ZP3AB-RL8</td>
<td>Programmable relay output board, 8 way</td>
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<td>ZP3AB-MA8</td>
<td>Programmable monitored output board, 8 way</td>
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<tr>
<td>ZP3AB-OP24</td>
<td>Programmable transistor output board, 24 way</td>
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<td>ZP3AB-MP8</td>
<td>Programmable input board, 8 way</td>
</tr>
<tr>
<td>ZP3-X1</td>
<td>230Vac Power supply unit</td>
</tr>
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Approved with the following options from BS EN54 Part 2:

- 7.8 Output to fire alarm devices
- 7.9 Output to fire alarm routing equipment
- 7.10 Output to fire protection equipment
- 7.11 Delays to outputs
- 7.12 Co-incidence detection
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.4 Total loss of power
- 8.9 Output to fault routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition
- 11 Standardised input/output interface

ZPU (Traditional Chinese Language Variant)

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<th>LPCB Ref. No.</th>
<th>ZPU 1, 2 and 4 loop analogue addressable control and indicating equipment</th>
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<tr>
<td>ZP3-MB2-4L</td>
<td>4 Loop Main board</td>
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<tr>
<td>ZP3-MB2-2L</td>
<td>2 Loop Main board</td>
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<td>1 Loop Main board</td>
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<tr>
<td>ZP3-CPU1</td>
<td>CPU board</td>
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<tr>
<td>ZP3-DB1</td>
<td>Display board</td>
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<tr>
<td>ZP3-ZB50</td>
<td>50 Zone LED board</td>
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<tr>
<td>ZP3-CB1</td>
<td>Commissioning key switch board</td>
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<tr>
<td>ZP3-PR1</td>
<td>Printer Kit</td>
</tr>
<tr>
<td>ZP3AB-SCB-D</td>
<td>Control bus driver</td>
</tr>
<tr>
<td>ZP3AB-RL8</td>
<td>Programmable relay output board, 8 way</td>
</tr>
</tbody>
</table>

Incorporating as modular units:

- ZP3-MB2-4L
- ZP3-MB2-2L
- ZP3-MB2-1L
- ZP3-CPU1
- ZP3-DB1
- ZP3-ZB50
- ZP3-CB1
- ZP3-PR1
- ZP3AB-SCB-D
- ZP3AB-RL8

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PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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<tbody>
<tr>
<td>ZP3-AB-MA8</td>
<td>Programmable monitored output board, 8 way</td>
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<tr>
<td>ZP3AB-OP24</td>
<td>Programmable transistor output board, 24 way</td>
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<td>ZP3AB-MIP8</td>
<td>Programmable input board, 8 way</td>
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<tr>
<td>ZF3-X1</td>
<td>230Vac Power supply unit</td>
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Approved with the following options from BS EN54 Part 2:

7.8 Output to fire alarm devices
7.9 Output to fire alarm routing equipment
7.10 Output to fire protection equipment
7.11 Delays to outputs
7.12 Co-occurrence detection
7.13 Alarm counter
8.3 Fault signals from points
8.4 Total loss of power
8.9 Output to fault routing equipment
9.5 Disablement of addressable points
10 Test condition
11 Standardised input/output interface


Control and indicating equipment

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>2X-F1, 2X-F1-S</td>
<td>2X-F1 Intelligent analogue addressable fire panel with user interface- 1 Loop</td>
</tr>
<tr>
<td></td>
<td>2X-F1-S Intelligent analogue addressable fire panel with user interface - 1 Loop small cabinet</td>
</tr>
</tbody>
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Incorporating the following units:
- 2010-2F1-MB Main control board
- 2X-UI User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:
- 2X-ZI-20 (20 Zone) (Large cabinet variant only)
- 2X-ZI-40 (40 Zone) (Large cabinet variant only)
- 2X-ZI-24-S (24 Zone) (Small cabinet variant only)
- 2010-2-NB Network card
- 2X-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
- 2010-2-PIB-B8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT with ATS7310 (GSM module)
- 2X-D-TP Translucent door option for large cabinet*
- 2X-D-TP-S Translucent door option for small cabinet*
- 2010-FS-EOL Fault Supervision End of Line unit

The above fire panels are certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment (not available on 2X-F1 and 2X-F1-S)
7.9.2 Alarm confirmation input from fire alarm routing equipment (not available on 2X-F1 and 2X-F1-S)

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Certificated Products

LPCB Ref. No.

7.10 Output to fire protection equipment - Type A, B and C
(not available on 2X-F1 and 2X-F1-S)

7.11 Delays to outputs

7.12 Dependencies on more than one alarm signal (Type A, B and C)

7.13 Alarm counter

8.4 Total loss of the power supply

8.9 Output to fault warning routing equipment

9.5 Disablement of addressable points

10 Test condition

Notes:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

1. Available with the following language kit options: -01 Dutch (NL) The Netherlands, -02 French (FR), -03 English (UK) United Kingdom and Ireland, -04 German (DE) -05 Norwegian, -06 Swedish, -07 Danish (DK), -08 English (AU) Australia, -09 Spanish, -10 Italian, -11 Dutch (BE) Belgium, -12 Irish, -13 German (AU) (Austria), -14 Greek, -15 Arabic, -17 English (US) United States of America, -18 Polish, -19 Turkish, -20 Czech Republic, -21 Portuguese, -22 Hungarian, -23 Danish (IC) Iceland, -24 Slovakian, -25 Russian, -27 Lithuanian, -28 Finnish, -29 German (SW) Switzerland, -30 Estonian, -31 Latvian, -32 French (BE) Belgium, -33 French (SW) Switzerland, -34 Italian (SW) Switzerland, -36 French (Int) International, -40 Bulgarian, -41 Belarusian, -43 Ukrainian, -44 Serbian, -45 Romanian (RO), -46 German (Int) International, -48 Croatian, -49 Macedonian, -50 Slovenian, -51 Hebrew

2. Scope of the approval does not indicate the operation of the network functionality

3. The translucent door does not meet EN54-2 access level 1 requirements. To meet EN54-2 requirements with the door fitted the following is also required:

4. A MCP (without program delay) fitted beside the panel to allow overriding of delays (to meet requirements of EN54-2 part 7.11)

5. A Zone indicator board to display the zones in alarm (to meet requirements of EN54-2 part 7.3)

6. A MCP (without program delay) fitted beside the panel to allow overriding of delays (to meet requirements of EN54-2 part 7.11)

KFP-AF1, KFP-AF1-S
Intelligent Analogue Addressable Fire Panel with user interface - 1 loop
Intelligent Analogue Addressable Fire Panel with user interface - 1 loop small cabinet

Incorporating the following units:

2010-2F1-MB Main control board
KFP-A-UI User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

KFP-A-ZI-20 (20 Zone) (Large cabinet variant only)
KFP-A-ZI-40 (40 Zone) (Large cabinet variant only)
KFP-A-ZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-NB Network card
KFP-A-LB Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-BO Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8BO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT with AT87310 (GSM module)
2010-2-PIB-8O Fault Supervision End of Line unit

ZP2-F1-S, ZP2-F1
Intelligent Analogue Addressable Fire Panel with user interface - 1 loop
Intelligent Analogue Addressable Fire Panel with user interface - 1 loop small cabinet

Incorporating the following units:

2010-2F1-MB Main control board
ZP2-UI User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

ZP2-ZI-20 (20 Zone) (Large cabinet variant only)
ZP2-ZI-40 (40 Zone) (Large cabinet variant only)
ZP2-ZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-NB Network card
Certificated Products

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<th>LPCB Ref. No.</th>
<th>Description</th>
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<tr>
<td>ZP2-LB</td>
<td>Loop Board (Large cabinet variant only)</td>
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<tr>
<td>2010-2-232-KIT</td>
<td>Interface board for external printer</td>
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<tr>
<td>2010-2-PS-C2</td>
<td>UK mains cable for large cabinet</td>
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<tr>
<td>2010-2-PS-C2-S</td>
<td>UK mains cable for small cabinet</td>
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<tr>
<td>2010-2-PIB-8O</td>
<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
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<tr>
<td>2010-2-PIB-8I</td>
<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8BO</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
<tr>
<td>ZP2-D-TP</td>
<td>Translucent door option for large cabinet*</td>
</tr>
<tr>
<td>ZP2-D-TP-S</td>
<td>Translucent door option for small cabinet*</td>
</tr>
<tr>
<td>2X-F1-SC, 2X-F1-SC-S</td>
<td>Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls</td>
</tr>
<tr>
<td></td>
<td>- 1 loop (Scandinavia)</td>
</tr>
<tr>
<td></td>
<td>- 1 loop small cabinet (Scandinavia)</td>
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Incorporating the following units:

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<th>Description</th>
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<td>2X-UI-SC</td>
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<td>2010-2-PS-40 4A</td>
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And as optional modules:

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<tr>
<td>2X-ZI-20</td>
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<tr>
<td>2X-ZI-40</td>
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<tr>
<td>2010-2-NB</td>
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<tr>
<td>2X-LB</td>
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<tr>
<td>2010-2-232-KIT</td>
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<tr>
<td>2010-SK</td>
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<tr>
<td>2010-2-PS-C2</td>
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<tr>
<td>2010-2-PS-C2-S</td>
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<tr>
<td>2010-2-PIB-8O</td>
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<td>2010-2-PIB-8I</td>
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<tr>
<td>2010-2-PIB-8BO</td>
</tr>
<tr>
<td>2010-2-DACT</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
</tr>
</tbody>
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KFP-AF1-SC, KFP-AF1-SC-S | Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls |
|                         | - 1 loop (Scandinavia) |
|                         | - 1 loop small cabinet (Scandinavia) |

Incorporating the following units:

<table>
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<th>Description</th>
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<tbody>
<tr>
<td>2010-2F1-MB</td>
</tr>
<tr>
<td>KFP-A-UI-SC</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
</tr>
</tbody>
</table>

And as optional modules:

<table>
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<tr>
<th>Description</th>
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<tr>
<td>KFP-A-ZI-20</td>
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<td>2010-2-232-KIT</td>
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<tr>
<td>2010-SK</td>
</tr>
<tr>
<td>2010-2-PS-C2</td>
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<tr>
<td>2010-2-PS-C2-S</td>
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<td>2010-2-PIB-8O</td>
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<td>2010-2-PIB-8I</td>
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<tr>
<td>2010-2-DACT</td>
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<tr>
<td>2010-FS-EOL</td>
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ZP2-F1-SC, ZP2-F1-SC-S | Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls |
|                       | - 1 loop (Scandinavia) |
|                       | - 1 loop small cabinet (Scandinavia) |
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Incorporating the following units:

2010-2F1-MB  Main control board
ZP2-UI-SC    User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

ZP2-ZI-20    (20 Zone) (Large cabinet variant only)
ZP2-ZI-40    (40 Zone) (Large cabinet variant only)
2010-2-NB    Network card
2010-2-232-KIT Interface board for external printer
2010-SK     Scandinavian key and lock assembly
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-DACT with ATS7310 (GSM module)
2010-FS-EOL Fault Supervision End of Line unit

Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls

Incorporating the following units:

2010-2F1-MB  Main control board
2X-UI-FB2    User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

2X-ZI-20    (20 Zone) (Large cabinet variant only)
2X-ZI-40    (40 Zone) (Large cabinet variant only)
2X-ZI-24-S  (24 Zone) (Small cabinet variant only)
2010-2-NB    Network card
2X-LB       Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB Peripheral Interface Board (Germany) (Large cabinet variant only)
2010-2-PIB-8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
ADP-N3E-U   IFAM interface card (master) (Large cabinet variant only)
ADP-N3S     interface card (slave) (Large cabinet variant only)
2010-2-DACT with ATS7310 (GSM module)
2X-D-FB2-TP Translucent door option for large cabinet*
2X-D-FB2-TP-S Translucent door option for small cabinet*
2010-FS-EOL Fault Supervision End of Line unit

Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls

Incorporating the following units:

2010-2F1-MB  Main control board
KFP-A-UI-FB2 User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

KFP-A-ZI-20  (20 Zone) (Large cabinet variant only)
KFP-A-ZI-40  (40 Zone) (Large cabinet variant only)
KFP-A-ZI-24-S (24 Zone) (Small cabinet variant only)
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Certificated Products

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<td>KFP-A-LB</td>
<td>Loop Board (Large cabinet variant only)</td>
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<tr>
<td>2010-2-232-KIT</td>
<td>Interface board for external printer</td>
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<td>2010-2-PS-C2</td>
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<td>2010-2-PIB</td>
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<td>2010-2-PIB-8O</td>
<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
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<td>ADP-N3S</td>
<td>interface card (slave) (Large cabinet variant only)</td>
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<td>with ATS7310 (GSM module)</td>
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<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
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ZP2-F1-FB2, ZP2-F1-FB2-S
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls - 1 loop
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls - 1 loop small cabinet
Incorporating the following units:

<table>
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<tr>
<td>ZP2-UI-FB2</td>
<td>User interface control board</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
</tr>
</tbody>
</table>

And as optional modules:

ZP2-ZI-20 | (20 Zone) (Large cabinet variant only) |
| ZP2-ZI-40 | (40 Zone) (Large cabinet variant only) |
| ZP2-ZI-24-S | (24 Zone) (Small cabinet variant only) |
| 2010-2-NB | Network card |
| ZP2-LB | Loop Board (Large cabinet variant only) |
| 2010-2-232-KIT | Interface board for external printer |
| 2010-2-PS-C2 | UK mains cable for large cabinet |
| 2010-2-PS-C2-S | UK mains cable for small cabinet |
| 2010-2-PIB | Peripheral Interface Board (Germany) (Large cabinet variant only) |
| 2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only) |
| 2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only) |
| 2010-2-PIB-8I8O | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant) |
| ADP-N3E-U IFAM | interface card (master) (Large cabinet variant only) |
| ADP-N3S | interface card (slave) (Large cabinet variant only) |
| 2010-2-DACT | with ATS7310 (GSM module) |
| 2010-FS-EOL | Fault Supervision End of Line unit |

2X-E1, 2X-E1-S
Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 1 loop
Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 1 loop small Cabinet
Incorporating the following units:

<table>
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<th>Description</th>
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<td>2010-2F1-MB</td>
<td>Main control board</td>
</tr>
<tr>
<td>ZP2-UI-E</td>
<td>User interface control board</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
</tr>
</tbody>
</table>

2X-LB Loop Board | (Large cabinet variant only) |
| 2010-2-232-KIT | Interface board for external printer |

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## Certificated Products

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2-PS-C2-S</td>
<td>UK mains cable for small cabinet</td>
</tr>
<tr>
<td>2010-2-PIB-80</td>
<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8I</td>
<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-810</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8I8O</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2X-D-E-TP</td>
<td>Translucent door option for large cabinet*</td>
</tr>
<tr>
<td>2X-D-E-TP-S</td>
<td>Translucent door option for small cabinet*</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
</tbody>
</table>

**KFP-AE1, KFP-AE1-S**

Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 1 loop

Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 1 loop small cabinet

Incorporating the following units:

- 2010-2F1-MB: Main control board
- KFP-A-UI-E: User interface control board
- 2010-2-PS-40 4A: Power Supply

And as optional modules:

- KFP-A-ZI-20: (20 Zone) (Large cabinet variant only)
- KFP-A-ZI-40: (40 Zone) (Large cabinet variant only)
- KFP-A-ZI-24-S: (24 Zone) (Small cabinet variant only)
- 2010-2-232-KIT: Interface board for external printer
- 2010-2-PS-C2: UK mains cable for large cabinet
- 2010-2-PS-C2-S: UK mains cable for small cabinet
- 2010-2-PIB-80: Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-8I: Peripheral Interface Board 8 inputs (Large cabinet variant only)
- 2010-2-PIB-8I8O: Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT: with ATS7310 (GSM module)
- 2010-FS-EOL: Fault Supervision End of Line unit

The above fire panels are certified with the following options with requirements from EN 54-2:

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment (not available on KFP-A-F1 and KFP-A-F1-S)
- 7.9.2 Alarm confirmation input from fire alarm routing equipment (not available on KFP-A-F1 and KFP-A-F1-S)
- 7.10 Output to fire protection equipment - Type A, B and C (not available on KFP-A-F1 and KFP-A-F1-S)
- 7.11 Delays to outputs
- 7.12 Dependencies on more than one alarm signal (Type A, B and C)
- 7.13 Alarm counter
- 8.4 Total loss of the power supply
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition

**Notes:**

This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

- Available with the following language kit options: -01 Dutch (NL) The Netherlands-02 French (FR) France-03 English (UK) United Kingdom and Ireland-04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU) German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech
ZP2-E1, ZP2-E1-S

Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 1 loop
Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 1 loop small cabinet

Incorporating the following units:

- **2010-2F1-MB** Main control board
- **ZP2-UI-E** User interface control board
- **2010-2-PS-40 4A** Power Supply

And as optional modules:

- **ZP2-ZI-20** (20 Zone) (Large cabinet variant only)
- **ZP2-ZI-40** (40 Zone) (Large cabinet variant only)
- **ZP2-ZI-24-S** (24 Zone) (Small cabinet variant only)
- **2010-2-NB** Network card
- **ZP2-LB** Loop Board (Large cabinet variant only)
- **2010-2-232-KIT** Interface board for external printer
- **2010-2-PS-C2** UK mains cable for large cabinet
- **2010-2-PS-C2-S** UK mains cable for small cabinet
- **2010-2-PIB-8O** Peripheral Interface Board 8 outputs (Large cabinet variant only)
- **2010-2-PIB-8I** Peripheral Interface Board 8 inputs (Large cabinet variant only)
- **2010-2-PIB-8IO** Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- **2010-2-DACT** with ATST310 (GSM module)
- **2010-FS-EOL** Fault Supervision End of Line unit
- **ZP2-D-E-TP** Translucent door option for large cabinet*
- **ZP2-D-E-TP-S** Translucent door option for small cabinet*

The above fire panels are certified with the following options with requirements from EN 54-2:

- **7.8** Output to fire alarm device(s)
- **7.9.1** Output to fire alarm routing equipment (not available on ZP2-F1 and ZP2-F1-S)
- **7.9.2** Alarm confirmation input from fire alarm routing equipment (not available on ZP2-F1 and ZP2-F1-S)
- **7.10** Output to fire protection equipment - Type A, B and C (not available on ZP2-F1 and ZP2-F1-S)
- **7.11** Delays to outputs
- **7.12** Dependencies on more than one alarm signal (Type A, B and C)
- **7.13** Alarm counter
- **8.4** Total loss of the power supply
- **8.9** Output to fault warning routing equipment
- **9.5** Disablement of addressable points
- **10** Test condition

Notes:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

1. Available with the following language kits:
- **01 Dutch (NL)** The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU) German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US)
Certificated Products

United States of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22 Hungarian Hungary


2. Scope of the approval does not indicate the operation of the network functionality.

*The translucent door does not meet EN54-2 access level 1 requirements. To meet EN54-2 requirements with the door fitted the following is also required:

3. A Zone indicator board to display the zones in alarm (to meet requirements of EN54-2 part 7.3)

4. A MCP (without program delay) fitted beside the panel to allow overriding of delays (to meet requirements of EN54-2 part 7.11)

2X-F1-SCFB-S, 2X-F1-SCFB

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 1 loop (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 1 loop small cabinet (Scandinavia)

Incorporating the following units:

2010-2F1-MB Main control board
2X-UI-SCFB User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

2X-ZI-20 (20 Zone) (Large cabinet variant only)
2X-ZI-40 (40 Zone) (Large cabinet variant only)
2010-2-NB Network card
2X-LB Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-SK Scandinavian key and lock assembly
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8IO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT with ATS7310 (GSM module)
2010-FS-EOL Fault Supervision End of Line unit

The above fire panels are certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment (not available on 2X-F1 and 2X-F1-S)
7.9.2 Alarm confirmation input from fire alarm routing equipment (not available on 2X-F1 and 2X-F1-S)
7.10 Output to fire protection equipment - Type A, B and C (not available on 2X-F1 and 2X-F1-S)
7.11 Delays to outputs
7.12 Dependencies on more than one alarm signal (Type A, B and C)
7.13 Alarm counter
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

2. Available with the following language kit options: -01 Dutch (NL) The Netherlands, -02 French (FR), -03 English (UK) United
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

KFP-AF1-SCFB, KFP-AF1-SCFB-S
Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 1 loop (Scandinavia)
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls - 2 loop with printer

Incorporating the following units:

2010-2F1-MB Main control board
KFP-AUI-SCFB User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

KFP-A-ZI-20 (20 Zone) (Large cabinet variant only)
KFP-A-ZI-40 (40 Zone) (Large cabinet variant only)
2010-2-NB Network card
KFP-A-LB Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-SK Scandinavian key and lock assembly
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8IO Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8IO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT with ATST310 (GSM module)
2010-FS-EOL Fault Supervision End of Line unit

ZP2-F1-SCFB, ZP2-F1-SCFB-S
Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 1 loop (Scandinavia)
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls - 1 loop small cabinet (Scandinavia)

Incorporating the following units:

2010-2F1-MB Main control board
ZP2-UI-SCFB User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:

ZP2-ZI-20 (20 Zone) (Large cabinet variant only)
ZP2-ZI-40 (40 Zone) (Large cabinet variant only)
2010-2-NB Network card
ZP2-LB Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-SK Scandinavian key and lock assembly
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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<th>Description</th>
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<tbody>
<tr>
<td>2010-2-PIB-8O</td>
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<tr>
<td>2010-2-PIB-8I</td>
<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8IO</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
</tbody>
</table>

2X-F2, 2X-F2-PRT, 2X-F2-S

Intelligent Analogue Addressable Fire Panel with user interface - 2 loop
Intelligent Analogue Addressable Fire Panel with user interface - 2 loop with printer
Intelligent Analogue Addressable Fire Panel with user interface - 2 loop small cabinet

Incorporating the following units:

<table>
<thead>
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<th>Description</th>
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<td>2010-2F2-MB</td>
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<td>2X-UI User</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
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</table>

And as optional modules:

<table>
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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>2X-ZI-20</td>
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<td>2X-ZI-40</td>
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<tr>
<td>2X-ZI-24-S</td>
</tr>
<tr>
<td>2010-2-NB</td>
</tr>
<tr>
<td>2X-LB</td>
</tr>
<tr>
<td>2010-2-232-KIT</td>
</tr>
<tr>
<td>2010-2-PS-C2</td>
</tr>
<tr>
<td>2010-2-PS-C2-S</td>
</tr>
<tr>
<td>2010-2-PRT</td>
</tr>
<tr>
<td>2010-2-PIB-8O</td>
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</tr>
<tr>
<td>2010-2-DACT</td>
</tr>
<tr>
<td>2X-D-TP</td>
</tr>
<tr>
<td>2X-D-TP-S</td>
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<tr>
<td>2010-FS-EOL</td>
</tr>
</tbody>
</table>

KFP-AF2, KFP-AF2-PRT, KFP-AF2-S

Intelligent Analogue Addressable Fire Panel with user interface - 2 loop
Intelligent Analogue Addressable Fire Panel with user interface - 2 loop with printer
Intelligent Analogue Addressable Fire Panel with user interface - 2 loop small cabinet

Incorporating the following units:

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2F2-MB</td>
</tr>
<tr>
<td>KFP-A-UI</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
</tr>
</tbody>
</table>

And as optional modules:

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KFP-A-ZI-20</td>
</tr>
<tr>
<td>KFP-A-ZI-40</td>
</tr>
<tr>
<td>KFP-A-ZI-24-S</td>
</tr>
<tr>
<td>2010-2-NB</td>
</tr>
<tr>
<td>KFP-A-LB</td>
</tr>
<tr>
<td>2010-2-232-KIT</td>
</tr>
<tr>
<td>2010-2-PS-C2</td>
</tr>
<tr>
<td>2010-2-PS-C2-S</td>
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<td>2010-2-PRT</td>
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<td>2010-2-PIB-8O</td>
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<td>2010-2-PIB-8IO</td>
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<td>2010-2-DACT</td>
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ZP2-F2, ZP2-F2-PRT, ZP2-F2-S

Intelligent Analogue Addressable Fire Panel with user interface - 2 loop
Intelligent Analogue Addressable Fire Panel with user interface - 2 loop with printer
Intelligent Analogue Addressable Fire Panel with user interface - 2 loop small cabinet
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

Incorporating the following units:

- 2010-2F2-MB Main control board
- ZP2-UI User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- ZP2-ZI-20 (20 Zone) (Large cabinet variant only)
- ZP2-ZI-40 (40 Zone) (Large cabinet variant only)
- ZP2-ZI-24-S (24 Zone) (Small cabinet variant only)
- 2010-2-NB Network card
- ZP2-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PRT Door mounted printer module (ZP2-F2-PRT variant only)
- 2010-2-PIB-BO Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT with ATS7310 (GSM module)
- 2010-FS-EOL Fault Supervision End of Line unit
- ZP2-D-TP Translucent door option for large cabinet* (ZP2-F2 variant only)
- ZP2-D-TP-S Translucent door option for small cabinet* (ZP2-F2-S variant only)

2X-F2-SC, 2X-F2-SC-S
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
2 loop (Scandinavia)
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
2 loop small cabinet (Scandinavia)

Incorporating the following units:

- 2010-2F2-MB Main control board
- 2X-UI-SC User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- 2X-ZI-20 (20 Zone) (Large cabinet variant only)
- 2X-ZI-40 (40 Zone) (Large cabinet variant only)
- 2010-2-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-SK Scandinavian key and lock assembly
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PIB-BO Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT with ATS7310 (GSM module)
- 2010-FS-EOL Fault Supervision End of Line unit

KFP-AF2-SC, KFP-AF2-SC-S
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
2 loop (Scandinavia)
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
2 loop small cabinet (Scandinavia)

Incorporating the following units:

- 2010-2F2-MB Main control board
- KFP-A-UI-SC User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- KFP-A-ZI-20 (20 Zone) (Large cabinet variant only)
- KFP-A-ZI-40 (40 Zone) (Large cabinet variant only)
- 2010-2-NB Network card
Certificated Products | LPCB Ref. No.
--- | ---
KFP-A-LB | Loop Board (Large cabinet variant only)
2010-2-232-KIT | Interface board for external printer
2010-SK | Scandinavian key and lock assembly
2010-2-PS-C2 | UK mains cable for large cabinet
2010-2-PS-C2-S | UK mains cable for small cabinet
2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8IO | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT | with ATS7310 (GSM module)
2010-FS-EOL | Fault Supervision End of Line unit
ZP2-F2-SC, ZP2-F2-SC-S | Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
2 loop (Scandinavia)
Incorporating the following units:
2010-2F2-MB | Main control board
ZP2-UI-SC | User interface control board
2010-2-PS-40 4A | Power Supply
And as optional modules:
ZP2-ZI-20 | (20 Zone) (Large cabinet variant only)
ZP2-ZI-40 | (40 Zone) (Large cabinet variant only)
2010-2-2F2-MB | Network card
ZP2-LB | Loop Board (Large cabinet variant only)
2010-2-232-KIT | Interface board for external printer
2010-SK | Scandinavian key and lock assembly
2010-2-PS-C2 | UK mains cable for large cabinet
2010-2-PS-C2-S | UK mains cable for small cabinet
2010-2-2F2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-2F2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-2F2-PIB-8IO | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-2F2-DACT | with ATS7310 (GSM module)
2010-2F2-FS-EOL | Fault Supervision End of Line unit
2F2-FB2-PRT, 2F2-FB2, 2F2-FB2-S | Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
- 2 loop
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
- 2 loop with printer
Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls
- 2 loop small cabinet
Incorporating the following units:
2010-2F2-MB | Main control board
2F2-UI-FB2 | User interface control board
2010-2F2-PS-40 4A | Power Supply
And as optional modules:
2F2-ZI-20 | (20 Zone) (Large cabinet variant only)
2F2-ZI-40 | (40 Zone) (Large cabinet variant only)
2F2-ZI-24-S | (24 Zone) (Small cabinet variant only)
2010-2F2-2F2-MB | Network card
2F2-LB | Loop Board (Large cabinet variant only)
2010-2-2F2-232-KIT | Interface board for external printer
2010-2F2-PS-C2 | UK mains cable for large cabinet
2010-2F2-PS-C2-S | UK mains cable for small cabinet
2010-2F2-2F2-PIB | Peripheral Interface Board (Germany) (Large cabinet variant only)
2010-2F2-2F2-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2F2-2F2-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2F2-2F2-8IO | Peripheral Interface Board 8 outputs and 8 inputs (Large
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Control and Indicating Equipment</th>
</tr>
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<tbody>
<tr>
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<td>cabinet variant only)</td>
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<tr>
<td>ADP-N3E-U</td>
<td>(Large cabinet variant only)</td>
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<tr>
<td>ADP-N3S</td>
<td>(Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2X-D-FB2-TP</td>
<td>Translucent door option for large cabinet* (2X-F2-FB2 variant only)</td>
</tr>
<tr>
<td>2X-D-FB2-TP-S</td>
<td>Translucent door option for large cabinet* (2X-F2-FB2-S variant only)</td>
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<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
<tr>
<td>KFP-A-F2FB2-PRT, KFP-AF2-FB2-S, KFP-AF2-FB2</td>
<td>Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls</td>
</tr>
<tr>
<td></td>
<td>- 2 loop</td>
</tr>
<tr>
<td></td>
<td>- 2 loop with printer</td>
</tr>
<tr>
<td></td>
<td>- 2 loop small cabinet</td>
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<tr>
<td>KFP-A-U1-FB2</td>
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<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
</tr>
<tr>
<td>And as optional modules:</td>
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<tr>
<td>KFP-A-ZI-20</td>
<td>(20 Zone) (Large cabinet variant only)</td>
</tr>
<tr>
<td>KFP-A-ZI-40</td>
<td>(40 Zone) (Large cabinet variant only)</td>
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<tr>
<td>KFP-A-ZI-24-S</td>
<td>(24 Zone) (Small cabinet variant only)</td>
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<td>2010-2-NB</td>
<td>Network card</td>
</tr>
<tr>
<td>KFP-A-LB</td>
<td>Loop Board (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-232-KIT</td>
<td>Interface board for external printer</td>
</tr>
<tr>
<td>2010-2-PS-C2</td>
<td>UK mains cable for large cabinet</td>
</tr>
<tr>
<td>2010-2-PS-C2-S</td>
<td>UK mains cable for small cabinet</td>
</tr>
<tr>
<td>2010-2-PRT</td>
<td>Door mounted printer module (KFP-A-F2-FB2-PRT variant only)</td>
</tr>
<tr>
<td>2010-2-PIB</td>
<td>Peripheral Interface Board (Germany) (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8O</td>
<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8I</td>
<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-810</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>ADP-N3E-U</td>
<td>(Large cabinet variant only)</td>
</tr>
<tr>
<td>ADP-N3S</td>
<td>(Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
<tr>
<td>ZP2-F2-FB2, ZP2-F2-FB2-PRT, ZP2F2-FB2-S</td>
<td>Intelligent Analogue Addressable Fire Panel with user interface with fire brigade controls</td>
</tr>
<tr>
<td></td>
<td>- 2 loop</td>
</tr>
<tr>
<td></td>
<td>- 2 loop with printer</td>
</tr>
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<td></td>
<td>- 2 loop small cabinet</td>
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<tr>
<td>Incorporating the following units:</td>
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<tr>
<td>2010-2F2-MB</td>
<td>Main control board</td>
</tr>
<tr>
<td>ZP2-U1-FB2</td>
<td>User interface control board</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
</tr>
<tr>
<td>And as optional modules:</td>
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</tr>
<tr>
<td>ZP2-ZI-20</td>
<td>(20 Zone) (Large cabinet variant only)</td>
</tr>
<tr>
<td>ZP2-ZI-40</td>
<td>(40 Zone) (Large cabinet variant only)</td>
</tr>
<tr>
<td>ZP2-ZI-24-S</td>
<td>(24 Zone) (Small cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-NB</td>
<td>Network card</td>
</tr>
<tr>
<td>ZP2-LB</td>
<td>Loop Board (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-232-KIT</td>
<td>Interface board for external printer</td>
</tr>
<tr>
<td>2010-2-PS-C2</td>
<td>UK mains cable for large cabinet</td>
</tr>
<tr>
<td>2010-2-PS-C2-S</td>
<td>UK mains cable for small cabinet</td>
</tr>
<tr>
<td>2010-2-PRT</td>
<td>Door mounted printer module (ZP2-F2-FB2-PRT variant only)</td>
</tr>
<tr>
<td>2010-2-PIB</td>
<td>Peripheral Interface Board (Germany) (Large cabinet variant only)</td>
</tr>
</tbody>
</table>
PART 1: SECTION 3
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Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2-PIB-8O</td>
<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8I</td>
<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-8IO</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>ADP-N3E-U</td>
<td>(Large cabinet variant only)</td>
</tr>
<tr>
<td>ADP-N3S</td>
<td>(Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
<tr>
<td>ZP2-D-FB2-TP</td>
<td>Translucent door option for large cabinet* (ZP2-F2-FB2 variant only)</td>
</tr>
<tr>
<td>ZP2-D-FB2-TP-S</td>
<td>Translucent door option for large cabinet* (ZP2-F2-FB2-S variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
</tbody>
</table>

Incorporating the following units:

- 2010-2F2-MB   | Main control board |
- 2X-UI-SCFB    | User interface control board |
- 2010-2-PS-40 4A | Power Supply |

And as optional modules:

- 2X-ZI-20      | (20 Zone) (Large cabinet variant only) |
- 2X-ZI-40      | (40 Zone) (Large cabinet variant only) |
- 2010-2-NB     | Network card |
- 2X-LB         | Loop Board (Large cabinet variant only) |
- 2010-2-232-KIT| Interface board for external printer |
- 2010-SK       | Scandinavian key and lock assembly |
- 2010-2-PS-C2  | UK mains cable for large cabinet |
- 2010-2-PS-C2-S| UK mains cable for small cabinet |
- 2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only) |
- 2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only) |
- 2010-2-PIB-8IO| Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only) |
- 2010-2-DACT   | with ATS7310 (GSM module) |
- 2010-FS-EOL   | Fault Supervision End of Line unit |

Incorporating the following units:

- 2010-2F2-MB   | Main control board |
- KFP-A-UI-SCFB | User interface control board |
- 2010-2-PS-40 4A | Power Supply |

And as optional modules:

- KFP-A-ZI-20   | (20 Zone) (Large cabinet variant only) |
- KFP-A-ZI-40   | (40 Zone) (Large cabinet variant only) |
- 2010-2-NB     | Network card |
- KFP-A-LB      | Loop Board (Large cabinet variant only) |
- 2010-2-232-KIT| Interface board for external printer |
- 2010-SK       | Scandinavian key and lock assembly |
- 2010-2-PS-C2  | UK mains cable for large cabinet |
- 2010-2-PS-C2-S| UK mains cable for small cabinet |
- 2010-2-PRT    | Door mounted printer module (KFP-A-F2-SCFB-PRT variant only) |
- 2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only) |
- 2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only) |
- 2010-2-PIB-8IO| Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only) |
- 2010-2-DACT   | with ATS7310 (GSM module) |
- 2010-FS-EOL   | Fault Supervision End of Line unit |

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop small cabinet (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop small cabinet (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop small cabinet (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop (Scandinavia)

Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop small cabinet (Scandinavia)
Certificated Products

<table>
<thead>
<tr>
<th>SCFB-PRT,ZP2-F2-SCFB controls - 2 loop (Scandinavia)</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop with printer (Scandinavia)</td>
<td></td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Fire Panel with user interface with SS3654 fire brigade controls - 2 loop small cabinet (Scandinavia)</td>
<td></td>
</tr>
</tbody>
</table>

Incorporating the following units:

- **2010-2F2-MB** Main control board
- **ZP2-UI-SCFB** User interface control board
- **2010-2-PS-40 4A** Power Supply

And as optional modules:

- **ZP2-ZI-20** (20 Zone) (Large cabinet variant only)
- **ZP2-ZI-40** (40 Zone) (Large cabinet variant only)
- **2010-2-NB** Network card
- **ZP2-LB** Loop Board (Large cabinet variant only)
- **2010-2-232-KIT** Interface board for external printer
- **2010-SK** Scandinavian key and lock assembly
- **2010-2-PS-C2** UK mains cable for large cabinet
- **2010-2-PS-C2-S** UK mains cable for small cabinet
- **2010-2-PRT** Door mounted printer module (ZP2-F2-SCFB-PRT variant only)
- **2010-2-PIB-BO** Peripheral Interface Board 8 outputs (Large cabinet variant only)
- **2010-2-PIB-8I** Peripheral Interface Board 8 inputs (Large cabinet variant only)
- **2010-2-PIB-B8IO** Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- **2010-2-DACP** with ATS7310 (GSM module)
- **2010-FS-EOL** Fault Supervision End of Line unit

**2X-E2, 2X-E2-S**

Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 2 loop

Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 2 loop small cabinet

Incorporating the following units:

- **2010-2F2-MB** Main control board
- **2X-UI-E** User interface control board
- **2010-2-PS-40 4A** Power Supply

And as optional modules:

- **2X-ZI-20** (20 Zone) (Large cabinet variant only)
- **2X-ZI-40** (40 Zone) (Large cabinet variant only)
- **2X-ZI-24-S** (24 Zone) (Small cabinet variant only)
- **2010-2-NB** Network card
- **2X-LB** Loop Board (Large cabinet variant only)
- **2010-2-232-KIT** Interface board for external printer
- **2010-2-PS-C2** UK mains cable for large cabinet
- **2010-2-PS-C2-S** UK mains cable for small cabinet
- **2010-2-PIB-BO** Peripheral Interface Board 8 outputs (Large cabinet variant only)
- **2010-2-PIB-8I** Peripheral Interface Board 8 inputs (Large cabinet variant only)
- **2010-2-PIB-B8IO** Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- **2010-2-DACP** with ATS7310 (GSM module)
- **2X-D-E-TP** Translucent door option for large cabinet*
- **2X-D-E-TP-S** Translucent door option for large cabinet*
- **2010-FS-EOL** Fault Supervision End of Line unit

The above fire panels are certified with the following options with requirements from EN 54-2:

- **7.8** Output to fire alarm device(s)
- **7.9.1** Output to fire alarm routing equipment (not available on 2X-F2, 2X-F2-PRT and 2X-F2-S)
- **7.9.2** Alarm confirmation input from fire alarm routing equipment (not available on 2X-F2, 2X-F2-PRT and 2X-F2-S)
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Certificated Products

<table>
<thead>
<tr>
<th>LABC Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.10</td>
<td>Output to fire protection equipment - Type A, B and C (not available on 2X-F2, 2X-F2-PRT and 2X-F2-S)</td>
</tr>
<tr>
<td>7.11</td>
<td>Delays to outputs</td>
</tr>
<tr>
<td>7.12</td>
<td>Dependencies on more than one alarm signal (Type A, B and C)</td>
</tr>
<tr>
<td>7.13</td>
<td>Alarm counter</td>
</tr>
<tr>
<td>8.4</td>
<td>Total loss of the power supply</td>
</tr>
<tr>
<td>8.9</td>
<td>Output to fault warning routing equipment</td>
</tr>
<tr>
<td>9.5</td>
<td>Disablement of addressable points</td>
</tr>
<tr>
<td>10</td>
<td>Test condition</td>
</tr>
</tbody>
</table>

Notes:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

1. Available with the following language kit options: This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
1. Available with the following language kits:
- 01 Dutch (NL) The Netherlands
- 02 French (FR) France
- 03 English (UK)
- 04 German (DE) Germany
- 05 Norwegian Norway
- 06 Swedish Sweden
- 07 Danish (DK)
- 08 English (AU) Australia
- 09 Spanish Spain
- 10 Italian Italy
- 11 Dutch (BE) Belgium
- 12 Irish Ireland
- 13 German (Austria)
- 14 Greek Greece
- 15 Arabic Middle East
- 16 English (US) United States of America
- 17 Swedish Sweden
- 18 Polish Poland
- 19 Turkish Turkey
- 20 Czech Czech Republic
- 21 Portuguese Portugal
- 22 Hungarian Hungary
- 23 Danish (IC)

Iceland
- 24 Slovakian Slovak Republic
- 25 Russian Russia
- 26 Lithuanian Lithuania
- 27 Finnish Finland
- 28 German (SW) Switzerland
- 29 Norwegian Norway
- 30 Estonian Estonia
- 31 Latvian Latvia
- 32 Lithuanian Lithuania
- 33 French (FR) France
- 34 Italian (SW) Switzerland
- 35 Czech Czech Republic
- 36 Croatian Croatia
- 37 Serbian Serbia
- 38 Ukrainian Ukraine
- 39 Macedonian Macedonia
- 40 Bulgarian Bulgaria
- 41 Belarusian Belarus
- 42 Russian Russia
- 43 Lithuanian Lithuania
- 44 Hungarian Hungary
- 45 Norwegian Norway
- 46 Swedish Sweden
- 47 Dutch (NL) The Netherlands
- 48 Greek Greece
- 49 Arabic Middle East
- 50 Hebrew Israel
- 71 Catalan Catalunia
- 80 Chinese China
- 99 English (Int) International

2. Scope of the approval does not indicate the operation of the network functionality.

*The translucent door does not meet EN54-2 access level 1 requirements. To meet EN54-2 requirements with the door fitted the following is also required:
3. A Zone indicator board to display the zones in alarm (to meet requirements of EN54-2 part 7.3)
4. A MCP (without program delay) fitted beside the panel to allow overriding of delays (to meet requirements of EN54-2 part 7.11)

KFP-AE2, KFP-AE2-S
Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 2 loop
Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 2 loop small cabinet

Incorporating the following units:
2010-2F2-MB Main control board
KFP-AUI-E User interface control board
2010-2-PS-40 4A Power Supply

And as optional modules:
KFP-AZI-20 (20 Zone) (Large cabinet variant only)
KFP-AZI-40 (40 Zone) (Large cabinet variant only)
KFP-AZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-2F2-MB Main control board
2010-2-PS-40 4A Power Supply
KFP-A-ZI Built-in network card
KFP-A-IB (20 Zone) (Large cabinet variant only)
2010-2-2F2-MB Main control board
2010-2-PS-40 4A Power Supply
2010-2-PS-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
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Certificated Products | LPCB Ref. No.
---|---
2010-2-PIB-8IO | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8IO | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-DACT | with ATST7310 (GSM module)
2010-FS-EOL | Fault Supervision End of Line unit

The above fire panels are certified with the following options with requirements from EN 54-2:

7.8 | Output to fire alarm device(s)
7.9.1 | Output to fire alarm routing equipment (not available on KFP-AF2, KFP-AF2-PRT and KFP-AF2-S)
7.9.2 | Alarm confirmation input from fire alarm routing equipment (not available on KFP-AF2, KFP-AF2-PRT and KFP-AF2-S)
7.10 | Output to fire protection equipment - Type A, B and C (not available on KFP-AF2, KFP-AF2-PRT and KFP-AF2-S)
7.11 | Delays to outputs
7.12 | Dependencies on more than one alarm signal (Type A, B and C)
8.4 | Total loss of the power supply
8.9 | Output to fault warning routing equipment
9.5 | Disablement of addressable points
10 | Test condition

Notes:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.


2. Scope of the approval does not indicate the operation of the network functionality

Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 2 loop
Intelligent Analogue Addressable Fire and Evacuation Panel with user interface with fire brigade controls - 2 loop small cabinet

Incorporating the following units:
2010-2F2-MB | Main control board
ZP2-UI-E | User interface control board
2010-2-PS-40 | 4A Power Supply
And as optional modules:
ZP2-ZI-20 | (20 Zone) (Large cabinet variant only)
ZP2-ZI-40 | (40 Zone) (Large cabinet variant only)
ZP2-ZI-24-S | (24 Zone) (Small cabinet variant only)
2010-2-232-KIT | Interface board for external printer
2010-2-PS-C2 | UK mains cable for large cabinet
2010-2-PS-C2-S | UK mains cable for small cabinet
2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
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Certificated Products

<table>
<thead>
<tr>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2-PIB-818O</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACI</td>
<td>with ATST310 (GSM module)</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
<tr>
<td>ZP2-D-E-TP</td>
<td>Translucent door option for large cabinet*</td>
</tr>
<tr>
<td>ZP2-D-E-TP-S</td>
<td>Translucent door option for large cabinet*</td>
</tr>
</tbody>
</table>

The above fire panels are certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment (not available on ZP2-F2, ZP2-F2-PRT and ZP2-F2-S)
7.9.2 Alarm confirmation input from fire alarm routing equipment (not available on ZP2-F2, ZP2-F2-PRT and ZP2-F2-S)
7.10 Output to fire protection equipment - Type A, B and C (not available on ZP2-F2, ZP2-F2-PRT and ZP2-F2-S)
7.11 Delays to outputs
7.12 Dependencies on more than one alarm signal (Type A, B and C)
7.13 Alarm counter
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
9.5 Disablement of addressable points
10 Test condition

Notes:
This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

1. Available with the following language kits:
   - 01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE)
   - Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish
   - Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU) German (Austria)-14 Greek Greece-
   - 15 Arabic Middle East-16 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech
   - Republic-21 Portuguese Portugal-22 Hungarian Hungary
   - 23 Danish (IC) Iceland-24 Slovakian Slovak Republic-25 Russian Russia-27 Lithuanian
   - Lithuania-28 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-32 French (BE)
   - Belgium-33 French (SW) Switzerland-34 Italian (SW) Switzerland-36 French (Int) International French-40 Bulgarian Bulgaria-41
   - Belarusian Belarus-43 Ukrainian Ukraine-44 Serbian Serbia-45 Romanian (RO) Romania-46 German (Int)
   - International German-48 Croatian
   - Croatia-49 Macedonian Macedonia-50 Slovenian Slovenia-51 Hebrew Israel-71 Catalan
   - Catalunya (Spain)-80 Chinese
   - China-99 English (Int) International English

2. Scope of the approval does not indicate the operation of the network functionality.
   *The translucent door does not meet EN54-2 access level 1 requirements. To meet EN54-2 requirements with the door fitted the following is also required:
   3. A Zone indicator board to display the zones in alarm (to meet requirements of EN54-2 part 7.3)
   4. A MCP (without program delay) fitted beside the panel to allow overriding of delays (to meet requirements of EN54-2 part 7.11)

2X-FR, 2X-FR-S
Intelligent Analogue Addressable Fire Panel Repeater
Intelligent Analogue Addressable Fire Panel Repeater small cabinet

Incorporating the following units:

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2FR-MB</td>
<td>Main control board</td>
</tr>
<tr>
<td>2X-U</td>
<td>User interface control board</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
</tr>
</tbody>
</table>

And as optional modules:

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2X-ZI-20</td>
<td>(20 Zone) (Large cabinet variant only)</td>
</tr>
<tr>
<td>2X-ZI-40</td>
<td>(40 Zone) (Large cabinet variant only)</td>
</tr>
<tr>
<td>2X-ZI-24-S</td>
<td>(24 Zone) (Small cabinet variant only)</td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>Certificated Products</td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>2010-2-NB</td>
<td>Network card</td>
</tr>
<tr>
<td>2X-LB</td>
<td>Loop Board (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-232-KIT</td>
<td>Interface board for external printer</td>
</tr>
<tr>
<td>2010-2-PS-C2</td>
<td>UK mains cable for large cabinet</td>
</tr>
<tr>
<td>2010-2-PS-C2-S</td>
<td>UK mains cable for small cabinet</td>
</tr>
<tr>
<td>2010-2-PIB-BO</td>
<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-BI</td>
<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-PIB-B8O</td>
<td>Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)</td>
</tr>
<tr>
<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
</tr>
<tr>
<td>2X-D-TP</td>
<td>Translucent door option for large cabinet*</td>
</tr>
<tr>
<td>2X-D-TP-S</td>
<td>Translucent door option for small cabinet*</td>
</tr>
<tr>
<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
</tr>
<tr>
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<td>Incorporating the following units:</td>
</tr>
<tr>
<td>2010-2FR-MB</td>
<td>Main control board</td>
</tr>
<tr>
<td>KFP-A-UI</td>
<td>User interface control board</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
</tr>
<tr>
<td></td>
<td>And as optional modules:</td>
</tr>
<tr>
<td>KFP-A-ZI-20</td>
<td>(20 Zone) (Large cabinet variant only)</td>
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<tr>
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<tr>
<td>KFP-A-LB</td>
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<td>2010-2-PS-C2</td>
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<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
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<td>2010-2-PIB-B8O</td>
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<td>2010-FS-EOL</td>
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<tr>
<td>ZP2-FR, ZP2-FR-S</td>
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<td>ZP2-UI</td>
<td>User interface control board</td>
</tr>
<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
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<td>And as optional modules:</td>
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<td>Loop Board (Large cabinet variant only)</td>
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<td>Interface board for external printer</td>
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<td>2010-2-PIB-B8O</td>
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<td>Fault Supervision End of Line unit</td>
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<td>Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls small cabinet</td>
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Incorporating the following units:

2010-2FR-MB Main control board
2X-UI-FB2 User interface control board
2010-2-PS-40 4A Power Supply
And as optional modules:

2X-ZI-20 (20 Zone) (Large cabinet variant only)
2X-ZI-40 (40 Zone) (Large cabinet variant only)
2X-ZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-NB Network card
2X-LB Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB Peripheral Interface Board (Germany) (Large cabinet variant only)
2010-2-PIB-BO Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8I8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
ADP-N3E-U IFAM interface card (master) (Large cabinet variant only)
ADP-N3S interface card (slave) (Large cabinet variant only)
2010-2-DACT with ATS7310 (GSM module)
2X-D-FB2-TP Translucent door option for large cabinet*
2X-D-FB2-TP-S Translucent door option for small cabinet*
2010-FS-EOL Fault Supervision End of Line unit

Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls
Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls small cabinet

Incorporating the following units:

2010-2FR-MB Main control board
KFP-A-UI-FB2 User interface control board
2010-2-PS-40 4A Power Supply
And as optional modules:

KFP-A-ZI-20 (20 Zone) (Large cabinet variant only)
KFP-A-ZI-40 (40 Zone) (Large cabinet variant only)
KFP-A-ZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-NB Network card
KFP-A-LB Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB Peripheral Interface Board (Germany) (Large cabinet variant only)
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8O8I Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
ADP-N3E-U IFAM interface card (master) (Large cabinet variant only)
ADP-N3S interface card (slave) (Large cabinet variant only)
2010-2-DACT with ATS7310 (GSM module)
2010-FS-EOL Fault Supervision End of Line unit

ZP2-FR-FB2 ZP2-FR-FB2-S
Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls
Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls small cabinet

Incorporating the following units:

2010-2FR-MB Main control board
ZP2-UI-FB2 User interface control board
2010-2-PS-40 4A Power Supply
And as optional modules:

ZP2-ZI-20 (20 Zone) (Large cabinet variant only)
ZP2-ZI-40 (40 Zone) (Large cabinet variant only)
ZP2-ZI-24-S (24 Zone) (Small cabinet variant only)
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<tr>
<th>LPCB Ref. No.</th>
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<td>2010-2-NB</td>
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<td>ZP2-LB</td>
<td>Loop Board (Large cabinet variant only)</td>
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<tr>
<td>2010-2-232-KIT</td>
<td>Interface board for external printer</td>
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<td>2010-2-PS-C2</td>
<td>UK mains cable for large cabinet</td>
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<td>2010-2-PS-C2-S</td>
<td>UK mains cable for small cabinet</td>
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<tr>
<td>2010-2-PIB</td>
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<td>Peripheral Interface Board 8 outputs (Large cabinet variant only)</td>
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<td>Peripheral Interface Board 8 inputs (Large cabinet variant only)</td>
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<td>2010-2-PIB-8IO</td>
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<td>ADP-N3-EU IFAM</td>
<td>Interface card (master) (Large cabinet variant only)</td>
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<td>ADP-N3S</td>
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<td>2010-2-DACT</td>
<td>with ATS7310 (GSM module)</td>
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<td>2010-FS-EOL</td>
<td>Fault Supervision End of Line unit</td>
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<tr>
<td>ZP2-D-FB2-TP</td>
<td>Translucent door option for large cabinet*</td>
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<tr>
<td>ZP2-D-FB2-TP-S</td>
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<tr>
<td>2X-FR-SC</td>
<td>Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls (Scandinavia)</td>
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<tr>
<td>2X-UI-SC</td>
<td>User interface control board</td>
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<tr>
<td>2010-2-PS-40 4A</td>
<td>Power Supply</td>
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</table>

Incorporating the following units:

- 2010-2FR-MB Main control board
- 2X-UI-SC User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- 2X-ZI-20 (20 Zone) (Large cabinet variant only)
- 2X-ZI-40 (40 Zone) (Large cabinet variant only)
- 2X-ZI-24-S (24 Zone) (Small cabinet variant only)
- 2010-2-NB Network card
- 2X-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-SK Scandinavian key and lock assembly
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PIB Peripheral Interface Board (Germany)
- 2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
- 2010-2-PIB-8IO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT with ATS7310 (GSM module)
- 2010-FS-EOL Fault Supervision End of Line unit


Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls (Scandinavia)

Incorporating the following units:

- 2010-2FR-MB Main control board
- KFP-A-UI-SC User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- KFP-A-ZI-20 (20 Zone) (Large cabinet variant only)
- KFP-A-ZI-40 (40 Zone) (Large cabinet variant only)
- 2010-2-NB Network card
- KFP-A-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-SK Scandinavian key and lock assembly
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
- 2010-2-PIB-8IO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
Certificated Products | LPCB Ref. No.
cabinet variant only)
--- | ---
2010-2-DACT | with ATS7310 (GSM module)
2010-FS-EOL | Fault Supervision End of Line unit

**2010-FS-EOL**
Fault Supervision End of Line unit

**ZP2-FR-SC, ZP2-FR-SC-S**
Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls (Scandinavia)
Intelligent Analogue Addressable Fire Panel Repeater with fire brigade controls small cabinet (Scandinavia)

Incorporating the following units:

2010-2FR-MB | Main control board
ZP2-UI-SC | User interface control board
2010-2-PS-40 4A | Power Supply

And as optional modules:

ZP2-ZI-20 | (20 Zone) (Large cabinet variant only)
ZP2-ZI-40 | (40 Zone) (Large cabinet variant only)
2010-2-NB | Network card
ZP2-LB | Loop Board (Large cabinet variant only)
2010-2-232-KIT | Interface board for external printer
2010-SK | Scandinavian key and lock assembly
2010-2-PS-C2 | UK mains cable for large cabinet
2010-2-PS-C2-S | UK mains cable for small cabinet
2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8BO | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT | with ATS7310 (GSM module)
2010-FS-EOL | Fault Supervision End of Line unit

**2X-ER, 2X-ER-S**
Intelligent Analogue Addressable Fire and Evacuation Panel Repeater with fire brigade controls
Intelligent Analogue Addressable Fire and Evacuation Panel Repeater with fire brigade controls small cabinet

Incorporating the following units:

2010-2FR-MB | Main control board
2X-UI-E | User interface control board
2010-2-PS-40 4A | Power Supply

And as optional modules:

2X-ZI-20 | (20 Zone) (Large cabinet variant only)
2X-ZI-40 | (40 Zone) (Large cabinet variant only)
2X-ZI-24-S | (24 Zone) (Small cabinet variant only)
2010-2-NB | Network card
2X-LB | Loop Board (Large cabinet variant only)
2010-2-232-KIT | Interface board for external printer
2010-2-PS-C2 | UK mains cable for large cabinet
2010-2-PS-C2-S | UK mains cable for small cabinet
2010-2-PIB-8O | Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I | Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8BO | Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT | with ATS7310 (GSM module)
2X-D-E-TP | Translucent door option for large cabinet*
2X-D-E-TP-S | Translucent door option for small cabinet*
2010-FS-EOL | Fault Supervision End of Line unit

The above ancillary repeater units are certified with the following options with requirements from EN 54-2:

7.13 | Alarm counter
8.4 | Total loss of the power supply
8.9 | Output to fault warning routing equipment
9.5 | Disablement of addressable points (available on 2X-ER and 2X-ER-S variants only)
10 | Test condition (available on 2X-ER and 2X-ER-S variants only)

*Important: the translucent door does not meet EN54-2 access level 1 requirements. To
Certificated Products

meet EN54-2 requirements with
the door fitted the following is also required:

1) A Zone indicator board to display the zones in alarm (to meet requirements of EN54-2 part 7.3)

2) An MCP fitted beside the panel to allow overriding of delays (to meet requirements of EN54-2 part 7.11)

KFP-A-ER  KFP-A-ER-S
Intelligent Analogue Addressable Fire and Evacuation Panel Repeater with fire brigade controls
Intelligent Analogue Addressable Fire and Evacuation Panel Repeater with fire brigade controls small cabinet

Incorporating the following units:

KFP-A-ZI-20  (20 Zone) (Large cabinet variant only)
KFP-A-ZI-40  (40 Zone) (Large cabinet variant only)
KFP-A-ZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-NB    Network card
KFP-A-LB     Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8IO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
2010-2-DACT with ATS7310 (GSM module)
2010-FS-EOL  Fault Supervision End of Line unit

Above ancillary repeater units are certified with the following options with requirements from EN 54-2:

7.13 Alarm counter
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
9.5 Disenablement of addressable points (available on 2X-ER and 2X-ER-S variants only)
10 Test condition (available on 2X-ER and 2X-ER-S variants only)

ZP2-ER, ZP2-ER-S
Intelligent Analogue Addressable Fire and Evacuation Panel Repeater with fire brigade controls
Intelligent Analogue Addressable Fire and Evacuation Panel Repeater with fire brigade controls small cabinet

Incorporating the following units:

ZP2-ZI-20  (20 Zone) (Large cabinet variant only)
ZP2-ZI-40  (40 Zone) (Large cabinet variant only)
ZP2-ZI-24-S (24 Zone) (Small cabinet variant only)
2010-2-NB  Network card
ZP2-LB     Loop Board (Large cabinet variant only)
2010-2-232-KIT Interface board for external printer
2010-2-PS-C2 UK mains cable for large cabinet
2010-2-PS-C2-S UK mains cable for small cabinet
2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)
2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)
2010-2-PIB-8IO Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
Certificated Products

- 2010-2-DACT with ATS7310 (GSM module)
- 2010-FS-EOL Fault Supervision End of Line unit
- ZP2-D-E-TP Translucent door option for large cabinet
- ZP2-D-E-TP-S Translucent door option for small cabinet

Certified with the following options with requirements from EN 54-2:

7.13 Alarm counter
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
9.5 Dis-enablement of addressable points (available on 2X-ER and 2X-ER-S variants only)
10. Test condition (available on 2X-ER and 2X-ER-S variants only)

Intelligent Analogue Addressable Fire Panel Repeater with SS3654 fire brigade controls (Scandinavia)
Intelligent Analogue Addressable Fire Panel Repeater with SS3654 fire brigade controls small cabinet (Scandinavia)

Iincorporating the following units:

- 2010-2FR-MB Main control board
- 2X/UI-SCFB User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- 2X-ZI-20 (20 Zone) (Large cabinet variant only)
- 2X-ZI-40 (40 Zone) (Large cabinet variant only)
- 2010-2-NB Network card
- 2X-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-SK Scandinavian key and lock assembly
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PIB-BO Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-Bl Peripheral Interface Board 8 inputs (Large cabinet variant only)
- 2010-2-PIB-BI8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT with ATS7310 (GSM module)
- 2010-FS-EOL Fault Supervision End of Line unit

Intelligent Analogue Addressable Fire Panel Repeater with SS3654 fire brigade controls (Scandinavia)
Intelligent Analogue Addressable Fire Panel Repeater with SS3654 fire brigade controls small cabinet (Scandinavia)

Incorporating the following units:

- 2010-2FR-MB Main control board
- KFP-A/UI-SCFB User interface control board
- 2010-2-PS-40 4A Power Supply

And as optional modules:

- KFP-A-ZI-20 (20 Zone) (Large cabinet variant only)
- KFP-A-ZI-40 (40 Zone) (Large cabinet variant only)
- 2010-2-NB Network card
- KFP-A-LB Loop Board (Large cabinet variant only)
- 2010-2-232-KIT Interface board for external printer
- 2010-SK Scandinavian key and lock assembly
- 2010-2-PS-C2 UK mains cable for large cabinet
- 2010-2-PS-C2-S UK mains cable for small cabinet
- 2010-2-PIB-BO Peripheral Interface Board 8 outputs (Large cabinet variant only)
- 2010-2-PIB-Bl Peripheral Interface Board 8 inputs (Large cabinet variant only)
- 2010-2-PIB-BI8O Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- 2010-2-DACT with ATS7310 (GSM module)
- 2010-FS-EOL Fault Supervision End of Line unit

Intelligent Analogue Addressable Fire Panel Repeater with SS3654 fire brigade controls (Scandinavia)
Intelligent Analogue Addressable Fire Panel Repeater with SS3654 fire brigade controls small cabinet (Scandinavia)
Incorporating the following units:

- **2010-2FR-MB**: Main control board
- **ZP2-Ul-SCFB**: User interface control board
- **2010-2-PS-40 4A**: Power Supply

And as optional modules:

- **ZP2-ZI-20**: (20 Zone) (Large cabinet variant only)
- **ZP2-ZI-40**: (40 Zone) (Large cabinet variant only)
- **2010-2-NB**: Network card
- **ZP2-LB**: Loop Board (Large cabinet variant only)
- **2010-2-232-KIT**: Interface board for external printer
- **2010-SK**: Scandinavian key and lock assembly
- **2010-2-PS-C2**: UK mains cable for large cabinet
- **2010-2-PS-C2-S**: UK mains cable for small cabinet
- **2010-2-PIB-8O**: Peripheral Interface Board 8 outputs (Large cabinet variant only)
- **2010-2-PIB-8I**: Peripheral Interface Board 8 inputs (Large cabinet variant only)
- **2010-2-PIB-8I8O**: Peripheral Interface Board 8 outputs and 8 inputs (Large cabinet variant only)
- **2010-2-DACT** with ATS7310 (GSM module)
- **2010-FS-EOL**: Fault Supervision End of Line unit

Conventional two zone control and indicating equipment

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.

3) Available with the following language kits:
   - Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK)
   - Norwegian Norway-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (DE)
   - German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU)
   - Greek (Austria)-14 Arabic Middle East-17 English (US) United States of America-18 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-22 Hungarian Hungary-23 Danish (IC) Iceland-24 Slovakian Slovak Republic-25 Russian Russia-27 Lithuanian Lithuania-28

Certificated Products

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<tr>
<th>No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1X-F2 1X-F2-SC</td>
<td>Conventional two zone control and indicating equipment with Scandinavian key switch incorporating the following units:</td>
</tr>
</tbody>
</table>

- **2010-2F1- MB**: Main control board
- **2X-UI User interface control board**
- **2010-2-PS-40 4A**: Power Supply

And as optional modules:

- **2X-ZI-20**: (20 Zone) (Large cabinet variant only)
- **2X-ZI-40**: (40 Zone) (Large cabinet variant only)
- **2010-2-NB Network card**
- **2X-LB Loop Board (Large cabinet variant only)**
- **2010-2-232-KIT Interface board for external printer**
- **2010-2-PS-C2 UK mains cable for large cabinet**
- **2010-2-PS-C2-S UK mains cable for small cabinet**
- **2010-2-PIB-8O Peripheral Interface Board 8 outputs (Large cabinet variant only)**
- **2010-2-PIB-8I Peripheral Interface Board 8 inputs (Large cabinet variant only)**
- **2010-2-DACT** with ATS7310 (GSM module)
- **2X-D-TP Translucent door option for large cabinet**
- **2X-D-TP-S Translucent door option for small cabinet**
- **2010-FS-EOL Fault Supervision End of Line unit**

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.

3) Available with the following language kits:
   - Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK)
   - Norwegian Norway-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (DE)
   - German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU)
   - Greek (Austria)-14 Arabic Middle East-17 English (US) United States of America-18 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-22 Hungarian Hungary-23 Danish (IC) Iceland-24 Slovakian Slovak Republic-25 Russian Russia-27 Lithuanian Lithuania-28
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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<th>English (Int) International</th>
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<td>Conventional two zone control and indicating equipment</td>
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<td>KFP-CF2-MB Main control board</td>
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<tr>
<td>2010-1-RB Optional relay board</td>
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<tr>
<td>2010-1-SB Optional expander I/O board</td>
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<td>2010-1-NB Optional Network board</td>
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<tr>
<td>2010-PS-20 2A Power Supply</td>
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<tr>
<td>2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)</td>
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<tr>
<td>Certified with the following options with requirements from EN 54-2:</td>
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<td>7.8 Output to fire alarm device(s)</td>
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<tr>
<td>7.11 Delays to outputs</td>
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<tr>
<td>8.4 Total loss of the power supply</td>
<td></td>
</tr>
<tr>
<td>10 Test condition</td>
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</table>

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:

Certificated Products

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Conventional two zone control and indicating equipment</td>
<td>1199b/01</td>
</tr>
<tr>
<td>Incorporating the following units:</td>
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<tr>
<td>1X-F2-MB Main control board</td>
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<tr>
<td>2010-1-RB Optional relay board</td>
<td></td>
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<tr>
<td>2010-1-SB Optional expander I/O board</td>
<td></td>
</tr>
<tr>
<td>2010-1-NB Optional Network board</td>
<td></td>
</tr>
<tr>
<td>2010-PS-20 2A Power Supply</td>
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<td>2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)</td>
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<td>7.8 Output to fire alarm device(s)</td>
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<td>7.11 Delays to outputs</td>
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</tr>
<tr>
<td>10 Test condition</td>
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</tr>
</tbody>
</table>

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

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2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:

Conventional two zone control and indicating equipment

Incorporating the following units:
1X-F2-MB Main control board
2010-RB Optional relay board
2010-NB Optional expander board
2010-PS-20 2A Power Supply
2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.11 Delays to outputs
8.4 Total loss of the power supply
10 Test condition

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:

1X-F4 Conventional four zone control and indicating equipment

Incorporating the following units:
1X-F4-MB Main control board
2010-1-RB Optional relay board
2010-1-NB Optional expander board
2010-1-AC Alarm Counter (Applicable to NL variant)
2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
10 Test condition
Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment - Type A
7.11 Delays to outputs - Applicable to fire alarm routing equipment only
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
   - 01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU)
   - 14 Greek Greece-15 Arabic Middle East-17 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22 Hungarian

KFP-CF4  KFP-CF4-NL  KFP-CF4-SC Conventional four zone control and indicating equipment
Incorporating the following units:
   - KFP-CF4-MB Main control board
   - 2010-1-RB Optional relay board
   - 2010-1-SB Optional expander I/O board
   - 2010-1-NB Optional Network board
   - 2010-PS-20 2A Power Supply
   - 2010-1-AC Alarm Counter (Applicable to NL variant)
   - 2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)
Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
10 Test condition
Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

SG-4000 SG-4000SC Conventional eight zone control and indicating equipment 1199b/02

Incorporating the following units:
1X-F4-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
2010-PS-20 2A Power Supply
2010-SK Scandinavian Key Lock and Key (Applicable to SC variant
Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
8.4 Total loss of the power supply
10 Test condition
1) This product approval does not constitute compliance with the fire detection and alarm systems
requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
-01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United
Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK)
Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-
13 German (AU) German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States
of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22
Hungarian Hungary -23 Danish (IC) Iceland-24 Slovak Slovak Republic-25 Russian Russia-27
Lithuanian Lithuania-28 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-
32 French (BE) Belgium-33 French (SW) Switzerland-34 Italian (SW) Switzerland-36 French (Int)
International French-40 Bulgarian Bulgaria-41 Belarusian Belarus-43 Ukrainian Ukraine-44 Serbian Serbia-45
Romanian (RO) Romania-46 German (Int) International German-48 Croatian Croatia-49 Macedonian
Macedonia-50 Slovenian Slovenia-51 Hebrew Israel-71 Catalan Catalonia (Spain)-80 Chinese China-99
English (Int)
International English

SG-4000 SG-4000SC Conventional eight zone control and indicating equipment 1199b/02

Incorporating the following units:
1X-F4-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
2010-PS-20 2A Power Supply
2010-SK Scandinavian Key Lock and Key (Applicable to SC variant
Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
8.4 Total loss of the power supply
10 Test condition
1) This product approval does not constitute compliance with the fire detection and alarm systems
requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
-01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United
Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK)
Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-
13 German (AU) German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States
of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22
Hungarian Hungary -23 Danish (IC) Iceland-24 Slovak Slovak Republic-25 Russian Russia-27
Lithuanian Lithuania-28 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-
32 French (BE) Belgium-33 French (SW) Switzerland-34 Italian (SW) Switzerland-36 French (Int)
International French-40 Bulgarian Bulgaria-41 Belarusian Belarus-43 Ukrainian Ukraine-44 Serbian Serbia-45

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Chinese China-99
English (Int)
International English

ZP1-F4 ZP1-F4-NL ZP1-F4-SC Conventional four zone control and indicating equipment 1199b/02

Incorporating the following units:

1X-F4-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
2010-PS-20 2A Power Supply
2010-1-AC Alarm Counter (Applicable to NL variant)
2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)

Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
10 Test condition

Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment - Type A
7.11 Delays to outputs - Applicable to fire alarm routing equipment only
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
10 Test condition

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
   -01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU)

1X-F8 1X-F8-NL 1X-F8-SC Conventional eight zone control and indicating equipment 1199b/03

Incorporating the following units:

1X-F8-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
### PART 1: SECTION 3

**CONTROL AND INDICATING EQUIPMENT**

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<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<td>2010-PS-40 4A Power Supply</td>
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<td>2010-1-AC Alarm Counter (Applicable to NL variant)</td>
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<td>2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)</td>
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<tr>
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<tr>
<td>7.8 Output to fire alarm device(s)</td>
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<td>7.10.1 Output to fire protection equipment -Type A</td>
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1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
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   - French (FR) France
   - English (UK) United Kingdom and Ireland
   - German (DE) Germany
   - Norwegian Norway
   - Swedish (SE) Swedish
   - Danish (DK) Denmark
   - Finnish Finland
   - Spanish Spain
   - Italian Italy
   - Dutch (BE) Belgium
   - Irish Ireland
   - English (AU) Australia
   - Spanish (ES) Spain
   - Italian (IT) Italy
   - Dutch (BE) Belgium
   - French (FR) France
   - English (UK) United Kingdom
   - German (DE) Germany
   - Norwegian Norway
   - Swedish (SE) Sweden
   - Danish (DK) Denmark
   - Finnish Finland
   - Spanish Spain
   - Italian Italy
   - Dutch (BE) Belgium
   - Czech Czech Republic
   - Polish Poland
   - Romanian Romania
   - Hungarian Hungary
   - Turkish Turkey
   - Turkish Turkey
   - Swedish (SE) Sweden
   - Danish (DK) Denmark
   - Finnish Finland
   - Spanish Spain

**KFP-CF8 KFP-CF8-NL KFP-CF8-SC**

Conventional eight zone control and indicating equipment

Incorporating the following units:

- KFP-CF8-MB Main control board
- 2010-1-PS Optional relay board
- 2010-1-NS Optional expander I/O board
- 2010-1-NS Optional Network board
- 2010-PS-40 4A Power Supply
- 2010-1-AC Alarm Counter (Applicable to NL variant)
- 2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)

Certified with the following options with requirements from EN 54-2:

| 7.8 Output to fire alarm device(s) |             |
| 7.9.1 Output to fire alarm routing equipment |             |
| 7.9.2 Alarm confirmation input from fire alarm routing equipment |             |
| 7.11 Delays to outputs |             |
| 7.13 Alarm counter (Applicable to NL variant only) |             |
| 8.4 Total loss of the power supply |             |
| 10 Test condition |             |
| Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode: |             |
| 7.8 Output to fire alarm device(s) |             |
| 7.9.1 Output to fire alarm routing equipment |             |
| 7.9.2 Alarm confirmation input from fire alarm routing equipment |             |
| 7.10.1 Output to fire protection equipment -Type A |             |
| 7.11 Delays to outputs - Applicable to fire alarm routing equipment |             |
| 7.13 Alarm counter (Applicable to NL variant only) |             |
| 8.4 Total loss of the power supply |             |
| 8.9 Output to fault warning routing equipment |             |
| 10 Test condition |             |

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products  LPCB Ref. No.
requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
   - 01 Dutch (NL) The Netherlands-02 French (FR) France - 03 English (UK) United
     Kingdom and Ireland - 04
   German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK)
   Denmark-08 English
   (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-
   13 German (AU)
   German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States
   of America-18
   Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22
   Hungarian
   Hungary-23 Danish (IC) Iceland-24 Slovakian Slovak Republic-25 Russian Russia-27
   Lithuanian Lithuania-
   28 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-
   32 French (BE)
   Belgium-33 French (SW) Switzerland-34 Italian (SW) Switzerland-36 French (Int)
   International French-40
   Bulgarian Bulgaria-41 Belarusian Belarus-43 Ukrainian Ukraine-44 Serbian Serbia-45
   Romanian (RO)
   Romania -46 German (Int) International German-48 Croatian Croatia-49 Macedonian
   Macedonia-50
   Slovenian Slovenia-51 Hebrew Israel-71 Catalan Catalonia (Spain)-80 Chinese China-99
   English (Int)
   International English

SG-8000 SG-8000SC SG-8000 SG-8000SC Conventional eight zone control and indicating equipment 1199b/03
Incorporating the following units:
   1X-F8-MB Main control board
   2010-1-RB Optional relay board
   2010-1-SB Optional expander I/O board
   2010-1-NB Optional Network board
   2010-PS-40 4A Power Supply
   2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)
   Certified with the following options with requirements from EN 54-2:
   7.8 Output to fire alarm device(s)
   7.9.1 Output to fire alarm routing equipment
   7.9.2 Alarm confirmation input from fire alarm routing equipment
   7.11 Delays to outputs
   8.4 Total loss of the power supply
   10 Test condition
1) This product approval does not constitute compliance with the fire detection and alarm
   systems
   requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
   - 01 Dutch (NL) The Netherlands-02 French (FR) France - 03 English (UK) United
     Kingdom and Ireland - 04
   German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK)
   Denmark-08 English
   (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-
   13 German (AU)
   German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States
   of America-18
   Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22
   Hungarian
   Hungary-23 Danish (IC) Iceland-24 Slovakian Slovak Republic-25 Russian Russia-27
   Lithuanian Lithuania-
   28 Finnish Finland-29 German (SW) Switzerland-30 Estonian Estonia-31 Latvian Latvia-
   32 French (BE)
   Belgium-33 French (SW) Switzerland-34 Italian (SW) Switzerland-36 French (Int)
   International French-40
   Bulgarian Bulgaria-41 Belarusian Belarus-43 Ukrainian Ukraine-44 Serbian Serbia-45
   Romanian (RO)
   Romania -46 German (Int) International German-48 Croatian Croatia-49 Macedonian
   Macedonia-50
   Slovenian Slovenia-51 Hebrew Israel-71 Catalan Catalonia (Spain)-80 Chinese China-99
   English (Int)
   International English

ZP1-F8 ZP1-F8-NL ZP1-F8-SC Conventional four zone control and indicating equipment 1199b/03
ZP1-F8 ZP1-F8-NL ZP1-F8-SC Conventional four zone control and indicating equipment

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Incorporating the following units:

1X-F8-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
2010-PS-40 4A Power Supply
2010-1-AC Alarm Counter (Applicable to NL variant)
2010-SK Scandinavian Key Lock and Key (Applicable to SC variant)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.10.1 Output to fire protection equipment - Type A
7.11 Delays to outputs - Applicable to fire alarm routing equipment only
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
10 Test condition

Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:

1X-E4 1X-E4-NL Conventional four zone control and indicating equipment

1X-E4-NL

Incorporating the following units:

1X-E4-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
2010-PS-40 4A Power Supply
2010-1-AC Alarm Counter (Applicable to NL variant)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
10 Test condition

Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs - Applicable to fire alarm routing equipment only
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
10 Test condition
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:

KFP-CE4 KFP-CE4-NL KFP-CE4 KFP-CE4-NL Conventional four zone control and indicating equipment
Incorporating the following units:
   - 01 MB Main control board
   - 1-RB Optional relay board
   - 1-SB Optional expander I/O board
   - 0-40 4A Power Supply
   - 0-AC Alarm Counter (Applicable to NL variant)
Certified with the following options with requirements from EN 54-2:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
10 Test condition
Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:
7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs - Applicable to fire alarm routing equipment only
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
10 Test condition
1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
   - 01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU) German (Austria)-14 Greek Greece-15 Arabic Middle East-17 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22 Hungarian
Certificated Products

ZP1-E4 ZP1-E4-NL

ZP1-E4 Conventional four zone control and indicating equipment

Incorporating the following units:

1X-E4-MB Main control board
2010-1-RB Optional relay board
2010-1-SB Optional expander I/O board
2010-1-NB Optional Network board
2010-PS-40 4A Power Supply
2010-1-AC Alarm Counter (Applicable to NL variant)

Certified with the following options with requirements from EN 54-2:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
10 Test condition

Also certified with the following options with requirements from EN 54-2 when configured in the NEN operating mode:

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.9.2 Alarm confirmation input from fire alarm routing equipment
7.11 Delays to outputs - Applicable to fire alarm routing equipment only
7.13 Alarm counter (Applicable to NL variant only)
8.4 Total loss of the power supply
8.9 Output to fault warning routing equipment
10 Test condition

1) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
2) Scope of approval does not include the operation of the network functionality.
3) Available with the following language kits:
   -01 Dutch (NL) The Netherlands-02 French (FR) France -03 English (UK) United Kingdom and Ireland -04 German (DE) Germany-05 Norwegian Norway-06 Swedish Sweden-07 Danish (DK) Denmark-08 English (AU) Australia-09 Spanish Spain-10 Italian Italy-11 Dutch (BE) Belgium-12 Irish Ireland-13 German (AU)
   -14 Greek Greece-15 Arabic Middle East-17 English (US) United States of America-18 Polish Poland-19 Turkish Turkey-20 Czech Czech Republic-21 Portuguese Portugal-22 Hungarian
   -33 Belgian Belgium-34 Italian (SW) Switzerland-36 French (Int)
   -37 International French-40 Bulgarian Bulgaria-41 Belarussian Belarus-43 Ukrainian Ukraine-44 Serbian Serbia-45 Romanian (RO)
   -46 German (Int) International German-48 Croatian Croatia-49 Macedonian Macedonia-50 Slovenian Slovenia-51 Hebrew Israel-71 Catalan Catalonia (Spain)-80 Chinese China-99 English (Int)
   -International English
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

UTC Fire & Security Inc.
8985 Town Center Parkway, Bradenton, Florida 34202, USA
Tel: +1 941 739 4225 • Fax:
E-mail: teresa.rodgers@carrier.com • Website: www.utcfireandsecurity.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>EST3 Fire Alarm Control System Incorporating as modular units:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1255d/01</td>
<td>3-CPU3-E Central Processor Unit</td>
</tr>
<tr>
<td></td>
<td>3-LDSM-E Annunciator strip support module</td>
</tr>
<tr>
<td></td>
<td>3-IDC 8/4-E Initiating Device Circuits/NACS</td>
</tr>
<tr>
<td></td>
<td>3-LCD-E Main Display LCD, user interface</td>
</tr>
<tr>
<td></td>
<td>3-LRMF-E Local Rail Module Filler</td>
</tr>
<tr>
<td></td>
<td>EST3 24 LED Annunciators</td>
</tr>
<tr>
<td></td>
<td>3-24Y-E Annunciator Module, 24 Yellow LED</td>
</tr>
<tr>
<td></td>
<td>3-24R-E Annunciator Module, 24 Red LED</td>
</tr>
<tr>
<td></td>
<td>3-24G-E Annunciator Module, 24 Green LED</td>
</tr>
<tr>
<td></td>
<td>3-12RY-E Annunciator Module, 12 Red/Yellow LED</td>
</tr>
<tr>
<td></td>
<td>EST3 18 LED Annunciators</td>
</tr>
<tr>
<td></td>
<td>3-6/3S1Q2Y-E Annunciator Module, 18 Green/Yellow LED</td>
</tr>
<tr>
<td></td>
<td>3-6/3S1GYR-E Annunciator Module, 18 Green/Yellow/Red LED</td>
</tr>
<tr>
<td></td>
<td>EST3 Control-Display Switch/LEDs</td>
</tr>
<tr>
<td></td>
<td>3-12SY-E Annunciator Module, 12 Switch Yellow LED</td>
</tr>
<tr>
<td></td>
<td>3-12SR-E Annunciator Module, 12 Switch Red LED</td>
</tr>
<tr>
<td></td>
<td>3-12SG-E Annunciator Module, 12 Switch Green LED</td>
</tr>
<tr>
<td></td>
<td>3-12/3Q1Y-E Annunciator Module, 12/24 Switch Green/Yellow LED</td>
</tr>
<tr>
<td></td>
<td>3-12/3Q1RY-E Annunciator Module, 12/24 Switch Red/Yellow LED</td>
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<tr>
<td></td>
<td>Loop Controller Modules</td>
</tr>
<tr>
<td></td>
<td>3-SSDC1-E Signature (Single), driver controller module</td>
</tr>
<tr>
<td></td>
<td>3-SDDC1-E Signature (Dual), driver controller module</td>
</tr>
<tr>
<td></td>
<td>3-AADC1-E System Sensor driver controller module</td>
</tr>
<tr>
<td></td>
<td>3-SDC1-E Signature, driver controller module</td>
</tr>
<tr>
<td></td>
<td>3-EAC-E Analogue Driver Card</td>
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<tr>
<td></td>
<td>3-EASC-E Single Analogue driver controller module</td>
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<tr>
<td></td>
<td>3-EADC-E Dual Analogue driver controller module</td>
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<tr>
<td></td>
<td>Power Supplies</td>
</tr>
<tr>
<td></td>
<td>3-PPS/M-230-E Primary Power Supply 230V</td>
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<tr>
<td></td>
<td>3-BPS/M-230-E Booster Power Supply 230V</td>
</tr>
<tr>
<td></td>
<td>3-BBC/M-230-E Booster, Battery Charger Power Supply 230V</td>
</tr>
<tr>
<td></td>
<td>3-PSMON-E Primary Power Supply Monitor</td>
</tr>
<tr>
<td></td>
<td>3-BPMON-E Booster Power Supply Monitor</td>
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<td>3-BBCMON-E Booster, Battery Charger Monitor</td>
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<tr>
<td></td>
<td>Communication Cards</td>
</tr>
<tr>
<td></td>
<td>3-RS485A-E Data Communication, Class A</td>
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<tr>
<td></td>
<td>3-RS485B-E Data Communication, Class B</td>
</tr>
<tr>
<td></td>
<td>3-RS232-E Serial Communications Card (Printer, etc)</td>
</tr>
<tr>
<td></td>
<td>EFM-2 Data Communications Filter - 2 Circuits</td>
</tr>
<tr>
<td></td>
<td>EFM-10 Data Communications Filter - 10 Circuit</td>
</tr>
<tr>
<td></td>
<td>Fibre Modules</td>
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<tr>
<td></td>
<td>3-FIBMB2-E Fibre Optic Interface Module</td>
</tr>
<tr>
<td></td>
<td>SMXL02-E Standard Output Single Mode Fibre Optic Transceiver</td>
</tr>
<tr>
<td></td>
<td>SMXHI2-E High Output Single Mode Fibre Optic Transceiver</td>
</tr>
<tr>
<td></td>
<td>MMXVR-E Standard Output Multimode Fibre Optic Transceiver</td>
</tr>
<tr>
<td></td>
<td>Enclosure Assemblies</td>
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<tr>
<td></td>
<td>3-CAB7B-E CAB7 Enclosure Backbox</td>
</tr>
<tr>
<td></td>
<td>3-CAB14B-E CAB14 Enclosure Backbox</td>
</tr>
<tr>
<td></td>
<td>3-CAB21B-E CAB21 Enclosure Backbox</td>
</tr>
<tr>
<td></td>
<td>3-CAB7D(R)-E CAB7 Inner/Outer Enclosure Doors - (R) indicates red</td>
</tr>
</tbody>
</table>
## PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-CAB14D(R)-E</td>
<td>CAB14 Inner/Outer Enclosure Doors - (R) indicates red</td>
</tr>
<tr>
<td>3-CAB21D(R)-E</td>
<td>CAB21 Inner/Outer Enclosure Doors - (R) indicates red</td>
</tr>
</tbody>
</table>

#### Remote Chassis Cabinets
- 3-RCC7R-E: Remote Closet Cabinet, Single Chassis - Red
- 3-RCC14R-E: Remote Closet Cabinet, Two Chassis - Red
- 3-RCC21R-E: Remote Closet Cabinet, Three Chassis - Red

#### Battery Cabinet
- BC-1: Remote battery cabinet interface, temperature sensing

#### Tamper Switches
- 3-TAMP: Tamper Switch for 3-CAB7/14/21 Cabinets
- 3-TAMPRCC: Tamper Switch for 3-RCC Cabinet

#### Audio & Telephone Common Controls - Chassis Assemblies
- 3-CHAS7-E: Audio Source Unit with a 3-Chassis
- 3-CHASS4-E: Audio Source Unit with 4 LRM slots

#### Zone Amplifiers
- 3-ZA20A-E: 20 watt Zone Amplifier, Class A
- 3-ZA20B-E: 20 watt Zone Amplifier, Class B
- 3-ZA40A-E: 40 watt Zone Amplifier, Class A
- 3-ZA40B-E: 40 watt Zone Amplifier, Class B

#### Battery Shelves
- 3-BATS: Battery Shelf for Single 65AH Cell

#### Extended Rail Cable Kit
- 3-CBLKIT1

#### CPU Door Kit
- 3-CPUDR

#### Outputs to Fire Alarm Devices
- 7.8: Output to fire alarm devices
- 7.13: Alarm counter
- 8.3: Fault Signals from points
- 10: Test condition

#### Indications of Faults Related to Voice Alarm Zones
- 7.3: Audible warning
- 7.4: Delay(s) to entering the voice alarm condition
- 7.5: Phased evacuation
- 7.9: Manual silencing of the voice alarm condition
- 7.10: Manual reset of the voice alarm condition
- 7.13: Voice alarm condition output

#### Redundant Power Amplifiers
- 13.14: Redundant power amplifiers

---

**EST3 Repeater**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-ANNCPU3-E: Remote Annunciator CPU with a 3-LCD</td>
</tr>
<tr>
<td>3-ANNSM-E: Remote (repeater) Annunciator Support Module</td>
</tr>
<tr>
<td>3-LCDANN-E: LCD Display and User Interface for Remote Annunciator</td>
</tr>
</tbody>
</table>

#### Annunciator Back Boxes and Doors Assemblies
- 3-10ANN-E: Remote Annunciator Back Box, 10 slots, with Door
- 3-10ANNB-S: Surface Mount Backbox for 3-10ANN-E
- 3-6ANN-E: Remote Annunciator Back Box, 6 slots, with Door
- 3-6ANNB-S: Surface Mount Backbox for 3-6ANN-E

#### Remote Annunciator Flush Mount Backbox
- 3-RLCM/D-E: EST3 Remote Annunciator Door Assembly
- 3-FP: Blank Filler Plate
- 3-XFP: Blank Filler Plate for 3-CAB Cabinet Series
- 3-LKE: Label Insert Kit - English
- 3-LKR: Label Insert Kit - Russian
- 3-LKS: Label Insert Kit - Spanish
- 3-LKF: Label Insert Kit - French
## Control and Indicating Equipment

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Control and indicating equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>360b/01</td>
<td>VES Latitude 2 to 8 Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td></td>
<td>2 to 16 Loop Analogue Addressable Control and Indicating Equipment</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following units:</td>
</tr>
<tr>
<td></td>
<td>S721 LCD Main Processor Board</td>
</tr>
<tr>
<td></td>
<td>S722 Main Back Board</td>
</tr>
<tr>
<td></td>
<td>S723 Network, Ethernet &amp; IFAM Interface Module</td>
</tr>
<tr>
<td></td>
<td>S758 Dual loop Module (Hochiki protocol)</td>
</tr>
<tr>
<td></td>
<td>S769 System Board A module</td>
</tr>
<tr>
<td></td>
<td>S770 System Board B Module</td>
</tr>
<tr>
<td></td>
<td>S771 Zone LED Board</td>
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<tr>
<td></td>
<td>S787 Vision Unit</td>
</tr>
<tr>
<td></td>
<td>S768 Thermal Printer Assembly</td>
</tr>
<tr>
<td></td>
<td>S406-06 5.25 Amp Power Supply Unit</td>
</tr>
</tbody>
</table>

Incorporating the following optional modules:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>S408</td>
<td>10.25 Amp Power Supply Unit</td>
</tr>
<tr>
<td>S772</td>
<td>16 Channel I/O card</td>
</tr>
<tr>
<td>S791</td>
<td>8w Relay card</td>
</tr>
<tr>
<td>S792</td>
<td>8w conventional zone card</td>
</tr>
<tr>
<td>S788</td>
<td>Media gateway card</td>
</tr>
<tr>
<td>S793</td>
<td>4w sounder card</td>
</tr>
<tr>
<td>S786</td>
<td>4 slot expansion board (used for extension for the optional I/O boards)</td>
</tr>
</tbody>
</table>

Certified with the following Options with requirements from EN 54-2:1997

- 7.8 Output to fire alarm device(s)
- 7.9.1 Output to fire alarm routing equipment
- 7.9.2 Alarm confirmation input from fire alarm routing equipment
- 7.10.3 Output to type C
- 7.10.4 Fault monitoring of fire protection equipment
- 7.11 Delay to outputs
- 7.12.1 Dependencies on more than one alarm signal - Type A
- 7.12.2 Dependencies on more than one alarm signal - Type B
- 7.12.3 Dependencies on more than one alarm signal - Type C
- 7.13 Alarm counter
- 8.3 Fault signals from points
- 8.9 Output to fault warning routing equipment
- 9.5 Disablement of addressable points
- 10 Test condition

Notes:

1. Scope of certification does not include the operation of the network functionality.
2. This certificate does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
3. The VES Latitude CIE is certified with the M5 shallow enclosure and D5 deep enclosure.
Control and indicating equipment

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174e/01</td>
<td>16 Zone Conventional Control and Indicating Equipment</td>
<td>1174e/01</td>
<td>16 Zone Conventional Control and Indicating Equipment</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following units:</td>
<td></td>
<td>Incorporating the following units:</td>
</tr>
<tr>
<td></td>
<td>VSL2.908.004 16 Zone Control Board</td>
<td></td>
<td>VSL2.908.004 16 Zone Control Board</td>
</tr>
<tr>
<td></td>
<td>VSL2.908.007 16 Zone Display Board</td>
<td></td>
<td>VSL2.908.007 16 Zone Display Board</td>
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<tr>
<td></td>
<td>PD-100-24 AC/DC Power Supply Module</td>
<td></td>
<td>PD-100-24 AC/DC Power Supply Module</td>
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<tr>
<td></td>
<td>VSL2.908.005 16 Zone Signal Output Board</td>
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<td>VSL2.908.005 16 Zone Signal Output Board</td>
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<tr>
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<td>Certified with the following Options with requirements from EN 54-2:1997</td>
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<td>Certified with the following Options with requirements from EN 54-2:1997</td>
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<tr>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
<td></td>
<td>7.8 Output to fire alarm device(s)</td>
</tr>
<tr>
<td></td>
<td>7.11 Delay to outputs</td>
<td></td>
<td>7.11 Delay to outputs</td>
</tr>
<tr>
<td></td>
<td>10 Test condition</td>
<td></td>
<td>10 Test condition</td>
</tr>
<tr>
<td></td>
<td>Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
<td>Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
</tr>
</tbody>
</table>

| 1174e/02      | 8 Zone Conventional Control and Indicating Equipment | 1174e/02      | 8 Zone Conventional Control and Indicating Equipment |
|               | Incorporating the following units:                |               | Incorporating the following units:                |
|               | VSL2.908.042 8 Zone Control Board                 |               | VSL2.908.042 8 Zone Control Board                 |
|               | VSL2.908.043 8 Zone Display Board                 |               | VSL2.908.043 8 Zone Display Board                 |
|               | PD-100-24 AC/DC Power Supply Module                |               | PD-100-24 AC/DC Power Supply Module                |
|               | Certified with the following Options with requirements from EN 54-2:1997 |               | Certified with the following Options with requirements from EN 54-2:1997 |
|               | 7.8 Output to fire alarm device(s)                 |               | 7.8 Output to fire alarm device(s)                 |
|               | 7.11 Delay to outputs                              |               | 7.11 Delay to outputs                              |
|               | 10 Test condition                                  |               | 10 Test condition                                  |
|               | Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |               | Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |

| 1174e/03      | 4 Zone Conventional Control and Indicating Equipment | 1174e/03      | 4 Zone Conventional Control and Indicating Equipment |
|               | Incorporating the following units:                |               | Incorporating the following units:                |
|               | VSL2.908.044 4 Zone Control Board                 |               | VSL2.908.044 4 Zone Control Board                 |
|               | VSL2.908.045 4 Zone Display Board                 |               | VSL2.908.045 4 Zone Display Board                 |
|               | PD-100-24 AC/DC Power Supply Module                |               | PD-100-24 AC/DC Power Supply Module                |
|               | Certified with the following Options with requirements from EN 54-2:1997 |               | Certified with the following Options with requirements from EN 54-2:1997 |
|               | 7.8 Output to fire alarm device(s)                 |               | 7.8 Output to fire alarm device(s)                 |
|               | 7.11 Delay to outputs                              |               | 7.11 Delay to outputs                              |
|               | 10 Test condition                                  |               | 10 Test condition                                  |
|               | Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |               | Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |

| 1174e/04      | 2 Zone Conventional Control and Indicating Equipment | 1174e/04      | 2 Zone Conventional Control and Indicating Equipment |
|               | Incorporating the following units:                |               | Incorporating the following units:                |
|               | VSL2.908.046 2 Zone Control Board                 |               | VSL2.908.046 2 Zone Control Board                 |
|               | VSL2.908.047 2 Zone Display Board                 |               | VSL2.908.047 2 Zone Display Board                 |
|               | PD-100-24 AC/DC Power Supply Module                |               | PD-100-24 AC/DC Power Supply Module                |
|               | Certified with the following Options with requirements from EN 54-2:1997 |               | Certified with the following Options with requirements from EN 54-2:1997 |
|               | 7.8 Output to fire alarm device(s)                 |               | 7.8 Output to fire alarm device(s)                 |
|               | 7.11 Delay to outputs                              |               | 7.11 Delay to outputs                              |
|               | 10 Test condition                                  |               | 10 Test condition                                  |
|               | Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |               | Note: This approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13. |

| 1174j/01      | 4 Loop Analogue Addressable Control and Indicating Equipment | 1174j/01      | 4 Loop Analogue Addressable Control and Indicating Equipment |
|               | Incorporating the following modules:             |               | Incorporating the following modules:             |
### Control and Indicating Equipment

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSL2.908.146</td>
<td>Main Board</td>
</tr>
<tr>
<td>VSL2.908.149</td>
<td>Indication board</td>
</tr>
<tr>
<td>VSL2.908.155</td>
<td>Terminal board</td>
</tr>
<tr>
<td>VSL2.908.162</td>
<td>Control Board</td>
</tr>
<tr>
<td>VSL2.908.153</td>
<td>Loop Card</td>
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<tr>
<td>VSL2.908.152</td>
<td>I/O Board</td>
</tr>
<tr>
<td>VSL2.908.169</td>
<td>Power Board</td>
</tr>
<tr>
<td>VSL7-820-150</td>
<td>Zone Board</td>
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<tr>
<td>VSL7-820-154</td>
<td>Network Card</td>
</tr>
<tr>
<td>LRS-150-24</td>
<td>MEAN-WELL Power Supply module</td>
</tr>
</tbody>
</table>

Certified with the following option with requirements for EN54-2:

- **7.8** Output to fire alarm devices
- **7.10.1** Outputs to fire protection equipment (Type A)
- **7.10.2** Outputs to fire protection equipment (Type B)
- **7.10.3** Outputs to fire protection equipment (Type C)
- **7.10.4** Fault monitoring of fire protection equipment
- **7.11** Delays to outputs
- **7.12.1** Dependencies on more than one alarm signal (Type A dependency)
- **7.12.2** Dependencies on more than one alarm signal (Type B dependency)
- **7.12.3** Dependencies on more than one alarm signal (Type C dependency)
- **7.13** Alarm Counter
- **9.5** Disablement of addressable point
- **10** Test condition

**Notes:**

1. The scope of the approval does not include the operation of the network functionality
2. This approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Yingkou Tiancheng Fire Protection Equipment Co., Ltd
No. 11-2, Kechechang Xili, Xishi District, Yingkou, Pilot Free Trade Zone, Liaoning 115004, China
Tel: 0417-2607119 • Fax: 0417-2867119
E-mail: wayne@tcfiretech.com • Website: www.tcfiretech.com


Control and indicating equipment
Certificated Products

JB-TB-TC5109 1-4 Loops Analogue Addressable Fire Alarm Control Panel
Incorporating the following modules:
TC5109-Main Main board
TC5109-Loop Loop board
TC5109-XZB Loop base board
TC5109-Key Keypad board
TC5109-ZX Zone and FPE indicator board
TC5109-LCD Display board
TC5109-SCR Indicator board
TC5120-RS485 RS485 board
TC5000-MAIN-CAN CAN board
TC5109-LB1 Filter board 1
TC5109-LB2 Filter board 2
TC5109-POW Power Supply Equipment

Certified with the following options with requirements:
7.8 Output to fire alarm device(s)
7.10.1 Output to automatic fire protection equipment Type A
7.10.2 Output to automatic fire protection equipment Type B
7.10.3 Output to automatic fire protection equipment Type C
8.3 Fault signals from point
9.5 Disablement of addressable points

Notes:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.
2. Scope of approval does not include the operation of the network functionality.

Zarja Elektronika d.o.o
Polceva, Pot 1, 1240 Kamnik, Slovenia
Tel: +386 1831 7488 • Fax: +386 1831 7551
E-mail: info@zarja.com • Website: www.zarja.com


Control and indicating equipment
Certificated Products

NJP-400A Analogue addressable and Conventional control and indicating equipment.

Incorporating the following units:
PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

UPMO 400 Control and display module
NAMO 400 Power supply module
CPMO 400 Central processor module

Optional modules:
LIMO-Ap 400 Line module Apollo
LIMO-Ko 400 Line module conventional
VIMO 400 Input output module
IZMO 400 Output module
MRMO 400 Network module
Eng_pack English language kit
Slo_pack Slovenian language kit

Certified with the following options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
7.10.2 Output to fire protection equipment type B
7.11 Delays to the auctioning of outputs
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1) Scope of approval does not include the operation of the network functionality.
2) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.

NJP-401A Analogue addressable and Conventional control and indicating equipment. 1124a/02

Incorporating the following units:

UPMO 400 Control and display module
NAMO 401 Power supply module
CPMO 400 Central processor module

Optional modules:
LIMO-Ap 400 Line module Apollo
LIMO-Ko 400 Line module conventional
VIMO 400 Input output module
IZMO 400 Output module
MRMO 400 Network module
Eng_pack English language kit
Slo_pack Slovenian language kit

Certified with the following options with requirements from EN 54-2:1997

7.8 Output to fire alarm device(s)
7.9.1 Output to fire alarm routing equipment
7.10.1 Output to fire protection equipment type A
7.10.2 Output to fire protection equipment type B
7.11 Delays to the auctioning of outputs
8.3 Fault signals from points
9.5 Disablement of each address point
10 Test condition

Notes:
1) Scope of approval does not include the operation of the network functionality.
2) This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN54-13.
## Control and Indicating Equipment

### Certificated Products

<table>
<thead>
<tr>
<th>Certification Number</th>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW-CFP2166-4</td>
<td>4 Zone Conventional Control and Indicating Equipment Incorporating the following units:</td>
<td>1395c/01</td>
</tr>
<tr>
<td></td>
<td>Asenware Main Board</td>
<td>Main Board</td>
</tr>
<tr>
<td></td>
<td>Asenware Interface Board</td>
<td>Interface Board</td>
</tr>
<tr>
<td></td>
<td>Asenware PSE Power and Charger Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asenware Zonal Board</td>
<td>1 x 4 Zone Board</td>
</tr>
<tr>
<td></td>
<td>Asenware EMI EMI Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm devices (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.9.1 Output to fire alarm routing equipment (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.10.1 Output type A (option with requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.10.2 Output type B (option with requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.9 Output to fault warning routing equipment (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
</tr>
<tr>
<td>AW-CFP2166-8</td>
<td>8 Zone Conventional Control and Indicating Equipment Incorporating the following units:</td>
<td>1395c/02</td>
</tr>
<tr>
<td></td>
<td>Asenware Main Board</td>
<td>Main Board</td>
</tr>
<tr>
<td></td>
<td>Asenware Interface Board</td>
<td>Interface Board</td>
</tr>
<tr>
<td></td>
<td>Asenware PSE Power and Charger Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asenware Zonal Board</td>
<td>2 x 4 Zone Boards</td>
</tr>
<tr>
<td></td>
<td>Asenware EMI EMI Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:</td>
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</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm devices (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.9.1 Output to fire alarm routing equipment (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.10.1 Output type A (option with requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.10.2 Output type B (option with requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.9 Output to fault warning routing equipment (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
</tr>
<tr>
<td>AW-CFP2166-12</td>
<td>12 Zone Conventional Control and Indicating Equipment Incorporating the following units:</td>
<td>1395c/03</td>
</tr>
<tr>
<td></td>
<td>Asenware Main Board</td>
<td>Main Board</td>
</tr>
<tr>
<td></td>
<td>Asenware Interface Board</td>
<td>Interface Board</td>
</tr>
<tr>
<td></td>
<td>Asenware PSE Power and Charger Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asenware Zonal Boards</td>
<td>3 x 4 Zone Boards</td>
</tr>
<tr>
<td></td>
<td>Asenware EMI EMI Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm devices (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.9.1 Output to fire alarm routing equipment (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.10.1 Output type A (option with requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.10.2 Output type B (option with requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.9 Output to fault warning routing equipment (option with requirements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.</td>
<td></td>
</tr>
<tr>
<td>AW-CFP2166-16</td>
<td>16 Zone Conventional Control and Indicating Equipment Incorporating the following units:</td>
<td>1395c/04</td>
</tr>
<tr>
<td></td>
<td>Asenware Main Board</td>
<td>Main Board</td>
</tr>
<tr>
<td></td>
<td>Asenware Interface Board</td>
<td>Interface Board</td>
</tr>
<tr>
<td></td>
<td>Asenware PSE Power and Charger Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asenware Zonal Boards</td>
<td>4 x 4 Zone Boards</td>
</tr>
<tr>
<td></td>
<td>Asenware EMI EMI Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.8 Output to fire alarm devices (option with requirements)</td>
<td></td>
</tr>
</tbody>
</table>

### Note:

1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

AW-CFP2166-20
20 Zone Conventional Control and Indicating Equipment Incorporating the following units:
- Asenware Main Board Main Board
- Asenware Interface Board Interface Board
- Asenware PSE Power and Charger Board
- Asenware Zonal Boards 5 x 4 Zonal Boards
- Asenware EMI EMI Board

Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:
7.8 Output to fire alarm devices (option with requirements)
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

AW-CFP2166-24
24 Zone Conventional Control and Indicating Equipment Incorporating the following units:
- Asenware Main Board Main Board
- Asenware Interface Board Interface Board
- Asenware PSE Power and Charger Board
- Asenware Zonal Boards 6 x 4 Zone Boards
- Asenware EMI EMI Board

Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:
7.8 Output to fire alarm devices (option with requirements)
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

AW-CFP2166-28
28 Zone Conventional Control and Indicating Equipment Incorporating the following units:
- Asenware Main Board Main Board
- Asenware Interface Board Interface Board
- Asenware PSE Power and Charger Board
- Asenware Zonal Boards 7 x 4 Zone Boards
- Asenware EMI EMI Board

Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:
7.8 Output to fire alarm devices (option with requirements)
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

AW-CFP2166-32
32 Zone Conventional Control and Indicating Equipment Incorporating the following units:
- Asenware Main Board Main Board
- Asenware Interface Board Interface Board
- Asenware PSE Power and Charger Board
- Asenware Zonal Boards 8 x 4 Zone Boards
- Asenware EMI EMI Board

Certified with the following options with requirements from EN54-2: 1997 + A1: 2006:
7.8 Output to fire alarm devices (option with requirements)
7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.

PART 1: SECTION 3
CONTROL AND INDICATING EQUIPMENT

Certificated Products

LPCB Ref. No.

7.9.1 Output to fire alarm routing equipment (option with requirements)
7.10.1 Output type A (option with requirement)
7.10.2 Output type B (option with requirement)
8.9 Output to fault warning routing equipment (option with requirements)

Note:
1. This product approval does not constitute compliance with the fire detection and alarm systems requirements of EN 54-13.
There are many types of detectors on the market designed to work on different principles and fire parameters (e.g. smoke, flame radiation, convective heat etc). The selection of a detector for a particular area or application should be based on a number of factors including the following:

- The nature of the fire hazard
- The speed of response required
- The need to minimize false alarms

There are other factors to be taken into account such as architecture of the building, ease of maintenance and cost, etc.

Guidance on the selection of appropriate types of detectors should be sought from the applicable installation rule or code of practice (e.g. BS 5839-1). Where a particular type of detector is not covered by the installation rule or code of practice then guidance should be sought from the manufacturer’s literature. In any case, account should be given to the notes or limitations given with the listed detector in this section.

This section lists fire detectors approved for use in fire detection and fire alarm systems in buildings.

The initial approval and continued approval processes for detectors are outlined in scheme document SD021.

The list includes detectors certified to recognised standards or to special test schedules which are developed by LPCB for detector types where suitable standards are not available or were not available at the time of the evaluation.

Products listed in this section have been approved to:

- EN 54-5: 2000 Heat detectors - point detectors
- EN 54-7: 2000 Smoke detectors - point detectors using scattered light, transmitted light or ionisation
- EN 54-10: 2002 Flame detectors - point detectors
- EN 54-10: 2002 + A1: 2005 Flame detectors - point detectors
- EN 54-12: 2002 Smoke detectors - line detectors using an optical light beam
- EN 54-20: 2006 Aspirating smoke detectors
- EN 54-25: 2008 Components using radio links
- ISO7240-5: 2003 Point -type heat detectors
- ISO7240-6: 2004 Carbon monoxide fire detectors using electro-chemical cells
- ISO7240-7: 2003 Point-type smoke detectors using scattered light, transmitted light or ionization
- ISO7240-12: 2005 Line type smoke detectors using transmitting light beam
- ISO7240-15: 2004 Multisensor fire detectors
- CEA 4021: 1999 Requirements and test methods for multisensor detectors, which respond to smoke and heat, and smoke detectors with more than one smoke sensor
- CEA 4021: 2003 Requirements and test methods for multisensor detectors, which respond to smoke and heat, and smoke detectors with more than one smoke sensor
- LPS 1274-1.0: 2005 Testing Procedures for the LPCB Approval and Listing of Carbon Monoxide/Heat Multisensor Fire Detectors Using Electrochemical Cells
- LPS 1279-1.0: 2006 Testing Procedures for the LPCB Approval and Listing of Point Multisensor Fire Detectors using Optical or Ionization Smoke Sensors and Electrochemical Cell CO Sensors and, optionally, Heat Sensors
- LPS 1280-1.0: 2007 Testing Procedures for the LPCB Approval and Listing of Duct Smoke Detectors using Point Smoke Detectors
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Approval can also be obtained for other detection principles not detailed above. In such circumstances, LPCB can develop test criteria to evaluate products, which in time may be used for the development of standards.

Audit:
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

Notes:
1. EN 54-5: 2000 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 30 June 2005. It is therefore recommended that heat detectors are certificated to EN 54-5: 2000 + A1: 2002

2. EN 54-7: 2000 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 30 June 2005. It is therefore recommended that smoke detectors are certificated to EN 54-7: 2000 + A1: 2002 and A2: 2006

3. EN 54-10: 2002 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 1 September 2008. It is therefore recommended that flame detectors are certificated to EN 54-10: 2002 + A1: 2005

4. EN 54-12: 2002 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 31 December 2005. It is therefore recommended that beam detectors are certificated to EN 54-12: 2002

5. EN 54-25: 2008 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 1 March 2011. It is therefore recommended that radio link components are certificated to EN 54-25: 2008

6. CEA 4021: 2003 supersedes CEA 4021: 1999 which was withdrawn in June 2003 (i.e. at the same time as the national versions of EN 54-5: 1976 and EN 54-7: 1982 were officially withdrawn and replaced with EN 54-5: 2000 and EN 54-7: 2000).

7. EN 54-20: 2006 supersedes CEA 4022: 1999 which should have been withdrawn in 2009. EN 54-20: 2006 is now a harmonised standard for the Construction Products Directive and CE marking is required for most of the European market since 1 July 2009. It is therefore recommended that aspirating detectors are certificated to EN 54-20: 2006.

8. The bases with which a detector has been evaluated and shown to meet the relevant standards are listed with each detector. Bases are not approved/certificated in their own right unless they are combined with another device (e.g. short circuit isolator or sounder).

9. Since LPCB uses national and international standards for the listing of products, in some instances the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.

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Tel: +3902457179229 • Fax: +390245701034
E-mail: jim.clarke@honeywell.com • Website: www.adiglobal.com

Certificate No: 199w to EN 54-12:2002 & EN 54-17:2005

Beam Detectors
Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>LPCB Ref. No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>6500-46</td>
<td>199w/01</td>
<td>Analogue Optical Beam Detector with Short Circuit Isolator Feature</td>
</tr>
</tbody>
</table>

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>6500S-46 Analogue Optical Beam Detector with Self Test Facility and Short Circuit Isolator Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Meets the requirements of BS EN54-12: 2002 at sensitivity levels 1, 2, 3, 4 and Acclimate levels 1 &amp; 2</td>
</tr>
<tr>
<td></td>
<td>2. yy= (Range 00-99) and indicates the software protocol</td>
</tr>
<tr>
<td></td>
<td>3. Approved to 50-70m Range</td>
</tr>
<tr>
<td></td>
<td>4. Approved to 70-100m Range when using 6500-LRK/BEAMLRK</td>
</tr>
</tbody>
</table>

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>8200R Conventional Optical Beam Detector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-12: 2002 at sensitivity levels 1, 2, 3, 4 &amp; Acclimate levels 1 &amp; 2</td>
</tr>
<tr>
<td></td>
<td>2. 50-70m and 70-100m Range using 6500-LRK/BEAMLRK</td>
</tr>
</tbody>
</table>

Ancillaries

RTS151-KEY Remote test Station
6500 – LRK/BEAMLRK Long Range Kit
6500 – MMK/BEAMMMK Multi-Mounting Kit
6500 – SMK/BEAMSMK Surface Mounting Kit

ADI International
ADI International Espana, C/Vivero 5, 28040 Madrid, Spain
Tel: +34 91 102 590 • Fax: +34 91 535 0081
E-mail: Jim.Clarke@systemsensor.com • Website: www.ademco.es

Certificate No: 199u to EN 54-12: 2002

Beam Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>8200RS Conventional optical beam detector with self test facility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-12: 2002 at sensitivity levels 1, 2, 3, 4 &amp; Acclimate levels 1 &amp; 2</td>
</tr>
<tr>
<td></td>
<td>2. 50-70m and 70-100m Range using 6500-LRK/BEAMLRK</td>
</tr>
</tbody>
</table>

Ancillaries:

RTS151-KEY Remote test Station
6500-LRK/BEAMLRK Long Range Kit
6500-MMK/BEAMMMK Multi-Mounting Kit
6500-SMK/BEAMSMK Surface Mounting Kit

20 Oct 2020
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Advanced Electronics Limited
The Bridges, Balliol Business Park, Longbenton, Newcastle-Upon-Tyne NE12 8EW, United Kingdom
Tel: +44 (0)345 894 7000 • Fax: +44 (0)1670 707 222
E-mail: pbrown@advancedco.com • Website: www.advancedco.com


Point Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Axis-HTX Analogue Addressable Class P Heat Detector with Short Circuit Isolator (Axis-MB base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928ad/01</td>
<td>Note: 1. Meets the requirements of EN 54-5 at Class A1R and Class BS</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>• CR123A (3 Vdc) - main battery</td>
</tr>
<tr>
<td></td>
<td>• CR2032A (3 Vdc) - secondary battery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Axis-HT Analogue Addressable P Heat Detector (Axis-MB base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928ag/01</td>
<td>Note: 1. Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>20-AS3500-ADV Conventional Class P, heat detector (20-AB100-ADV, 20-ABR100-ADV, 20-ABDR100-ADV, 20-ABSR100-ADV and 20-ABSRD100-ADV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928d/02</td>
<td>Note: 1. Meets the requirements of EN 54-5 for Class A1R and Class B.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>20-SG350-ADV Wireless heat detector (WAB100 base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928j/01</td>
<td>Notes: 1. Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>• CR123A (3 Vdc) - main battery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Axis-RHT Axis Wireless Addressable Heat Detector (WAB100 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928j/02</td>
<td>Notes: 1. Meets the requirements of EN 54-5 for Class A1R and BS</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following battery type only:</td>
</tr>
<tr>
<td></td>
<td>• CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Axis-MB Mounting Base</td>
</tr>
</tbody>
</table>

Point Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Axis-OPX Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (Axis-MB base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928ab/01</td>
<td>Note: 1. Meets the requirements of EN 54-7 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td>Optical only level 1 - High</td>
</tr>
<tr>
<td></td>
<td>Optical only level 2</td>
</tr>
<tr>
<td></td>
<td>Optical only level 3</td>
</tr>
<tr>
<td></td>
<td>Optical only level 4 - Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Axis-OP Addressable Photoelectric Smoke Detector (Axis-MB base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928ae/01</td>
<td></td>
</tr>
</tbody>
</table>
### Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-AS1000-ADV</td>
<td>Conventional photo smoke detector (20-AB100-ADV, 20-ABR100-ADV, 20-ABDR100-ADV, 20-ABS100-ADV, 20-ABSR100-ADV and 20-ABSRD100-ADV)</td>
<td>928ae/02</td>
</tr>
</tbody>
</table>

**Note:**
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis-OHX</td>
<td>Addressable Multi-Criteria Detector with Short Circuit Isolator (Axis-MB base)</td>
<td>928ac/01</td>
</tr>
<tr>
<td>Axis-OH</td>
<td>Addressable Photoelectric Smoke Detector &amp; Heat Detector (Axis-MB Base)</td>
<td>928af/01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bases</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-AB100-ADV</td>
<td>Mounting base</td>
</tr>
<tr>
<td>20-VB100-ADV</td>
<td>Mounting base (with link resistor)</td>
</tr>
<tr>
<td>20-ABR100-ADV</td>
<td>Universal adaptor base with resistor</td>
</tr>
<tr>
<td>20-ABDR100-ADV</td>
<td>Universal adaptor base with resistor and Schottky diode</td>
</tr>
<tr>
<td>20-ABS100-ADV</td>
<td>Deep adaptor base</td>
</tr>
<tr>
<td>20-ABSR100-ADV</td>
<td>Deep adaptor base with resistor</td>
</tr>
<tr>
<td>20-ABSRD100-ADV</td>
<td>Deep adaptor base with resistor and Schottky diode</td>
</tr>
<tr>
<td>Axis-MB</td>
<td>Mounting Base</td>
</tr>
</tbody>
</table>


### Multi-sensor detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis-OHX</td>
<td>Addressable Multi-Criteria Detector with Short Circuit Isolator (Axis-MB base)</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>
1. Meets the requirements of EN 54-5 & EN 54-7 at the following settings:
   - Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 at the following settings:
   - Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis-OH</td>
<td>Addressable Photoelectric Smoke Detector &amp; Heat Detector (Axis-MB Base)</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>
1. Meets the requirements of EN 54-5 & EN 54-7 at the following settings:
   - Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 at the following settings:
   - Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only level 1 - High sensitivity
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low sensitivity
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>928k/01</td>
<td>Wireless optical smoke detector (WAB100 base)</td>
<td>1. Meets the requirements of EN 54-7 in the normal sensitivity setting 2. The device must be used with the following batteries only: CR123A (3 Vdc) - main battery CR2032A (3 Vdc) - secondary battery</td>
</tr>
<tr>
<td>928k/02</td>
<td>Axis Wireless Addressable Optical Smoke Detector (WAB100 Base)</td>
<td>1. Meets the requirements of EN 54-7 at the following sensitivity settings: Level 1: High Level 2: Normal Level 3: Low 2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

Bases:
WAB100 Wireless Adaptor Base


Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>928m/01</td>
<td>Wireless multi-criteria detector (WAB100 base)</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R 2. Meets the requirements of EN 54-7 in the normal sensitivity setting 3. The device must be used with the following batteries only: CR123A (3 Vdc) - main battery CR2032A (3 Vdc) - secondary battery</td>
</tr>
<tr>
<td>928m/02</td>
<td>Axis Wireless Addressable Multicriteria Detector (WAB100 Base)</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R 2. Meets the requirements of EN 54-7 at the following sensitivity settings: Level 1: High Level 2: Normal Level 3: Low 3. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

Bases:
WAB100 Wireless Adaptor Base

Advantronic Systems S.L.
C/Yunque 9 Nave B1, Tres Cantos, Madrid 28760, Spain
Tel: +34 91 806 2343 • Fax: +34 91 803 1171
E-mail: jpedrouzo@advantronic.es • Website: www.advantronic.es

Certificate No: 928a-(cl-3) to 54-5: 2000 + A1: 2002 and EN 54 -17: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>928a/02</td>
<td>Analogue Addressable Class P Heat Detector with Short-Circuit Isolator Base) (BA400)</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS</td>
</tr>
<tr>
<td>928d/02</td>
<td>Conventional Class P, heat detector (BA100 and BA101 bases)</td>
<td></td>
</tr>
</tbody>
</table>

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT420AS Addressable Class P Heat Detector (BA400 Base)</td>
<td>928d/03</td>
</tr>
<tr>
<td>ATW120A Wireless heat detector (WAB100 base)</td>
<td>928j/01</td>
</tr>
<tr>
<td>ATW420A Wireless Libra Addressable Class P Heat Detector (WAB100 Base)</td>
<td>928j/02</td>
</tr>
<tr>
<td>AT410A Addressable Photoelectric Smoke Detector with Short-Circuit Isolator (BA400 Base)</td>
<td>928b/02</td>
</tr>
<tr>
<td>AT110CM Conventional photo smoke detector (BA100 and BA101 bases)</td>
<td>928e/02</td>
</tr>
<tr>
<td>AT410AS Addressable Photoelectric Smoke Detector (BA400 base)</td>
<td>928e/03</td>
</tr>
<tr>
<td>ATW410A Wireless Libra Addressable Optical Smoke Detector (WAB100 Base)</td>
<td>928k/02</td>
</tr>
<tr>
<td>AT430A Addressable Multi-Criteria Detector with Short-Circuit Isolator (BA400 base)</td>
<td>928c/02</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA100 Mounting base</td>
</tr>
<tr>
<td>BA101 Deep adaptor base</td>
</tr>
<tr>
<td>WAB100 Wireless Adaptor Base</td>
</tr>
<tr>
<td>BA400 Low Profile Adaptor Base</td>
</tr>
</tbody>
</table>


Point Smoke Detectors

Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT410A Addressable Photoelectric Smoke Detector with Short-Circuit Isolator (BA400 Base)</td>
<td>928b/02</td>
</tr>
<tr>
<td>AT110CM Conventional photo smoke detector (BA100 and BA101 bases)</td>
<td>928e/02</td>
</tr>
<tr>
<td>AT410AS Addressable Photoelectric Smoke Detector (BA400 base)</td>
<td>928e/03</td>
</tr>
<tr>
<td>ATW410A Wireless Libra Addressable Optical Smoke Detector (WAB100 Base)</td>
<td>928k/02</td>
</tr>
<tr>
<td>AT430A Addressable Multi-Criteria Detector with Short-Circuit Isolator (BA400 base)</td>
<td>928c/02</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA100 Mounting base</td>
</tr>
<tr>
<td>BA101 Deep adaptor base</td>
</tr>
<tr>
<td>BA400 Low Profile Adaptor Base</td>
</tr>
<tr>
<td>WAB100 Wireless Adaptor Base</td>
</tr>
</tbody>
</table>


Multi-sensor Detectors

Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT430A Addressable Multi-Criteria Detector with Short-Circuit Isolator (BA400 base)</td>
<td>928c/02</td>
</tr>
</tbody>
</table>

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COMMERCIAL DETECTORS

Certificated Products

Notes:
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
   - Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following settings:
   - Optimal only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

AT430AS Addressable Photo & Class A1R Heat Detector (BA400 Base) 928f/02

Notes:
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
   - Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only - level 1 - High sensitivity
   - Optical only - level 2
   - Optical only - level 3
   - Optical only - level 4 - Low sensitivity

Bases
BA100 Mounting base
BA400 Low Profile Adaptor Base


Smoke Detectors

Certificated Products

Notes:
1. Meets the requirements of EN 54-7 in the normal sensitivity setting
2. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - main battery
   - CR2032A (3 Vdc) - secondary battery

ATW110A Wireless optical smoke detector (WAB100 base) 928k/01

Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Level 1 - High
   - Level 2 - Normal
   - Level 3 - Low
2. The device must be used with the following battery type only:
   - CR123A (3 Vdc) - Primary and Secondary Battery

ATW410A Wireless Libra Addressable Optical Smoke Detector (WAB100 Base) 928k/02

Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Level 1 - High
   - Level 2 - Normal
   - Level 3 - Low
2. The device must be used with the following battery type only:
   - CR123A (3 Vdc) - Primary and Secondary Battery

Bases:
WAB100 Wireless Adaptor Base

### Multi-Criteria Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATW130A</td>
<td>Wireless multi-criteria detector (WAB100 base)</td>
<td>928m/01</td>
</tr>
<tr>
<td>ATW430A</td>
<td>Wireless Libra Addressable Multicriteria Detector (WAB100 Base)</td>
<td>928m/02</td>
</tr>
</tbody>
</table>

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 in the normal sensitivity setting
3. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - main battery
   - CR2032A (3 Vdc) - secondary battery

**Bases:**

WAB100 Wireless Adaptor Base

---

### Flame Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH226</td>
<td>Conventional UV/IR Flame Detector (IHMB01-XY Base)</td>
<td>1259a/01</td>
</tr>
</tbody>
</table>

**Note:**

Meets the requirements of EN 54-10:2002 at Class 1 only

**Bases**

IHMB01-XY Swivel Mounting Base

---

### Smoke Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD338-2L</td>
<td>Conventional photoelectric smoke detector (AD300 base)</td>
<td>550a/05</td>
</tr>
</tbody>
</table>

**Certificate No:** 550a to EN 54-7: 2000 + A1: 2002 + A2: 2006

**Bases**

AD300 Standard Base


---

### Multi-Sensor/Multi-Criteria Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD338-2HL</td>
<td>Conventional photo-thermal class A1R detector (AD300 base)</td>
<td>550b/06</td>
</tr>
</tbody>
</table>

**Note:**

Meets the requirements of EN54-5: 2000 class A1R at pre-set sensitivity
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Base:
AD300 standard base


Heat Detectors
Certificated Products
AD318-2L Conventional A1R rate of rise heat detector (AD300 base) 550c/08

Base:
AD300 standard base

Aguilera Electronica S.L.U.
C / Julian Camarillo 26, Madrid 28037, Spain
Tel: +34 917545511 • Fax: +34 917545098
E-mail: jcsalgado@aguilera.es


Point Heat Detectors
Certificated Products
AE/C5-TV Conventional 2 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector with LED output (P/N854001 base) 512d/04

Bases:
P/N854001 4-Wire detector base


Point Smoke Detectors
Certificated Products
AE/C5-OP Conventional 2 wire photoelectric smoke detector with remote LED output (P/N854001 base) 512a/02

Bases:
P/N854001 4-Wire detector base


Multi-criteria Detectors
Certificated Products
AE/C5-OPT Conventional 2 wire photoelectric smoke and heat detector with remote LED output (P/N854001 base) 512b/02

Bases:
P/N854001 4 Wire detector base

Al Rayan Security & Safety Trading
Warehouse No, 12, Al Qusais Industrial Area 4, P O Box 233949, Dubai, United Arab Emirates
Tel: +971 42630396 • Fax: +971 42630397
E-mail: rayandxb@eim.ae • Website: www.rayandxb.ae

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COMMERCIAL DETECTORS

Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Model Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC-6623</td>
<td>Conventional Optical Smoke Detector (SB-6611 base) (branded as SECURE)</td>
<td>1174a/01</td>
</tr>
<tr>
<td>SI-6627</td>
<td>Addressable Optical Smoke Detector (SB-6617 base) (branded as SECURE)</td>
<td>1174a/02</td>
</tr>
</tbody>
</table>

Note:
1. Meets the requirements of EN 54-7:2000 at default sensitivity setting only

SI-6627 Addressable Optical Smoke Detector (SB-6617 base) (branded as SECURE) 1174a/02
Note:
1. Meets the requirements of EN 54-7:2000 at the following sensitivities:
   - Mode 0 (High)
   - Mode 1 (Factory Setting)
   - Mode 2
   - Mode 3 (Low)

Bases
SB-6611 Base
SB-6617 Addressable mounting base


Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Model Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC-6633</td>
<td>Conventional Heat Detector (SB-6611 base) (branded as SECURE)</td>
<td>1174b/01</td>
</tr>
<tr>
<td>SI-6637</td>
<td>Addressable Heat Detector (SB-6617 base) (branded as SECURE)</td>
<td>1174b/02</td>
</tr>
</tbody>
</table>

Bases
SB-6611 Base
SB-6617 Base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Model Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI-6647</td>
<td>Addressable Smoke and Heat Detector (SB-6617 base) (branded as SECURE)</td>
<td>1174f/01</td>
</tr>
</tbody>
</table>

Notes:
1) Meets the requirements of EN 54-5:2000 at Class A2R
2) Meets the requirements of EN 54-7:2000 at the following sensitivity settings
   - Smoke Mode 2 and A1R
   - Smoke Mode 2 and A2
   - Smoke Mode 2 (Smoke only), heat disabled

Bases
SB-6617 Base

Al Tahadi Security And Safety Equipment Trading
PO Box 45668, Ind. Area 11, Sharjah, United Arab Emirates
Tel: +971 5 0868 4543 • Fax: +971 6535 9220
E-mail: Sharqawii61@yahoo.com • Website: www.tahadi-fire.com


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Model Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM-0311-2</td>
<td>(2 wire) Conventional Photoelectric Smoke Detector (OM-031 Base)</td>
<td>506a/02</td>
</tr>
</tbody>
</table>

Base
### Heat Detectors

<table>
<thead>
<tr>
<th>Certificate No.</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM-0316-2</td>
<td>(2 wire) Conventional Class A2 Rate of Rise and Fixed Temperature Heat Detector (OM-031 Base)</td>
<td>506c/01</td>
</tr>
</tbody>
</table>

**Ampac Pty Ltd**

7 Ledgar Road, Balcatta 6021, Australia  
Tel: +618 (9242) 3333 • Fax: +618 (9242) 3334  
E-mail: askellham@ampac.net • Website: www.ampac.net


|----------------|----------------------|---------------|
| SA5100-400AMP  | Soteria Analogue Addressable Class P Heat Detector with Short Circuit Isolator (SA5000-200AMP and 45681-210AMP bases)  
| SA5000-400AMP  | Soteria Analogue Addressable Class P Heat Detector (SA5000-200AMP and 45681-210AMP bases)  
| 58000-400AMP   | Discovery Analogue Addressable Class P Heat Detector (45681-209AMP and 45681-210AMP bases)  
Notes:  
1. Meets the requirements of EN54: Part 5 at the following modes:  
   - Class A1R in mode 1 and in conventional mode  
   - Class A2 in mode 2 and in conventional mode  
   - Class A2S in mode 3 and in conventional mode  
   - Class CR in mode 4 and in conventional mode  
   - Class CS in mode 5 and in conventional mode  
2. Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery Heat Detector in accordance with manufacturers instructions. | 010p/03        |
| 55000-122AMP   | Series 65 Conventional Class A1R heat detector - Standard (45681-200AMP mounting base)  
*Meets the requirements of EN54: Part 5 - Class A1R* | 010p/06        |
| 55000-127AMP   | Series 65 Conventional Class BR heat detector - Standard (45681-200AMP mounting base)  
*Meets the requirements of EN54: Part 5 - Class BR* | 010p/09        |
| 55000-132AMP   | Series 65 Conventional Class CR heat detector - Standard (45681-200AMP mounting base)  
*Meets the requirements of EN54: Part 5 - Class CR* | 010p/12        |
| 55000-137AMP   | Series 65 Conventional Class CS heat detector - Standard (45681-200AMP mounting base)  
*Meets the requirements of EN54: Part 5 - Class CS* | 010p/15        |
| 55000-420AMP   | XP95 Analogue Addressable Class A2S Heat Detector (45681-209AMP and 45681-210AMP bases)  
Notes:  
1. Meets the requirements of EN54: Part 5 at Class A2S  
2. Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery Heat Detector in accordance with manufacturers instructions. | 010p/22        |
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

45681-200AMP Series 60/65 mounting base
45681-201AMP Series 60/65 diode mounting base
45681-245AMP Series 65 relay mounting base
45681-246AMP Series 65 auxiliary relay mounting base
45681-247AMP Series 65 EOL 12 Volt mounting base
45681-248AMP Series 65 EOL 24 Volt mounting base
SA5000-200AMP Addressable XPERT 8 mounting base
45681-209AMP XP95/Discovery standard deep mounting base
45681-210AMP XP95 Mounting base

Notes:
1 Also certificated for use with 45681-245AMP, 45681-246AMP, 45681-247AMP, 45681-248AMP and 45681-201AMP mounting bases.


Smoke Detectors
Certificated Products

SA5100-600AMP Soteria Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (SA5000-200AMP and 45681-210AMP bases) Certified at the following settings:
Mode 1: High sensitivity smoke detector with fast response time
Mode 2: High sensitivity smoke detector with standard response time
Mode 3: Standard smoke sensitivity with fast response time
Mode 4: Standard smoke sensitivity with standard response time
Mode 5: Medium-Low sensitivity smoke detector with fast response time
LPCB Ref. No. 010bc/01

SA5000-600AMP Soteria Analogue Addressable Optical Smoke Detector (SA5000-200AMP and 45681-210AMP bases) Certified at the following settings:
Mode 1: High sensitivity smoke detector with fast response time
Mode 2: High sensitivity smoke detector with standard response time
Mode 3: Standard smoke sensitivity with fast response time
Mode 4: Standard smoke sensitivity with standard response time
Mode 5: Medium-Low sensitivity smoke detector with fast response time
LPCB Ref. No. 010bf/01

FL6100-600AMP Soteria Dimension Specialist Optical Detector (FL5000-200AMP) LPCB Ref. No. 010bk/01
FL5100-600AMP Soteria Dimension Optical Detector (FL5000-200AMP) LPCB Ref. No. 010bk/02
Note:
1. Soteria Dimension Optical Faceplate Accessory Black (43785-345)

58000-500AMP Discovery Analogue Addressable Ionisation Smoke Detector (45681-209 and 45681-210 mounting bases) Note:
1. Meets the requirements of EN 54: Part 7 in modes 1, 2, 3, 4, 5 and in conventional mode.
Certified with Apollo, Discovery, XP95 and S90 digital communication protocols that have been configured for the Discovery ionisation smoke detectors in accordance with manufacturer's instructions
LPCB Ref. No. 010q/02

58000-600AMP Discovery Analogue Addressable Photoelectric Smoke Detector (45681-209 and 45681-210 mounting bases) Note:
1. Meets the requirements of EN54: Part 7 in modes 1, 2, 3, 4 and 5 and in conventional mode.
Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.
LPCB Ref. No. 010q/03

55000-217AMP Series 65 Conventional ionisation smoke detector - Standard (45681-200AMP mounting base) 1
55000-220AMP Series 65 Conventional integrating ionisation smoke detector - Standard (45681-200AMP mounting base) 1
55000-317AMP Series 65 Conventional optical smoke detector - Standard (45681-200AMP mounting base) 1
55000-520AMP XP95 Analogue Addressable Ionisation Smoke Detector(45681-209 and 45681-210 mounting base) Note:
Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery ionisation smoke detectors in accordance with manufacturers instructions.
55000-620AMP XP95 Analogue Addressable Optical Smoke Detector (45681-209AMP and 45681-210AMP bases) 1
LPCB Ref. No. 010q/06

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### Commercial Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
</table>
|               | Note:  
1. Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions. |

#### Bases

- 45681-200AMP Series 60/65 mounting base
- 45681-201AMP Series 60/65 diode mounting base
- 45681-245AMP Series 65 relay mounting base
- 45681-246AMP Series 65 auxiliary relay mounting base
- 45681-247AMP Series 65 EOL 12 Volt mounting base
- 45681-248AMP Series 65 EOL 24 Volt mounting base
- SA5000-200AMP Addressable XPERT 8 mounting base
- 45681-210AMP XP95 mounting base
- 45681-209AMP XP95/Discovery standard deep mounting base
- FL5000-200AMP Soteria Dimension Backbox

#### Notes:

1. Also certificated for use with 45681-245AMP, 45681-246AMP, 45681-247AMP, 45681-248AMP and 45681-201AMP mounting bases.

### Negative Switching Isolating Base


### Multi-Sensor/Multi-Criteria Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
</table>
|               | Notes:  
1. Approved with the following mode configurations:-  
   Mode 1: 30 ppm with high thermal enhancement (most sensitive)  
   Mode 2: 33 ppm with CO only  
   Mode 3: 40 ppm with low thermal enhancement (nominal sensitivity)  
   Mode 4: 45 ppm with high thermal enhancement (least sensitive)  
   Mode 5: heat onlyA1R  
3. Mode 2 is approved to LPS 1265:2004  

Conditions of approval include:

a) The 58000-305AMP should only be installed in accordance with the manufacturers recommendations.  
b) The 58000-305AMP should be set only as a carbon monoxide fire detector where there is a specific risk of rapid burning/flaming fires.  
c) Refer to technical publication MAN3038-1 for limitations on the use of carbon monoxide fire detection.  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
</table>
|               | Soteria Analogue Addressable Class A1R OpticalSmoke/Heat Detector with Short Circuit Isolator(SA5000-200AMP and 45681-210AMP bases)  
Certified at the following settings:  
Mode 1: High sensitivity smoke detector with high heat enhancement  
Mode 2: Standard smoke sensitivity only  
Mode 3: Medium sensitivity smoke detector with medium heat enhancement  
Mode 4: Low sensitivity smoke detector with high heat enhancement  
Mode 5: Class A1R heat detector  
| 010bb/01 |
|               | Soteria Analogue Addressable Class A1R OpticalSmoke/Heat Detector (SA5000-200AMP and 45681-210AMP bases)  
Certified at the following settings:  
| 010be/01 |
### Commercial Detectors

#### Certificated Products

| Mode 1: High sensitivity smoke detector with high heat enhancement | Mode 2: Standard smoke sensitivity only |
| Mode 3: Medium sensitivity smoke detector with medium heat enhancement | Mode 4: Low sensitivity smoke detector with high heat enhancement |
| Mode 5: Class A1R heat detector |

#### Models

- **58000-700AMP**: Discovery Analogue Addressable Multisensor Detector (45681-209 and 45681-210 bases)
- **55000-885AMP**: Analogue addressable multisensor detector (45681-209AMP and 45681-210AMP mounting base) Approved with Apollo XP95 and S90 digital communication protocols that have been configured for the XP95 multisensor detector in accordance with manufacturers instructions.

#### Notes:

1. Certified at the following settings:
   - Mode 1: High sensitivity smoke detector with standard heat enhancement
   - Mode 2: Standard smoke detector
   - Mode 3: Medium sensitivity smoke detector with standard heat enhancement
   - Mode 4: Low sensitivity smoke detector with high heat enhancement
   - Mode 5: Class A1R heat detector
   - Also approved in conventional alarm modes 1, 2, 3, 4 and 5

2. Approved with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery multisensor detector in accordance with manufacturers instructions.

#### Bases

- **45681-209AMP**: XP95/Discovery standard deep mounting base
- **45681-210AMP**: XP95 Mounting base
- **SA5000-200AMP**: Addressable XPERT 8 mounting base
- **46581-209**: XP95/Discovery standard deep mounting base
- **45681-210**: XP95 Mounting base

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**Apollo Fire Detectors Limited**

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E-mail: tony.ye@apollo-fire.com

Certificate No: 010r to EN 54: Part 5: 2000

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20 Oct 2020  275
### Heat Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA5100-400</td>
<td>Soteria Analogue Addressable Class P Heat Detector with Short Circuit Isolator (SA5000-200 and 45681-210 bases)</td>
<td>010bd/01</td>
</tr>
<tr>
<td>SA5100-400LIM</td>
<td>Soteria Analogue Addressable Class P Heat Detector with Short Circuit Isolator (SA5000-200 and 45681-210 bases)</td>
<td>010bd/01</td>
</tr>
<tr>
<td>SA5000-400</td>
<td>Soteria Analogue Addressable Class P Heat Detector (SA5000-200 and 45681-210 bases)</td>
<td>010bg/01</td>
</tr>
<tr>
<td>58000-400</td>
<td>Discovery Analogue addressable heat detector (45681-209 and 45681-210 bases)</td>
<td>010p/03</td>
</tr>
<tr>
<td>58000-400SIL</td>
<td>Discovery Analogue Addressable Heat Detector (45681-209 and 45681-210 bases)</td>
<td>010p/03</td>
</tr>
<tr>
<td>55000-120</td>
<td>Series 65 Conventional Class A1R heat detector - Flashing LED/Reed switch (45681-200 mounting base)</td>
<td>010p/04</td>
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<tr>
<td>55000-121</td>
<td>Series 65 Conventional Class A1R heat detector - Flashing LED (45681-200 mounting base)</td>
<td>010p/05</td>
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<tr>
<td>55000-122</td>
<td>Series 65 Conventional Class A1R heat detector - Standard (45681-200 mounting base)</td>
<td>010p/06</td>
</tr>
<tr>
<td>55000-125</td>
<td>Series 65 Conventional Class BR heat detector - Flashing LED/Reed switch (45681-200 mounting base)</td>
<td>010p/07</td>
</tr>
<tr>
<td>55000-126</td>
<td>Series 65 Conventional Class BR heat detector - Flashing LED (45681-200 mounting base)</td>
<td>010p/08</td>
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<tr>
<td>55000-127</td>
<td>Series 65 Conventional Class BR heat detector - Standard (45681-200 mounting base)</td>
<td>010p/09</td>
</tr>
<tr>
<td>55000-130</td>
<td>Series 65 Conventional Class CR heat detector- Flashing LED/Reed switch (45681-200 mounting base)</td>
<td>010p/10</td>
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<tr>
<td>55000-131</td>
<td>Series 65 Conventional Class CR heat detector - Flashing LED (45681-200 mounting base)</td>
<td>010p/11</td>
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<tr>
<td>Certificated Products</td>
<td>LPCB Ref. No.</td>
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<tr>
<td>--------------------------------------------------------------------------------------</td>
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<tr>
<td>55000-132 Series 65 Conventional Class CR heat detector - Standard</td>
<td>010p/12</td>
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<tr>
<td>Note: Meets the requirements of EN 54: Part 5 - Class CR</td>
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<tr>
<td>Also Certified for use with 45681-245, 45681-246, 45681-247 and 45681-248 and 45681-201 mounting bases</td>
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<tr>
<td>55000-136 Series 65 Conventional Class CS heat detector - Flashing LED</td>
<td>010p/14</td>
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<tr>
<td>Note: Meets the requirements of EN 54: Part 5 - Class CS</td>
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<tr>
<td>Also Certified for use with 45681-245, 45681-246, 45681-247 and 45681-248 and 45681-201 mounting bases</td>
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<tr>
<td>55000-137 Series 65 Conventional Class CS heat detector - Standard</td>
<td>010p/15</td>
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<tr>
<td>Note: Meets the requirements of EN 54: Part 5 - Class CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Also Certified for use with 45681-245, 45681-246, 45681-247 and 45681-248 and 45681-201 mounting bases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55000-400 XP95 Analogue addressable Class A2S heat detector 45681-209 and 45681-210 mounting base)</td>
<td>010p/20</td>
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<tr>
<td>Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery heat detector in accordance with manufacturers instructions.</td>
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<tr>
<td>55000-401 XP95 Analogue addressable Class A2S heat detector 45681-209 and 45681-210 mounting base)</td>
<td>010p/21</td>
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<tr>
<td>Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery heat detector in accordance with manufacturers instructions.</td>
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<tr>
<td>55000-420 XP95 Analogue addressable Class A2S heat detector 45681-209 and 45681-210 mounting base)</td>
<td>010p/22</td>
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<tr>
<td>Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery heat detector in accordance with manufacturers instructions.</td>
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<tr>
<td>55000-420PRC XP95 Analogue Addressable Class A2S Heat Detector (45681-209 and 45681-210 bases)</td>
<td>010p/22</td>
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<tr>
<td>Notes:</td>
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<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class A2S</td>
<td></td>
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</tr>
<tr>
<td>2. Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery Heat Detector in accordance with manufacturers instructions.</td>
<td></td>
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</tr>
<tr>
<td>55000-440 XP95 IS Analogue addressable intrinsically safe Class A2S heat detector (45681-215 mounting base)</td>
<td>010p/23</td>
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</tr>
<tr>
<td>Certified with Apollo Series 90 and XP95 digital communications protocol</td>
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</tr>
<tr>
<td>55000-440PRC XP95 IS Analogue Addressable Intrinsically Safe Class A2S Heat Detector (45681-215 base)</td>
<td>010p/23</td>
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<tr>
<td>Notes:</td>
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<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class A2S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Certified with Apollo Series 90 and XP95 digital communications protocols.</td>
<td></td>
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</tr>
<tr>
<td>Orbis Class A1R Heat detectors with Apollo Approval Reference* 00001 (Approved for use with base styles OB, OL, OD, DX, OR, EB and ORB-BA-10008-APO adaptor base)</td>
<td>010r/01</td>
<td></td>
</tr>
<tr>
<td>ORB-HT-11001-APO Orbis class A1R heat detector with SensAlert and FasTest ORB-HT-11013-APO Orbis class A1R heat detector with Flashing LED, SensAlert and FasTest</td>
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<tr>
<td>OEX-HT-11037-APO Orbis class A1R heat detector with Flashing LED, SensAlert and FasTest</td>
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<td></td>
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<tr>
<td>OEX-HT-11089-APO Orbis class A1R heat detector with SensAlert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat detectors with Apollo Approval Reference* 00002 (Approved for use with base styles OB, OL, OD, DX, OR, EB and ORB-BA-10008-APO adaptor base)</td>
<td>010r/02</td>
<td></td>
</tr>
<tr>
<td>ORB-HT-11002-APO Orbis class A2S heat detector with SensAlert and FasTest ORB-HT-11014-APO Orbis class A2S heat detector with Flashing LED, SensAlert and FasTest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OEX-HT-11038-APO Orbis class A2S heat detector with Flashing LED and SensAlert OEX-HT-11090-APO Orbis class A2S heat detector with SensAlert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat detectors with Apollo Approval Reference* 00003 (Approved for use with base styles OB, OL, OD, DX, OR, EB and ORB-BA-10008-APO adaptor base)</td>
<td>010r/03</td>
<td></td>
</tr>
<tr>
<td>ORB-HT-11003-APO Orbis class BR heat detector with SensAlert and FasTest ORB-HT-11015-APO Orbis class BR heat detector with Flashing LED, SensAlert and FasTest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OEX-HT-11039-APO Orbis class BR heat detector with Flashing LED and SensAlert OEX-HT-11091-APO Orbis class BR heat detector with SensAlert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat detectors with Apollo Approval Reference* 00004 (Approved for use with base styles OB,OL,OD,DX,OR,EB and ORB-BA-10008-APO adaptor base)</td>
<td>010r/04</td>
<td></td>
</tr>
<tr>
<td>ORB-HT-11004-APO Orbis class BS heat detector with SensAlert and FasTest ORB-HT-11016-APO Orbis class BS heat detector with Flashing LED, SensAlert and FasTest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OEX-HT-11040-APO Orbis class BS heat detector with Flashing LED and SensAlert</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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COMMERCIAL DETECTORS

Certificated Products

| Orbis Class CR | OEX-HT-11092-APO Orbis class BS heat detector with SensAlert Heat detectors with Apollo Approval Reference* 00005 (Approved for use with base styles OB, OL, OD, DX, OR, EB and ORB-BA-10008-APO adaptor base) |
| Orbis Class CS | ORB-HT-11008-APO Orbis class CS heat detector with SensAlert and FasTest ORB-HT-11119-APO Orbis class CS heat detector with Flashing LED, SensAlert and FasTest OEX-HT-11042-APO Orbis class CS heat detector with Flashing LED and SensAlert OEX-HT-11094-APO Orbis class CS heat detector with SensAlert Heat detectors with Apollo Approval Reference* 00007 (Approved for use with base styles OB, OL, OD, DX, OR, EB and ORB-BA-10008-APO adaptor base) |
| Orbis Class A1S | ORB-HT-11166-APO Orbis class A1S heat detector with SensAlert and FasTest ORB-HT-11117-APO Orbis class A1S heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50001 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class A1R | ORB-HT-51145-APO Orbis intrinsically safe class A1R heat detector with SensAlert and FasTest ORB-HT-51146-APO Orbis intrinsically safe class A1R heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50002 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class A2S | ORB-HT-51147-APO Orbis intrinsically safe class A2S heat detector with SensAlert and FasTest ORB-HT-51148-APO Orbis intrinsically safe class A2S heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50003 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class BR | ORB-HT-51149-APO Orbis intrinsically safe class BR heat detector with SensAlert and FasTest ORB-HT-51150-APO Orbis intrinsically safe class BR heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50004 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class BS | ORB-HT-51151-APO Orbis intrinsically safe class BS heat detector with SensAlert and FasTest ORB-HT-51152-APO Orbis intrinsically safe class BS heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50005 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class CR | ORB-HT-51153-APO Orbis intrinsically safe class CR heat detector with SensAlert and FasTest ORB-HT-51154-APO Orbis intrinsically safe class CR heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50006 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class CS | ORB-HT-51155-APO Orbis intrinsically safe class CS heat detector with SensAlert and FasTest ORB-HT-51156-APO Orbis intrinsically safe class CS heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50007 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
| Orbis IS Class A1S | ORB-HT-51157-APO Orbis intrinsically safe class A1S heat detector with SensAlert and FasTest ORB-HT-51158-APO Orbis intrinsically safe class A1S heat detector with Flashing LED, SensAlert and FasTest Intrinsic safe heat detectors with Apollo Approval Reference* 50008 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008 adapter base) |
### Bases:
- 45681-200 Series 60 mounting base
- 45681-200 Series 60/65 Mounting Base
- 45681-207 Series 60 intrinsically safe mounting base
- 45681-209 XP95/Discovery standard deep mounting base
- 45681-210 XP95 mounting base
- 45681-215 XP95 intrinsically safe mounting base
- 45681-245 Series 65 Relay mounting base
- 45681-246 Series 65 Auxiliary relay mounting base
- 45681-247 Series 65 EOL 12 Volt mounting base
- 45681-248 Series 65 EOL 24 Volt mounting base
- SA5000-200 Addressable XPERT 8 Mounting Base
- TimeSaver bases with Apollo Approval Reference* OB
- TimeSaver LX bases with Apollo Approval Reference* OL
- TimeSaver diode bases with Apollo Approval Reference* OD
- TimeSaver relay bases with Apollo Approval Reference* OR
- TimeSaver LX diode bases with Apollo Approval Reference* DX
- TimeSaver IS bases with Apollo Approval Reference* OB (+ATEX marking)
- TimeSaver deep bases with Apollo Approval Reference* EB: ORB-MB-00019-APO TimeSaver deep base
- ORB-BA-50008 Orbis intrinsically safe adapter base (to be used in conjunction with the following bases only: 45681-207)
- ORB-BA-10008-APO Orbis adaptor base (to be used in conjunction with the following bases only: 45681-200 & 45681-201)

* The Apollo ‘Approval Reference Number’ identifies a group of detectors that all have the same physical construction, but have features enabled or disabled via their software, and/or regional marking variations.

### Certificate No:
- 010q to EN 54: Part 7: 2000
- 010s to EN 54: Part 7: 2000

### Smoke Detectors

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soteria Analogue Addressable Optical Smoke Detector with Short Circuit Isolator</td>
<td>010bc/01</td>
</tr>
<tr>
<td>(SA5000-200 and 45681-210 bases)</td>
<td></td>
</tr>
<tr>
<td><strong>Certified at the following settings:</strong></td>
<td></td>
</tr>
<tr>
<td>Mode 1: High sensitivity smoke detector with fast response time</td>
<td></td>
</tr>
<tr>
<td>Mode 2: High sensitivity smoke detector with standard response time</td>
<td></td>
</tr>
<tr>
<td>Mode 3: Standard smoke sensitivity with fast response time</td>
<td></td>
</tr>
<tr>
<td>Mode 4: Standard smoke sensitivity with standard response time</td>
<td></td>
</tr>
<tr>
<td>Mode 5: Medium-Low sensitivity smoke detector with fast response time</td>
<td></td>
</tr>
<tr>
<td><strong>SA5100-600LIM</strong></td>
<td>010bc/01</td>
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<tr>
<td>Soteria Analogue Addressable Optical Smoke Detector with Short Circuit Isolator</td>
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<tr>
<td>(SA5000-200 and 45681-210 bases)</td>
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</tr>
<tr>
<td><strong>Certified at the following settings:</strong></td>
<td></td>
</tr>
<tr>
<td>Mode 1: High sensitivity smoke detector with fast response time</td>
<td></td>
</tr>
<tr>
<td>Mode 2: High sensitivity smoke detector with standard response time</td>
<td></td>
</tr>
<tr>
<td>Mode 3: Standard smoke sensitivity with fast response time</td>
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</tr>
<tr>
<td>Mode 4: Standard smoke sensitivity with standard response time</td>
<td></td>
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<tr>
<td>Mode 5: Medium-Low sensitivity smoke detector with fast response time</td>
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<td><strong>SA5000-600</strong></td>
<td>010bf/01</td>
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<tr>
<td>Soteria Analogue Addressable Optical Smoke Detector</td>
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<td>(SA5000-200 and 45681-210 bases)</td>
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</tr>
<tr>
<td><strong>Certified at the following settings:</strong></td>
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</tr>
<tr>
<td>Mode 1: High sensitivity smoke detector with fast response time</td>
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<tr>
<td>Mode 2: High sensitivity smoke detector with standard response time</td>
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<tr>
<td>Mode 3: Standard smoke sensitivity with fast response time</td>
<td></td>
</tr>
<tr>
<td>Mode 4: Standard smoke sensitivity with standard response time</td>
<td></td>
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<tr>
<td>Mode 5: Medium-Low sensitivity smoke detector with fast response time</td>
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<tr>
<td><strong>FL6100-600</strong></td>
<td>010bk/01</td>
</tr>
<tr>
<td>Soteria Dimension Specialist Optical Detector (FL5000-200)</td>
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</tr>
<tr>
<td><strong>FL5100-600</strong></td>
<td>010bk/02</td>
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<tr>
<td>Soteria Dimension Optical Detector (FL5000-200)</td>
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<tr>
<td><strong>Note:</strong></td>
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<tr>
<td>1. Soteria Dimension Optical Faceplate Accessory Black (43785-345)</td>
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<tr>
<td><strong>58000-500 Discovery</strong></td>
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<tr>
<td>Analogue addressable ionisation smoke detector (45681-209 and 45681-210 mounting base)</td>
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</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>58000-500MAR Discovery Analogue Addressable Ionisation Smoke Detector (45681-209 and 45681-210 bases)</th>
<th>Notes:</th>
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<tbody>
<tr>
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<td>Meets the requirements of EN 54: Part 7 in modes 1, 2, 3, 4, 5 and in conventional mode.</td>
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</tr>
<tr>
<td></td>
<td>Certified with Apollo, Discovery, XP95 and S90 digital communication protocols that have been configured for the Discovery ionisation smoke detectors in accordance with manufacturer's instructions.</td>
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</table>

<table>
<thead>
<tr>
<th>58000-500SIL Discovery Analogue Addressable Ionisation Smoke Detector (45681-209 and 45681-210 bases)</th>
<th>Notes:</th>
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<table>
<thead>
<tr>
<th>58000-600 Discovery Analogue addressable photoelectric smoke detector (45681-209 and 45681-210 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificated with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturers instructions.</td>
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</table>

<table>
<thead>
<tr>
<th>58000-600SIL Discovery Analogue Addressable Photoelectric Smoke Detector (45681-209 and 45681-210 bases)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meets the requirements of EN54: Part 7 in modes 1, 2, 3, 4 and 5 and in conventional mode.</td>
<td></td>
</tr>
<tr>
<td>Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-216 Series 65 Conventional ionisation smoke detector - Flashing LED (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-217 Series 65 Conventional ionisation smoke detector - Standard (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-218 Series 65 Conventional integrating ionisation smoke detector - Flashing LED/Reed switch (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-219 Series 65 Conventional integrating ionisation smoke detector - Flashing LED (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-220 Series 65 Conventional integrating ionisation smoke detector - Standard (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-315 Series 65 Conventional optical smoke detector - Flashing LED/Reed switch (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-316 Series 65 Conventional optical detector - Flashing LED (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-317 Series 65 Conventional optical smoke detector - Standard (45681-200 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Also Certificated for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-500 XP95 Analogue addressable ionisation smoke detector (45681-209 and 45681-210 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificated with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery ionisation smoke detectors in accordance with manufacturers instructions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-520 XP95 Analogue addressable ionisation smoke detector (45681-209 and 45681-210 mounting base)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificated with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery ionisation smoke detectors in accordance with manufacturers instructions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>55000-600 XP95 Analogue addressable optical smoke detector (45681-209 and 45681-210 mounting</th>
<th>Notes:</th>
</tr>
</thead>
</table>
## Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>010q/19</td>
<td>55000-620 XP95 Analogue addressable optical smoke detector (45681-209 and 45681-210 mounting base)</td>
</tr>
<tr>
<td>010q/19</td>
<td>55000-620PRC XP95 Analogue Addressable Optical Smoke Detector (45681-209 and 45681-210 bases) Note:</td>
</tr>
<tr>
<td>010q/21</td>
<td>55000-660 XP95 Analogue addressable optical smoke detector (45681-209 and 45681-210 mounting base)</td>
</tr>
<tr>
<td>010q/22</td>
<td>55000-640 XP95 IS Analogue addressable intrinsically safe optical smoke detector (45681-215 mounting base)</td>
</tr>
<tr>
<td>010q/22</td>
<td>55000-640PRC XP95 IS Analogue Addressable Intrinsically Safe Optical Smoke Detector (45681-215 base) Note:</td>
</tr>
<tr>
<td>010q/23</td>
<td>55000-540 XP95 IS Analogue addressable intrinsically safe ionisation smoke detector (45681-215 mounting base)</td>
</tr>
<tr>
<td>010s/01</td>
<td>Orbis Optical Smoke Detector Range (Approved for use with base styles OB, OL, OD, OR, EB, XL and ORB-BA-10008-APO adaptor base)</td>
</tr>
<tr>
<td>010s/02</td>
<td>Orbis IS Intrinsic safe optical smoke detectors with Apollo Approval Reference* 50007 (Approved for use with base styles OB (+ATEX marking) and ORB-BA-50008-APO adapter base)</td>
</tr>
</tbody>
</table>

### Bases:

- 45681-200 Series 60 mounting base
- 45681-200 Series 60/65 Mounting Base
- 45681-201 Series 60 diode mounting base
- 45681-201 Series 60/65 Diode Mounting Base
- 45681-207 Series 60 intrinsically safe mounting base
- 45681-209 XP95/Discovery standard deep mounting base
- 45681-210 XP95 mounting base
- 45681-215 XP95 intrinsically safe mounting base
- 45681-245 Series 65 Relay mounting base
- 45681-246 Series 65 Auxiliary mounting base
- 45681-247 Series 65 EOL 12 Volt mounting base
- 45681-248 Series 65 EOL 24 Volt mounting base
- 45681-500 XPlorer standard mounting base
- 45681-501 XPlorer remote LED mounting base
- SA5000-200 Addressable XPERT 8 Mounting Base
- FL5000-200 Soteria Dimension Backbox
- TimeSaver bases with Apollo Approval Reference* OB
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

TimeSaver LX bases with Apollo Approval Reference* OL
TimeSaver diode bases with Apollo Approval Reference* OD
TimeSaver relay bases with Apollo Approval Reference* OR
TimeSaver IS bases with Apollo Approval Reference* OB (+ATEX marking)
ORB-BA-50008 Orbis intrinsically safe adapter base (to be used in conjunction with the following bases only: 45681-207)
* The Apollo 'Approval Reference Number' identifies a group of detectors that all have the same physical construction, but have features enabled or disabled via their software, and/or regional marking variations.

Certificate No: 010m to EN 54-7:2000 & CEA 4021: 1999-06

Multi-Sensor/Multi-Criteria Detectors
Certificated Products

SA5100-700 Soteria Analogue Addressable Class A1R Optical Smoke/Heat Detector with Short Circuit Isolator (SA5000-200 and 45681-210 bases)
Certificated at the following settings:
Mode 1: High sensitivity smoke detector with high heat enhancement
Mode 2: Standard smoke sensitivity only
Mode 3: Medium sensitivity smoke detector with medium heat enhancement
Mode 4: Low sensitivity smoke detector with high heat enhancement
Mode 5: Class A1R heat detector
010bb/01

SA5100-700LIM Soteria Analogue Addressable Class A1R Optical Smoke/Heat Detector with Short Circuit Isolator (SA5000-200 and 45681-210 bases)
Certificated at the following settings:
Mode 1: High sensitivity smoke detector with high heat enhancement
Mode 2: Standard smoke sensitivity only
Mode 3: Medium sensitivity smoke detector with medium heat enhancement
Mode 4: Low sensitivity smoke detector with high heat enhancement
Mode 5: Class A1R heat detector
010bb/01

SA5000-700 Soteria Analogue Addressable Class A1R Optical Smoke/Heat Detector (SA5000-200 and 45681-210 bases)
Certificated at the following settings:
Mode 1: High sensitivity smoke detector with high heat enhancement
Mode 2: Standard smoke sensitivity only
Mode 3: Medium sensitivity smoke detector with medium heat enhancement
Mode 4: Low sensitivity smoke detector with high heat enhancement
Mode 5: Class A1R heat detector
010be/01

58000-700 Discovery Analogue addressable multisensor detector (45681-209 and 45681-210 mounting base)
Certificated with Apollo, Discovery, XP95 and S90 digital communication protocols that have been configured for the Discovery multisensor detector in accordance with manufacturer's instructions.
010h/01

58000-700SIL Discovery Analogue Addressable Multisensor Detector (45681-209 and 45681-210 bases)
Notes:
1. Certified at the following settings:
Mode 1 - High sensitivity smoke detector with standard heat enhancement
Mode 2 - Smoke detection only.
Mode 3 - Medium sensitivity smoke detector with standard heat enhancement.
Mode 4 - Low sensitivity smoke detector with high heat enhancement
Mode 5 - Class A1 heat detector.
Also approved in conventional alarm modes 1, 2, 3, 4 and 5.
010h/01

55000-885 XP95 Analogue addressable multisensor detector (45681-209 and 45681-210 mounting base)
Certificated with Apollo, Discovery, XP95 and S90 digital communication protocols that have been configured for the Discovery multisensor detector
010m/01
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>010/01</td>
<td>Orbis Multisensor smoke detectors with Apollo Approval Reference* 00008 for use with base styles OB, OL, OD, DX, OR, EB and ORB-BA-10008-APO adaptor base)</td>
</tr>
<tr>
<td>OORB-OH-13001-APO</td>
<td>Orbis multisensor smoke detector with SensAlert, FasTest and DirtAlert</td>
</tr>
<tr>
<td>OORB-OH-13003-APO</td>
<td>Orbis multisensor smoke detector with Flashing LED, SensAlert, FasTest and DirtAlert</td>
</tr>
<tr>
<td>OEX-OH-13007-APO</td>
<td>Orbis multisensor smoke detector with Flashing LED and SensAlert</td>
</tr>
<tr>
<td>OEX-OH-13016-APO</td>
<td>Orbis multisensor smoke detector with SensAlert</td>
</tr>
<tr>
<td>010/02</td>
<td>Orbis IS Intrinsically safe multisensor detectors with Apollo Approval Reference* 50008 (Approved for use with base styles OB (+ATEX marking) and ORB-MB-50008-APO adapter base)</td>
</tr>
<tr>
<td>OORB-OH-53027-APO</td>
<td>Orbis intrinsically safe multisensor detector with SensAlert, FasTest and DirtAlert</td>
</tr>
<tr>
<td>OORB-OH-53028-APO</td>
<td>Orbis intrinsically safe multisensor detector with Flashing LED, SensAlert, FasTest and DirtAlert</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bases:</th>
</tr>
</thead>
<tbody>
<tr>
<td>45681-209 XP95/Discovery standard deep mounting base</td>
</tr>
<tr>
<td>45681-210 XP95 mounting base</td>
</tr>
<tr>
<td>SA5000-200 Addressable XPERT 8 Mounting Base</td>
</tr>
<tr>
<td>TimeSaver bases with Apollo Approval Reference* OB</td>
</tr>
<tr>
<td>TimeSaver LX bases with Apollo Approval Reference* OL</td>
</tr>
<tr>
<td>TimeSaver relay bases with Apollo Approval Reference* OR</td>
</tr>
<tr>
<td>TimeSaver LX diode bases with Apollo Approval Reference* DX</td>
</tr>
<tr>
<td>TimeSaver IS bases with Apollo Approval Reference* OB (+ATEX marking)</td>
</tr>
<tr>
<td>ORB-BA-50008 Orbis intrinsically safe adapter base (to be used in conjunction with the following bases only: 45681-207)</td>
</tr>
<tr>
<td>ORB-BA-10008-APO Orbis adaptor base (to be used in conjunction with the following bases only: 45681-200 &amp; 45681-201)</td>
</tr>
</tbody>
</table>

* The Apollo 'Approval Reference Number' identifies a group of detectors that all have the same physical construction, but have features enabled or disabled via their software, and/or regional marking variations.

### Flame Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>010an/01</td>
<td>XP95 intelligent flame detector (45681-209 and 45681-210)</td>
</tr>
<tr>
<td>010an/02</td>
<td>XP95 intelligent flame detector and (45681-210)</td>
</tr>
<tr>
<td>010an/03</td>
<td>XP95 intelligent flame detector and (45681-210)</td>
</tr>
<tr>
<td>010an/04</td>
<td>S65 conventional UV flame detector (45681-200 and 45681-201)</td>
</tr>
<tr>
<td>010an/05</td>
<td>IR Flame Detector (29600-203)</td>
</tr>
<tr>
<td>010an/06</td>
<td>Conventional Flame Detector (29600-203)</td>
</tr>
<tr>
<td>010an/07</td>
<td>Conventional Flame Detector (29600-203)</td>
</tr>
<tr>
<td>010an/08</td>
<td>Conventional Flame Detector (29600-203)</td>
</tr>
<tr>
<td>010an/09</td>
<td>Conventional Flame Detector (29600-203)</td>
</tr>
<tr>
<td>010an/10</td>
<td>Conventional Flame Detector (29600-203)</td>
</tr>
</tbody>
</table>

* The Flame Detector 'Approval Reference Number' identifies a group of detectors that all have the same physical construction, but have features enabled or disabled via their software, and/or regional marking variations.

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COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-065 Conventional UV/IR(^2) (Exd) Flameproof Flame Detector (29600-203)</td>
<td>010an/11</td>
</tr>
<tr>
<td>Note: Meets EN 54-10: 2002 at Class 1 only</td>
<td></td>
</tr>
<tr>
<td>55000-020 Analogue Addressable IR(^3) Flame Detector (29600-203)</td>
<td>010an/13</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 only</td>
<td></td>
</tr>
<tr>
<td>55000-021 Analogue Addressable IR(^3) (Exd) Flameproof Flame Detector (29600-203)</td>
<td>010an/14</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 only</td>
<td></td>
</tr>
<tr>
<td>55000-280 Analogue Addressable IR(^2) Flame Detector (29600-203)</td>
<td>010an/15</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 only</td>
<td></td>
</tr>
<tr>
<td>55000-295 Analogue Addressable IR(^2) (Exd) Flameproof Flame Detector (29600-203)</td>
<td>010an/16</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 only</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

- 45681-200 Mounting Base
- 45681-201 Mounting Base with Diode
- 45681-209 Deep Base
- 45681-210 Mounting Base
- 29600-203 Adjustable Mounting Base

**Ancillaries**

- 29600-203 Mounting Bracket


### Multi-Sensor/Multi-Criteria Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>58000-305 Analogue addressable CO/heat multisensor detector</td>
<td>010aq/01</td>
</tr>
<tr>
<td>(45681-210, standard intelligent mounting base)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Approved with the following mode configurations:</td>
<td></td>
</tr>
<tr>
<td>Mode 1  30 ppm with high thermal enhancement (most sensitive)</td>
<td></td>
</tr>
<tr>
<td>Mode 2  33 ppm with CO only</td>
<td></td>
</tr>
<tr>
<td>Mode 3  40 ppm with low thermal enhancement (nominal sensitivity)</td>
<td></td>
</tr>
<tr>
<td>Mode 4  45 ppm with high thermal enhancement (least sensitive)</td>
<td></td>
</tr>
<tr>
<td>Mode 5  heat onlyA1R</td>
<td></td>
</tr>
<tr>
<td>3. Mode 2 is approved to LPS 1265:2004</td>
<td></td>
</tr>
</tbody>
</table>

Conditions of approval include:

a) The 58000-305 should only be installed in accordance with the manufacturer’s recommendations.

b) The 58000-305 should not be set only as a carbon monoxide fire detector where there is a specific risk of rapid burning/flaming fires.

c) Refer to technical publication PP2382 for limitations on the use of carbon monoxide fire detection.

**Base:**

- 45681-210 Standard intelligent mounting base

Certificate No: 010at to EN 54-17: 2005

### Isolating base

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>45681-505 Negative switching isolating base</td>
<td>010at/01</td>
</tr>
</tbody>
</table>
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COMMERCIAL DETECTORS


**Heat Detectors**
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificate No: 010ar/01</th>
<th>Certificate No: 010ar/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-465</td>
<td>Analogue addressable Class heat detector (45681-200, 45681-213 and 45681-505 mounting bases)</td>
<td></td>
</tr>
<tr>
<td>55000-475</td>
<td>Analogue addressable Class heat detector (45681-200, 45681-213 and 45681-505 mounting bases)</td>
<td></td>
</tr>
</tbody>
</table>

**Bases:**
- 45681-200 Mounting base
- 45681-213 Common mounting base
- 45681-505 Negative switching isolating base

Argus Security S.r.l.
Via del Canneto 14, Valle delle Noghere, 34015 Muggia, Trieste, Italy
Tel: +39 (0) 402821110 • Fax: +39 (0) 402823483
E-mail: dcresseri@argussecurity.it • Website: www.argussecurity.it


**Point Heat Detectors**
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificate No: 928a/02</th>
<th>Certificate No: 928d/02</th>
<th>Certificate No: 928d/03</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3500</td>
<td>Addressable Class P heat detector with short-circuit isolator (LAB100 base)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S3500</td>
<td>Conventional Class P heat detector (UB100, DBS100, UBR100, DBSR100, UBR100 and DBSRD100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3500L</td>
<td>Altair Lite Addressable Class P Heat Detector (LAB1000 Base)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bases**
- VB100 Vega adaptor mounting base (with link resistor)
- UB100 Universal adaptor mounting base
- VB100S Vega adaptor base with shorting clip
- UB100S Universal adaptor base with shorting clip
- VDBS100 Vega deep adaptor base
- DBS100 Deep adaptor base
- VDBS100S Vega deep adaptor base with shorting clip
- DBS100S Deep adaptor base with shorting clip
- UBR100 Universal adaptor base with resistor
- DBSR100 Deep adaptor base with resistor
- UBR100 Universal adaptor base with resistor and Schottky diode
- DBSRD100 Deep adaptor base with resistor and Schottky diode
- LAB100 Standard mounting base
- LAB1000 Low profile adaptor base


**Point Smoke Detectors**
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificate No: 928b/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1000</td>
<td>Addressable photoelectric smoke detector with short-circuit isolator (LAB100 base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Optical only level 1 - High</strong></td>
<td>928e/02</td>
</tr>
<tr>
<td><strong>Optical only level 2</strong></td>
<td>928e/03</td>
</tr>
<tr>
<td><strong>Optical only level 3</strong></td>
<td>928e/03</td>
</tr>
<tr>
<td><strong>Optical only level 4 - Low</strong></td>
<td>928e/03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S1000</th>
<th>Conventional photo smoke detector (UB100, DBS100, UBR100, DBSR100, UBDR100 and DBSRD100)</th>
<th>928e/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1000L</td>
<td>Altair Lite Addressable Photoelectric Smoke Detector (LAB1000 Base)</td>
<td>928e/03</td>
</tr>
</tbody>
</table>

**Note:**
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

| Bases | |
|-------||
| VB100 | Vega adaptor mounting base (with link resistor) |
| UB100 | Universal adaptor mounting base |
| VB100S | Vega adaptor base with shorting clip |
| UB100S | Universal adaptor base with shorting clip |
| VDBS100 | Vega deep adaptor base |
| DBS100 | Deep adaptor base |
| VDBS100S | Vega deep adaptor base with shorting clip |
| DBS100S | Deep adaptor base with shorting clip |
| UBR100 | Universal adaptor base with resistor |
| DBSR100 | Deep adaptor base with resistor |
| UBRD100 | Universal adaptor base with resistor and Schottky diode |
| DBSRD100 | Deep adaptor base with resistor and Schottky diode |
| LAB100 | Standard mounting base |
| LAB1000 | Low profile adaptor base |
| WAB100 | Wireless adaptor base |


<table>
<thead>
<tr>
<th>Multisensor Detectors</th>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2000</td>
<td>Addressable multi-criteria detector with short-circuit isolator (LAB100 base)</td>
<td>928c/02</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
   - Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

| A2000L | Altair Lite Addressable Photoelectric Smoke Detector & Class A1R Heat Detector (LAB1000 Base) | 928f/02 |

**Notes:**
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High sensitivity
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low sensitivity

Bases
VB100 Vega adaptor mounting base (with link resistor)
UB100 Vega universal mounting base
VB100S Vega adaptor base with shorting clip
UB100S Universal adaptor base with shorting clip
VDBS100 Vega deep adaptor base
DBS100 Deep adaptor base
VDBS100S Vega deep adaptor base with shorting clip
DBS100S Deep adaptor base with shorting clip
LAB100 Standard mounting base
LAB1000 Low profile adaptor base
WAB100 Wireless adaptor base


Heat Detectors
Certificated Products

SG350 Wireless heat detector (WAB100 base)
   Notes:
   1. Meets the requirements of EN 54-5 for Class A1R
   2. The device must be used with the following batteries only:
      CR123A (3 Vdc) - main battery
      CR2032A (3 Vdc) - secondary battery

L-HT-SG Wireless Libra Addressable Class P Heat Detector (WAB100 Base)
   Notes:
   1. Meets the requirements of EN 54-5 for Class A1R and BS
   2. The device must be used with the following battery type only:
      CR123A (3 Vdc) - Primary and Secondary Battery

Bases
WAB100 Wireless Adaptor Base


Smoke Detectors
Certificated Products

SG100 Wireless optical smoke detector (WAB100 base)
   Notes:
   1. Meets the requirements of EN 54-7 in the normal sensitivity setting
   2. The device must be used with the following batteries only:
      CR123A (3 Vdc) - main battery
      CR2032A (3 Vdc) - secondary battery

L-OP-SG Wireless Libra Addressable Optical Smoke Detector (WAB100 Base)
   Notes:
   1. Meets the requirements of EN 54-7 at the following sensitivity settings:
      Level 1 - High
      Level 2 - Normal
      Level 3 - Low
   2. The device must be used with the following battery type only:
      CR123A (3 Vdc) - Primary and Secondary Battery

Bases
WAB100 Wireless Adaptor Base

20 Oct 2020
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Multi-Criteria Detectors
Certificated Products

LPCB Ref. No.

<table>
<thead>
<tr>
<th>Bases</th>
<th>Wireless multi-criteria detector (WAB100 base)</th>
<th>928m/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-7 in the normal sensitivity settings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. The device must be used with the following batteries only:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR123A (3 Vdc) - main battery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR2032A (3 Vdc) - secondary battery</td>
<td></td>
</tr>
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</table>

L-MC-SG Wireless Libra Addressable Multicriteria Detector (WAB100 Base)

LPCB Ref. No.

<table>
<thead>
<tr>
<th>Bases</th>
<th>Wireless Libra Addressable Multicriteria Detector (WAB100 Base)</th>
<th>928m/02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-7 at the following sensitivity settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level 1 - High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level 2 - Normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level 3 - Low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. The device must be used with the following battery type only:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR123A (3 Vdc) - Primary and Secondary Battery</td>
<td></td>
</tr>
</tbody>
</table>

Argus Spectrum International
65 Serdobolskaya St, St. Petersburg 197342, Russian Federation
Tel: +7 812 7037500 • Fax: +7 812 7037501
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

LPCB Ref. No.

<table>
<thead>
<tr>
<th>Bases</th>
<th>Wireless Multi-Sensor Detector</th>
<th>603e/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-5 for the following settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Class A1R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Approved to EN54-7 at the following sensitivity settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. The device must be used with the following batteries only:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Primary CR123A (3V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Secondary CR2032 (3V)</td>
<td></td>
</tr>
</tbody>
</table>


Smoke Detectors
Certificated Products

LPCB Ref. No.

<table>
<thead>
<tr>
<th>Bases</th>
<th>Wireless Optical Smoke Detector</th>
<th>603f/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Approved to EN54-7 at the following sensitivity settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following batteries only:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Primary CR123A (3V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Secondary CR2032 (3V)</td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

ARG-WL8-OV  Wireless Optical Smoke Detector with Type A Built-In Voice Annunciator and VAD
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone intermittent, 2500 Hz (3 x 500ms pulses followed by 1.5s silence then repeat)
   - Voice message 2 (Fire! Fire! Please leave the building by the nearest exit) synchronised
     (3 x 500ms followed by voice message then repeat)
   - Voice message 3 (Fire! Fire! Please leave the building by the central exit) synchronised
     (3 x 500ms followed by voice message then repeat)
2. Approved to EN54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
3. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)
4. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating C-3-2.6
   - Synchronization
   - Flash rate 0.5Hz
   - White LED


Heat Detectors

Certificated Products

ARG-WL8-H  Wireless Heat Detector
Notes:
1. Meets the requirements of EN 54-5 for the following setting:
   - Class A1R
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR2032 (3V)

Certificate No: 603g/01

Armor Safety & Security Ltd
120 Baker Street, London W1U 6TU, United Kingdom
Tel: +971506531199
Website: www.armorsafety.org


Certificated Products

ARM-OPX  Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (ARM-MB base)
Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

ARM-OP  Addressable Photoelectric Smoke Detector (ARM-MB base)
Note:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

Bases
ARM-MB  Mounting Base
### Commercial Detectors

#### PART 1: SECTION 4.1

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARM-HTX</td>
<td>928ad/01</td>
</tr>
<tr>
<td>ARM-HT</td>
<td>928ag/01</td>
</tr>
</tbody>
</table>

**ARM-HTX**

An Analogue Addressable Class P Heat Detector with Short Circuit Isolator (ARM-MB base)

**Note:**
1. Meets the requirements of EN 54-5 at Class A1R and Class BS

**ARM-HT**

An Addressable Class P Heat Detector (ARM-MB base)

**Note:**
1. Meets the requirements of EN 54-5 for Class A1R and Class BS

#### Bases

**ARM-MB** Mounting Base

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>928af/01</td>
</tr>
<tr>
<td>928ac/01</td>
</tr>
</tbody>
</table>

**ARM-OHX**

An Addressable Multi-Criteria Detector with Short Circuit Isolator (ARM-MB base)

1. **Notes:**
   1. Meets the requirements of EN 54-5 & EN 54-7 at the following settings:
      - **Multi Criteria Level 1 (most sensitive)** - Thermally enhanced smoke detection with Class A1 heat response
      - **Multi Criteria Level 2** - Thermally enhanced smoke detection with Class A1 heat response
      - **Multi Criteria Level 3** - Thermally enhanced smoke detection with Class A1 heat response
      - **Multi Criteria Level 4 (least sensitive)** - Thermally enhanced smoke detection with Class A1 heat response
   2. Meets the requirements of EN 54-5 at the following settings:
      - **Class A1R** heat only response
   3. Meets the requirements of EN 54-7 at the following sensitivity settings:
      - **Optical only level 1** - High
      - **Optical only level 2**
      - **Optical only level 3**
      - **Optical only level 4** - Low

**ARM-OH**

An Addressable Photoelectric Smoke Detector & Heat Detector (ARM-MB Base)

1. **Notes:**
   1. Meets the requirements of EN 54-5 & EN 54-7 at the following settings:
      - **Multi criteria level 1 (most sensitive)** - Thermally enhanced smoke detection with Class A1 heat response
      - **Multi criteria level 2** - Thermally enhanced smoke detection with Class A1 heat response
      - **Multi criteria level 3** - Thermally enhanced smoke detection with Class A1 heat response
      - **Multi criteria level 4 (least sensitive)** - Thermally enhanced smoke detection with Class A1 heat response
   2. Meets the requirements of EN 54-5 at the following settings:
      - **Class A1R** heat only response
   3. Meets the requirements of EN 54-7 at the following settings:
      - **Optical only level 1** - High sensitivity
      - **Optical only level 2**
      - **Optical only level 3**
      - **Optical only level 4** - Low sensitivity

#### Bases

**ARM-MB** Mounting Base
### ASENWARE LTD

6 Prospect Way, Royal Oak Industrial Estate, Daventry, Northamptonshire NN11 8PL, United Kingdom  
Tel: +8613828765759  
E-mail: info@asenware.com


<table>
<thead>
<tr>
<th>Commercial detectors</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW-D301 Addressable Smoke Detector</td>
<td>1426c/01</td>
</tr>
</tbody>
</table>

**Notes:**  
Meets the requirements of EN 54-7 for 1 sensitivity setting

**Base:**  
DZ-912


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW-D302 Addressable Heat Detector</td>
<td>1426b/01</td>
</tr>
</tbody>
</table>

**Notes:**  
Meets the requirements of EN 54-5 for Class A2

**Base:**  
DZ-912

### ASI Oy Ltd (Argus Spectrum International)

Laitaatsillantie 3, Savonlinna 57170, Finland  
Tel: +358 20 730 8550  
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com/


<table>
<thead>
<tr>
<th>Multi-Sensor/Multi-Criteria Detectors</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARF-WL8-OH Wireless Multi-Sensor Detector</td>
<td>1571a/01</td>
</tr>
</tbody>
</table>

**Notes:**  
1. Meets the requirements of EN 54-5 for the following settings:  
   - Class A1R  
   2. Approved to EN54-7 at the following sensitivity settings:  
      - High  
      - Normal  
      - Low  
3. The device must be used with the following batteries only:  
   - Primary CR123A (3V)  
   - Secondary CR2032 (3V)

| EK-WL8-OH (EKHO Brand) Wireless Multi-Sensor Detector | 1571a/01 |

**Notes:**  
1. Meets the requirements of EN 54-5 for the following settings:  
   - Class A1R  
   2. Approved to EN54-7 at the following sensitivity settings:  
      - High  
      - Normal  
      - Low
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

3. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR2032 (3V)


Smoke Detectors

Certificated Products

ARF-WL8-O Wireless Optical Smoke Detector
Notes:
1. Approved to EN54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR2032 (3V)

EK-WL8-O (EKHO Brand) Wireless Optical Smoke Detector
Notes:
1. Approved to EN54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR2032 (3V)

ARF-WL8-OV Wireless Optical Smoke Detector with Type A Built-In Voice Annunciator and VAD
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone intermittent, 2500 Hz (3 x 500ms pulses followed by 1.5s silence then repeat)
   - Voice message 2 (Fire! Fire! Please leave the building by the nearest exit) synchronised
     (3 x 500ms followed by voice message then repeat)
   - Voice message 3 (Fire! Fire! Please leave the building by the central exit) synchronised
     (3 x 500ms followed by voice message then repeat)
2. Approved to EN54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
3. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)
4. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating C-3-2.6
   - Synchronization
   - Flash rate 0.5Hz
   - White LED

EK-WL8-OV (EKHO Brand) Wireless Optical Smoke Detector with Type A Built-In Voice Annunciator and VAD
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone intermittent, 2500 Hz (3 x 500ms pulses followed by 1.5s silence then repeat)
   - Voice message 2 (Fire! Fire! Please leave the building by the nearest exit) synchronised
     (3 x 500ms followed by voice message then repeat)
   - Voice message 3 (Fire! Fire! Please leave the building by the central exit) synchronised
     (3 x 500ms followed by voice message then repeat)
2. Approved to EN54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
3. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)
4. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating C-3-2.6
   - Synchronization
   - Flash rate 0.5Hz
   - White LED
### Heat Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARF-WL8-H</td>
<td>Wireless Heat Detector</td>
<td>Meets the requirements of EN 54-5 for the following settings:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Class A1R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Primary CR123A (3V)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Secondary CR2032 (3V)</td>
</tr>
<tr>
<td>EK-WL8-H</td>
<td>(EKHO Brand) Wireless Heat Detector</td>
<td>Meets the requirements of EN 54-5 for the following settings:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Class A1R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Primary CR123A (3V)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Secondary CR2032 (3V)</td>
</tr>
</tbody>
</table>

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>V350</td>
<td>Analogue Addressable Class P Heat Detector with Short Circuit Isolator</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td></td>
<td>(VB100, VDBS100, VB100S and VDBS100S Bases)</td>
<td></td>
</tr>
<tr>
<td>VELOX 40930</td>
<td>Analogue Addressable Class P Heat Detector with Short Circuit Isolator</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td>VELOX 40930-8</td>
<td>Analogue Addressable Class P Heat Detector with Short Circuit Isolator</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td>VELOX LV350</td>
<td>Analogue addressable Class P heat detector lite (40900, 40900-S, 40900-DP,</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td></td>
<td>40900-DPS bases)</td>
<td></td>
</tr>
<tr>
<td>X350</td>
<td>Conventional Class P heat detector (3900, 3900-DP, 3900-R, 3900-DPR, 3900-RD</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td></td>
<td>and 3900-DPRD bases)</td>
<td></td>
</tr>
<tr>
<td>VELOX LV350-8</td>
<td>Analogue Addressable Class P Heat Detector Lite (40900, 40900-S, 40900-DP,</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td></td>
<td>40900-DPS bases)</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

<table>
<thead>
<tr>
<th>Base</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VELOX VB100</td>
<td>Velox adaptor base</td>
</tr>
<tr>
<td>UB100</td>
<td>Universal adaptor base</td>
</tr>
<tr>
<td>VELOX VB100S</td>
<td>Velox adaptor base with shorting clip</td>
</tr>
<tr>
<td>UB100S</td>
<td>Universal adaptor base with shorting clip</td>
</tr>
<tr>
<td>VELOX VDBS100</td>
<td>Velox deep adaptor base</td>
</tr>
<tr>
<td>DBS100</td>
<td>Deep adaptor base</td>
</tr>
<tr>
<td>VELOX VDBS100S</td>
<td>Velox deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>DBS100S</td>
<td>Deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>UBR100</td>
<td>Universal adaptor base with resistor</td>
</tr>
</tbody>
</table>
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COMMERCIAL DETECTORS

DBSR100  Deep adaptor base with resistor
UBDR100  Universal adaptor base with resistor and Schottky diode
DBSRD100 Deep adaptor base with resistor and Schottky diode
40900  Velox adaptor base
40900-S  Velox adaptor base with short clip
40900-DP  Velox deep adaptor base
40900-DPS  Velox deep adaptor base with short clip


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Smoke Detectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1154b/01</td>
<td>V100 Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (VB100, VB100S, VDBS100 and VDBS100S Bases)</td>
</tr>
<tr>
<td>1154b/01</td>
<td>VELOX 40910 Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (40900, 40900-S, 40900-DP and 40900-DPS Bases)</td>
</tr>
<tr>
<td>1154b/02</td>
<td>VELOX 40910-8 Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (40900, 40900-S, 40900-DP and 40900-DPS Bases)</td>
</tr>
<tr>
<td>1154e/01</td>
<td>VELOX LV100 Analogue Addressable Photoelectric Smoke Detector Lite (40900, 40900-S, 40900-DP and 40900-DPS bases)</td>
</tr>
<tr>
<td>1154e/02</td>
<td>X100 Conventional photoelectric smoke detector (3900, 3900-DP, 3900-R, 3900-DPR, 3900-RD and 3900-DPRD bases)</td>
</tr>
<tr>
<td>1154e/03</td>
<td>VELOX LV100-8 Analogue Addressable Photoelectric Smoke Detector Lite (40900, 40900-S, 40900-DP and 40900-DPS bases)</td>
</tr>
<tr>
<td>928k/01</td>
<td>VELOX WL100 Wireless optical smoke detector (WAB100 base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-7 for Class A1R
2. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - main battery
   - CR2032A (3 Vdc) - secondary battery

Bases

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VELOX VB100 Velox adaptor base</td>
</tr>
<tr>
<td></td>
<td>UB100 Universal adaptor base</td>
</tr>
<tr>
<td></td>
<td>VELOX VB100S Velox adaptor base with shorting clip</td>
</tr>
<tr>
<td></td>
<td>UB100S Universal adaptor base with shorting clip</td>
</tr>
<tr>
<td></td>
<td>VELOX VDBS100 Velox deep adaptor base</td>
</tr>
<tr>
<td></td>
<td>DBS100 Deep adaptor base</td>
</tr>
</tbody>
</table>

294  20 Oct 2020
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VELOX VDBS100S</td>
<td>Velox deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>DBS100S</td>
<td>Deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>WAB100</td>
<td>Wireless Adaptor Base</td>
</tr>
<tr>
<td>40900</td>
<td>Velox adaptor base</td>
</tr>
<tr>
<td>40900-S</td>
<td>Velox adaptor base with short clip</td>
</tr>
<tr>
<td>40900-DP</td>
<td>Velox deep adaptor base</td>
</tr>
<tr>
<td>40900-DPS</td>
<td>Velox deep adaptor base with short clip</td>
</tr>
<tr>
<td>3900</td>
<td>Conventional detector adaptor base</td>
</tr>
<tr>
<td>3900-DP</td>
<td>Conventional detector deep adaptor base</td>
</tr>
<tr>
<td>3900-R</td>
<td>Conventional detector adaptor base with resistor</td>
</tr>
<tr>
<td>3900-DPR</td>
<td>Conventional detector deep adaptor base with resistor</td>
</tr>
<tr>
<td>3900-RD</td>
<td>Conventional detector adaptor base with resistor and Schottky diode</td>
</tr>
<tr>
<td>3900-DPRD</td>
<td>Conventional detector deep adaptor base with resistor and Schottky diode</td>
</tr>
</tbody>
</table>


### Multi-Criteria Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Model</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1154c/01</td>
<td>V200</td>
<td>Analogue Addressable Class P Heat and Photoelectric Smoke Multi-sensor Detector with Short Circuit Isolator (VBS100, VB100S, VDBS100 and VDBS100S bases)</td>
<td>1. Meets the requirements of EN 54-5 for (Class A1) &amp; EN 54-7 at the following settings: Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response 2. Meets the requirements of EN 54-5 (class A1R) at the following settings: Class A1R heat only response 3. Meets the requirements of EN 54-7 at the following settings: Optical only level 1 - High Optical only level 2 Optical only level 3 Optical only level 4 - Low</td>
</tr>
<tr>
<td>1154c/02</td>
<td>VELOX 40920</td>
<td>Analogue Addressable Class P Heat and Photoelectric Smoke Multi-sensor Detector with Short Circuit Isolator (40900, 40900-S, 40900-DP and 40900-DPS Bases)</td>
<td>1. Meets the requirements of EN 54-5 (Class A1) &amp; EN 54-7 at the following settings: Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response 2. Meets the requirements of EN 54-5 (Class A1R) at the following settings: Class A1R heat only response 3. Meets the requirements of EN 54-7 at the following settings: Optical only level 1 - High Optical only level 2 Optical only level 3 Optical only level 4 - Low</td>
</tr>
<tr>
<td>1154c/02</td>
<td>VELOX 40920-8</td>
<td>Analogue Addressable Class P Heat and Photoelectric Smoke Multi-sensor Detector with Short Circuit Isolator (40900, 40900-S, 40900-DP and 40900-DPS bases)</td>
<td>1. Meets the requirements of EN 54-5 for (Class A1) &amp; EN 54-7 at the following settings: Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response 2. Meets the requirements of EN 54-5 (class A1R) at the following settings: Class A1R heat only response 3. Meets the requirements of EN 54-7 at the following settings: Optical only level 1 - High Optical only level 2 Optical only level 3 Optical only level 4 - Low</td>
</tr>
</tbody>
</table>
**PART 1: SECTION 4.1**

**COMMERCIAL DETECTORS**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VELOX LV200 Analogue addressable Class P heat and photoelectric smoke multi-sensor detector lite (40900, 40900-S, 40900-DP and 40900-DPS bases)</td>
<td>1154f/01</td>
</tr>
<tr>
<td>VELOX LV200-8 Analogue Addressable Class P Heat and Photoelectric Smoke Multi-Sensor Detector Lite (40900, 40900-S, 40900-DP and 40900-DPS bases)</td>
<td>1154f/02</td>
</tr>
<tr>
<td>VELOX WL200 Wireless multi-criteria detector (WAB100 base)</td>
<td>928m/01</td>
</tr>
</tbody>
</table>

**Notes:**

1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi Criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response

2. Meets the requirements of EN 54-5 (Class A1R) at the following settings: Class A1R heat only response

3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

**Bases**

- VELOX VB100
- UB100
- VELOX VB100S
- UB100S
- VELOX VDBS100
- DBS100
- VELOX VDBS100S
- DBS100S
- WAB100

- Velox adaptor base
- Universal adaptor base
- Velox adaptor base with shorting clip
- Universal adaptor base with shorting clip
- Velox deep adaptor base
- Deep adaptor base
- Velox deep adaptor base with shorting clip
- Deep adaptor base with shorting clip
- Wireless Adaptor Base
- Velox adaptor base
- Velox adaptor base with short clip
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

40900-DP  Velox deep adaptor base
40900-DPS  Velox deep adaptor base with short clip


Point Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>VELOX WL350 Wireless heat detector (WAB100 base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>928j/01</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>• CR123A (3 Vdc) - main battery</td>
</tr>
<tr>
<td></td>
<td>• CR2032A (3 Vdc) - secondary battery</td>
</tr>
</tbody>
</table>

Bases:
WAB100 Wireless Adaptor Base

Autronica Fire & Security AS
Postboks 5620 NO-7483, Trondheim, Norway
Tel: +47 73582500 • Fax: +47 73582501
E-mail: info@autronicafire.no • Website: www.autronicafire.no


Flame Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>BG-201 Analogue addressable IR flame detector (interactive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1130a/01</td>
<td>Note: Meets EN54-10: 2002 at Class 1, Class 2 &amp; Class 3</td>
</tr>
<tr>
<td></td>
<td>BG-21 Conventional IR flame detector</td>
</tr>
<tr>
<td>1130b/01</td>
<td>Note: Meets EN54-10: 2002 at Class 1 &amp; Class 3</td>
</tr>
</tbody>
</table>

Beijing Leader Huaxin Electronics Co. Ltd
No. 17 Rongjing Eastern Road, Economy & Technology Developed Area, Beijing 100176, China
Tel: +86 10 67876681 • Fax: +86 10 67863972
E-mail: hy.chen@beijingleader.com.cn • Website: www.beijingleader.com.cn


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>JTY-GM-LD3000EN/A Point-Type Photoelectric Smoke Detector (LD10EN base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>987a/01</td>
<td>JTW-ZDM-LD3300EN Analogue Addressable Point-Type Class A2S Heat Detector (LD10EN Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-5:2000 for Class A2S</td>
</tr>
</tbody>
</table>

Bases:
LD10EN mounting base
# COMMERCIAL DETECTORS

## Heat detector

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174b/01</td>
<td>VC-6633 Conventional heat detector</td>
<td>Meets the requirements of EN 54-5:2000 at class A2R</td>
</tr>
<tr>
<td>1174b/02</td>
<td>VI-6637 Addressable Heat Detector (VB-6617 base)</td>
<td></td>
</tr>
</tbody>
</table>

### Note:
1. Meets the requirements of EN 54-5:2000 at class A1R and A2

---

## Smoke Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174a/01</td>
<td>VC-6623 Conventional Optical Smoke Detector (VB-6611 base)</td>
<td>Meets the requirements of EN 54-7:2000 at default sensitivity setting only.</td>
</tr>
<tr>
<td>1174a/02</td>
<td>VI-6627 Addressable Optical Smoke Detector (VB-6617 base)</td>
<td></td>
</tr>
</tbody>
</table>

### Note:
1. Meets the requirements of EN 54-7:2000 at the following sensitivities:
   - Mode 0 (High)
   - Mode 1 (Factory Setting)
   - Mode 2
   - Mode 3 (Low)

---

## Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174f/01</td>
<td>VI-6647 Addressable Smoke and Heat Detector (VB-6617 base)</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
1) Meets the requirements of EN 54-5:2000 at Class A1R and A2
2) Meets the requirements of EN 54-7:2000 at the following sensitivity settings:
   - Smoke Mode 2 and A1R
   - Smoke Mode 2 and A2
   - Smoke Mode 2 (Smoke only), heat disable

---

### Base:

**VB-6617 Addressable Mounting Base**
### Bristol Fire Engineering LLC

Al Quoz Industrial Area 3, P.O.Box 74582, Dubai, United Arab Emirates
Tel: +971 4 347 2426 • Fax: +971 4 347 2363
E-mail: sami@bristol-fire.com • Website: www.bristol-fire.com


#### Smoke Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certified Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174a/01</td>
<td>B61-1001 Conventional Optical Smoke Detector (B61-4001 base)</td>
<td>1. Meets the requirements of EN 54-7: 2000 at default sensitivity setting only</td>
</tr>
<tr>
<td>1330b/01</td>
<td>IGN-7401 Intelligent Smoke Detector (IGN-7200 base)</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

B61-4001 Base
IGN-7200 Base


#### Heat Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certified Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174b/01</td>
<td>B61-2001 Conventional Heat Detector (B61-4001 base)</td>
<td>1. Meets the requirements of EN 54-5: 2000 at class A2R</td>
</tr>
<tr>
<td>1330c/01</td>
<td>IGN-7402 Intelligent Heat Detector (IGN-7200 base)</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
</tbody>
</table>

**Bases**

B61-4001 Base
IGN-7200 Base


#### Multi-Sensor/Multi-Criteria Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certified Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>506b/01</td>
<td>BF-SH-0115-2 (2 Wire) Optical Smoke and Class A2 Heat Detector (AHMB-031 Base)</td>
<td></td>
</tr>
<tr>
<td>506b/02</td>
<td>BF-SH-0115-3 (3 Wire) Optical Smoke and Class A2 Heat Detector (AHMB-031 Base)</td>
<td></td>
</tr>
<tr>
<td>506b/03</td>
<td>BF-SH-0115-4 (4 Wire) Optical Smoke and Class A2 Heat Detector (AHMB-031 Base)</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

AHMB-031 Mounting base

Certificate No: 1330a-(cl-5) to EN 54-12:2015

#### Certified Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certified Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330a/01</td>
<td>IGN-C7404 Conventional Reflective Beam Detector</td>
<td>1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Level 1: 2.6 dB High sensitivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Level 2: 3.8 dB Medium sensitivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Level 3: 5.8 dB Low sensitivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Suitable for use at the following separation ranges:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)</td>
</tr>
</tbody>
</table>
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**COMMERCIAL DETECTORS**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI-002211</td>
<td>928b/02</td>
</tr>
<tr>
<td>TI-002212</td>
<td>928e/03</td>
</tr>
<tr>
<td>TI-00227A</td>
<td>928k/02</td>
</tr>
<tr>
<td>TI-002270</td>
<td></td>
</tr>
<tr>
<td>DBS100</td>
<td></td>
</tr>
<tr>
<td>UBR100</td>
<td></td>
</tr>
<tr>
<td>DBSR100</td>
<td></td>
</tr>
<tr>
<td>UBDR100</td>
<td></td>
</tr>
<tr>
<td>DBSRD100</td>
<td></td>
</tr>
<tr>
<td>TI-002231</td>
<td></td>
</tr>
</tbody>
</table>

**Ceasefire Industries Private Ltd**

E6, Upsidc Industrial Area,, Selaqui, Dehradun, Uttarakhand 24001, India

Tel: +911204223473

E-mail: amit@ceasefire.in

Certificate No: 928e-(cl-14)

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI-002211 Addressable Photoelectric Smoke Detector with Short Circuit Isolator (TI-002231 Base) Note: 1. Meets the requirements of EN 54-7 at the following sensitivity settings: Optical only level 1 - High Optical only level 2 Optical only level 3 Optical only level 1 - Low</td>
<td>928b/02</td>
</tr>
<tr>
<td>TI-002212 Addressable Photoelectric Smoke Detector (TI-002231 Base) Note: 1. Meets the requirements of EN 54-7 at the following sensitivity settings: Optical only level 1 - High Optical only level 2 Optical only level 3 Optical only level 4 - Low</td>
<td>928e/03</td>
</tr>
<tr>
<td>TI-00227A Wireless Addressable Optical Smoke Detector (WAB100 Base) Notes: 1. Meets the requirements of EN 54-7 at the following sensitivity settings: Level 1 - High Level 2 - Normal Level 3 - Low 2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
<td>928k/02</td>
</tr>
</tbody>
</table>

**Base**

WAB100- wireless Adaptor Base
TI-002270 Universal Adaptor Base
DBS100 Deep Adaptor Base
UBR100 Universal Adaptor Base with Resistor
DBSR100 Deep Adaptor Base with Resistor
UBDR100 Universal Adaptor Base with Resistor and Schottky Diode
DBSRD100 Deep Adaptor Base with Resistor and Schottky Diode
TI-002231 Low Profile Adaptor Base


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI-002215 Analogue Addressable Class P Heat Detector with Short Circuit Isolator (TI-002231 base)</td>
<td>928a/02</td>
</tr>
</tbody>
</table>
Certificated Products

Note:
1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS
2. The device must be used with the following battery type only:
   CR123A (3 Vdc) - Primary and Secondary Battery

Certificated Products

Note:
1. Meets the requirements of EN 54-5 for Class A1R

Bases

<table>
<thead>
<tr>
<th>Base Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI-002270 Universal Adaptor Base</td>
<td>TI-002231 Low Profile Adaptor Base</td>
</tr>
<tr>
<td>DBS100 Deep Adaptor Base</td>
<td></td>
</tr>
<tr>
<td>UBR100 Universal Adaptor Base with Resistor</td>
<td></td>
</tr>
<tr>
<td>DBSR100 Deep Adaptor Base with Resistor</td>
<td></td>
</tr>
<tr>
<td>UBD100 Universal Adaptor Base with Resistor and Schottky Diode</td>
<td></td>
</tr>
<tr>
<td>DBSRD100 Deep Adaptor Base with Resistor and Schottky Diode</td>
<td></td>
</tr>
</tbody>
</table>


Certificated Products

TI-002267
Conventional Class B Heat Detector (TI-002270, DBS100, UBR100, DBSR100, UBD100 and DBSRD100 Bases)
1. Meets the requirements of EN 54-5 for Class B

Note:
1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS

TI-002268
Conventional Class A1R Heat Detector (TI-002270, DBS100, UBR100, DBSR100, UBD100 and DBSRD100 Bases)

Note:
1. Meets the requirements of EN 54-5 for Class A1R

TI-002216
Addressable Class P Heat Detector (TI-002231 Base)

Note:
1. Meets the requirements of EN 54-5 for Class A1R

TI-002279A
Wireless Addressable Class P Heat Detector (WAB100 Base)

Notes:
1. Meets the requirements of EN 54-5 for Class A1R and BS
2. The device must be used with the following battery type only:
   CR123A (3 Vdc) - Primary and Secondary Battery

Certificate No: 928d/02

Certificate No: 928e/02

Certificate No: 928f/02

Certificate No: 928g/02
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Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>928m/02</td>
<td>TI-002278A Wireless Addressable Multicriteria Detector (WAB100 Base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Level 1: High
   - Level 2: Normal
   - Level 3: Low
3. The device must be used with the following battery type only:
   - CR123A (3 Vdc) - Primary and Secondary Battery

Base
- WAB100 Base
- TI-002231 Low Profile Adaptor Base

---

Channel Safety Systems Ltd
9 Petersfield Business Park, Petersfield GU32 3QA, United Kingdom
Tel: 08458847000 • Fax: 08458846000
E-mail: sales@channelsafety.co.uk • Website: www.channelsafety.co.uk


Smoke Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>010q/16</td>
<td>F/CHSM/A/95 XP95 Analogue Addressable Ionisation Smoke Detector (F/BASE/95 Base)</td>
</tr>
</tbody>
</table>

Note:
1. Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery ionisation smoke detectors in accordance with manufacturers instructions.

Bases
- F/BASE/95 XP95 Mounting Base

---

Chubb Fire & Security Ltd
Littleton Road, Ashford, Middlesex TW15 1TZ, United Kingdom
Tel: 01784424100
E-mail: sales@chubb.co.uk • Website: www.chubb.co.uk


Heat Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>010p/06</td>
<td>F850675N Series 65 Conventional Class A1R Heat Detector (45681-200 base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN54: Part 5 at Class A1R
2. Also certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>010p/09</td>
<td>F850677N Series 65 Conventional Class BR Heat Detector (45681-200 base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN54: Part 5 at Class BR
2. Also certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases.

Bases
- 45681-200 Series 60/65 mounting base
- 45681-201 Series 60/65 diode mounting base
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45681-245 Series 65 relay mounting base
45681-246 Series 65 auxiliary relay mounting base
45681-247 Series 65 EOL 12 Volt mounting base
45681-248 Series 65 EOL 24 Volt mounting base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificate Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>F850511N</td>
<td>Discovery Analogue Addressable Multisensor Detector (45681-209 and 45681-210 bases)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Certified at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Mode 1 - High sensitivity smoke detector with standard heat enhancement</td>
</tr>
<tr>
<td></td>
<td>Mode 2 - Smoke detection only</td>
</tr>
<tr>
<td></td>
<td>Mode 3 - Medium sensitivity smoke detector with standard heat enhancement</td>
</tr>
<tr>
<td></td>
<td>Mode 4 - Low sensitivity smoke detector with high heat enhancement</td>
</tr>
<tr>
<td></td>
<td>Mode 5 - Class A1 heat detector</td>
</tr>
<tr>
<td></td>
<td>Also approved in conventional alarm modes 1, 2, 3, 4 and 5</td>
</tr>
<tr>
<td></td>
<td>2. Approved with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery multisensor detector in accordance with manufacturer's instructions.</td>
</tr>
</tbody>
</table>

45681-209 XP95/Discovery standard deep mounting base
45681-210 XP95 Mounting base


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificate Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>F850508N</td>
<td>Discovery Analogue Addressable Photoelectric Smoke Detector (45681-209 and 45681-210 mounting bases)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN54: Part 7 in modes 1, 2, 3, 4 and 5 and inconventional mode.</td>
</tr>
<tr>
<td></td>
<td>Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detector in accordance with manufacturer's instructions.</td>
</tr>
<tr>
<td>F850673N</td>
<td>Series 65 Conventional Optical Smoke Detector (45681-200 mounting base)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>Also Certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases</td>
</tr>
<tr>
<td>F850251N</td>
<td>XP95 Analogue Addressable Optical Smoke Detector (45681-209 and 45681-210 mounting bases)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detector in accordance with manufacturer's instructions.</td>
</tr>
</tbody>
</table>

45681-200 Series 60/65 mounting base
45681-201 Series 60/65 diode mounting base
45681-245 Series 65 relay mounting base
45681-246 Series 65 auxiliary mounting base
45681-247 Series 65 EOL 12 Volt mounting base
45681-248 Series 65 EOL 24 Volt mounting base
45681-210 XP95 mounting base
45681-209 XP95/Discovery standard deep mounting base
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Computationics Limited (Trading as C-Tec)
Challenge Way, Martland Park, Wigan, Lancashire WD5 0LD, United Kingdom
Tel: +44 (0)1942 322744/42444 • Fax: +44 (0)1942 829867
E-mail: sales@C-tec.co.uk • Website: www.c-tec.co.uk


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>176k/01</td>
<td>CA416: CAST Optical Smoke Detector with Short Circuit Isolator (CA408, CA431A/W, CA456A/W, CA460A/W)</td>
</tr>
<tr>
<td></td>
<td>HP416: HP Optical Smoke Detector with Short Circuit Isolator (HP408)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-7 at high and medium sensitivity settings.

Bases:
CA408: CAST Detector Standard Base
CA431A/W: CAST Base Sounder with Short Circuit Isolator
CA456A/W: CAST Base Sounder VAD with Short Circuit Isolator
CA460A/W: CAST Base VAD with Short Circuit Isolator
HP408: HP Standard Base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>176m/01</td>
<td>CA414: CAST Multisensor Detector with Short Circuit Isolator (CA408, CA431A/W, CA456A/W, CA460A/W)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-5 for Class A2
2. Meets the requirements of EN 54-7 for low, medium and high sensitivity settings

Bases:
CA408: CAST Detector Standard Base
CA431A/W: CAST Base Sounder with Short Circuit Isolator
CA456A/W: CAST Base Sounder VAD with Short Circuit Isolator
CA460A/W: CAST Base VAD with Short Circuit Isolator
HP408: HP Standard Base


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>176n/01</td>
<td>CA402: CAST Class P Heat Detector with Short Circuit Isolator (CA408, CA431A/W, CA456A/W, CA460A/W)</td>
</tr>
<tr>
<td></td>
<td>HP402: HP Class P Heat Detector with Short Circuit Isolator (HP408)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-5 for Class A1, A1R, A2 & B.

Bases:
CA408: CAST Detector Standard Base
CA431A/W: CAST Base Sounder with Short Circuit Isolator
CA456A/W: CAST Base Sounder VAD with Short Circuit Isolator
CA460A/W: CAST Base VAD with Short Circuit Isolator
HP408: HP Standard Base
**Consilium Marine and Safety AB**
Salsmästaregatan 21 Box 8763, Gothenburg SE402 76, Sweden
Tel: +46 31 710 77 64 • Fax: +46 31 710 78 00
E-mail: cmsab@consilium.se • Website: www.consilium.se


**Multi-criteria Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV-PP Analogue Addressable Combined Photoelectric Smoke and Class A1 Heat Sensor</td>
<td>1461d/01</td>
</tr>
</tbody>
</table>

**Certificated Products**

- **Bases:**
  - UB-2 Universal Base
  - UB-6 Universal Base

**Context Plus Ltd**

Export House, 175 Mauldeth Road, Fallowfield, Manchester M14 6SG, United Kingdom
Tel: +44 (0)161 257 2541 • Fax: +44 (0)161 225 8817
E-mail: xportsales@xportsales.com • Website: www.xportsales.com


**Heat Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-400IMC XP95 Analogue addressable Class A2S heat detector (45681-210IMC mounting base) Certified with XP95 digital communications protocol.</td>
<td>010p/20</td>
</tr>
<tr>
<td>55000-465IMC Analogue addressable Class A2S heat detector 45681-213IMC and 45681-505IMC bases)</td>
<td>010u/04</td>
</tr>
<tr>
<td>55000-475IMC Analogue addressable Class CS heat detector 45681-213IMC and 45681-505IMC bases)</td>
<td>010u/05</td>
</tr>
</tbody>
</table>

**Bases**

- 45681-200IMC Mounting base
- 45681-213IMC Common mounting base
- 45681-505IMC Negative switching isolating base
- 45681-210IMC XP95 Mounting base


**Smoke Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-500IMC XP95 Analogue Addressable Ionisation Smoke Detector (45681-210IMC Mounting base) Certified with XP95 digital communication protocol.</td>
<td>010q/16</td>
</tr>
<tr>
<td>55000-600IMC XP95 Analogue Addressable Optical Smoke Detector (45681-210IMC Mounting base) Certified with XP95 digital communication protocol.</td>
<td>010q/18</td>
</tr>
<tr>
<td>55000-665IMC Analogue addressable optical smoke 45681-213IMC and 45681-505IMC bases)</td>
<td>010v/02</td>
</tr>
</tbody>
</table>

**Bases**

- 45681-200IMC Mounting base
- 45681-210IMC XP95 Mounting base
- 45681-213IMC Common mounting base
- 45681-505IMC Negative switching isolating base
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010m/01</td>
<td>XP95 Analogue Addressable Multisensor Detector (45681-209 and 45681-210 mounting base) Certified with Apollo XP95 and S90 digital communication protocols that have been configured for the XP95 multisensor detector in accordance with manufacturers instructions.</td>
</tr>
</tbody>
</table>

Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010m/01</td>
<td>XP95/Discovery standard deep mounting base</td>
</tr>
<tr>
<td>45681-209</td>
<td>XP95 Mounting base</td>
</tr>
<tr>
<td>45681-210</td>
<td>XP95 Mounting base</td>
</tr>
</tbody>
</table>

Cooper Sécurité SAS
Parc Européen d’Entreprises II, Rue Beethoven, BP 10184, 63204 Riom Cedex, France
Tel: +44 (0)1302 3397 • Fax: +44 (0)1302 303220
E-mail: phillipwilliams@eaton.com


Point Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01260a/01</td>
<td>DOFA3000 Intelligent Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (NUG30256 and NUG30258 bases)</td>
</tr>
<tr>
<td>01685h/01</td>
<td>DOFS3000 Conventional photoelectric smoke detector and NUG30257 bases</td>
</tr>
<tr>
<td>01685j/01</td>
<td>DOFA3000 Intelligent analogue addressable photoelectric smoke detector and NUG30258 bases</td>
</tr>
</tbody>
</table>

Bases
NUG30256 Standard analogue addressable mounting base
NUG30255 Standard conventional mounting base
NUG30257 Double contact standard conventional mounting base
NUG30258 Double contact standard analogue addressable mounting base

Certificate No: 685m-(cl-3) to EN 54-5: 2000 + A1: 2002 and EN 54-17: 2005

Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01685m/01</td>
<td>DTVA3000 Intelligent analogue addressable Class P heat detector and NUG30258 bases)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-5 at classes A1R, BS and CS

Bases
NUG30256 Single contact standard analogue addressable mounting base
NUG30258 Double contact standard analogue addressable mounting base


Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01260b/01</td>
<td>DMCFA3000 Intelligent Analogue Addressable Class A2S Multisensor Opto/Heat Detector with Short Circuit isolator (NUG30256 and NUG30258 bases)</td>
</tr>
</tbody>
</table>

Notes: 1. Meets the requirements of EN54-5 and EN54-7 in the following modes:
### PART 1: SECTION 4.1

#### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certificated Products</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Bases</strong></td>
<td></td>
</tr>
<tr>
<td>NUG30256 Standard analogue addressable mounting base</td>
<td>685a/01</td>
</tr>
<tr>
<td>NUG30255 Standard conventional mounting base</td>
<td>685k/01</td>
</tr>
<tr>
<td>NUG30257 Double contact standard conventional mounting base</td>
<td></td>
</tr>
<tr>
<td><strong>Detect Fire LLC</strong></td>
<td></td>
</tr>
<tr>
<td>Certificate No: 1283a(cl-4) to EN 54-12: 2002</td>
<td></td>
</tr>
<tr>
<td><strong>Beam Detectors</strong></td>
<td></td>
</tr>
<tr>
<td>DF 800 Conventional Optical Beam Smoke Detector (Double Pass)</td>
<td>1283a/01</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-12 at the following sensitivity settings only:</td>
<td></td>
</tr>
<tr>
<td>- 18% obstruction high sensitivity at between 5-20m</td>
<td></td>
</tr>
<tr>
<td>- 30% obscuration medium sensitivity at between 20-100m</td>
<td></td>
</tr>
<tr>
<td>2. Suitable for use with E39-R8 prismatic reflector over distances from 5 to 50m</td>
<td></td>
</tr>
<tr>
<td>3. Suitable for use with 4 x E39-R8 set of reflectors over distances from 50 to 100m</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. Meets the requirements of EN 54-5 and EN 54-7 in the following modes:
   - Mode 1 - Photoelectric/heat combined only
   - Mode 2 - Photoelectric/heat combined together with an alarm output from temperature alone (Class A2S)
   - Mode 3 - Heat detector alone (Class A2S)
PART 1: SECTION 4.1
COMMERICAL DETECTORS

Detector Electronics Corporation
6901 West 110th Street, Minneapolis, Minnesota 55438, USA
Tel: +001 952 946 6488
E-mail: detronics@detronics.com • Website: www.detronics.com

Certificate No: 973e to EN 54-10: 2002 + A1: 2005

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X9800 Analogue Addressable IR Flame Detector with Short Circuit Isolator</td>
<td>973a/01</td>
</tr>
<tr>
<td>X5200 Analogue Addressable UV/IR Flame Detector with Short Circuit Isolator</td>
<td>973a/02</td>
</tr>
<tr>
<td>X3301 Analogue Addressable Multispectrum IR Flame Detector with Short Circuit Isolator</td>
<td>973a/03</td>
</tr>
<tr>
<td>X2200 Analogue Addressable UV Flame Detector with Short Circuit Isolator</td>
<td>973a/04</td>
</tr>
<tr>
<td>X5200G Analogue Addressable UV/IR Flame Detector with Short Circuit Isolator</td>
<td>973a/05</td>
</tr>
<tr>
<td>X2200G Analogue Addressable UV Flame Detector with Short Circuit Isolator</td>
<td>973a/06</td>
</tr>
</tbody>
</table>

Notes:
1. The isolation is applied on the LON communication transmission path and not the power transmission path. Refer to the manufacturers installation document 95-8642 with respect to the number of devices to be connected in a group or zone.
2. Meets the requirements of EN 54-10:2002 Class 1 at High and Very High sensitivity settings for IR sensor only.
3. Meets the requirements of EN 54-10:2002 Class 2 at Medium, High and Very High sensitivity settings for IR sensor only.
4. Meets the requirements of EN 54-10:2002 Class 3 at Low, Medium, High and Very High sensitivity settings for IR sensor only.

Notes:
1. The isolation is applied on the LON communication transmission path and not the power transmission path. Refer to the manufacturers installation document 95-8642 with respect to the number of devices to be connected in a group or zone.
2. Meets the requirements of EN 54-10:2002 Class 1 at any combination of High and Very High sensitivity settings for UV and IR sensors only.
3. Meets the requirements of EN 54-10:2002 Class 2 at any combination of Medium, High and Very High sensitivity settings for UV and IR sensors only.
4. Meets the requirements of EN 54-10:2002 Class 3 at any combination of Low, Medium, High and Very High sensitivity settings for UV and IR sensors only.

Notes:
1. The isolation is applied on the LON communication transmission path and not the power transmission path. Refer to the manufacturers installation document 95-8642 with respect to the number of devices to be connected in a group or zone.
2. Meets the requirements of EN 54-10:2002 Classes 1, 2 and 3 at Medium and Very High sensitivity settings for IR sensor only.
3. Meets the requirements of EN 54-10:2002 Class 1 at High and Very High sensitivity settings for UV sensor only.
4. Meets the requirements of EN 54-10:2002 Class 2 at Medium, High and Very High sensitivity settings for UV sensor only.
5. Meets the requirements of EN 54-10:2002 Class 3 at Low, Medium, High and Very High sensitivity settings for UV sensor only.

Notes:
1. The isolation is applied on the LON communication transmission path and not the power transmission path. Refer to the manufacturers installation document 95-8642 with respect to the number of devices to be connected in a group or zone.
2. Meets the requirements of EN 54-10:2002 Class 1 at any combination of High and Very High sensitivity settings for UV and IR sensors only.
3. Meets the requirements of EN 54-10:2002 Class 2 at any combination of Medium, High and Very High sensitivity settings for UV and IR sensors only.
4. Meets the requirements of EN 54-10:2002 Class 3 at any combination of Low, Medium, High and Very High sensitivity settings for UV and IR sensors only.

Notes:
1. The isolation is applied on the LON communication transmission path and not the power transmission path. Refer to the manufacturers installation document 95-8642 with respect to the number of devices to be connected in a group or zone.
2. Meets the requirements of EN 54-10:2002 Class 1 at High and Very High sensitivity settings for UV sensor only.
3. Meets the requirements of EN 54-10:2002 Class 2 at Medium, High and Very High sensitivity settings for UV sensor only.
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>X9800</strong></td>
<td>973e/01</td>
</tr>
<tr>
<td>Conventional IR Flame Detector</td>
<td></td>
</tr>
<tr>
<td>High sensitivity settings for UV sensor only.</td>
<td></td>
</tr>
<tr>
<td>4. Meets the requirements of EN 54-10:2002 Class 3 at Low, Medium and Very High sensitivity settings for UV sensor only.</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-10:2002 Class 1 at High and Very High sensitivity settings for IR sensor only.</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-10:2002 Class 2 at Medium, High and Very High sensitivity settings for IR sensor only.</td>
<td></td>
</tr>
<tr>
<td>3. Meets the requirements of EN 54-10:2002 Class 3 at Low, Medium, High and Very High sensitivity settings for IR sensor only.</td>
<td></td>
</tr>
</tbody>
</table>

| **X5200**             | 973e/02       |
| Conventional UV / IR Flame Detector |
| Notes: |
| 1. Meets the requirements of EN 54-10:2002 Class 1 at any combination of High and Very High sensitivity settings for UV and IR sensors only. |
| 2. Meets the requirements of EN 54-10:2002 Class 2 at any combination of Medium, High and Very High sensitivity settings for UV and IR sensors only. |
| 3. Meets the requirements of EN 54-10:2002 Class 3 at any combination of Low, Medium, High and Very High sensitivity settings for UV and IR sensors only. |

| **X3301**             | 973e/03       |
| Conventional Multispectrum IR Flame Detector |
| Note: |
| 1. Meets the requirements of EN 54-10:2002 Classes 1, 2 and 3 at Medium and Very High sensitivity settings for IR sensor only. |

| **X2200**             | 973e/04       |
| Conventional UV Flame Detector |
| Notes: |
| 1. Meets the requirements of EN 54-10:2002 Class 1 at High and Very High sensitivity settings for UV sensor only. |
| 2. Meets the requirements of EN 54-10:2002 Class 2 at Medium, High and Very High sensitivity settings for UV sensor only. |
| 3. Meets the requirements of EN 54-10:2002 Class 3 at Low, Medium, High and Very High sensitivity settings for UV sensor only. |

| **X5200G**            | 973e/05       |
| Conventional UV/IR Flame Detector |
| Notes: |
| 1. Meets the requirements of EN54-10: 2002 Class 1, 2 and 3 at any combination of High and Very High sensitivity settings for UV and IR sensors only. |
| 2. Meets the requirements of EN 54-10:2002 Class 2 at any combination of Medium, High and Very High sensitivity settings for UV and IR sensors only. |
| 3. Meets the requirements of EN 54-10:2002 Class 3 at any combination of Low, Medium, High and Very High sensitivity settings for UV and IR sensors only. |

| **X2200G**            | 973e/06       |
| Conventional UV Flame Detector |
| Note: |
| 1. Meets the requirements of EN 54-10:2002 Class 1 at High and Very High sensitivity settings for UV sensor only. |
| 2. Meets the requirements of EN 54-10:2002 Class 2 at Medium, High and Very High sensitivity settings for UV sensor only. |
| 3. Meets the requirements of EN 54-10:2002 Class 3 at Low, Medium, High and Very High sensitivity settings for UV sensor only. |

### Certificated Products

**FIRECAT Conventional Multi-Sensor Smoke / Heat Detector (FIRECAT Base)**

Notes:

1. Meets the requirements of EN 54-7:2000 at the following settings:
   - S1 High sensitivity (optical smoke only) 0.1dB/m
   - S2 Low sensitivity dual-multi-sensor (smoke enhanced by heat and class A2S heat

---

**Eaton Electrical Products Limited**

Llantarnam Park, Cwmbran, South Wales NP44 3AW, United Kingdom

Tel: +44 (0)1633 628500 • Fax: +44 (0)1633 866346

E-mail: sales@fulleon.co.uk • Website: www.cooperfulleon.com


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**Multi-Sensor/Multi-Criteria Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRECAT</strong></td>
<td>378m/01</td>
</tr>
<tr>
<td>Conventional Multi-Sensor Smoke / Heat Detector (FIRECAT Base)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
</tbody>
</table>
| 1. Meets the requirements of EN 54-7:2000 at the following settings:
   - S1 High sensitivity (optical smoke only) 0.1dB/m
   - S2 Low sensitivity dual-multi-sensor (smoke enhanced by heat and class A2S heat

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Eaton Electrical Products Ltd
Security House, Vantage Point Business Village, Mitcheldean, Gloucestershire GL17 0SX, United Kingdom
Tel: +441594545543


Certificated Products

M12 Conventional Multi-Sensor Smoke / Heat Detector (M12 Base)

Notes:
1. Meets the requirements of EN 54-7:2000 at the following settings:
   S1 - High sensitivity (optical smoke only) 0.10dB/m
   S2 - Low sensitivity dual multi-sensor (smoke enhanced by heat and class A2S heat detector) 0.15dB/m
2. Meets the requirements of EN 54-5:2000 at the following settings:
   M1 - Heat detector Class A1R
   M2 - Heat detector Class BS

Eaton Electrical Systems Limited
Wheatley Hall Road, Doncaster, South Yorkshire DN2 4NB, United Kingdom
Tel: +44 (0)1302 303397 • Fax: +44 (0)1302 303397


Certificated Products

CAP320 Intelligent Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (CAB300 Base) - (Cooper)
COPP420 Intelligent Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (COPA800 Base)
FXN723 Intelligent Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (FXN720 and FXABD Bases) - (JSB)
MAP820 Intelligent Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (MAB800 and MABD Bases) - (Menvier)

Bases
MAB800 (Menvier) Single contact standard analogue addressable mounting base
FXN720 (JSB) Single contact standard analogue addressable mounting base
CAB300 (Cooper) Single contact standard analogue addressable mounting base
COPA800 Single contact standard analogue addressable mounting base
MABD (Menvier) Double contact standard analogue addressable mounting base
FXABD (JSB) Double contact standard analogue addressable mounting base
CABD (Cooper) Double contact standard analogue addressable mounting base


Certificated Products

CAPT340 Intelligent Analogue Addressable Class A2S Multisensor Opto/Heat Detector with Short Circuit Isolator (CAB300 base) (Cooper)
### COMMERCIAL DETECTORS

#### PART 1: SECTION 4.1

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 and EN54-7 in the following modes: Mode 2: Photoelectric/Heat combined together with an alarm output from temperature alone (Class A2S) Mode 3: Heat detector alone (class A2S)</td>
<td></td>
</tr>
<tr>
<td>COPOH450</td>
<td>714u/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class A2S Multisensor Opto/Heat Detector with Short Circuit Isolator (COPA800 base)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 and EN54-7 in the following modes: Mode 2: Photoelectric/Heat combined together with an alarm output from temperature alone (Class A2S) Mode 3: Heat detector alone (class A2S)</td>
<td></td>
</tr>
<tr>
<td>FXN722</td>
<td>714u/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class A2S Multisensor Opto/Heat Detector with Short Circuit Isolator (FXN720 and FXABD bases) - (JSB)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 and EN54-7 in the following modes: Mode 2: Photoelectric/Heat combined together with an alarm output from temperature alone (Class A2S) Mode 3: Heat detector alone (class A2S)</td>
<td></td>
</tr>
<tr>
<td>MAOH850</td>
<td>714u/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class A2S Multisensor Opto/Heat Detector with Short Circuit Isolator (MAB800 and MABD bases) - (Menvier)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 and EN54-7 in the following modes: Mode 2: Photoelectric/Heat combined together with an alarm output from temperature alone (Class A2S) Mode 3: Heat detector alone (class A2S)</td>
<td></td>
</tr>
</tbody>
</table>

#### Bases

| MAB800 (Menvier) Single contact standard analogue addressable mounting base |
| FXN720 (JSB) Single contact standard analogue addressable mounting base |
| CAB300 (Cooper) Single contact standard analogue addressable mounting base |
| COPA800 Single contact standard analogue addressable mounting base |
| MABD (Menvier) Double contact standard analogue addressable mounting base |
| FXABD (JSB) Double contact standard analogue addressable mounting base |
| CABD (Cooper) Double contact standard analogue addressable mounting base |


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAH330</td>
<td>714v/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator (CAB300 Base) - (Cooper)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 at classes A1R, BS and CS</td>
<td></td>
</tr>
<tr>
<td>COPH430</td>
<td>714v/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator (COPA800 Base)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 at classes A1R, BS and CS</td>
<td></td>
</tr>
<tr>
<td>FXN725</td>
<td>714v/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator (FXN720 and FXABD Bases) - (JSB)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 at classes A1R, BS and CS</td>
<td></td>
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<tr>
<td>MAH830</td>
<td>714v/01</td>
</tr>
<tr>
<td>Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator (MAB800 and MABD Bases) - (Menvier)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong> 1. Meets the requirements of EN54-5 at classes A1R, BS and CS</td>
<td></td>
</tr>
</tbody>
</table>

#### Bases

| MAB800 (Menvier) Single contact standard analogue addressable mounting base |
| FXN720 (JSB) Single contact standard analogue addressable mounting base |
| CAB300 (Cooper) Single contact standard analogue addressable mounting base |
| COPA800 Single contact standard analogue addressable mounting base |
| MABD (Menvier) Double contact standard analogue addressable mounting base |
| FXABD (JSB) Double contact standard analogue addressable mounting base |
| CABD (Cooper) Double contact standard analogue addressable mounting base |

PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products | LPCB Ref. No.
--- | ---
FXN723 Intelligent analogue addressable photoelectric smoke detector with short circuit isolator (FXN720, MABD, FXABD and CABD bases) | 685j/01
MAP820 Intelligent analogue addressable photoelectric smoke detector with short circuit isolator (MAB800, MABD, FXABD and CABD bases) | 685j/01

Bases:
- MAB800 Single contact standard analogue addressable mounting base
- FXN720 Single contact standard analogue addressable mounting base
- MABD Double contact standard analogue addressable mounting base
- CABD Double contact standard analogue addressable mounting base
- FXABD Double contact standard analogue addressable mounting base


Certificated Products | LPCB Ref. No.
--- | ---
CAP320 Intelligent analogue addressable photoelectric smoke detector with short circuit isolator (CAB300, MABD, FXABD and CABD bases) | 685j/01
COPP420 Intelligent analogue addressable photoelectric smoke detector with short circuit isolator (COPA800, MABD, FXABD and CABD bases) | 685j/01

Bases:
- CAB300 Single contact standard analogue addressable mounting base
- COPA800 Single contact standard analogue addressable mounting base
- MABD Double contact standard analogue addressable mounting base
- CABD Double contact standard analogue addressable mounting base
- FXABD Double contact standard analogue addressable mounting base


Certificated Products | LPCB Ref. No.
--- | ---
FXN722 Intelligent analogue addressable Class A2S multisensor opto/heat detector with short circuit isolator (FXN720, MABD, FXABD and CABD bases) | 685k/01
MAOH850 Intelligent analogue addressable Class A2S multisensor opto/heat detector with short circuit isolator (MAB800, MABD, FXABD and CABD bases) | 685k/01

Notes:
1. Meets the requirements of EN 54-5 and EN 54-7 in the following modes:
   - Mode 1 Photoelectric/heat combined only
   - Mode 2 Photoelectric/heat combined together with an alarm output from temperature alone (Class A2S)
   - Mode 3 Heat detector alone (Class A2S)

Bases:
- MAB800 Single contact standard analogue addressable mounting base
- FXN720 Single contact standard analogue addressable mounting base
- MABD Double contact standard analogue addressable mounting base
- CABD Double contact standard analogue addressable mounting base
- FXABD Double contact standard analogue addressable mounting base


Certificated Products | LPCB Ref. No.
--- | ---
FXN722 Intelligent analogue addressable Class A2S multisensor opto/heat detector with short circuit isolator (FXN720, MABD, FXABD and CABD bases) | 685k/01
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>685k/01</td>
<td>CAPT340 Intelligent analogue addressable Class A2S multisensor opto/heat detector with short circuit isolator (CAB300, MABD, FXABD and CABD bases)</td>
<td>1. Meets the requirements of EN 54-5 and EN 54-7 in the following modes: Mode 1 Photoelectric/heat combined only Mode 2 Photoelectric/heat combined together with an alarm output from temperature alone (Class A2S) Mode 3 Heat detector alone (Class A2S)</td>
</tr>
<tr>
<td>685k/01</td>
<td>COPOH450 Intelligent analogue addressable Class A2S multisensor opto/heat detector with short circuit isolator (COPA800, MABD, FXABD and CABD bases)</td>
<td>1. Meets the requirements of EN 54-5 and EN 54-7 in the following modes: Mode 1 Photoelectric/heat combined only Mode 2 Photoelectric/heat combined together with an alarm output from temperature alone (Class A2S) Mode 3 Heat detector alone (Class A2S)</td>
</tr>
</tbody>
</table>

Bases:
- CAB300 Single contact standard analogue addressable mounting base
- COPA800 Single contact standard analogue addressable mounting base
- MABD Double contact standard analogue addressable mounting base
- CABD Double contact standard analogue addressable mounting base
- FXABD Double contact standard analogue addressable mounting base

Certificate No: 685m-(cl-1) to EN 54-5:2000 + A1: 2002 EN 54-17:2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>685m/01</td>
<td>FXN725 Intelligent analogue addressable Class P heat detector with short circuit isolator (FXN720, MABD, FXABD and CABD bases)</td>
<td>1. Meets the requirements of EN 54-5 at classes A1R, BS and CS</td>
</tr>
<tr>
<td>685m/01</td>
<td>MAH830 Intelligent analogue addressable Class P heat detector with short circuit isolator (MAB800, MABD, FXABD and CABD bases)</td>
<td>1. Meets the requirements of EN 54-5 at classes A1R, BS and CS</td>
</tr>
</tbody>
</table>

Bases:
- FXN720 Single contact standard analogue addressable mounting base
- MAB800 Single contact standard analogue addressable mounting base
- MABD Double contact standard analogue addressable mounting base
- FXABD Double contact standard analogue addressable mounting base
- CABD Double contact standard analogue addressable mounting base


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>685m/01</td>
<td>CAH330 Intelligent analogue addressable Class P heat detector with short circuit isolator (CAB300, MABD, FXABD and CABD bases)</td>
<td>1. Meets the requirements of EN 54-5 at classes A1R, BS and CS</td>
</tr>
<tr>
<td>685m/01</td>
<td>COPH430 Intelligent analogue addressable Class P heat detector with short circuit isolator (COPA800, MABD, FXABD and CABD bases)</td>
<td>1. Meets the requirements of EN 54-5 at classes A1R, BS and CS</td>
</tr>
</tbody>
</table>

Bases:
- CAB300 Single contact standard analogue addressable mounting base
- COPA800 Single contact standard analogue addressable mounting base
- MABD Double contact standard analogue addressable mounting base
- CABD Double contact standard analogue addressable mounting base

20 Oct 2020
### COMMERCIAL DETECTORS

**PART 1: SECTION 4.1**

**FXABD**  Double contact standard analogue addressable mounting base


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFXN632</td>
<td></td>
</tr>
<tr>
<td>Conventional photo/thermal multisensor and Class A2S Heat Detector (EFDB800 and EFXN520 Bases)</td>
<td>685g/01</td>
</tr>
<tr>
<td>FXN922</td>
<td></td>
</tr>
<tr>
<td>Conventional photo/thermal multisensor and Class P Heat Detector (EFDB800 and EFXN520 Bases)</td>
<td>685g/02</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 4-7: 2000 in the following modes:
   - Mode 1 Thermally enhanced optical smoke detector
   - Smoke sensitivity 0.15dB/m
   - Mode 2 Optical smoke detector
   - Smoke sensitivity 0.1 dB/m
2. Meets the requirements of EN 54-5:2000 in the following modes:
   - Mode 3 Heat detector Class A1R
   - Mode 4 Heat detector Class BS
   - Mode 5 Heat detector Class CS

**Bases:**
- EFDB800 Single contact standard conventional mounting base (Zener diode)
- EFXN520 Single contact conventional mounting base (Schottky diode)


**Bases:**
- EFDB800 Single contact standard conventional mounting base (Zener diode)
- EFXN520 Single contact conventional mounting base (Schottky diode)


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFXN533</td>
<td></td>
</tr>
<tr>
<td>Conventional Photoelectric Smoke Detector (EFDB800 and EFXN520 Bases)</td>
<td>685h/01</td>
</tr>
<tr>
<td>EFDB800</td>
<td></td>
</tr>
<tr>
<td>Single contact standard conventional mounting base (Zener diode)</td>
<td></td>
</tr>
<tr>
<td>EFXN520</td>
<td></td>
</tr>
<tr>
<td>Single contact conventional mounting base (Schottky diode)</td>
<td></td>
</tr>
</tbody>
</table>

**EFDB800 Single contact standard conventional mounting base (Zener diode)**

**EFXN520 Single contact conventional mounting base (Schottky diode)**


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFXN525</td>
<td></td>
</tr>
<tr>
<td>Conventional Class A2R Heat Detector (EFDB800 and EFXN520 Bases)</td>
<td>685a/01</td>
</tr>
<tr>
<td>EFXN524</td>
<td></td>
</tr>
<tr>
<td>Conventional Class BS Heat Detector (EFDB800 and EFXN520 Bases)</td>
<td>685a/02</td>
</tr>
<tr>
<td>EFXN526</td>
<td></td>
</tr>
<tr>
<td>Conventional Class CS Heat Detector (EFDB800 and EFXN520 Bases)</td>
<td>685a/03</td>
</tr>
</tbody>
</table>

**Bases:**
- EFXN520 Single contact conventional mounting base (Schottky Diode)
- EFDB800 Single contact standard conventional mounting base (Zener Diode)
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>714r/02</td>
<td>EFBW5IN1DET Conventional Photo/Thermal Multisensor and Class P Heat Detector (EFDB800 and EFXN520 Bases)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-7:2000 in the following modes: Mode 1 - Thermally enhanced optical smoke detector
   Smoke sensitivity 0.15dB/m
2. Meets the requirements of EN 54-5:2000 in the following modes:
   Mode 3 - Heat detector Class A1R
   Mode 4 - Heat detector Class BS
   Mode 5 - Heat detector Class CS

Bases:
EFDB800 Single Contact Standard Conventional Mounting Base (Zener Diode)
EFXN520 Single Contact Conventional Mounting Base (Schottky Diode)

EDS Elektronik Destek San. Ve Tic. Ltd. Şti.
Meclis Mah. Teraziler Cad., Hayran Sok. No 4, Istanbul, 34785 Sancaktepe, Turkey
Tel: +44 (216) 5284500 • Fax: +44 (216) 3141780


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1086a/01</td>
<td>EC-P2L Conventional optical smoke detector 5 pin (EC-DB base)</td>
</tr>
<tr>
<td>1086a/02</td>
<td>EC-P2L-3 Conventional optical smoke detector 3 pin (EC-DB3 base)</td>
</tr>
</tbody>
</table>

Base:
EC-DB 5 pin base
EC-DB3 3 pin base

EL.MO. Spa
Via Pontarola 70, Campodarsego (PD) 35011, Italy
Tel: +390499203333
E-mail: international@elmospa.com • Website: www.elmospa.com


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163a/03</td>
<td>SNI01C 2-Wire Conventional Optical Smoke Detector with Remote LED Output (BSC Base)</td>
</tr>
</tbody>
</table>

Note:
1. Meets the requirements of EN 54-7 at the default smoke sensitivity

Bases
BSC 2-Wire with Remote LED Base
**PART 1: SECTION 4.1**
**COMMERCIAL DETECTORS**


<table>
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<th><strong>Heat Detectors</strong></th>
<th><strong>Certificated Products</strong></th>
<th><strong>LPCB Ref. No.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SNI02C</td>
<td>2-Wire Conventional Heat Detector with Remote LED Output (BSC Base)</td>
<td>1163c/07</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5 for the following setting:
   - Class A1R

Bases
BSC 2-Wire with Remote LED Base


<table>
<thead>
<tr>
<th><strong>Multi-Sensor/Multi-Criteria Detectors</strong></th>
<th><strong>Certificated Products</strong></th>
<th><strong>LPCB Ref. No.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>SNI03C</td>
<td>2-Wire Conventional Heat and Optical Smoke Detector with Remote LED Output (BSC Base)</td>
<td>1163p/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5 for the following setting:
   - Class A2
2. Meets the requirements of EN 54-7 at the default smoke sensitivity

Base
BSC 2-Wire with Remote LED Base

---

**Elite Security Products (ESP)**
Unit 7, Target Park, Shawbank Road, Redditch, Birmingham B98 8YN, United Kingdom
Tel: +44 (0)1527 515150
E-mail: info@espuk.com • Website: https://www.espuk.com/


<table>
<thead>
<tr>
<th><strong>Certificated Products</strong></th>
<th><strong>LPCB Ref. No.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGDUOSHDSS</td>
<td>331g/03</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5:2000 at the following settings:
   - HM1 Class A1 standard temperature rate of rise enhanced
   - HM2 Class A1 standard temperature, fixed temperature
   - HM3 Class C standard temperature, fixed temperature
2. Meets the requirements of EN 54-7:2000 at the following settings:
   - SM1 Standard optical sensitivity with high thermal enhancement
   - SM2 Standard optical sensitivity with normal thermal enhancement
3. Meets the requirements of EN 54-3: 2001 at the following tones -
   - SP1 Continuous 970Hz
   - SP2 Alternating tone at 800/970Hz
   - SP3 Sweep Up 800-970Hz
4. The strobe function is not approved to EN 54-23:2010

<table>
<thead>
<tr>
<th>MAGDUOSHD</th>
<th>331y/01</th>
</tr>
</thead>
</table>

**Notes:**
1. Meets the requirements of EN 54-5:2000 at the following settings:
   - HM1 Class A1 standard temperature rate of rise enhanced
   - HM2 Class A1 standard temperature, fixed temperature
   - HM3 Class C standard temperature, fixed temperature
2. Meets the requirements of EN 54-7:2000 at the following settings:
   - SM1 Standard optical sensitivity with high thermal enhancement
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>331z/01</td>
<td>MAGDUOSHDS MAGDUO Flexipoint Conventional Optical Smoke and Heat Multisensor Detector with Type A Sounder (45-0048-202-01 Base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-5:2000 at the following settings:
   - HM1 Class A1 standard temperature rate of rise enhanced
   - HM2 Class A1 standard temperature, fixed temperature
   - HM3 Class C standard temperature, fixed temperature
2. Meets the requirements of EN 54-7:2000 at the following settings:
   - SM1 Standard optical sensitivity with high thermal enhancement
   - SM2 Standard optical sensitivity with normal thermal enhancement
3. Meets the requirements of EN 54-3 :2001 at the following tones -
   - SP1 Continuous 970Hz
   - SP2 Alternating tone at 800/970Hz
   - SP3 Sweep Up 800-970Hz

Bases:
45-0048-202-01 Standard Base

---

Fire Fighting Equipment Factory L.L.C. (FIREX)
P.O.Box 22436, Industrial Area 13, Sharjah, United Arab Emirates
Tel: +971 6 5340300 • Fax: +971 6 5340090
E-mail: firex@emirates.net.ae • Website: www.firexuae.com

Certificate No: 506a to EN 54-7: 2000

**Point Smoke Detectors**

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<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>506a/02</td>
<td>FX-0311-2 (2 - wire) Conventional photoelectric smoke detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506a/03</td>
<td>FX-0311-3 (3 - wire) Conventional photoelectric smoke detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506a/04</td>
<td>FX-0311-4 (4 - wire) Conventional photoelectric smoke detector (AHMB-031 Base)</td>
</tr>
</tbody>
</table>

Bases:
AHMB-031 mounting base


**Multi-criteria Detectors**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>506b/01</td>
<td>FX-0315-2 (2 - wire) Optical smoke and Class A2 heat detector (AHMB-31 Base)</td>
</tr>
<tr>
<td>506b/02</td>
<td>FX-0315-3 (3 - wire) Optical smoke and Class A2 detector (AHMB-31 Base)</td>
</tr>
<tr>
<td>506b/03</td>
<td>FX-0315-4 (4 - wire) Optical smoke and Class A2 heat detector (AHMB-31 Base)</td>
</tr>
</tbody>
</table>

Bases:
AHMB-031 mounting base

Certificate No: 506c to EN54-5: 2000

**Point Heat Detector**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>506c/01</td>
<td>FX-0316-2 (2 wire) Conventional Class A2 rate of rise and fixed temperature heat detector (AHMB-31 Base)</td>
</tr>
<tr>
<td>506c/02</td>
<td>FX-0316-3 (3 wire) Conventional Class A2 rate of rise and fixed temperature heat detector (AHMB-31 Base)</td>
</tr>
<tr>
<td>506c/03</td>
<td>FX-0316-4 (4 wire) Conventional Class A2 rate of rise and fixed temperature heat detector (AHMB-31 Base)</td>
</tr>
</tbody>
</table>

Bases:
Etudes et Productions Schlumberger
1, rue Henri Becquerel, Clamart 92140, France
Tel: +33 145377258
Certificate No: 1492a to LPCB Test Schedule P107397/1.2

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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<th>Notes:</th>
</tr>
</thead>
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<tr>
<td>1492a/01</td>
<td>DTS240SC Fibre Optic Linear Heat Detector - Single Channel</td>
<td>Approval is conditional on the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The use of SensorLine II or SensorTube II optical fibres (Stainless Steel)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The use of SensorLine II, SensorTube II optical fibres (Stainless Steel) or SensorLine II Legacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The optical fibre lengths should not exceed 4km.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The system should be installed and configured in accordance with the manufacturers instructions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The zone/alarm configuration parameters should be set in accordance with the manufacturers instructions for an alarm response equivalent to Class A1R as specified in EN 54-5: 2000 + A1: 2002.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The product is known as the LTS240SC when supplied in a wall-mount or rack-mount housing.</td>
</tr>
<tr>
<td>1492a/01</td>
<td>DTS240TC Fibre Optic Linear Heat Detector - Twin Channel</td>
<td>Approval is conditional on the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The use of SensorLine II or SensorTube II optical fibres (Stainless Steel)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The use of SensorLine II, SensorTube II optical fibres (Stainless Steel) or SensorLine II Legacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The optical fibre lengths should not exceed 4km.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The system should be installed and configured in accordance with the manufacturers instructions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The zone/alarm configuration parameters should be set in accordance with the manufacturers instructions for an alarm response equivalent to Class A1R as specified in EN 54-5: 2000 + A1: 2002.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The product is known as the LTS240TC when supplied in a wall-mount or rack-mount housing.</td>
</tr>
</tbody>
</table>

Eurofyre Limited
Unit C1 Knowle Village Business Park, Mayles Lane, Wickham, Fareham PO17 5DY, United Kingdom
Tel: 01329 830 462
E-mail: jon@eurofyre.com

Smoke Detectors

Certificated Products

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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>smoke detector</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163a/01</td>
<td>Conventional Optical Smoke Detector (12-030 base and 12-031 base)</td>
<td>1. Meets the requirements of EN 54-7:2000 at Smoke Sensitivity setting range: 0.08%dB~0.12%dB</td>
</tr>
<tr>
<td>1163a/02</td>
<td>Addressable Optical Smoke Detector (12-030 base and 12-031 base)</td>
<td>1. Meets the requirements of EN 54-7:2000 at Smoke Sensitivity setting range: 0.09%dB~0.11%dB</td>
</tr>
</tbody>
</table>

Bases:

12-030 Shallow Base
12-031 Deep Base
**PART 1: SECTION 4.1**

**COMMERCIAL DETECTORS**


**Multi-Sensor/Multi-Criteria Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163b/01</td>
<td>Conventional Optical Heat Detector (12-030 base and 12-031 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-7:2000 at Smoke Sensitivity setting range: 0.08%dB~0.12%dB</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-5:2000 at Class A2</td>
</tr>
<tr>
<td>1163b/02</td>
<td>Addressable Optical Heat Detector (12-030 base and 12-031 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-7:2000 at Smoke Sensitivity setting range: 0.09%dB~0.12%dB</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-5:2000 at Class A1</td>
</tr>
</tbody>
</table>

**Bases:**

- 12-030: Shallow Base
- 12-031: Deep Base


**Heat Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163c/01</td>
<td>Conventional A2S Heat Detector (12-030 base and 12-031 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-5:2000 at Class A2S</td>
</tr>
<tr>
<td>1163c/02</td>
<td>Conventional A2R Heat Detector (12-030 base and 12-031 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-5:2000 at Class A2R</td>
</tr>
<tr>
<td>1163c/03</td>
<td>Addressable A2S Heat Detector (12-030 base and 12-031 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-5:2000 at Class A2S</td>
</tr>
<tr>
<td>1163c/04</td>
<td>Addressable A1R Heat Detector (12-030 base and 12-031 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-5:2000 at Class A1R</td>
</tr>
</tbody>
</table>

**Bases:**

- 12-030: Shallow Base
- 12-031: Deep Base

---

**Eurotech Fire Systems Limited**

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E-mail: MICHELLE.AGIUS@eurotechfire.com • Website: www.eurotechfire.com


**Smoke Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1213e/01</td>
<td>Odyssey Conventional Optical Smoke Detector (200-300 and 200-301 mounting base)</td>
</tr>
<tr>
<td>1213e/02</td>
<td>Odyssey Analogue Addressable Optical Smoke Detector (200-111 mounting base)</td>
</tr>
<tr>
<td>1213e/03</td>
<td>EURV-P Intelligent Optical Smoke Detector (100-3000V Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-7 at the following sensitivity settings: Optical only level 1 - High Optical only level 2</td>
</tr>
</tbody>
</table>

---

20 Oct 2020
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1213e/04</td>
<td>100-2210V EURVC-P Conventional Optical Smoke Detector (100-3500V, 100-3511V and 100-3510V bases)</td>
</tr>
<tr>
<td>1213n/01</td>
<td>100-2101V EURV-PI Intelligent Optical Smoke Detector with Short Circuit Isolator (100-3000V Base)</td>
</tr>
<tr>
<td>1213w/01</td>
<td>EUW-PA-01 Intelligent Wireless Optical Smoke Detector (EUW-WAB Base) Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7 in the normal sensitivity setting</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>- CR123A (3 Vdc) - Main Battery</td>
</tr>
<tr>
<td></td>
<td>- CR2032A (3 Vdc) - Secondary Battery</td>
</tr>
<tr>
<td>1213w/02</td>
<td>EUW-PA-02 Intelligent Wireless Addressable Optical Smoke Detector (EUW-WAB Base) Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td>Level 1 - High</td>
</tr>
<tr>
<td></td>
<td>Level 2 - Normal</td>
</tr>
<tr>
<td></td>
<td>Level 3 - Low</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following battery type only:</td>
</tr>
<tr>
<td></td>
<td>CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

### Bases

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STB-4SE-EV Standard Deep Mounting base</td>
</tr>
<tr>
<td></td>
<td>STB-4SE-24VR Relay Mounting base</td>
</tr>
<tr>
<td></td>
<td>EUW-WAB Wireless Adaptor Base</td>
</tr>
<tr>
<td></td>
<td>100-3500V Conventional Standard Base</td>
</tr>
<tr>
<td></td>
<td>100-3511V Conventional Resistor Base</td>
</tr>
<tr>
<td></td>
<td>100-3510V Conventional Diode Base</td>
</tr>
<tr>
<td></td>
<td>100-3000V Standard Mounting Base</td>
</tr>
</tbody>
</table>

Certificated Products:

- 200-400 Odyssey Conventional Class A1R Heat Detector (200-300 mounting base) Note: Meets the requirements of EN 54: Part 5 - Class A1R
- 200-401 Odyssey Conventional Class BR Heat Detector (200-300 mounting base) Note: Meets the requirements of EN 54: Part 5 - Class BR
- 200-402 Odyssey Conventional Class CR Heat Detector (200-300 mounting base) Note: Meets the requirements of EN 54: Part 5 - Class CR
- 200-403 Odyssey Conventional Class CS Heat Detector (200-300 mounting base) Note: Meets the requirements of EN 54: Part 5 - Class CS
- 200-501 Odyssey Analogue Addressable Class A2S Heat Detector (200-111 mounting base)
- 200-502 Odyssey Analogue Addressable Class CS Heat Detector (200-111 mounting base)
- 100-2200V EURV-H A1R Intelligent Rate of Rise Heat Detector (100-3000V Base) Note: Meets the requirements of EN 54: Part 5 - Class A1R, Class B and Class BS
- 100-2505V EURV-H Conventional Class P Heat Detector (100-3511V and 100-3510V bases) Note: Meets the requirements of EN 54: Part 5 - Class A1R and Class B
- 100-2201V EURV-H A1RI Intelligent Class P Heat Detector with Short Circuit Isolator (100-3000V Base) Note: Meets the requirements of EN 54: Part 5 - Class A1R, Class B and Class BS
- EUW-TA-01 Intelligent Wireless Heat Detector (EUW-WAB Base)
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
</table>
|               | EUW-TA-02 Intelligent Wireless Addressable Class P Heat Detector (EUW-WAB Base) | 1. Meets the requirements of EN 54-5 for Class A1R and BS  
2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery |

Bases:

<table>
<thead>
<tr>
<th>Base Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STB-4SE-EV</td>
<td>Standard Deep Mounting base</td>
</tr>
<tr>
<td>EUW-WAB</td>
<td>Wireless Adaptor Base</td>
</tr>
<tr>
<td>100-3000V</td>
<td>Low Profile Adaptor Base</td>
</tr>
</tbody>
</table>


Multi-Sensor/Multi-Criteria Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
</table>
| 200-505       | Odyssey Analogue Addressable Multisensor Detector (200-111 mounting base) | 1. Meets the requirements of EN 54-5 for Class A1  
2. The device must be used with the following batteries only: CR123A (3 Vdc) - Main Battery  
- CR2032A (3 Vdc) - Secondary Battery |
| 100-2401V     | EURV-PHI Intelligent Multi-Criteria Detector with Short Circuit Isolator (100-3000V Base) | 1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:  
Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response  
Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response  
Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response  
Multi Criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response  
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:  
Class A1R heat only response  
3. Meets the requirements of EN 54-7 at the following sensitivity settings:  
Optical only level 1 - High sensitivity  
Optical only level 2  
Optical only level 3  
Optical only level 4 - Low sensitivity |
| 100-2400V     | EURV-PH Intelligent Multi-Criteria Detector (100-3000V Base) | 1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:  
Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response  
Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response  
Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response  
Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response  
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:  
Class A1R heat only response  
3. Meets the requirements of EN 54-7 at the following settings:  
Optical only level 1 - High sensitivity  
Optical only level 2  
Optical only level 3  
Optical only level 4 - Low sensitivity |
|               | EUW-MA-01 Intelligent Wireless Multi-Criteria Detector (EUW-WAB Base) | 1. Meets the requirements of EN 54-5 for Class A1R  
2. Meets the requirements of EN 54-7 in the normal sensitivity setting  
3. The device must be used with the following batteries only:  
- CR123A (3 Vdc) - Main Battery |

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### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR2032A (3 Vdc) - Secondary Battery</td>
<td></td>
</tr>
<tr>
<td>EUW-MA-02 Intelligent Wireless Addressable Multi-Criteria Detector (EUW-WAB Base)</td>
<td>1213y/02</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Level 1 - High
   - Level 2 - Normal
   - Level 3 - Low
3. The device must be used with the following battery type only:
   - CR123A (3 Vdc) - Primary and Secondary Battery

### Bases:
- 200-111 Odyssey mounting base
- 100-3000V Low profile adaptor base
- EUW-WAB Wireless Adaptor Base

---

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Tel: +886 3 990 6099 • Fax: +862 3 990 6029
E-mail: alex.hsieh@everday.com • Website: www.everday.com


### Smoke Detectors

**Certificated Products**

| EA318-2                                       | Conventional 2 wire photoelectric smoke detector |
| P/N852001 base                                 |                                             |
| EA318-2(LED)                                   | Conventional 2 wire photoelectric smoke detector with remote LED output |
| P/N854001 base                                 |                                             |
| EA318-4-12                                     | Conventional 4 wire photoelectric smoke detector |
| P/N854001 base                                 |                                             |
| EA318-4-24                                     | Conventional 4 wire photoelectric smoke detector |
| P/N854001 base                                 |                                             |
| EA318-2V                                      | Conventional 2 wire photoelectric smoke detector |
| P/N852001 base                                 |                                             |
| EA318-2-LED-V                                 | Conventional 2 wire photoelectric smoke detector with remote LED output (P/N852001 base) |
| EA318-4V-12                                    | Conventional 4 wire photoelectric smoke detector (P/N854001 base) |
| EA318-4V-24                                    | Conventional 4 wire photoelectric smoke detector (P/N854001 base) |
| EA750                                         | Intelligent Smoke Detector (EB7501 Base) |

**Bases:**
- P/N854001 4-wire detector base
- P/N852001 2-wire detector base
- EB7501


### Multi-criteria Detectors

**Certificated Products**

| EA318-2H                                      | Conventional 2 wire photoelectric smoke and heat detector |
| P/N852001 base                                |                                             |
| EA318-2H-LED                                  | Conventional 2 wire photoelectric smoke and heat detector with remote LED output |
| P/N854001 base                                |                                             |
| EA318-4H-12                                   | Conventional 4 wire photoelectric smoke and heat detector |
| P/N854001 base                                |                                             |
| EA318-4H-24                                   | Conventional 4 wire photoelectric smoke and heat detector |
| P/N854001 base                                |                                             |
| EA318-2HV                                     | Conventional 2 wire photoelectric smoke and heat detector (P/N852001 base) |

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## Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>512b/06</td>
<td>EA318-2H-LED-V</td>
<td>Conventional 2 wire photoelectric smoke and heat detector with remote LED output (P/N8524001 base)</td>
</tr>
<tr>
<td>512b/07</td>
<td>EA318-4HV-12</td>
<td>Conventional 4 wire photoelectric smoke and heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512b/08</td>
<td>EA318-4HV-24</td>
<td>Conventional 4 wire photoelectric smoke and heat detector (P/N854001 base)</td>
</tr>
</tbody>
</table>

### Bases:
P/N854001 4-wire detector base
P/N852001 2-wire detector base

**Certificate No:** 512d to EN 54-5: 2000 + A1: 2002

### Point Heat Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>512d/01</td>
<td>EA323-2</td>
<td>Conventional 2 wire 24VDC class A2S fixed temperature and rate-of-rise heat detector (P/N852001 base)</td>
</tr>
<tr>
<td>512d/02</td>
<td>EA323-2</td>
<td>Conventional 2 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector (P/N852001 base)</td>
</tr>
<tr>
<td>512d/03</td>
<td>EA323-2L</td>
<td>Conventional 2 wire 24VDC class A2S fixed temperature and rate-of-rise heat detector with LED output (P/N854001 base)</td>
</tr>
<tr>
<td>512d/04</td>
<td>EA323-2L</td>
<td>Conventional 2 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector with LED output (P/N854001 base)</td>
</tr>
<tr>
<td>512d/05</td>
<td>EA323-4</td>
<td>Conventional 4 wire 12VDC class A2S fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/06</td>
<td>EA323-4</td>
<td>Conventional 4 wire 12VDC class A2R fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/07</td>
<td>EA323-4</td>
<td>Conventional 4 wire 24VDC class A2S fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/08</td>
<td>EA323-4</td>
<td>Conventional 4 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/09</td>
<td>EA323-2V(A2S)</td>
<td>Conventional 2 wire 24 VDC class A2S fixed temperature and rate-of-rise heat detector (P/N852001 base)</td>
</tr>
<tr>
<td>512d/10</td>
<td>EA323-2V(A2R)</td>
<td>Conventional 2 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector (P/N852001 base)</td>
</tr>
<tr>
<td>512d/11</td>
<td>EA323-2LV(A2S)</td>
<td>Conventional 4 wire 12VDC class A2S fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/12</td>
<td>EA323-2LV(A2R)</td>
<td>Conventional 4 wire 12VDC class A2R fixed temperature and rate-of-rise heat detector with LED output (P/N854001 base)</td>
</tr>
<tr>
<td>512d/13</td>
<td>EA323-4V-12(A2S)</td>
<td>Conventional 4 wire 12VDC class A2S fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/14</td>
<td>EA323-4V-12(A2R)</td>
<td>Conventional 4 wire 12VDC class A2R fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/15</td>
<td>EA323-4V-24(A2S)</td>
<td>Conventional 4 wire 24VDC class A2S fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/16</td>
<td>EA323-4V-24(A2R)</td>
<td>Conventional 4 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector (P/N854001 base)</td>
</tr>
<tr>
<td>512d/17</td>
<td>EA780</td>
<td>Intelligent Heat Detector (EB7501 Base)</td>
</tr>
</tbody>
</table>

**Note:**
Meets the requirements of EN 54-5 for Class A1R

### Bases:
P/N852001 2-wire detector base
P/N854001 4-wire detector base
EB7501 base

**Certificate No:** 512k to EN 54-12: 2015

### Beam Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>512k/01</td>
<td>TR6100</td>
<td>Conventional Reflective Beam Detector</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:
   - Level 1: 2.6 dB High sensitivity
   - Level 2: 3.8 dB Medium sensitivity
   - Level 3: 5.8 dB Low sensitivity
2. Suitable for use at the following separation ranges:
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC-OIEx Conventional ATEx Optical Smoke Detector</td>
<td>1549b/01</td>
</tr>
</tbody>
</table>

### Accessories
- Mounting Bracket
- BT7130-R 1 x Mirror Reflector
- BT7130-R 4 x Mirror Reflector

---

**FARE**
ZA de la Guinette, 782 rue Duhamel du Monceau, Dadonville BP 10809, Pithiviers 45308, France
Tel: 02.38.34.54.95
E-mail: p.lecompagnon@fare-sa.com


### Certificated Products
- OC-OIEx Conventional ATEx Optical Smoke Detector
  - Base: S05Ex

---

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Tel: +44 (0) 1462 444740 • Fax: +44 (0) 1462 444789
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### Commercial detectors - 1 - 4

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16511 Talentum Conventional IR2 (Exd) Flameproof Flame Detector (07127 Bracket)</td>
<td>1204a/05</td>
</tr>
<tr>
<td>16519 Talentum Conventional IR3 (Exd) Flameproof Flame Detector (07127 Bracket)</td>
<td>1204a/06</td>
</tr>
<tr>
<td>16521 Talentum Conventional UV/IR2 (Exd) Flameproof Flame Detector (07127 Bracket)</td>
<td>1204a/07</td>
</tr>
<tr>
<td>16571 Talentum Conventional IR2 (IS) Intrinsically Safe Flame Detector (07127 Bracket)</td>
<td>1204a/08</td>
</tr>
<tr>
<td>16579 Talentum Conventional IR3 (IS) Intrinsically Safe Flame Detector (07127 Bracket)</td>
<td>1204a/09</td>
</tr>
<tr>
<td>16581 Talentum Conventional IR2 Flame Detector (07127 Bracket)</td>
<td>1204a/10</td>
</tr>
<tr>
<td>16589 Talentum Conventional IR3 Flame Detector (07127 Bracket)</td>
<td>1204a/11</td>
</tr>
<tr>
<td>16591 Talentum Conventional UV/IR2 Flame Detector (07127 Bracket)</td>
<td>1204a/12</td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

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Unit 31, Springvale Industrial Estate, Cwmbran, Gwent NP44 5BD, United Kingdom
Tel: +44 (0)1633 865558 • Fax: +44 (0)1633 866656
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Multi-Sensor Detectors
Certificated Products

205-0001 Sita analogue addressable optical smoke and heat multisensor detector with short circuit isolator and sounder.
Notes:
1. Meets the requirements of EN 54-5:2000 at the following settings:
   HM1 Class A1 standard temperature rate of rise enhanced
   HM2 Class A1 standard temperature, fixed temperature.
2. Meets the requirements of EN 54-7:2000 at the following settings:
   SM1 Standard optical sensitivity with high thermal enhancement
   SM2 Standard optical sensitivity with normal thermal enhancement.
3. Approved at the following tones -
   SP1 Continuous 970Hz
   SP2 Pulsed 970Hz 1s on 1s off
   SP3 Dual Tone 970Hz 0.25s , 800Hz 0.25s
   SP4* Sweep Up 800-970Hz over 1s
   SP5 Slow Whoop 500-1200Hz over 3s, 0.5s off
   SP6* Sweep Down 1200-500Hz over 1s
   SP7 Dual French 550Hz 0.1s, 440Hz 400ms
   * Not available if the I/O facility is used.

205-0012 Sita analogue addressable optical smoke and heat multisensor detector with short circuit isolator and sounder/strobe.
Notes:
1. Meets the requirements of EN 54-5:2000 at the following settings:
   HM1 Class A1 standard temperature rate of rise enhanced
   HM2 Class A1 standard temperature, fixed temperature.
2. Meets the requirements of EN 54-7:2000 at the following settings:
   SM1 Standard optical sensitivity with high thermal enhancement
   SM2 Standard optical sensitivity with normal thermal enhancement.
3. Approved at the following tones -
   SP1 Continuous 970Hz
   SP2 Pulsed 970Hz 1s on 1s off
   SP3 Dual Tone 970Hz 0.25s , 800Hz 0.25s
   SP4* Sweep Up 800-970Hz over 1s
   SP5 Slow Whoop 500-1200Hz over 3s, 0.5s off
   SP6* Sweep Down 1200-500Hz over 1s
   SP7 Dual French 550Hz 0.1s, 440Hz 400ms
   * Not available if the I/O facility is used.
4. The strobe function is not approved.

204-0001 Twinflex Multipoint ASD Conventional Optical Smoke and Heat Multisensor Detector with Type A Sounder (45-0048-202-01 Base)
Notes:
1. Meets the requirements of EN 54-5:2000 at the following settings:
   HM1 Class A1 standard temperature rate of rise enhanced
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>331g/03</td>
<td>Twinflex Multipoint ASD Conventional Optical Smoke and Heat Multisensor Detector with Type A Sounder &amp; Strobe</td>
</tr>
<tr>
<td>331n/01</td>
<td>Sita analogue addressable optical smoke and heat multisensor detector with short circuit isolator</td>
</tr>
<tr>
<td>331p/02</td>
<td>Twinflex Multipoint ASD Conventional Optical Smoke and Heat Multisensor Detector (45-0048-202-01 Base)</td>
</tr>
</tbody>
</table>

Notes:

1. Meets the requirements of EN 54-5:2000 at the following settings:
   HM1 Class A1 standard temperature rate of rise enhanced
   HM2 Class A1 standard temperature, fixed temperature
   HM3 Class C standard temperature, fixed temperature
2. Meets the requirements of EN 54-7:2000 at the following settings:
   SM1 Standard optical sensitivity with high thermal enhancement
   SM2 Standard optical sensitivity with normal thermal enhancement
3. Meets the requirements of EN 54-3: 2001 at the following tones -
   SP1 Continuous 970Hz
   SP2 Alternating tone at 800/970Hz
   SP3 Sweep Up 800-970Hz
4. The strobe function is not approved to EN 54-23:2010

Bases

<table>
<thead>
<tr>
<th>Base Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-0048-202 ASD Base</td>
</tr>
<tr>
<td>45-0048-202-01 Standard Base</td>
</tr>
<tr>
<td>25-0065-202 Base extension</td>
</tr>
<tr>
<td>45-0306-202 Twinflex Multipoint Base</td>
</tr>
<tr>
<td>200-0014 Shallow Base</td>
</tr>
</tbody>
</table>

Finder Elektronik A.S.
Liman Mah., 6. Sok., No: 10 07070, Konyaalti, Antalya, Turkey
Tel: +90 242 259 04 20 • Fax: +90 242 259 28 88
E-mail: finder@finder.com.tr • Website: www.finder.com.tr

Certificate No: 928a-(cl-1) to EN 54-5: 2000 + A1: 2002 and EN 54 -17: 2005
### Heat Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFT200A</td>
<td>Analogue Addressable Class P Heat Detector with Short-Circuit Isolator (FF BS200A Base)</td>
<td>928a/02</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS</td>
<td></td>
</tr>
<tr>
<td>FF T1000</td>
<td>Conventional Class P, heat detector (FF UBR200 and FF BRD200 bases)</td>
<td>928d/02</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1R and Class B.</td>
<td></td>
</tr>
<tr>
<td>FFT200AL</td>
<td>Addressable Class P Heat Detector (FF BS200A Base)</td>
<td>928d/03</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

- FF BS200: Mounting base (with link resistor)
- FF UBR200: Universal adaptor base with resistor
- FF BRD200: Universal adaptor base with resistor and Schottky diode
- FF BS200A: Low Profile Adaptor Base

**Ancillaries**

- FF BDP: Single prism reflector
- FF BDX: Set of 4 x prism reflectors

**Certificate No:**

### Smoke Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF O200A</td>
<td>Addressable Photoelectric Smoke Detector with Short-Circuit Isolator (FF BS200A Base)</td>
<td>928b/02</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7 at the following sensitivity settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only level 1 - High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only level 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only level 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only level 4 - Low</td>
<td></td>
</tr>
<tr>
<td>FF O1000</td>
<td>Conventional photo smoke detector (FF UBR200 and FF BRD200 bases)</td>
<td>928e/02</td>
</tr>
<tr>
<td>FF O200AL</td>
<td>Addressable Photoelectric Smoke Detector (FF BS200A Base)</td>
<td>928e/03</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7 at the following sensitivity settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only - level 1 - High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only - level 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only - level 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optical only - level 4 - Low</td>
<td></td>
</tr>
<tr>
<td>FF SG100</td>
<td>Wireless optical smoke detector (WAB100 base)</td>
<td>928k/01</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7 in the normal sensitivity setting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following batteries only:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR123A (3 Vdc) - main battery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CR2032A (3 Vdc) - secondary battery</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

- FF BS200: Mounting base (with link resistor)
- FF UBR200: Universal adaptor base with resistor
- FF BRD200: Universal adaptor base with resistor and Schottky diode
- WAB100: Wireless Adaptor Base
- FF BS200A: Low Profile Adaptor Base

**Certificate No:**

### Multi-sensor Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF OT200A</td>
<td>Addressable Multi-Criteria Detector with Short-Circuit Isolator (FF BS200A Base)</td>
<td>928c/02</td>
</tr>
</tbody>
</table>
Notes:
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi Criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
   - Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

FF OT200AL Addressable Photo & Class A1R Heat Detector (FF BS200A Base) 928f/02
Notes:
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response
   - Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only - level 1 - High sensitivity
   - Optical only - level 2
   - Optical only - level 3
   - Optical only - level 4 - Low sensitivity

Certificates

Point Heat Detectors
FF SG350 Wireless heat detector (WAB100 base) 928j/01
Notes:
1. Meets the requirements of EN 54-5 for Class A1R
2. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - main battery
   - CR2032A (3 Vdc) - secondary battery

Bases: WAB100 Wireless Adaptor Base

Multi-Criteria Detectors
FF SG200 Wireless multi-criteria detector (WAB100 base) 928m/01
Notes:
1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 in the normal sensitivity setting
3. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - main battery
### Beam Detectors

**Certificate No:** 1283a-(cl-1) to EN 54-12:2002

- **Bases:** WAB100 - Wireless Adaptor Base

**Beam Detectors**

<table>
<thead>
<tr>
<th>Certificate No</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF BD1000</td>
<td>1283a/01</td>
<td>Conventional Optical Beam Smoke Detector (Double Pass)</td>
<td>1. Meets the requirements of EN 54-12 at the following sensitivity settings only: 18% obscuration high sensitivity at between 5-20m, 30% obscuration medium sensitivity at between 20-100m. 2. Suitable for use with FF BDP prismatic reflector over distances from 5 to 50m. 3. Suitable for use with FF BDX set of reflectors over distances from 50 to 100m.</td>
</tr>
</tbody>
</table>

---

**Finder Yangin Güvenlik Elektronik Sistemler A.Ş**

Kepez Mh, 5071 Sk. No: 10, Kepez, Antalya 07090, Turkey

Tel: +90 242 221 40 07 • Fax: +90 242 259 28 88

E-mail: info@finder.com.tr • Website: www.finder.com.tr

**Certificate No:** 1450c-(cl-1) to EN 54-7: 2000 + A1: 2002 + A2: 2006

- **Certificate No:** 1395a-(cl-1) to EN 54-7: 2000 + A1: 2002 + A2: 2006

**Certificated Products**

<table>
<thead>
<tr>
<th>Certificate No</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF O600</td>
<td>1395a/01</td>
<td>Conventional Smoke Detector (FF BS600 Base)</td>
<td>Meets the requirements of EN 54-7 for 1 sensitivity setting. Base: FF BS600</td>
</tr>
<tr>
<td>FF O500</td>
<td>1450c/01</td>
<td>Intelligent Addressable Photo Smoke Detector (Base FF BS500)</td>
<td></td>
</tr>
<tr>
<td>FF BS500 – Standard Base</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Certificate No:** 1450d-(cl-1) to EN 54-5: 2000 + A1: 2002

- **Certificate No:** 1395b-(cl-1) to EN 54-5 2000 + A1: 2002

**Certificated Products**

<table>
<thead>
<tr>
<th>Certificate No</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF T600</td>
<td>1395b/01</td>
<td>Conventional Heat Detector (FF BS600 Base)</td>
<td>Meets the requirements of EN 54-5 for Class A2R. Base FF BS600</td>
</tr>
<tr>
<td>FF T500</td>
<td>1450d/01</td>
<td>Intelligent Addressable Class A2R Rate of Rise and Fixed Temperature Heat Detector (Base FF BS500)</td>
<td>Base FF BS500 Standard Base</td>
</tr>
</tbody>
</table>
**PART 1: SECTION 4.1**
COMMERCIAL DETECTORS

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**Fire Fighter CO Security and Safety Equipment Trading LLC**
Al Qusais Industry Area 4, P O Box 84926, Dubai, United Arab Emirates
Tel: 00971-4-2554494
E-mail: mutasem@firefighterco1.ae


**Smoke Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174a/02</td>
<td>Addressable Optical Smoke Detector (FST-6617 base) (branded as FST)</td>
</tr>
</tbody>
</table>

**Bases**
FST-6617 Addressable mounting base

**Certificate No: 1174b-(cl-6) to EN 54-5:2000 + A1:2002**

**Heat Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174b/02</td>
<td>Addressable Heat Detector (FST-6617 base) (branded as FST)</td>
</tr>
</tbody>
</table>

**Bases**
FST-6617 Addressable mounting base


**Multi-Sensor/Multi-Criteria Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174f/01</td>
<td>Addressable Smoke and Heat Detector (FST-6617 base) (branded as FST)</td>
</tr>
</tbody>
</table>

**Bases**
FST-6617 Addressable mounting base

---

**Fireguard Safety Equipment Co Ltd**
Unit 11 Chancel Industrial Estate, Newhall Street, Willenhall, West Midlands WV13 1NX, United Kingdom
Tel: +44 (0)8450 751042 • Fax: +44 (0)845 2991039
E-mail: info@fireguard-uk.com • Website: www.fireguard-uk.com


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1138a/03</td>
<td>Conventional 4-WIRE Photoelectric Smoke Detector with Relay Output (B-01 base)</td>
</tr>
</tbody>
</table>
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FG-413SD-2</td>
<td>1138a/04</td>
</tr>
<tr>
<td>Fireguard FG318-2L</td>
<td>512a/02</td>
</tr>
</tbody>
</table>

**Bases**

<table>
<thead>
<tr>
<th>Bases</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireguard P/N FG854001</td>
<td>4 wire detector base</td>
</tr>
<tr>
<td>B-01</td>
<td>Standard Base</td>
</tr>
</tbody>
</table>

**Certificate No:** 512d-(cl-4) to EN54-5: 2000 + A1: 2002

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireguard FG323-2L</td>
<td>512d/04</td>
</tr>
</tbody>
</table>

**Bases**

<table>
<thead>
<tr>
<th>Bases</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireguard P/N FG854001</td>
<td>4 wire detector base</td>
</tr>
</tbody>
</table>

**Certificate No:** 1330a-(cl-3) to EN 54-12:2015

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FG-BD100</td>
<td>1330a/01</td>
</tr>
</tbody>
</table>

**Notes:**

1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:
   - Level 1: 2.6 dB High sensitivity
   - Level 2: 3.8 dB Medium sensitivity
   - Level 3: 5.8 dB Low sensitivity
2. Suitable for use at the following separation ranges:
   - Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)
   - Span 2: 20 to 40 meters Short Path (1 x mirror reflector required)
   - Span 3: 40 to 70 meters Normal Path (4 x mirror reflector required)
   - Span 4: 70 to 100 meters Long Path (4 x mirror reflector required)

**Accessories:**

- Mounting Bracket
- FG-BD100-R 1 x Mirror Reflector
- FG-BD100-R 4 x Mirror Reflector

---

**Firelite by Honeywell (Pittway Systems Technology Group (Europe) Ltd)**

Honeywell Life Safety Systems, Charles Avenue, Burgess Hill, West Sussex RH15 9UF, United Kingdom

Tel: +44 1444 230 300 • Fax: +44 1444 230 888

E-mail: sales@morleyias.co.uk

**Certificate No:** 550a to EN 54-7: 2000 + A1: 2002
**Certificate No:** 550c to EN 54-5: 2000 + A1: 2002

### Multi-Sensor/Multi-Criteria Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL/1003</td>
<td>550a/02</td>
</tr>
<tr>
<td>FL/1002</td>
<td>550b/02</td>
</tr>
</tbody>
</table>

**FL/1005**

- Conventional Class A1R rate of rise heat detector (FL/1000B base)

**Notes:**

1. Meets the requirements of EN54-5 at class A1R at pre-set sensitivity.

**Bases**

<table>
<thead>
<tr>
<th>Bases</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL/1000B standard base</td>
<td></td>
</tr>
</tbody>
</table>
**PART 1: SECTION 4.1**

**COMMERCIAL DETECTORS**

**Firesafe**
10 Sanderson Way, Marton, Blackpool, Lancashire FY4 4NB, United Kingdom
Tel: 01253 699500 • Fax: 01253 699550
E-mail: info@firesafe.co.uk • Website: www.firesafe.co.uk


**Heat Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>928d/03</td>
<td>Generation 2 Addressable Class P Heat Detector (FSIDB Base)</td>
</tr>
<tr>
<td>928j/01</td>
<td>Wireless Intelligent Heat Detector (WAB100 Base)</td>
</tr>
</tbody>
</table>

**Bases**

- WAB100 - Wireless adaptor base
- FSIDB - Low profile adaptor base

**Smoke Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>928e/03</td>
<td>Generation 2 Addressable Optical Smoke Detector (FSIDB Base)</td>
</tr>
<tr>
<td>928k/01</td>
<td>Wireless Intelligent Optical Smoke Detector (WAB100 Base)</td>
</tr>
</tbody>
</table>

**Multi-Sensor/Multi-Criteria Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>928f/02</td>
<td>Generation 2 Addressable Multi-Criteria Smoke Detector &amp; Class A1R Heat Detector (FSIDB Base)</td>
</tr>
</tbody>
</table>

---

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS
2. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - Main Battery
   - CR2032A (3 Vdc) - Secondary Battery

---

**Notes:**

1. Meets the requirements of EN 54-7 in the normal sensitivity setting
2. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - Main Battery
   - CR2032A (3 Vdc) - Secondary Battery

---

**Notes:**

1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   - Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td>928m/01</td>
<td>FSRMS2 Wireless Intelligent Multi-Criteria Detector (WAB100 Base)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 in the normal sensitivity setting
3. The device must be used with the following batteries only
   - CR123A (3 Vdc) - Main Battery
   - CR2032A (3 Vdc) - Secondary Battery

Bases

- WAB100 - Wireless Adaptor Base
- FSIDB - Low profile adaptor base

FIREX Protection System Technology Ltd
28-38 Desborough St, High Wycombe, Buckinghamshire, United Kingdom
Tel: 00971 653 40300 • Fax: 00971 653 40090
E-mail: QC@firexuae.com • Website: www.firexuae.com


Heat Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>548c/01</td>
<td>FX9103 Conventional heat detector</td>
</tr>
<tr>
<td></td>
<td>Class A1R (DZ-03 base)</td>
</tr>
<tr>
<td>548c/02</td>
<td>FX9103I Intelligent Rate of Rise Heat Detector</td>
</tr>
<tr>
<td></td>
<td>Class A1R (DZ-03 base)</td>
</tr>
<tr>
<td>548c/03</td>
<td>FX9103E Conventional Rate of Rise and Fixed Temperature Heat Detector (FX-01 Base)</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5:2000 for Class A1R, A2S &amp; BS</td>
</tr>
<tr>
<td>548c/04</td>
<td>FXI9103E Intelligent Rate of Rise and Fixed Temperature Heat Detector (FX-01 Base)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5:2000 for Class A1R, A2S &amp; BS</td>
</tr>
</tbody>
</table>

Bases:

- DZ-03 Standard detector base
- FX-01 Standard Base


Smoke Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>548d/01</td>
<td>FX9102 Conventional Photoelectric Smoke Detector (DZ-03 base)</td>
</tr>
<tr>
<td>548d/02</td>
<td>FX9102I Intelligent Photoelectric Smoke Detector (DZ-03 base)</td>
</tr>
<tr>
<td>548d/03</td>
<td>FX9102E Conventional Photoelectric Smoke Detector (FX-01 Base)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7:2000 at sensitivity level 1 (default) setting only</td>
</tr>
</tbody>
</table>
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FXI9102E Intelligent Photoelectric Smoke Detector (FX-01 Base)</td>
<td>548d/04</td>
</tr>
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<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7:2000 at sensitivity level 1 (default) setting only</td>
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</table>

**Bases:**
- DZ-03 Standard detector base
- FX-01 Standard Base

Certificate No: 548k-(cl-2) to EN 54-12: 2015

### Beam Detectors
<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>FX9105RI Intelligent optical beam detector</td>
<td>548k/01</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1) Meets the requirements of EN 54-12 at the following sensitivity settings:</td>
<td></td>
</tr>
<tr>
<td>Level 1 - 1.61 dB</td>
<td></td>
</tr>
<tr>
<td>Level 2 - 2.31 dB</td>
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### Multi-Sensor/Multi-Criteria Detectors
<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX9101 Conventional Optical Smoke and Heat Multisensor Detector (FX9907, DZ-03D &amp; DZ-03 Bases)</td>
<td>548g/01</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7: 2000 at sensitivity setting Mode 12.</td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5: 2000 at Class A2R</td>
<td></td>
</tr>
<tr>
<td>FX9101I Intelligent Optical Smoke and Heat Multisensor Detector (DZ-03 Base)</td>
<td>548g/02</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7:2000 at sensitivity setting Mode 12.</td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5: 2000 at Class A2R</td>
<td></td>
</tr>
<tr>
<td>FX9101E Conventional Combination Heat / Photoelectric Smoke Detector (FX-01 Base)</td>
<td>548g/03</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7: 2000 at sensitivity level 1 (default) setting only</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-5: 2000 for Class A2R</td>
<td></td>
</tr>
<tr>
<td>FX9101E Intelligent Combination Heat / Photoelectric Smoke Detector (FX-01 Base)</td>
<td>548g/04</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7: 2000 at sensitivity level 1 (default) setting only</td>
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</tr>
<tr>
<td>2. Meets the requirements of EN 54-5: 2000 for Class A2R</td>
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</tr>
</tbody>
</table>

**Bases:**
- DZ-03 Standard Base
- DZ-03D Diode Base
- FX9907 Active EOL Base
- FX-01 Standard Base

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Frontier Safety Ltd UK
85 Great Portland Street, London, England W1W 7, United Kingdom
Tel: 00447708000050
E-mail: mikefrontiersafety@gmail.com • Website: www.frontierpumps.com


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRN 20 Intelligent Addressable Fire Alarm Heat Detector (Base DZ-912)</td>
<td>1426b/01</td>
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<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5 for Class A2</td>
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Base
DZ-912


Certificated Products

<table>
<thead>
<tr>
<th>FRN 30</th>
<th>Intelligent Addressable Fire Alarm Smoke Detector (DZ-912 Base)</th>
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</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>Meets the requirements of EN 54-7 for 1 sensitivity setting</td>
</tr>
</tbody>
</table>

Gent By Honeywell (Novar Systems Ltd)
140 Waterside Road, Hamilton Industrial Park, Leicester LE5 1TN, United Kingdom
Tel: +44 (0)116 246 2000 • Fax: +44 (0)116 246 2300
E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk

Middle East Sales Enquiries:
E-mail: gent.export@honeywell.com


Point Smoke Detectors

Certificated Products

<table>
<thead>
<tr>
<th>S4-715</th>
<th>S-Quad Analogue Addressable Optical Smoke Detector with Short Circuit Isolator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note:</td>
<td>1) Meets the requirements of EN 54: Part 7 at the following settings:</td>
</tr>
<tr>
<td></td>
<td>State 0 - Medium optical</td>
</tr>
<tr>
<td></td>
<td>State 3 - High sensitivity</td>
</tr>
<tr>
<td></td>
<td>State 4 - Medium optical (no spike)</td>
</tr>
<tr>
<td></td>
<td>State 8 - Delayed medium optical</td>
</tr>
</tbody>
</table>

Bases:
S4-700 Standard base
S4-FLUSH Semi-flush fixing kit
S4BK-700 Standard base (black)
S4-700-34K Fusion Adaptor base


Point Heat Detectors

Certificated Products

<table>
<thead>
<tr>
<th>S4-780</th>
<th>S-Quad Analogue Addressable Class P Heat Detector with Sounder with Short Circuit Isolator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1) Meets the requirements of EN 54-5 at the following settings:</td>
</tr>
<tr>
<td></td>
<td>State 0 - Class A1 heat</td>
</tr>
<tr>
<td></td>
<td>State 5 - Class B heat</td>
</tr>
<tr>
<td></td>
<td>State 6 - Class BS heat</td>
</tr>
<tr>
<td></td>
<td>State 7 - Class A2S heat</td>
</tr>
<tr>
<td></td>
<td>State 13 - Class A2 heat</td>
</tr>
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</table>

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Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>S4-720-ST-VO</td>
<td>S-Quad analogue addressable Class P heat detector with strobe and speech (S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit)</td>
<td>042ak/02</td>
</tr>
<tr>
<td>17860-01</td>
<td>Conventional Class A1 rate of rise heat detector (17800-01, 17800-02, 17801-01, 17801-02 mounting bases)</td>
<td>042ay/02</td>
</tr>
<tr>
<td>S4-720</td>
<td>S-Quad Analogue Addressable Class P Heat Detector with Short Circuit Isolator (S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit and S4-700-34K)</td>
<td>042be/01</td>
</tr>
</tbody>
</table>
| Multi-criteria Detectors

Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>S4-780-S</td>
<td>Analogue Addressable Class P Heat Sensor with Sounder with Short Circuit Isolator (S4-700 Standard Base and S4-700-34K)</td>
<td>042ak/04</td>
</tr>
<tr>
<td>S4-711-ST-VO</td>
<td>S-Quad analogue addressable dual optical smoke and Class P heat multisensor detector with speech and</td>
<td>042an/01</td>
</tr>
<tr>
<td>Certificated Products</td>
<td>LPCB Ref. No.</td>
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</tr>
<tr>
<td>--------------------------------------------------------------------------------------</td>
<td>---------------</td>
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<tr>
<td>strobe (S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit)</td>
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<tr>
<td>Notes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Meets the requirement of EN 54: Part 5 and requirements of EN 54: Part 7 at the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>following settings:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 0 - Medium optical / Class A1 heat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 5 - Medium optical / Class B heat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 8 - Delayed medium optical / Class A1 heat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Meets the requirements of EN 54: Part 3 at the following sounder tone settings:</td>
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</tr>
<tr>
<td>High - Continuous 933 Hz</td>
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<td></td>
</tr>
<tr>
<td>Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Speech function is not approved against Annex C requirements of EN 54-3</td>
<td></td>
<td></td>
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<tr>
<td>S4-771 S-Quad analogue addressable dual optical smoke and Class P heat multisensor</td>
<td>042an/02</td>
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<tr>
<td>detector with sounder (S4-700 Standard base with or without S4-FLUSH semi-flush</td>
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<td></td>
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<tr>
<td>mounting kit)</td>
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<tr>
<td>Notes:</td>
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</tr>
<tr>
<td>1) Meets the requirement of EN 54: Part 5 and requirements of EN 54: Part 7 at the</td>
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<tr>
<td>following settings:</td>
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<tr>
<td>State 0 - Medium optical / Class A1 heat</td>
<td></td>
<td></td>
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<tr>
<td>State 5 - Medium optical / Class B heat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 8 - Delayed medium optical / Class A1 heat</td>
<td></td>
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<tr>
<td>2) Meets the requirements of EN 54: Part 3 at the following sounder tone settings:</td>
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<td></td>
</tr>
<tr>
<td>High - Continuous 933 Hz</td>
<td></td>
<td></td>
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<tr>
<td>Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs</td>
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<tr>
<td>S4-911-ST-VO S-Quad analogue addressable optical smoke, heat and carbon monoxide</td>
<td>042an/03</td>
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<tr>
<td>multisensor detector with speech and strobe (S4-700 Standard base with or without</td>
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<td></td>
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<tr>
<td>S4-FLUSH semi-flush mounting kit)</td>
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</tr>
<tr>
<td>Notes:</td>
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</tr>
<tr>
<td>1) Meets the requirements of EN 54: Part 5 and requirements of EN 54: Part 7 at the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>following settings:</td>
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<td></td>
</tr>
<tr>
<td>State 0 - Medium optical / Class A1 heat</td>
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</tr>
<tr>
<td>2) Meets the requirements of EN 54: Part 5 at the following settings:</td>
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</tr>
<tr>
<td>State 9 - Class A1 heat</td>
<td></td>
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<tr>
<td>3) Meets the requirements of EN 54: Part 3 at the following sounder tone settings:</td>
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<tr>
<td>High - Continuous 933 Hz</td>
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<tr>
<td>Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs</td>
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<tr>
<td>4) Carbon monoxide detection, speech and strobe not included within the scope of this</td>
<td></td>
<td></td>
</tr>
<tr>
<td>approval</td>
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<tr>
<td>5) Speech function is not approved against Annex C requirements of EN 54-3</td>
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<tr>
<td>S4-770 S-Quad analogue addressable optical smoke and Class A1 heat multisensor</td>
<td>042an/04</td>
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<tr>
<td>detector with sounder (S4-700 Standard base with or without S4-FLUSH semi-flush</td>
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<td></td>
</tr>
<tr>
<td>mounting kit)</td>
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<tr>
<td>Note:</td>
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</tr>
<tr>
<td>1) Meets the requirement of EN 54: Part 5 and requirements of EN 54: Part 7 at the</td>
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<tr>
<td>following settings:</td>
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<tr>
<td>State 0 - Medium optical / Class A1 heat</td>
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<tr>
<td>2) Meets the requirements of EN 54: Part 3 at the following sounder tone settings:</td>
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</tr>
<tr>
<td>High - Continuous 933 Hz</td>
<td></td>
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<tr>
<td>Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs</td>
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<tr>
<td>S4-711-VO S-Quad analogue addressable dual optical smoke and Class P heat multisensor</td>
<td>042an/05</td>
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<tr>
<td>detector with speech (S4-700 Standard base with or without S4-FLUSH semi-flush</td>
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</tr>
<tr>
<td>mounting kit)</td>
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<td></td>
</tr>
<tr>
<td>Note:</td>
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</tr>
<tr>
<td>1) Meets the requirement of EN 54: Part 5 and requirements of EN 54: Part 7 at the</td>
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</tr>
<tr>
<td>following settings:</td>
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</tr>
<tr>
<td>State 0 - Medium optical / Class A1 heat</td>
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<td></td>
</tr>
<tr>
<td>State 5 - Medium optical / Class B heat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 8 - Delayed medium optical / Class A1 heat</td>
<td></td>
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</tr>
<tr>
<td>2) Meets the requirements of EN 54: Part 3 at the following sounder tone settings:</td>
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<td></td>
</tr>
<tr>
<td>High - Continuous 933 Hz</td>
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<tr>
<td>Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs</td>
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</tr>
<tr>
<td>3) Speech function is not approved against Annex C requirements of EN 54-3</td>
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<td></td>
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<tr>
<td>S4-770-ST S-Quad analogue addressable optical smoke and Class A1 heat multisensor</td>
<td>042an/06</td>
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<tr>
<td>detector with sounder and strobe Standard base with or without S4-FLUSH semi-flush</td>
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<tr>
<td>mounting kit)</td>
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</tr>
<tr>
<td>Notes:</td>
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</tr>
<tr>
<td>1) Meets the requirement of EN 54: Part 5 and requirements of EN 54: Part 7 at the</td>
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<tr>
<td>following settings:</td>
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<tr>
<td>State 0 - Medium optical / Class A1 heat</td>
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<tr>
<td>State 5 - Medium optical / Class B heat</td>
<td></td>
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</tr>
<tr>
<td>State 8 - Delayed medium optical / Class A1 heat</td>
<td></td>
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</tr>
<tr>
<td>2) Meets the requirements of EN 54: Part 3 at the following sounder tone settings:</td>
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<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs</td>
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<td></td>
</tr>
<tr>
<td>3) Strobe not included in scope of approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S4-710 S-Quad analogue addressable optical smoke and Class A1 heat multisensor</td>
<td>042bf/01</td>
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</tr>
<tr>
<td>detector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Certificated Products

(S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit and S4-700-34K)

Note:
1) Meets the requirement of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class B5 heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*

*Does not meet the requirement of EN 54-7

S4-711
S4BK-711
S-Quad analogue addressable dual optical smoke and Class P heat multisensor detector
(S4-700 Standard base with or without S4-FLUSH semi-flush fixing kit and S4-700-34K)

Notes:
1) Meets the requirement of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class B5 heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*

*Does not meet the requirement of EN 54-7

S4-911-V-VAD-HPR
Analogue Addressable Dual Optical Smoke and Class P Heat and CO Multi-Sensor Detector with Speech, Sounder and Red Visual Alarm (S4-701 Base and S4-700-34K)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High- Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 1 - High sensitivity / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 6 - Low sensitivity / Class B5 heat*
   - State 7 - Medium optical / Class A2S heat
   - State 9 - Class A1 heat*
   - State 11 - Low sensitivity / Class B heat
   - State 12 - Off / Class A1 heat*

*Does not meet the requirements of EN 54-7

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following:
   - Category (light pattern details)
     - High power setting - (Category C: C-3-14 and Category O: O-4-5-14)
     - Medium power setting - (Category C: C-3-13 and Category O: O-4-13)
     - Low power setting - (Category C: C-3-10)
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**COMMERCIAL DETECTORS**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4-911-V-VAD-HPW</td>
<td>042bu/05</td>
</tr>
<tr>
<td>S4-711-V-VAD-HPR</td>
<td>042bu/06</td>
</tr>
<tr>
<td>S4-711-V-VAD-LPW</td>
<td>042bu/07</td>
</tr>
</tbody>
</table>

Notes:

1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High: Continuous 933 Hz
   - Alternate: High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 1 - High sensitivity / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spike) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class BS heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat
   - State 12 - Off / Class A1 heat*
   - *Does not meet the requirements of EN 54-7
3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following:
   - Category (light pattern details)
   - High power setting - (Category C: C-3-14 and Category O: None)
   - Medium power setting - (Category C: C-3-13 and Category O: O-4-13)
   - Low power setting - (Category C: C-3-10 and Category O: None)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)
4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C
Certificated Products

State 6 - Low sensitivity / Class BS heat*
State 7 - Medium optical / Class A2S heat
State 8 - Delayed medium optical / Class A1 heat
State 11 - Low sensitivity / Class B heat*
State 12 - Off / Class A1 heat*
*Does not meet the requirements of EN 54-7

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following:
   - Category (light pattern details)
   - Low power setting - (Category C: C-3-10 and Category O: None)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C
   Analogue Addressable Optical Smoke and Class P Heat Multi-Sensor Detector with
   Speech, Sounder and White Visual Alarm (S4-701 Base and S4-700-34K)
   Notes:
   1. Meets the requirements of EN 54-3 at the following sounder tone settings:
      - State 0 - Medium optical / Class A1 heat
      - State 2 - Low sensitivity / Class A1 heat*
      - State 3 - High sensitivity / Class A1 heat
      - State 4 - Medium optical (no spike) / Class A1 heat
      - State 5 - Medium optical / Class B heat
      - State 6 - Low sensitivity / Class BS heat*
      - State 7 - Medium optical / Class A2S heat
      - State 8 - Delayed medium optical / Class A1 heat
      - State 11 - Low sensitivity / Class B heat*
      - State 12 - Off / Class A1 heat*
      *Does not meet the requirements of EN 54-7
   2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
      - High power setting - (Category C: C-6-16 and Category O: None)
      - Medium power setting - (Category C: C-3-14 and Category O: O-5-14)
      - Low power setting - (Category C: C-3-10.8 and Category O: O-4-10.8)
      - Synchronization
      - Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C
   Analogue Addressable Optical Smoke and Class P Heat Multi-Sensor Detector with
   Speech, Sounder and Red Visual Alarm (S4-701 Base and S4-700-34K)
   Notes:
   1. Meets the requirements of EN 54-3 at the following sounder tone settings:
      - High- Continuous 933 Hz
      - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
   2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
      - State 0 - Medium optical / Class A1 heat
      - State 2 - Low sensitivity / Class A1 heat*
      - State 3 - High sensitivity / Class A1 heat
      - State 4 - Medium optical (no spike) / Class A1 heat
      - State 5 - Medium optical / Class B heat
      - State 6 - Low sensitivity / Class BS heat*
      - State 7 - Medium optical / Class A2S heat
      - State 8 - Delayed medium optical / Class A1 heat
      - State 11 - Low sensitivity / Class B heat*
      - State 12 - Off / Class A1 heat*
      *Does not meet the requirements of EN 54-7
   3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
      - Low power setting - (Category C: C-3-10)
      - Synchronization
      - Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C
   S-Quad Analogue Addressable Optical Smoke and Class P Heat Multi-Sensor with
   Speech, Sounder and Red Visual Alarm (Black Body Variant) (S4BK-700 Base and
   S4BK-705 Base)
   Notes:
   1. Meets the requirements of EN 54-3 at the following sounder tone settings:
      - High- Continuous 933 Hz
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<td>042bv/01</td>
<td>S4-720-V-VAD-HPR Analogue Addressable Class P Heat Sensor with Voice, Sounder and Red Visual Alarm (S4-701 Base and S4-700-34K)</td>
</tr>
<tr>
<td>042bw/01</td>
<td>S4-720-V-VAD-HPW Analogue Addressable Class P Heat Sensor with Voice, Sounder and White Visual Alarm (S4-701 base and S4-700-34K)</td>
</tr>
</tbody>
</table>

#### Notes:

1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Low - 700 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
2. Meets the requirements of EN 54-5 at the following settings:
   - State 0 - Class A1 heat
   - State 5 - Class B heat
3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following (light pattern details):
   - High power setting - (Category C: C-3-14 and Category O: O-4.5-14)
   - Medium power setting - (Category C: C-3-13 and Category O: O-4-13)
   - Low power setting - (Category C: C-3-10)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4BK-700 base and S4BK-705 IP Plate to achieve IP21C

### 2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:

- State 0 - Medium optical / Class A1 heat
- State 2 - Low sensitivity / Class A1 heat
- State 3 - High sensitivity / Class A1 heat
- State 4 - Medium optical (no spike) / Class A1 heat
- State 5 - Medium optical / Class B heat
- State 6 - Low sensitivity / Class BS heat
- State 7 - Medium optical / Class A2S heat
- State 8 - Delayed medium optical / Class A1 heat
- State 11 - Low sensitivity / Class B heat
- State 12 - Off / Class A1 heat
*Does not meet the requirements of EN 54-7*
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Certificated Products

2. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - High power setting - (Category C: C-3-14 and Category O: O-4.5-14)
   - Medium power setting - (Category C: C-3-13 and Category O: O-4-13)
   - Low power setting - (Category C: C-3-10 and Category O: None)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

3. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C

S4-711-VAD-LPW Analogue Addressable Dual Optical Smoke and Class P Heat Multi-Sensor Detector with White Visual Alarm (S4-701 base)

Notes:
1. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spike) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class BS heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*
   *Does not meet the requirements of EN 54-7

2. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - Low power setting - (Category C: C-3-10 and Category O: None)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

3. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C

S4-711-VAD-HPW Analogue Addressable Dual Optical Smoke and Class P Heat Multi-Sensor Detector with White Visual Alarm (S4-701 base and S4-700-34K)

Notes:
1. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spike) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class BS heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*
   *Does not meet the requirements of EN 54-7

2. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - High power setting - (Category C: C-6-16 and Category O: None)
   - Medium power setting - (Category C: C-3-14 and Category O: O-5-14)
   - Low power setting - (Category C: C-3-10.8 and Category O: O-4-10.8)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

3. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C

S4-901 Analogue Addressable Dual Optical Smoke and Class P Heat and CO Multi-Sensor Detector (S4-700 Standard Base and S4-700-34K)

Notes:
1. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Normal sensitivity / Class A1 heat
   - State 1 - High sensitivity / Class A1 heat
   - State 2 - Medium sensitivity / Class A1 heat
   - State 4 - Normal sensitivity (no spike) / Class A1 heat
   - State 6 - Normal sensitivity / Class A2S heat
   - State 9 - Class A1 heat*
   - State 11 - Normal sensitivity (no spike) / Class B heat

LPCB Ref. No. 042bw/02

20 Oct 2020
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<td>S4-771-S</td>
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<td>S4-770-S</td>
</tr>
<tr>
<td>S4BK-711-V</td>
</tr>
</tbody>
</table>

**S4-711-V**
Analogue Addressable Dual Optical Smoke and Class P Heat Multi-Sensor Detector with Speech (S4-700 standard base with or without S4-FLUSH semi-flush mounting kit and S4-700-34K)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class B5 heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*

*Does not meet the requirements of EN 54-7

**S4-771-S**
Analogue Addressable Dual Optical Smoke and Class P Heat Multi-Sensor Detector with Sounder (S4-700 standard base with or without S4-FLUSH semi-flush mounting kit and S4-700-34K)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class B5 heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*

*Does not meet the requirements of EN 54-7

**S4-770-S**
Analogue Addressable Optical Smoke and Class P Heat Multi-Sensor Detector with Sounder (S4-700 standard base with or without S4-FLUSH semi-flush mounting kit and S4-700-34K)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class B5 heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*

*Does not meet the requirements of EN 54-7

**S4BK-711-V**
Analogue Addressable Dual Optical Smoke and Class P Heat Multi-sensor with Speech Sounder (Black Body Variant) (S4BK-700 Base with or without S4-FLUSH semi-flush mounting kit)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
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Certificated Products

LPCB Ref. No.

State 2 - Low sensitivity / Class A1 heat*
State 3 - High sensitivity / Class A1 heat
State 4 - Medium optical (no spoke) / Class A1 heat
State 5 - Medium optical / Class B heat
State 6 - Low sensitivity / Class BS heat*
State 7 - Medium optical / Class A2S heat
State 8 - Delayed medium optical / Class A1 heat
State 11 - Low sensitivity / Class B heat*
State 12 - Off / Class A1 heat*

*Does not meet the requirement of EN 54-7

Bases:
- S4-700 standard base
- S4-701 S Quad plate and base
- S4-FLUSH semi-flush fixing kit
- S4BK-700 standard base (black)
- S4BK-705 Black IP21 base covers (pack 5)
- S4-700-34K Fusion Adaptor base

Certificate No: 042bh to EN 54-12: 2015 and EN 54-17: 2005

Beam Detectors

Certificated Products

S4-34740 Analogue addressable optical beam smoke detector with short circuit isolator (S4-34741-01, S4-34741-03 and S4-700 base)

LPCB Ref. No.
042bh/01

Notes:
1. The S4-34740 beam sensor pair comprises of an S4-34741 beam transmitter, plus an S4-34742 beam receiver.
2. Meets the requirements of EN 54-12 at the following sensitivity settings:
   - States 0, 1: 3.01dB
   - States 2, 3: 1.25dB

Ancillaries:
- S4-34741-01 beam angle bracket
- S4-34741-03 beam parallel bracket
- S4-700 Base

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Point Heat Detectors

Certificated Products

GC003 D Conventional non-latching Class P heat detector (GC 150B relay base and GC160 B base)

LPCB Ref. No.
928d/02

Note:
1. Meets the requirements of EN 54-5 for Class A1R and Class B

Bases
- GC150 B Non-latching relay base
- GC160 B Universal adaptor base

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Point Smoke Detectors
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<td>GC002 D</td>
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<tr>
<td>Conventional non-latching photo smoke detector (GC150 B relay base and GC160 B base)</td>
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</tbody>
</table>

Bases
| GC150 B |
| Non-latching relay base |
| GC160 B |
| Universal adaptor base |

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Point Heat Detectors
Certificated Products

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<td>Conventional Class A1R heat detector (DZ-03 base)</td>
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<tr>
<td>I-9103</td>
</tr>
<tr>
<td>Intelligent Class A1R Rate of Rise Heat Detector (DZ-03 base)</td>
</tr>
<tr>
<td>DC-9103E</td>
</tr>
<tr>
<td>Conventional Rate of Rise and Fixed Temperature Heat Detector (DB-01 &amp; DB-01D Bases and DP-9907 Unit)</td>
</tr>
<tr>
<td>Note:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-5:2000 for Class A1R, A2S &amp; BS</td>
</tr>
<tr>
<td>DI-9103E</td>
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<tr>
<td>Intelligent Rate of Rise and Fixed Temperature Heat Detector (DB-01 Base)</td>
</tr>
<tr>
<td>Note:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-5:2000 for Class A1R, A2S &amp; BS</td>
</tr>
</tbody>
</table>

Bases:
| DZ-03 |
| Standard detector base |
| DB-01 |
| Standard base |
| DB-01D |
| Diode base |
| DP-9907 |
| Active end of line unit |


Point Smoke Detector
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<td>Conventional Photoelectric Smoke Detector (DZ-03 base)</td>
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<td>I-9102</td>
</tr>
<tr>
<td>Intelligent Photoelectric Smoke Detector (DZ-03 base)</td>
</tr>
<tr>
<td>DC-9102E</td>
</tr>
<tr>
<td>Conventional Photoelectric Smoke Detector (DB-01 &amp; DB-01D Bases and DP-9907 Unit)</td>
</tr>
<tr>
<td>Note:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7:2000 at sensitivity level 1 (default) setting only</td>
</tr>
<tr>
<td>DI-9102E</td>
</tr>
<tr>
<td>Intelligent Photoelectric Smoke Detector (DB-01 Base)</td>
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<tr>
<td>Note:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7:2000 at sensitivity level 1 (default) setting only</td>
</tr>
</tbody>
</table>

Bases:
| DZ-03 |
| Standard detector base |
| DB-01 |
| Standard Base |
| DB-01D |
| Diode Base |
| DP-9907 |
| Active End of Line Unit |
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificate No: 548k to EN 54-12: 2015

Beam Detectors
Certificated Products

- I-9105R Intelligent optical beam detector
  Notes:
  1) Meets the requirements of EN 54-12 at the following sensitivity settings:
     Level 1 - 1.61 dB
     Level 2 - 2.31 dB


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

- C-9101 Conventional Optical Smoke and Heat Multisensor Detector (P-9907 Base, DZ-03D Base & DZ-03 Base)
  Notes:
  1. Meets the requirements of EN 54-7: 2000 at sensitivity setting Mode 1
  2. Meets the requirement of EN 54-5: 2000 at Class A2R

- I-9101 Intelligent Optical Smoke and Heat Multisensor Detector (DZ-03 Base)
  Notes:
  1. Meets the requirements of EN 54-7: 2000 at sensitivity setting Mode 1
  2. Meets the requirement of EN 54-5: 2000 at Class A2R

- DC-9101E Conventional Combination Heat/Photoelectric Smoke Detector (DB-01 & DB-01D bases and DP-9907 Unit)
  Notes: 1. Meets the requirements of EN 54-7: 2000 at sensitivity level 1 (default) setting only
  2. Meets the requirements of EN 54-5: 2000 for Class A2R Conventional Combination Heat/Photoelectric Smoke Detector

- DI-9101E Intelligent Combination Heat/Photoelectric Smoke Detector (DB-01 base)
  Notes: 1. Meets the requirements of EN 54-7: 2000 at sensitivity level 1 (default) setting only
  2. Meets the requirements of EN 54-5: 2000 for Class A2R

Bases:
- DZ-03 Standard base
- P-9907 Active EOL base
- DZ-03D Diode base
- DB-01 Standard base
- DB-01D Diode base
- DP-9907 Active end of line unit


Heat Detectors
Certificated Products

- 55000-122HSL Series 65 Conventional Class A1R Heat Detector (45681-200HSL mounting base)
  Note: Meets the requirements of EN 54: Part 5 - Class A1R

- 55000-127HSL Series 65 Conventional Class BR Heat Detector (45681-200HSL mounting base)
  Note: Meets the requirements of EN 54: Part 5 - Class BR

- 55000-132HSL Series 65 Conventional Class CR Heat Detector

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### Commercial Detectors

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<td>55000-137HSL</td>
<td>Series 65 Conventional Class CS Heat Detector</td>
<td>810b/04</td>
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<tr>
<td>55000-400HSL</td>
<td>XP95 Analogue Addressable Class A2S Heat Detector</td>
<td>810b/05</td>
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<tr>
<td>55000-401HSL</td>
<td>XP95 Analogue Addressable Class CS High Temperature Heat Detector</td>
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#### Bases:

- 45681-200HSL Series S65 Mounting Base
- 45681-210HSL Series XP95 mounting base


### Smoke Detectors

#### Certificated Products

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<td>Series 65 Conventional Ionisation Smoke Detector</td>
<td>810c/01</td>
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<td>XP95 Analogue Addressable Optical Smoke Detector</td>
<td>810c/04</td>
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#### Bases:

- 45681-200HSL Series 60/65 Mounting Base
- 45681-210HSL Series XP95 Mounting Base


### Multi-Sensor/Multi-Criteria Detectors

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<td>55000-885HSL</td>
<td>XP95 Analogue Addressable Multisensor Detector</td>
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#### Bases:

- 45681-210HSL Series XP95 Mounting Base


### Flame Detectors

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<td>IR3-IS</td>
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<td>IR3-EX</td>
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</table>

**Hochiki America Corporation**

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRD-E</td>
<td>Conventional Class 1 IR Flame Detector (YBN-R/6SK, YBN-R/6, YBO-R/6R, YBO-R/6RN, YBO-R/6PA, YBO-R/6RS)</td>
<td>117k/01</td>
</tr>
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</table>

Ancillaries

IR-AMB Adjustable Mounting Bracket

Smoke Detectors

Certificated Products

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<thead>
<tr>
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<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>ALK-E (WHT)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (White) YBO-R/SCI, YBO-BS &amp; YBO-BSB bases</td>
<td>358c/03</td>
</tr>
<tr>
<td>SLE-E3 (WHT)</td>
<td>Conventional Optical Smoke Detector (White) YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases</td>
<td>358c/05</td>
</tr>
<tr>
<td>SLE-E3N (BLK)</td>
<td>Conventional Optical Smoke Detector (Black) YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases</td>
<td>358c/06</td>
</tr>
<tr>
<td>SLE-E3N (WHT)</td>
<td>Conventional Optical Smoke Detector (White) YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases</td>
<td>358c/06</td>
</tr>
<tr>
<td>ALN-EN</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector YBN-R/3, YBO-R/SCI, YBO-BS &amp; YBO-BSB Bases</td>
<td>358c/07</td>
</tr>
<tr>
<td>ALN-EN (WHT)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (White) YBN-R/3, YBO-R/SCI, YBO-BS &amp; YBO-BSB Bases</td>
<td>358c/07</td>
</tr>
<tr>
<td>ALN-E(WHT)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (White) YBN-R/3(SCI), YBN-R/3, YBO-R/SCI, YBO-BS, YBO-BSB, YBN/R/2NA</td>
<td>358c/08</td>
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Bases

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>YBN-R/3</td>
<td>Standard Base</td>
</tr>
<tr>
<td>YBO-R/SCI</td>
<td>Positive switching short circuit isolator base</td>
</tr>
<tr>
<td>YBO-R/SCI(RED)</td>
<td>Short circuit isolating base</td>
</tr>
<tr>
<td>YBO-BS</td>
<td>Sounder base</td>
</tr>
<tr>
<td>YBO-BS(WHT)</td>
<td>Sounder base</td>
</tr>
<tr>
<td>YBO-BSB</td>
<td>Sounder base with Beacon</td>
</tr>
<tr>
<td>YBN-R/6</td>
<td>Standard Base</td>
</tr>
<tr>
<td>YBN-R/6SK</td>
<td>Standard base with schottky diode</td>
</tr>
<tr>
<td>YBO-R/6R</td>
<td>Relay Base</td>
</tr>
<tr>
<td>YBO-R/6RS</td>
<td>Relay Base latching with schottky diode</td>
</tr>
<tr>
<td>YBO-R/6RN</td>
<td>Relay base non latching</td>
</tr>
<tr>
<td>YBO-R-6PA</td>
<td>Protector alarms base</td>
</tr>
<tr>
<td>YBN-R/3(SCI)</td>
<td>Short circuit isolator base</td>
</tr>
</tbody>
</table>

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### Bases

- **YBN-R/6SK**: Conventional Schottky diode base
- **YBN-R/6**: Conventional standard base
- **YBO-R/6R**: Conventional latching relay base
- **YBO-R/6RN**: Conventional non-latching relay base
- **YBO-R/6PA**: Conventional 2 wire base
- **YBO-R/6RS**: Conventional latching relay base with integral Schottky diode

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#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Products Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROD-E 928k/01</td>
<td>Wireless optical smoke detector (RSM-WDB base)</td>
</tr>
<tr>
<td>ROP-E 928k/02</td>
<td>Wireless Addressable Optical Smoke Detector (RSM-WDB Base)</td>
</tr>
</tbody>
</table>

Notes:
- Meets the requirements of EN 54-5 for Class A1R
- The device must be used with the following batteries only:
  - CR123A (3 Vdc) - main battery
  - CR2032A (3 Vdc) - secondary battery

Bases:

- **RSM-WDB - Wireless Adaptor Base**


#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Products Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCD-1E-IS 117g/01</td>
<td>Class A1 Conventional Intrinsically Safe Fixed Temperature and Rate of Rise Heat Detector (YBN-R/4IS Base)</td>
</tr>
<tr>
<td>DFJ-AE3 117g/02</td>
<td>Class A1S Conventional Fixed Temperature Heat Detector (YCA-RL/3H2M, YBN-R6SK, YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DFJ-AE3(HFP) 117g/02</td>
<td>Class A1S Conventional Fixed Temperature Heat Detector (YCA-RL/3H2M, YBN-R6SK, YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DFJ-CE3 117g/03</td>
<td>Class CS Conventional Fixed Temperature Heat Detector (YCA-RL/3H2M, YBN-R6SK, YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DFJ-CE3(HFP) 117g/03</td>
<td>Class CS Conventional Fixed Temperature Heat Detector (YCA-RL/3H2M, YBN-R6SK, YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DCD-AE3 117g/04</td>
<td>Class A1R Conventional Rate of Rise Temperature Heat Detector (YCA-RL/3H2M, YBN-R6SK, YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DCD-AE3(HFP) 117g/04</td>
<td>Class A1R Conventional Rate of Rise Temperature Heat Detector (YCA-RL/3H2M, YBN-R6SK and YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DCD-AE3(WHT) 117g/05</td>
<td>Class A1R Conventional Rate of Rise Temperature Heat Detector - White (YCA-RL/3H2M, YBN-R6SK and YBN-R/6, YBO-R/6R, YBO-R/6RN and YBO-R/6PA Bases)</td>
</tr>
<tr>
<td>DFG-60BLKJ 117g/05</td>
<td>Class A2 Conventional Fixed Temperature Water Resistant Heat Detector</td>
</tr>
<tr>
<td>DCD-CE3 117g/06</td>
<td>Conventional Class CR Rate of Rise High Temperature Heat Detector</td>
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</table>
## Certificated Products

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<tr>
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<th>Description</th>
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</tr>
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<tbody>
<tr>
<td>DCD-CE3(HFP)</td>
<td>Conventional Class CR Rate of Rise High Temperature Heat Detector (YBN-R/6M Base)</td>
<td>117g/06</td>
</tr>
<tr>
<td>DCD-CE3(WHT)</td>
<td>Conventional Class CR Rate of Rise High Temperature Heat Detector - White (YBN-R/6M Base)</td>
<td>117g/06</td>
</tr>
<tr>
<td>DCD-CE3M</td>
<td>Conventional Class CR Rate of Rise High Temperature Heat Detector (YBN-R/6M Base)</td>
<td>117g/06</td>
</tr>
<tr>
<td>ACB-EW</td>
<td>Weather Proof Intelligent Analogue Addressable Class P Heat Detector (YBN-R/3 base)</td>
<td>117g/10</td>
</tr>
<tr>
<td>DFG-60BLJ</td>
<td>Conventional Class A2 Fixed Temperature Water Resistant Heat Detector</td>
<td>117g/12</td>
</tr>
<tr>
<td>ATJ-E(WHT)</td>
<td>Intelligent Analogue Addressable Class P Heat Detector (YBN-R/3, YBN-R/3(SCI), YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL Bases)</td>
<td>117g/13</td>
</tr>
<tr>
<td>ATJ-EN</td>
<td>Intelligent Analogue Addressable Class P Heat Detector (YBN-R/3, YBN-R/3(SCI), YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL Bases)</td>
<td>117g/14</td>
</tr>
<tr>
<td>ATJ-EN(WHT)</td>
<td>Intelligent Analogue Addressable Class P Heat Detector (YBN-R/3, YBN-R/3(SCI), YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL Bases)</td>
<td>117g/14</td>
</tr>
<tr>
<td>ATJ-EN(SCI)</td>
<td>Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator (YBV-R/4, YBV-R/4(WHT), YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
<td>117m/02</td>
</tr>
<tr>
<td>ATJ-EN(WHT)-SCI</td>
<td>Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator, White (YBV-R/4, YBV-R/4(WHT), YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
<td>117m/02</td>
</tr>
<tr>
<td>RHD-E</td>
<td>Wireless heat detector (RSM-WDB base)</td>
<td>928j/01</td>
</tr>
<tr>
<td>RHT-E</td>
<td>Wireless Addressable Class P Heat Detector (RSM-WDB Base)</td>
<td>928j/02</td>
</tr>
</tbody>
</table>

### Base:
- **RSM-WDB**: Wireless Adaptor Base
- **YBV-R/4**: Addressable detector base
- **YBV-R/4(WHT)**: Addressable detector base (White)
- **YBV-R/4(HFP)**: Addressable detector base (White)
- **YBN-R/3**: Addressable detector base
- **YBO-BS**: Base sounder
- **YBO-BS(WHT)**: Base sounder (White)
- **YBN-R(3(SCI))**: Short circuit isolator base
- **YBN-R(3(WHT)-SCI)**: Short circuit isolator base (White)
- **YBO-BSB2(WHT)/WL**: Base Sounder Beacon (White LED)
- **YBO-BSB2(WHT)/WL**: Base Sounder Beacon (White LED)

### Notes:
1. **Meets the requirements of EN 54-5 for Class A1R**
2. **The device must be used with the following batteries only:**
   - CR123A (3 Vdc) - main battery
   - CR2032A (3 Vdc) - secondary battery
3. **Meets the requirements of EN 54-5 for Class A1R and BS**
4. **The device must be used with the following battery type only:**
   - CR123A (3 Vdc) - Primary and Secondary Battery
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

YBO-BSB2/RL Base Sounder Beacon (Red LED)
YBO-BSB2(WHT)/RL Base Sounder Beacon (Red LED)
YBN-R/R4IS(WHT) Conventional Intrinsically Safe Mounting Base (White Plastic)
YBN-R/6M(WHT) Conventional Standard Mounting Base (White Plastic)
YBN-R/6SK(WHT) Conventional Schottky Diode Mounting Base (White Plastic)
YBO-BS(WHT) Addressable Base Sounder (White Plastic)
YBO-R/6PA(WHT) Conventional 2 Wire S Mounting Base
YBO-R/6R(WHT) Conventional Relay Mounting Base Latching (White Plastic)
YBO-R/6RS(WHT) Conventional Relay Mounting Base Latching with Schottky Diode (White Plastic)
YBO-R/6RN(WHT) Conventional Relay Mounting Base Non-Latching with Schottky Diode (White Plastic)
YBN-R/3(SCI)-WHT Addressable Short Circuit Isolating Mounting Base (White Plastic)
YBO-BSB2(BLK)/RL Addressable Base Sounder Beacon (Red LED) - Black Plastic
YBO-BSB2(BLK)/WL Addressable Base Sounder Beacon (White LED) - Black Plastic

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Manufacturing at (Certificate Nos 358, 358c)
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E-mail: overseas@hochiki.co.jp • Website: www.hochiki.com


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<td>117h/03</td>
<td>ALN-E(HFP)</td>
</tr>
<tr>
<td></td>
<td>YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(RL) and YBO-BSB2(WHT)(RL bases)</td>
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<tr>
<td></td>
<td>Note: Meets the requirements of EN54-7 in low and high sensitivity settings</td>
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<tr>
<td>117h/03</td>
<td>ALN-E(WHT)</td>
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<tr>
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<td>YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(RL) and YBO-BSB2(WHT)(RL bases)</td>
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<td>Note: Meets the requirements of EN54-7 in low and high sensitivity settings</td>
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<td>117h/04</td>
<td>ALN-EN</td>
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<td>YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(RL) and YBO-BSB2(WHT)(RL bases)</td>
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<td>Note: Meets the requirements of EN54-7 in low and high sensitivity settings</td>
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<tr>
<td>117h/04</td>
<td>ALN-EN(WHT)</td>
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<tr>
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<td>YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(RL) and YBO-BSB2(WHT)(RL bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN54-7 in low and high sensitivity settings</td>
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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

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<th>Description</th>
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<tbody>
<tr>
<td>SLR-E-IS</td>
<td>Conventional photoelectric smoke detector (YBN-R/4IS base)</td>
<td>164g02</td>
</tr>
<tr>
<td>ALN-E(WHT)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (White Colour Plastic Moulding) (YBN-R/3(SCI), YBN-R/3, YBO-R/SCI, YBN-R/2NA, YBO-BS &amp; YBO-BSB bases)</td>
<td>164g06</td>
</tr>
<tr>
<td>ALN-EN(WHT)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (White Colour Plastic Moulding) (YBN-R/3(SCI), YBN-R/3, YBO-R/SCI, YBN-R/2NA, YBO-BS &amp; YBO-BSB bases)</td>
<td>164g07</td>
</tr>
<tr>
<td>ALN-E(HFP)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (Branded as HFP) (White Colour Plastic Moulding) (YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL, YBO-BSB2(WHT)/RL bases)</td>
<td>164g08</td>
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<tr>
<td>SOC-E-IS</td>
<td>Conventional Optical Smoke Detector - Ivory Plastic (YBN-R/4IS)</td>
<td>164g10</td>
</tr>
<tr>
<td>SOC-E-IS(WHT)</td>
<td>Conventional Optical Smoke Detector - White Plastic (YBN-R/4(WHT)-IS)</td>
<td>164g10</td>
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<tr>
<td>SLV-E3 (HFP)</td>
<td>Conventional Optical Smoke Detector (White) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c05</td>
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<tr>
<td>SLV-E3 (WHT)</td>
<td>Conventional Optical Smoke Detector (White) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c05</td>
</tr>
<tr>
<td>SLR-E3N (BLK)</td>
<td>Conventional Optical Smoke Detector (Black) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c06</td>
</tr>
<tr>
<td>SLR-E3N(WHT)</td>
<td>Conventional Optical Smoke Detector (White) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c06</td>
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<tr>
<td>ALN-EN</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector (YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
<td>358c07</td>
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<tr>
<td>SOC-E3N</td>
<td>Conventional Optical Smoke Detector (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c09</td>
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<tr>
<td>SOC-E3N(WHT)</td>
<td>Conventional Optical Smoke Detector (White) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c09</td>
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<tr>
<td>SOC-E3(HFP)</td>
<td>Conventional Optical Smoke Detector (White) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
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<tr>
<td>SOC-E3(WHT)</td>
<td>Conventional Optical Smoke Detector (White) (YBN-R/6, YBN-R/6SK, YBO-R/6R, YBO-R/6RS, YBO-R/6RN &amp; YBO-R/6PA bases)</td>
<td>358c10</td>
</tr>
<tr>
<td>ALN-E(HFP)-SCI</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator, White Housing (YBV-R/4, YBN-R/3, YBO-BS, YBO-BSB2/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
<td>358e01</td>
</tr>
<tr>
<td>ALN-E(WHT)-SCI</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator, White Housing (YBV-R/4, YBN-R/3, YBO-BS, YBO-BSB2/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
<td>358e01</td>
</tr>
<tr>
<td>ALN-EN(SCI)</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator, Ivory Housing (YBV-R/4, YBN-R/3, YBO-BS, YBO-BSB2/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
<td>358e02</td>
</tr>
<tr>
<td>ALN-EN(WHT)-SCI</td>
<td>Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator, White Housing (YBV-R/4, YBN-R/3, YBO-BS, YBO-BSB2/WL, YBO-BSB2(WHT)/WL, YBO-BSB2/RL and YBO-BSB2(WHT)/RL bases)</td>
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Bases
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

YBN-R/4C Conventional mounting base
YBO-BS Sounder base
YBO-R/6R Relay base
YBO-R/6RS Relay base latching with Schottky diode
YBO-R/6PA Protector alarms base
YBN-R/3 Standard base
YBN-R/6 Standard base
YBN-R/6SK Standard base with Schottky diode
YBO-BS Sounder base
YBN-R(3(SCI)) Short circuit isolator base
YBO-BSB2/WL Base sounder beacon (White LED)
YBO-BSB2(RED)/WL Base sounder beacon (Red LED)
YBO-BSB2(RED)/RL Base sounder beacon (Red LED)
RSM-WDB Wireless adaptor base
YVB-R/4 Addressable detector base
YBN-R(4(WHT)-IS) Remote indicator base white
YBN-R/4IS Remote indicator base

All Enquiries to:
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Manufacturing at (Certificate Nos. 164, 164g, 164m)
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E-mail: sales@hochikieurope.com • Website: www.hochikieurope.com

Manufacturing at (Certificate Nos. 358, 358c)
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Tel: +1 714 522 2246 • Fax: +1 714 522 2268
E-mail: overseas@hochiki.co.jp • Website: www.hochiki.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificate Details</th>
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<tbody>
<tr>
<td>117f/02</td>
<td>ACC-E(WHT) Intelligent Analogue Addressable Multi-Criteria Detector (YBN-R/3, YBO-BS, YBN-R(3(SCI)), YBO-BSB2/WL, YBO-BSB2(RED)/WL, YBO-BSB2/RED and YBO-BSB2(RED)/RL bases) Note: Certificated at the following modes: Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity Mode 2 - Fixed temperature heat detector at class A1 &amp; G</td>
</tr>
<tr>
<td>117f/03</td>
<td>ACC-EN Intelligent Analogue Addressable Multi-Criteria Detector (YBN-R/3, YBO-BS, YBN-R(3(SCI)), YBO-BSB2/WL, YBO-BSB2(RED)/WL, YBO-BSB2/RED and YBO-BSB2(RED)/RL bases) Note: Certificated at the following modes:</td>
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</tbody>
</table>
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>ACC-EN(WHT)</td>
<td>117f/03</td>
</tr>
<tr>
<td>ACD-E</td>
<td>117p/01</td>
</tr>
</tbody>
</table>

**Certificated Products**

### ACC-EN(WHT)

| Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
| Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
| Mode 2 - Fixed temperature heat detector at class A1 & C

**Intelligent Analogue Addressable Multi-Criteria Detector**


**Note:**
- Certificated at the following modes:
  - Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
  - Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
  - Mode 2 - Fixed temperature heat detector at class A1 & C

**ACD-E**

| Notes: |
| 1. Meets the requirements of EN 54-5, depending on the specific heat mode selected, at Classes A1, A1S, A1R, C, CS, CR |
| 2. Meets the requirements of EN 54-7, depending on the specific smoke mode selected, at Sensitivity Settings 2% and 4.5% |

### Modes:

| 9A* Smoke/Heat/Co Combine (Default Mode) |
| 9B Co/Heat combine, Heat (RoR) |
| 80* Smoke/Heat combine |
| 81 Smoke/Heat combine |
| 82* Smoke |
| 83 Smoke |
| 87 Heat (FT) Heat (RoR) (Fixed Level 1 - Class A1) |
| 88 Heat (FT) Heat (RoR) (Fixed Level 2 - Class A1R) |
| 89 Heat (FT) (Fixed Level 3 - Class A1S) |
| 8A Heat (FT) Heat (RoR) (Fixed Level 4 - Class C) |
| 8B Heat (FT) Heat (RoR) (Fixed Level 5 - Class CR) |
| 8C Heat (FT) (Fixed Level 6 - Class CS) |
| 8D Smoke, Co, Heat (FT), Heat (RoR), COHb |
| 8E* Smoke/Heat Combine, COHb |
| 8F* Smoke, COHb |
| 93 Heat (FT), Heat (RoR), COHb (Fixed Level 1 - Class A1) +COHb |
| 94 Heat (FT), Heat (RoR), COHb (Fixed Level 2 - Class A1R) +COHb |
| 95 Heat (FT), COHb (Fixed Level 3 - Class A1S) +COHb |
| 96 Heat (FT), Heat (RoR), COHb (Fixed Level 4 - Class C) +COHb |
| 97 Heat (FT), Heat (RoR), COHb (Fixed Level 5 - Class CR) +COHb |
| 98 Heat (FT), COHb (Fixed Level 6 - Class CS) +COHb |
| 99* Smoke/Heat/Co Combine, Smoke, CO/Heat Combine, Heat (FT), Heat (RoR), COHb |
| 9C COHb |
| 9D CO |

- **FT** = Fixed Temperature
- **RoR** = Rate of Rise
- **COHb** = Carboxyhemoglobin

### ACD-E(HFP)

| Notes: |
| 1. Meets the requirements of EN 54-5, depending on the specific heat mode selected, at Classes A1, A1S, A1R, C, CS, CR |
| 2. Meets the requirements of EN 54-7, depending on the specific smoke mode selected, at Sensitivity Settings 2% and 4.5% |

### Modes:

| 9A* Smoke/Heat/Co Combine (Default Mode) |
| 9B Co/Heat combine, Heat (RoR) |
| 80* Smoke/Heat combine |
| 81 Smoke/Heat combine |
| 82* Smoke |
| 83 Smoke |
| 87 Heat (FT) Heat (RoR) (Fixed Level 1 - Class A1) |
| 88 Heat (FT) Heat (RoR) (Fixed Level 2 - Class A1R) |
| 89 Heat (FT) (Fixed Level 3 - Class A1S) |

**FT** = Fixed Temperature

20 Oct 2020
### Certificated Products

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<th>Certificated Products</th>
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<td>Heat (FT) Heat (RoR) (Fixed Level 5 - Class CR)</td>
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<td>8C</td>
<td>Heat (FT) (Fixed Level 6 - Class CS)</td>
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<td>8D</td>
<td>Smoke, Co, Heat (FT), Heat (RoR), COHb</td>
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<td>8E*</td>
<td>Smoke/Heat Combine, COHb</td>
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<tr>
<td>8F*</td>
<td>Smoke, COHb</td>
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<tr>
<td>93</td>
<td>Heat (FT), Heat (RoR), COHb (Fixed Level 1 - Class A1) +COHb</td>
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<td>94</td>
<td>Heat (FT), Heat (RoR), COHb (Fixed Level 2 - Class A1R) +COHb</td>
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<tr>
<td>95</td>
<td>Heat (FT), COHb (Fixed Level 3 - Class A1S) +COHb</td>
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<td>Heat (FT), Heat (RoR), COHb (Fixed Level 4 - Class C) +COHb</td>
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<td>97</td>
<td>Heat (FT), Heat (RoR), COHb (Fixed Level 5 - Class CR) +COHb</td>
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<td>98</td>
<td>Heat (FT), COHb (Fixed Level 6 - Class CS) +COHb</td>
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<td>99*</td>
<td>Smoke/Heat/CO Combine, Smoke, CO/Heat Combine, Heat (FT), Heat (RoR), COHb</td>
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<td>9C</td>
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<td>FT</td>
<td>Fixed Temperature</td>
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<tr>
<td>RoR</td>
<td>Rate of Rise</td>
</tr>
<tr>
<td>COHb</td>
<td>Carboxyhemoglobin</td>
</tr>
<tr>
<td>*</td>
<td>Reduced false alarm function</td>
</tr>
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</table>

**ACD-E(WHT):** Intelligent Analogue Addressable Multi-Criteria Detector (White colour) (YBN-R/3, YBN-R/3(WHT), YBN-R/3(SCR), YBO-BS, YBO-BS(WHT), YBO-BSB2/RL, YBO-BSB2(WHT)/RL bases)

**Notes:**
1. Meets the requirements of EN 54-5, depending on the specific heat mode selected, at Classes A1, A1S, A1R, C, CS, CR
2. Meets the requirements of EN 54-7, depending on the specific smoke mode selected, at Sensitivity Settings 2% and 4.5%

**Modes:**
- 9A* Smoke/Heat/CO Combine (Default Mode)
- 9B Co/Heat combine, Heat (RoR)
- 80* Smoke/Heat combine
- 81 Smoke/Heat combine
- 82* Smoke
- 83 Smoke
- 87 Heat (FT) Heat (RoR) (Fixed Level 1 - Class A1)
- 88 Heat (FT) Heat (RoR) (Fixed Level 2 - Class A1R)
- 89 Heat (FT) (Fixed Level 3 - Class A1S)
- 8A Heat (FT) Heat (RoR) (Fixed Level 4 - Class C)
- 8B Heat (FT) Heat (RoR) (Fixed Level 5 - Class CR)
- 8C Heat (FT) (Fixed Level 6 - Class CS)
- 8D Smoke, Co, Heat (FT), Heat (RoR), COHb
- 8E* Smoke/Heat Combine, COHb
- 8F* Smoke, COHb
- 93 Heat (FT), Heat (RoR), COHb (Fixed Level 1 - Class A1) +COHb
- 94 Heat (FT), Heat (RoR), COHb (Fixed Level 2 - Class A1R) +COHb
- 95 Heat (FT), COHb (Fixed Level 3 - Class A1S) +COHb
- 96 Heat (FT), Heat (RoR), COHb (Fixed Level 4 - Class C) +COHb
- 97 Heat (FT), Heat (RoR), COHb (Fixed Level 5 - Class CR) +COHb
- 98 Heat (FT), COHb (Fixed Level 6 - Class CS) +COHb
- 99* Smoke/Heat/CO Combine, Smoke, CO/Heat Combine, Heat (FT), Heat (RoR), COHb
- 9C COHb
- 9D CO
| FT          | Fixed Temperature |
| RoR         | Rate of Rise |
| COHb        | Carboxyhemoglobin |
| *           | Reduced false alarm function |

**ACD-EN:** Intelligent Analogue Addressable Multi-Criteria Detector (Ivory colour) (YBN-R/3, YBN-R/3(WHT), YBN-R/3(SCR), YBN-R/3(WHT)-SCR, YBO-BS, YBO-BS(WHT), YBO-BSB2/RL, YBO-BSB2(WHT)/RL bases)

**Notes:**
1. Meets the requirements of EN 54-5, depending on the specific heat mode selected, at Classes A1, A1S, A1R, C, CS, CR
2. Meets the requirements of EN 54-7, depending on the specific smoke mode selected, at Sensitivity Settings 2% and 4.5%
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Modes:

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<th>Certificated Products</th>
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<tr>
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<tr>
<td>9B</td>
<td>Co/Heat combine, Heat (RoR)</td>
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<tr>
<td>80*</td>
<td>Smoke/Heat combine</td>
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<tr>
<td>81</td>
<td>Smoke/Heat combine</td>
</tr>
<tr>
<td>82*</td>
<td>Smoke</td>
</tr>
<tr>
<td>83</td>
<td>Smoke</td>
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<tr>
<td>87</td>
<td>Heat (FT) Heat (RoR) (Fixed Level 1 - Class A1)</td>
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<tr>
<td>88</td>
<td>Heat (FT) Heat (RoR) (Fixed Level 2 - Class A1R)</td>
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<td>89</td>
<td>Heat (FT) (Fixed Level 3 - Class A1S)</td>
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<td>Heat (FT) Heat (RoR) (Fixed Level 4 - Class C)</td>
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<td>Heat (FT) Heat (RoR) (Fixed Level 5 - Class CR)</td>
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<td>Heat (FT) (Fixed Level 6 - Class CS)</td>
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<tr>
<td>8D</td>
<td>Smoke, Co, Heat (FT), Heat (RoR), COHb</td>
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<tr>
<td>8E*</td>
<td>Smoke/Heat Combine, COHb</td>
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<tr>
<td>8F*</td>
<td>Smoke, COHb</td>
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<tr>
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<td>Heat (FT), Heat (RoR), COHb (Fixed Level 1 - Class A1) +COHb</td>
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<td>Heat (FT), Heat (RoR), COHb (Fixed Level 2 - Class A1R) +COHb</td>
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<td>Heat (FT), COHb (Fixed Level 3 - Class A1S) +COHb</td>
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<td>Heat (FT), Heat (RoR), COHb (Fixed Level 4 - Class C) +COHb</td>
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<td>Heat (FT), Heat (RoR), COHb (Fixed Level 5 - Class CR) +COHb</td>
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<td>Heat (FT), COHb (Fixed Level 6 - Class CS) +COHb</td>
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<td>99*</td>
<td>Smoke/Heat/CO Combine, Smoke, CO/Heat Combine, Heat (FT), Heat (RoR), COHb</td>
</tr>
<tr>
<td>9C</td>
<td>COHb</td>
</tr>
<tr>
<td>9D</td>
<td>CO</td>
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</tbody>
</table>

FT = Fixed Temperature  
RoR = Rate of Rise  
COHb = Carboxyhemoglobin  
* Reduced false alarm function


Notes:
1. Meets the requirements of EN 54-5, depending on the specific heat mode selected, at Classes A1, A1S, A1R, C, CS, CR  
2. Meets the requirements of EN 54-7, depending on the specific smoke mode selected, at Sensitivity Settings 2% and 4.5%

Modes:

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<th>Certificated Products</th>
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<td>9B</td>
<td>Co/Heat combine, Heat (RoR)</td>
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<td>Smoke/Heat combine</td>
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<td>82*</td>
<td>Smoke</td>
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<td>Smoke</td>
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<td>Heat (FT) Heat (RoR) (Fixed Level 1 - Class A1)</td>
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<td>Heat (FT) Heat (RoR) (Fixed Level 2 - Class A1R)</td>
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<td>Smoke, Co, Heat (FT), Heat (RoR), COHb</td>
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<td>8E*</td>
<td>Smoke/Heat Combine, COHb</td>
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<tr>
<td>8F*</td>
<td>Smoke, COHb</td>
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<tr>
<td>93</td>
<td>Heat (FT), Heat (RoR), COHb (Fixed Level 1 - Class A1) +COHb</td>
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<tr>
<td>94</td>
<td>Heat (FT), Heat (RoR), COHb (Fixed Level 2 - Class A1R) +COHb</td>
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<tr>
<td>99*</td>
<td>Smoke/Heat/CO Combine, Smoke, CO/Heat Combine, Heat (FT), Heat (RoR), COHb</td>
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<tr>
<td>9C</td>
<td>COHb</td>
</tr>
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FT = Fixed Temperature  
RoR = Rate of Rise  
COHb = Carboxyhemoglobin  
* Reduced false alarm function
### Certificated Products

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<tr>
<th>LPCB Ref. No.</th>
<th>Descriptor</th>
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</thead>
<tbody>
<tr>
<td>164ab/02</td>
<td>ATJ-EN(SCI) Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator. Meets the requirements of EN 54-5:2000 for classes A1R, BR, CR, A1S, BS &amp; CS.</td>
</tr>
<tr>
<td>164ab/02</td>
<td>ATJ-EN(WHT)-SCI Intelligent Analogue Addressable Class P Heat Detector with Short Circuit Isolator. Meets the requirements of EN 54-5:2000 for classes A1R, BR, CR, A1S, BS &amp; CS.</td>
</tr>
<tr>
<td>164y/02</td>
<td>ATJ-EN(WHT) Intelligent Analogue Addressable Class P Heat Detector (YBN-R/3, YBO-BS, YBO-BSB2(WHT)/WL, YBO-BSB2(WSL) and YBO-BSB2(WHT)/RL bases). Note: Classes A1R, BR, CR, A1S, BS and CS.</td>
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</table>

### Bases:

- YBN-R/4IS Conventional Intrinsically Safe Mounting base
- YCA-RL/3H2M Addressable base
- YBN-R/6SK Schottky diode base
- YBN-R/6 Standard base
- YBN-R/3 Standard Analogue Mounting Base
- YBN-R/3(WHT) Standard Analogue Mounting Base
- YBN-R/3(SCI) Short circuit isolator base
- YBN-R/3(WHT)-SCI Short circuit isolator base
- YBO-RSCI/NS Negative Switching Short circuit isolating base
- YBF-RL/4H3H 2 wire common mounting base
- YBF-RL/4H6H 2 wire common mounting base
- YBN-R/6M Standard Base
- YBO-BS Base sounder
- YBO-BS(WHT) Base sounder
- YBO-R/6PA Protector alarms base
- YBO-R/6R Relay base
- YBO-R/6RS Relay latching base with Schottky diode
- YBO-R/6RN Relay base non-latching
- YBN-R/3(SCI) Short circuit Isolating base
- YBO-BSB2(WHT)/WL Base Sounder Beacon (White LED)
- YBO-BSB2(WHT)/WL Base Sounder Beacon (White LED)
- YBO-BSB2/RL Base Sounder Beacon (Red LED)
- YBO-BSB2(WHT)/WL-HFP Base Sounder Beacon (White LED)
- YBO-BSB2(WHT)/RL-HFP Base Sounder Beacon (Red LED)
- YBO-R/SCI(RED) Short Circuit Isolator Base
- YSM-WDS Wireless Adaptor Base
- YBN-R/3(WHT) Addressable Standard Mounting Base (White Plastic)
- YBN-R/4IS(WHT) Conventional Intrinsically Safe Mounting Base (White Plastic)
- YBN-R/6(WHT) Conventional Standard Mounting Base (White Plastic)
- YBN-R/6M(WHT) Conventional Standard Marine Mounting Base (White Plastic)
- YBN-R/6SK(WHT) Conventional Schottky Diode Mounting Base (White Plastic)
- YBO-BS(WHT) Addressable Base Sounder (White Plastic)
- YBO-R/6PA(WHT) Conventional 2 Wire S Mounting Base
- YBO-R/6R(WHT) Conventional Relay Mounting Base Latching (White Plastic)
- YBO-R/6RS(WHT) Conventional Relay Mounting Base Latching with Schottky Diode (White Plastic)
- YBO-R/6RN(WHT) Conventional Relay Mounting Base Non-Latching with Schottky Diode (White Plastic)
- YBN-R/3(WHT)-SCI Addressable Short Circuit Isolating Mounting Base (White Plastic)
- YBO-BSB2(BLK)/RL Addressable Base Sounder Beacon (Red LED) - Black Plastic
- YBO-BSB2(BLK)/WL Addressable Base Sounder Beacon (White LED) - Black Plastic
- YBO-R/SCI(RED) Short Circuit Isolator Base
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

YBV-R/4 Addressable Detector Base
YBV-R/(WHT) Addressable Detector Base (White)
YBO-BSB(BLK)/RL Base Sounder Beacon
YBO-BSB2(BLK)/WL Base Sounder Beacon

All Enquiries to:
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Manufacturing at (Certificate Nos. 117, 117f, 117g, 117h, 117j)
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Tel: +81 3 3444 4111 • Fax: +81 3 3444 4167


Certificated Products

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<th>Description</th>
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<tr>
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<td>Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator, Ivory (YBV-R/W), YBV-R/(WHT), YBN-R/3(SCI) YBO-BSB2/WL, YBO-BSB2/RL and YBO-BSB2(WHT/RL bases)</td>
</tr>
<tr>
<td>164aa/01</td>
<td>Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator</td>
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Notes:
Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
Mode 2 - Fixed temperature heat detector at Class A1 & C

Notes:
Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
Mode 2 - Fixed temperature heat detector at Class A1 & C

Notes:
Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
Mode 2 - Fixed temperature heat detector at Class A1 & C

Notes:
Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
Mode 2 - Fixed temperature heat detector at Class A1 & C (Heat only)

Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity (Smoke only)
Mode 2 - Fixed temperature heat detector at Class A1 & C (Heat only)
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</tr>
<tr>
<td>RMC-E</td>
<td>928m/02</td>
</tr>
</tbody>
</table>

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 in the normal sensitivity setting
3. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - main battery
   - CR2032A (3 Vdc) - secondary battery

**Bases:**

- YBN-R/3: Standard base
- YBN-R/2NA: Base
- YBN-R/4IS: Intrinsically safe mounting
- YCA-RL/3H2: Addressable base
- YCA-RL/5H2: Master addressable base
- AMU-B2: Addressable base
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

AMU-MB  Master addressable base
YBC-RL/4H5  Base
YBF-RL/3J  Slave base
YBF-RL/4H5  Base
YBK-RL/4H1A  Base
YBK-RL/4H2  Base
YCA-RL/3H2M  Addressable base
YBN-R/6SK  Schottky diode base
YBN-R/6  Standard base
YBN-R/4  Base
YBN-R/6M  Standard base
YBO-BS  Base Sounder
YBO-BS(WHT)  Base sounder (White)
YBO-R/5  Base
YBN-R/4M  Base
YBO-R/5M  Base
YBO-R/6R  Relay base
YBO-R/6RS  Relay base latching with schottky diode
YBO-R/6RN  Relay base non latching
YBO-R/6PA  Protector alarms base
YBO-RSCI/NS  Negative Switching Short circuit isolating base
YBF-RL/4H3H  2 wire mounting base
YBF-RL/4H5H  2 wire mounting base
RSM-WDB  Wireless Adaptor Base
YBN-R/3(SCI)  Short circuit isolator base
YBN-R/3(WHT)-SCI  Short circuit isolator base (White)
YBO-BSB2/BL  Base Sounder Beacon (White LED)
YBO-BSB2(WHT)W/L  Base Sounder Beacon (White LED)
YBO-BSB2(RED)W/L  Base Sounder Beacon (Red LED)
YBO-BSB2(RED)WL-HFP  Base Sounder Beacon (Red LED)
YB-4/4  Addressable detector base
YB-4/4(WHT)  Addressable detector base (White)
YB-4/4(HFP)  Addressable detector base (White)
YBN-R/3  Addressable detector base
YBN-R/3(WHT)-SCI  Short circuit isolator base (White)
YBN-R/3(WHT)  Standard Base
YBO-R/SCI(RED)  Short Circuit Isolator Base
YBO-BS(WHT)RL  Base Sounder Beacon
YBO-BSB2(WHT)WL  Base Sounder Beacon
YBO-BSB2(BLK)WL  Base Sounder Beacon

\(^{LP}\) denotes detector/base combination is approved in low power mode also.

All Enquiries to:
Hochiki Europe UK Limited, Grosvenor Road, Gillingham Business Park, Gillingham, Kent ME8 0SA, United Kingdom
Tel: +44 (0)1634 260131 • Fax: +44 (0)1634 260132

Manufacturing at (Certificate Nos. 117, 117f, 117g, 117h, 117j)
Hochiki Corporation, 141-1 Maehara Ejiri, Kakuda-shi, Miyagi 971-15, Japan
Tel: +81 3 3444 4111 • Fax: +81 3 3444 4167

Certificate No: 117j to EN 54-12:2015

Certificated Products | LPCB Ref. No.
--- | ---
SPC-E  Conventional 4 wire optical beam smoke detector | 117/02
Notes:
1) Approved at sensitivity setting 25% and 50%
SPC-ET  Conventional 2 wire optical beam smoke detector | 117/03
Notes:
1) Approved at sensitivity setting 25% and 50%
2) Approved for use with SPC-ET2WI interface kit
SPC-ET(HFP)  Conventional 2 wire optical beam smoke detector | 117/03
Notes:
1) Approved at sensitivity setting 25% and 50%
Certificated Products

LPCB Ref. No.

2) Approved for use with SPC-ET2WI interface kit

All Enquiries to:
Hochiki Europe UK Limited, Grosvenor Road, Gillingham Business Park, Gillingham, Kent ME8 0SA, United Kingdom
Tel: +44 (0) 1634 260131 • Fax: +44 (0) 1634 260132

Manufacturing at (Certificate Nos 164, 164g, 164m)
Hochiki Europe UK Limited, Grosvenor Road, Gillingham Business Park, Gillingham, Kent ME8 0SA, United Kingdom
Tel: +44 (0) 1634 260131 • Fax: +44 (0) 1634 260132
E-mail: sales@hochikieurope.com • Website: www.hochikieurope.com

Certificate No: 164m to EN54-10:2002

Certificated Products

LPCB Ref. No.

IFD-E
Conventional IR  Flame detector (IFD-MB)  164m/01
Note: Meets EN 54-10: 2002 at Class 1 only

IFD-E(IS)
Conventional IR  Intrinsicly Safe Flame Detector (IFD-MB)  164m/02
Note: Meets EN 54-10: 2002 at Class 1 only

IFD-E(EXD)
Conventional IR  Flameproof Flame Detector (IFD-MB)  164m/03
Note: Meets EN 54-10: 2002 at Class 1 only

Honeywell Analytics Inc.
Honeywell Analytics Inc., 405 Barclay Boulevard, Lincolnshire, Illinois 60069, USA
Tel: +1 847 955 4040
E-mail: bonnie.saxinger@honeywell.com


Certificated Products

LPCB Ref. No.

FS20X
Conventional Class 1 Multi-Spectrum, Multi-Spectral and Multi-Band Infrared and Ultraviolet Fire and Flame Detector (SM4 mount)  1175a/01
Note:
1. Meets EN 54-10: 2002 at Class 1 for very high, high & medium sensitivities
Low sensitivity is not LPCB approved

FS24X-9
Conventional Class 1 Multi-Spectrum and Multi-Spectral Infrared Fire and Flame Detector (SM4 mount)  1175a/02
Note:
1. Meets EN 54-10: 2002 at very high & high sensitivities

SM4
Swivel Mount

Honeywell Automation (I) Pvt. Ltd
53, 54, 55 Hadapsar Indl. Estate, Hadapsar, Pune-411013, India
Tel: +91 020 66780200 • Fax: +91 020 66780172
E-mail: rahul.dwivedi@honeywell.com • Website: www.honeywell.com

PART 1: SECTION 4.1
COMMERCIAL DETECTORS

**Multi-criteria Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Multi-criteria Detectors</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>550b/05</td>
<td>TC840MES-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable photo-thermal multi-criteria detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Certified at the following settings: -</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alarm levels 1 to 5 (Multi-criteria): EN 54-5: 2000 class A1R</td>
<td></td>
</tr>
<tr>
<td>550e/02</td>
<td>TC840MEIS-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable photo-thermal multi-criteria smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Certified at the following settings:</td>
<td></td>
</tr>
</tbody>
</table>

**Bases:**
- 1450614-007 Standard analogue detector base
- B501 standard analogue detector base
- B501AP intelligent detector base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base


**Point Heat Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Point Heat Detectors</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>550c/06</td>
<td>TC808ES1028-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable class A1R rate of rise heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td>550c/07</td>
<td>TC808ES1002-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable class A1S fixed temperature heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td>550f/01</td>
<td>TC808EIS1028-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable class A1R rate of rise heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td>550f/02</td>
<td>TC808EIS1002-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable class A1S fixed temperature heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
</tbody>
</table>

**Bases:**
- 14506414-007 Standard analogue detector base
- B501 standard analogue detector base
- B501AP intelligent detector base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base


**Point Smoke Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Point Smoke Detectors</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>550a/04</td>
<td>TC806ES1012-yy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analogue addressable optical smoke detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td></td>
</tr>
</tbody>
</table>

**Commercial Detectors**

1. **Certificated Products**
   - TC806EIS1012-yy
     - Analogue addressable optical smoke detector with short circuit isolator
     - LPCB Ref. No.: 550d/01
     - Notes:
       - 1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White
       - 2) Meets the requirements of EN 54-7: 2000 at high and low sensitivity

2. **Bases:**
   - 14506414-007 standard analogue detector base
   - B501 standard analogue detector base
   - B501AP intelligent detector base
   - B524IEFT-1 analogue short circuit isolator base
   - B524HTR heater base
   - B524RTE latching relay base

---

**Honeywell Control Systems Limited**

Honeywell House, Arlington Business Park, Bracknell, Berkshire RG12 1EB, United Kingdom

Tel: +44 (0)1344 655609 • Fax: +44 (0)1344 655474

Website: www.honeywell.com

---

**Multi-criteria Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC840MFEIS</td>
<td>199aa/01</td>
</tr>
<tr>
<td>TC840MEIS</td>
<td>199aa/02</td>
</tr>
<tr>
<td>TC840MFES</td>
<td>199p/06</td>
</tr>
<tr>
<td>TC840MES</td>
<td>199p/07</td>
</tr>
<tr>
<td>TC850E1009-yy</td>
<td>199/01</td>
</tr>
</tbody>
</table>

---

**Notes:**

1. yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White
2. Meets the requirements of EN 54-7: 2000 at high and low sensitivity
3. Certified at the following settings:
   - Normal Mode:
     - Alarm Levels 1 to 5 (Multi-criteria): EN54-5 Class A1R, EN54-7, LPS1279 and CEA 4021
### Part 1: Section 4.1

#### Commercial Detectors

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certificated Products</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Alarm Level 6 (Heat Only Mode):</strong></td>
<td>EN54-5 Class A1R</td>
</tr>
<tr>
<td><strong>Nuisance Environment Applications:</strong></td>
<td></td>
</tr>
<tr>
<td>Application 0, Alarm Level 4</td>
<td>LPS1279 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 1, Alarm Level 5</td>
<td>EN54-5 Class A1R, EN54-7 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 2, Alarm Level 4 or 5</td>
<td>EN54-5 Class A1R, EN54-7 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 3, Alarm Level 5</td>
<td>EN54-5 Class A1R, EN54-7 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 4, Alarm Level 5</td>
<td>EN54-5 Class A1R, EN54-7 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 5, Alarm Level 5</td>
<td>EN54-7 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 6, Alarm Level 5</td>
<td>EN54-5 Class A1R, EN54-7 &amp; CEA 4021</td>
</tr>
<tr>
<td>Application 7, Alarm Level 5</td>
<td>EN54-5 Class A1R, LPS1279 &amp; CEA 4021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bases:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B501</td>
</tr>
<tr>
<td>B501AP</td>
</tr>
<tr>
<td>B524IEFT-1</td>
</tr>
<tr>
<td>B524HTR</td>
</tr>
<tr>
<td>B524RTE</td>
</tr>
</tbody>
</table>

**Certificate No:** 199w-(cl-4) to EN 54-12: 2015 & EN 54-17: 2005

### Beam Detectors

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certificated Products</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Analogue Optical Beam Detector with Self Test Facility and Short Circuit Isolator Feature</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of BS EN54-12: 2015 at sensitivity levels 1, 2 and 3</td>
<td></td>
</tr>
<tr>
<td>2. yy= (Range 00-99) and indicates the software protocol</td>
<td></td>
</tr>
<tr>
<td>3. Approved to 10m-70m Range</td>
<td></td>
</tr>
<tr>
<td>4. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Ancillaries:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RTS151-KEY</td>
<td>Remote test Station</td>
</tr>
<tr>
<td>6500 - LRK/BEAMLRK</td>
<td>Long Range Kit</td>
</tr>
<tr>
<td>6500 - MMK/BEAMMMK</td>
<td>Multi-Mounting Kit</td>
</tr>
<tr>
<td>6500 - SMK/BEAMSMK</td>
<td>Surface Mounting Kit</td>
</tr>
</tbody>
</table>

**Certificate No:** 199n to EN 54-5: 2000 + A1: 2002

**Certificate No:** 199n-(cl-1) to EN 54-5: 2000 + A1: 2002

**Certificate No:** 199ac-(cl-1) to EN 54-5: 2000 + A1: 2002 & EN 54-17: 2005

**Certificate No:** 199ac to EN 54-5: 2000 + A1: 2002 & EN 54-17: 2005

### Point Heat Detectors

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certificated Products</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Analogue addressable class A1S fixed temperature heat sensor with short circuit isolator</strong> (B501AP, B524HTR &amp; B524RTE bases)</td>
<td>199ac/01</td>
</tr>
<tr>
<td><strong>Analogue addressable class BS fixed temperature heat sensor with short circuit isolator</strong> (B501AP, B524HTR &amp; B524RTE bases)</td>
<td>199ac/02</td>
</tr>
<tr>
<td><strong>Analogue addressable class A1R rate of rise heat sensor with short circuit isolator</strong> (B501AP, B524HTR &amp; B524RTE bases)</td>
<td>199ac/03</td>
</tr>
<tr>
<td><strong>Analogue addressable class A1R rate of rise heat sensor</strong> (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
<td>199n/15</td>
</tr>
<tr>
<td><strong>Analogue addressable class BS fixed temperature heat sensor</strong> (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
<td>199n/16</td>
</tr>
<tr>
<td><strong>Analogue addressable class A1S fixed temperature heat sensor</strong> (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
<td>199n/17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bases:</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG-IIBS Isolator base</td>
<td></td>
</tr>
<tr>
<td>SIGA-SB Standard base</td>
<td></td>
</tr>
</tbody>
</table>
## SIGA-SB4 Standard base with trim skirt
- SIGA-RB Relay base
- B501 Analogue detector base
- B501AP Intelligent sensor base
- B501DG Analogue deep base
- B524IEFT Analogue short circuit isolator base
- B524IEFT-1 Analogue short circuit isolator base
- B524HTR Heater base
- B524RTE Latching relay base

Certificate No: 199m-(cl-1) to EN 54-7: 2000 + A1: 2002

### Point Smoke Detectors/Sensors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ab/01</td>
<td>TC806EIS1012 Analogue addressable optical smoke sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199ab/02</td>
<td>TC846E1005 High Sensitivity Point Optical Smoke Detector with Short Circuit Isolator (B501AP) Note: Meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
</tr>
<tr>
<td>199m/07</td>
<td>TC842B1007 AE Intrinsically safe analogue addressable photoelectric smoke detector (B501, B501AP bases) Note: Meets EN54-7: 2000 at High, Normal &amp; Low sensitivity settings</td>
</tr>
<tr>
<td>199m/10</td>
<td>TC806ES1012 Analogue addressable optical smoke sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases) Note: Meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
</tr>
</tbody>
</table>

### Bases:
- B501 Analogue detector base
- B501DG Analogue deep base
- B501AP Intelligent detector base
- B524IEFT Analogue short circuit isolator base
- B524IEFT-1 Analogue short circuit isolator base
- B524HTR Heater base
- B524RTE Latching relay base
- SIGI-IBS Isolator base
- SIGA-SB Standard Base
- SIGA-SB4 Standard base with trim skirt
- SIGA-RB Relay base
- SIGA-RB4 Relay base with trim skirt

---

## Honeywell International (India) Pvt. Ltd.

Sector 36, Pace City - II, Gurgaon - 122 004, Haryana, India
Tel: +91 124 4752700 • Fax: +91 124 4752750
E-mail: Arvind.Rathaur@Honeywell.com


### Smoke Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>550a/01</td>
<td>2351E Conventional photoelectric smoke detector (B401, B401DG, B401R, B401SD, B401RSD, B401R1000, B401DGR, B401DGR1000 &amp; B401DGRSD bases) Note: Meets the requirements of EN54-7:2000 at low, medium &amp; high sensitivity settings.</td>
</tr>
<tr>
<td>550a/02</td>
<td>EC01003 Conventional photoelectric smoke detector (ECO1000B, ECO1000BSD, ECO1000BR, ECO1000BRSD, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 &amp; ECO1000BR1000SD bases)</td>
</tr>
<tr>
<td>550a/02</td>
<td>FL/1003 Conventional photoelectric smoke detector (FL/1000B base)</td>
</tr>
<tr>
<td>550a/04</td>
<td>22051E-xx-yy Analogue addressable optical smoke detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
</tbody>
</table>
### Part 1: Section 4.1

**Commercial Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1) (xx) = (Range 0-99) ~ indicates the communication software protocol</td>
<td></td>
</tr>
<tr>
<td>2) (yy) = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td>3) meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
<td></td>
</tr>
<tr>
<td><strong>2FA51</strong> Conventional photoelectric smoke detector (BFA1 base)</td>
<td>550a/05</td>
</tr>
<tr>
<td><strong>2351/EIA</strong> Conventional Photoelectric Smoke Detector (B401, B401DG, B401R, B401SD, B401RSD, B401R1000, B401DGR, B401DGR1000 &amp; B401DGDSD Bases)</td>
<td>550a/06</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-7:2000 at low &amp; high sensitivity settings.</td>
<td></td>
</tr>
<tr>
<td><strong>2351/EC</strong> Conventional Photoelectric Smoke Detector (B401, B401DG, B401R, B401SD, B401RSD, B401R1000, B401DGR, B401DGR1000 &amp; B401DGDSD Bases)</td>
<td>550a/07</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-7:2000 at high sensitivity setting only.</td>
<td></td>
</tr>
<tr>
<td><strong>22051EI-xx-yy</strong> Analogue addressable optical smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550d/01</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1) (xx) = (Range 0-99) ~ indicates the communication software protocol</td>
<td></td>
</tr>
<tr>
<td>2) (yy) = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td>3) Meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
<td></td>
</tr>
</tbody>
</table>

**Bases:**

- B401 standard base
- B401DG deep base
- B401R standard base with schottky diode
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B401R1000 standard base with 1000 ohm resistor
- B401DGR deep base with 470 ohm resistor
- B401DGR1000 deep base with 1000 ohm resistor
- B401DGDSD deep base with schottky diode
- ECO1000B standard base
- ECO1000BSD standard base with schottky diode
- ECO1000BR standard base, 470 ohm resistor
- ECO1000BRSD standard base, 470 ohm resistor and schottky diode
- ECO1000BR680 standard base, 680 ohm resistor
- ECO1000BR680SD standard base, 680 ohm resistor and schottky diode
- ECO1000BR1000 standard base, 1000 ohm resistor
- ECO1000BR1000SD standard base, 1000 ohm resistor and schottky diode
- B501 standard analogue detector base
- B501DG deep analogue detector base
- FL/B401 standard base
- FL/1000B standard base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- BFA1 standard base


### Multi Criteria Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2351TEM</strong> Conventional optical/thermal detector</td>
<td>550b/01</td>
</tr>
<tr>
<td>(B401, B401DG, B401R, B401SD, B401RSD, B401R1000, B401DGR, B401DGR1000 &amp; B401DGDSD bases)</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ECO1002</strong> Conventional photo-thermal detector (ECO1000B, ECO1000BSD, ECO1000BR, ECO1000BRSD, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 &amp; ECO1000BR1000SD bases)</td>
<td>550b/02</td>
</tr>
<tr>
<td><strong>FL/1002</strong> Conventional optical/thermal detector</td>
<td>550b/02</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-5 at class A1R at pre-set sensitivity.</td>
<td></td>
</tr>
<tr>
<td><strong>22051TLE-xx-yy</strong> Analogue addressable photo-thermal-IR multi-criteria detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>550b/04</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1) (xx) = (Range 0-99) ~ indicates the communication software protocol</td>
<td></td>
</tr>
<tr>
<td>2) (yy) = Colour option ~ IV = Ivory, BK = Black, no reference indicates White</td>
<td></td>
</tr>
<tr>
<td>3) Meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>550b/05</td>
<td>22051TE-xx-yy Analogue addressable photo-thermal multi-criteria detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>550b/06</td>
<td>2FA51T Conventional photo-thermal class A1R detector (BFA1 base)</td>
</tr>
<tr>
<td>550e/01</td>
<td>22051TLEI-xx-yy Analogue addressable photo-thermal-IR multi-criteria smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>550e/02</td>
<td>22051TLEI-xx-yy Analogue addressable photo-thermal multi-criteria smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
</tbody>
</table>

Notes:
1) xx = (Range 0-99) ~ indicates the communication software protocol
2) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White
3) Certified at the following settings: -
   - Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

Bases:
- B401 standard base
- B401DG deep base
- B401R standard base with schottky diode
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B401R1000 standard base with 1000 ohm resistor
- B401DGR deep base with 470 ohm resistor
- B401DGR1000 deep base with 1000 ohm resistor
- B401DGSD deep base with schottky diode
- ECO1000B standard base
- ECO1000BSD standard base with schottky diode
- ECO1000BR standard base, 470 ohm resistor
- ECO1000BRSD standard base, 470 ohm resistor and schottky diode
- ECO1000B680 standard base, 680 ohm resistor
- ECO1000BR680SD standard base, 680 ohm resistor and schottky diode
- ECO1000BR1000 standard base, 1000 ohm resistor
- ECO1000BR1000SD standard base, 1000 ohm resistor and schottky diode
- B501 standard analogue detector base
- B501DG deep analogue detector base
- B524IEFT-1 analogue short circuit isolator base
- FL/B401 standard base
- FL/1000B standard base
- B501AP intelligent detector base
- B524HTR heater base
- B524RTE latching relay base
- BFA1 standard base

### Heat Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5351E</td>
<td>Class A1R conventional rate of rise heat detector (B401, B401DG, B401R, B401SD, B401RSD, B401R1000, B401DGR, B401DGR1000 &amp; B401DGSD bases)</td>
<td>550c/01</td>
</tr>
<tr>
<td>4351E</td>
<td>Class BS conventional heat detector (B401, B401DG, B401R, B401SD, B401R1000, B401DGR, B401DGR1000 &amp; B401DGSD bases)</td>
<td>550c/02</td>
</tr>
<tr>
<td>ECO1005</td>
<td>Conventional A1R rate-of-rise heat detector (ECO1000B, ECO1000BSD, ECO1000BR, ECO1000BRSD, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 &amp; ECO1000BR1000SD bases)</td>
<td>550c/03</td>
</tr>
<tr>
<td>FL/1005</td>
<td>Conventional Class A1R rate of rise heat detector (FL/1000B base)</td>
<td>550c/03</td>
</tr>
<tr>
<td>52051RE-xx-yy</td>
<td>Analogue addressable class A1R rate of rise heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>550c/06</td>
</tr>
<tr>
<td>52051E-xx-yy</td>
<td>Analogue addressable class A1S fixed temperature heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>550c/07</td>
</tr>
<tr>
<td>5FA51R</td>
<td>Analogue addressable class A1R rate of rise heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550c/08</td>
</tr>
<tr>
<td>52051REI-xx-yy</td>
<td>Analogue addressable class A1R rate of rise heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550f/01</td>
</tr>
<tr>
<td>52051EI-xx-yy</td>
<td>Analogue addressable class A1S fixed temperature heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550f/02</td>
</tr>
</tbody>
</table>

#### Bases:

- B401 standard base
- B401DG deep base
- B401R standard base with schottky diode
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B401R1000 standard base with 1000 ohm resistor
- B401DGR deep base with 470 ohm resistor
- B401DGR1000 deep base with 1000 ohm resistor
- B401DGSD deep base with schottky diode
- ECO1000B standard base
- ECO1000BSD standard base with schottky diode
- ECO1000BR standard base, 470 ohm resistor
- ECO1000BRSD standard base, 470 ohm resistor and schottky diode
- ECO1000BR680 standard base, 680 ohm resistor
- ECO1000BR680SD standard base, 680 ohm resistor and schottky diode
- ECO1000BR1000 standard base, 1000 ohm resistor
- ECO1000BR1000SD standard base, 1000 ohm resistor and schottky diode
- FL/B401 standard base
- FL/1000B standard base
- B501 standard analogue detector base
- B501AP intelligent detector base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- BFA1 Standard Base
Honeywell Life Safety Systems (Novar Systems Ltd)
140 Waterside Road, Hamilton Industrial Park, Leicester LE5 1TN, United Kingdom
Tel: +44 (0)116 246 2000 • Fax: +44 (0)116 246 2300
E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk

Certificate No: 524c-(cl-1) to EN 54-20:2006

Aspirating Smoke Detectors
Certificated Products

ALL-SPEC ASD

Notes:
1. Approval of the detector is conditional upon the following requirements:
   - For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
   - System design, installation and commissioning shall be performed in accordance with the manufacturer’s installation guide, associated manuals and design software TF-SC-1 HW.
   - The detector shall be installed with sampling pipe conforming to EN 61386-1, to at least Class 1131.
2. Approved detector configurations (Class A, Class B and Class C):
   - ALL-SPECx (standard version, no bargraph display, 1 alarm, not available for networking)
   - ALL-SPECx-FR (deep freeze version, no bargraph display, 1 alarm, not available for networking)
   - ALL-SPECx-SL (silent version, no bargraph display, 1 alarm, not available for networking)
   - X=detector 1 or 2
3. The approved detector must incorporate one or two of the following detector modules:
   - ASD-TP-001-L (standard version, sensitivity of 0.015%/m)
   - ASD-TP-001-L-F (deep freeze version, sensitivity of 0.015%/m)
   - ASD-TP-01-L (standard version, sensitivity of 0.10%/m)
   - ASD-TP-01-L-F (deep freeze version, sensitivity of 0.10%/m)
   - ASD-TP-05-L (standard version, sensitivity of 0.50%/m)
   - ASD-TP-05-L-F (deep freeze version, sensitivity of 0.50%/m)
   - X=detector 1 or 2

HI-SPEC ASD

Notes:
1. Approval of the detector is conditional upon the following requirements:
   - For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
   - System design, installation and commissioning shall be performed in accordance with the manufacturer’s installation guide, associated manuals and design software TF-SC-1 HW.
   - The detector shall be installed with sampling pipe conforming to EN 61386-1, to at least Class 1131.
2. Approved detector configurations (Class A, Class B and Class C):
   - HI-SPECx (standard version, bargraph display, 3 alarms, prepared for networking)
   - HI-SPECx-FR (deep freeze version, bargraph display, 3 alarms, prepared for networking)
   - HI-SPECx-SL (silent version, bargraph display, 3 alarms, prepared for networking)
3. The approved detector must incorporate one or two of the following detector modules:
   - ASD-TT-001-L (standard version, sensitivity of 0.015%/m)
   - ASD-TT-001-L-F (deep freeze version, sensitivity of 0.015%/m)
   - ASD-TT-01-L (standard version, sensitivity of 0.10%/m)
   - ASD-TT-01-L-F (deep freeze version, sensitivity of 0.10%/m)
   - ASD-TT-05-L (standard version, sensitivity of 0.50%/m)
   - ASD-TT-05-L-F (deep freeze version, sensitivity of 0.50%/m)
   - X=detector 1 or 2

COMPACT ASD

Notes:
1. Approval of the detector is conditional upon the following requirements:
### Commercial Detectors

For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.

- System design, installation and commissioning shall be performed in accordance with the manufacturer’s installation guide, associated manuals and design software TF-SC-1 HW.
- The detector shall be installed with sampling pipe conforming to EN 61386-1, to at least Class 1131.

1. Approved detector configurations, sensitivity of 0.50%/m (Class A, Class B and Class C):
   - ASD-CM (version with 2 stages of alarm)
   - ASD-CM2 (version with 2 stages of alarm, ROOM IDENT)

---

#### Honeywell Morley-IAS by Honeywell International (I) Pvt. Ltd
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Tel: +91 124 4752700 • Fax: +91 124 4752750
E-mail: amit.puri@honeywell.com • Website: www.honeywell.com


### Heat Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM-RHSE Analogue Addressable Class A1R Rate of Rise (ROR) Heat Detector (MI-B501AP)</td>
<td>550m/01</td>
</tr>
<tr>
<td>HM-FHSE Analogue Addressable Class A1S Fixed Temperature Heat Detector (MI-B501AP)</td>
<td>550m/02</td>
</tr>
<tr>
<td>HM-RHSE-I Analogue Addressable Class A1R Rate of Rise (ROR) Heat Detector with Short Circuit Isolator (MI-B501AP)</td>
<td>550p/01</td>
</tr>
<tr>
<td>HM-FHSE-I Analogue Addressable Class A1S Fixed Temperature Heat Detector with Short Circuit Isolator (MI-B501AP)</td>
<td>550p/02</td>
</tr>
</tbody>
</table>

#### Bases:

MI-B501AP Intelligent Detector Base


### Smoke Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM-PSE Analogue Addressable Optical Smoke Detector (MI-B501AP)</td>
<td>550n/01</td>
</tr>
<tr>
<td>HM-PSE-S2 Analogue Addressable Optical Smoke Detector (MI-B501AP)</td>
<td>550n/02</td>
</tr>
<tr>
<td>HM-PSE-I Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (MI-B501AP)</td>
<td>550q/01</td>
</tr>
<tr>
<td>HM-PSE-S2-I Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (MI-B501AP)</td>
<td>550q/02</td>
</tr>
</tbody>
</table>

#### Bases:

MI-B501AP Intelligent Detector Base
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

### Certificated Products

2. Meets the requirements of EN 54-7:2000 at high and low sensitivity

### Bases:

- MI-B501AP Intelligent Detector Base


### Multi-Sensor/Multi-Criteria Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 550r/01       | HM-PTSE Analogue Addressable Class A1R Photo-Thermal Multi-Criteria Detector (MI-B501AP) | 1. Communication software protocol (05)  
2. Certified at the following settings:  
- Alarm level 6 (Heat Only Mode): EN 54-5:2000 Class A1R |
| 550s/01       | HM-PTSE-I Analogue Addressable Class A1R Photo-Thermal Multi-Criteria Detector with Short Circuit Isolators (MI-B501AP) | 1. Communication software protocol (05)  
2. Certified at the following settings:  
- Alarm level 6 (Heat Only Mode): EN 54-5:2000 Class A1R |

### Bases:

- MI-B501AP Intelligent Detector Base


### Multi-criteria Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 550b/04       | MI-PTIR-S2-yy Analogue addressable photo-thermal-IR multi-criteria detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases) | 1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White  
2) Certified at the following settings:  
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R |
| 550b/05       | MI-PTSE-S2-yy Analogue addressable photo-thermal multi-criteria detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases) | 1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White  
2) Certified at the following settings:  
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R |
| 550e/01       | MI-PTIR-S2I-yy Analogue addressable photo-thermal-IR multi-criteria smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases) | 1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White  
2) Certified at the following settings:  
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R |
| 550e/02       | MI-PTSE-S2I-yy Analogue addressable photo-thermal multi-criteria smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases) | 1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White  
2) Certified at the following settings:  
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R |
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

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Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

Bases:
MI-B501 Standard analogue detector base
B501 standard analogue detector base
B501AP intelligent detector base
B524IEFT-1 analogue short circuit isolator base
B524HTR heater base
B524RTE latching relay base


Point Heat Detectors

Certificated Products

MI-RHSE-S2-yy Analogue addressable class A1R rate of rise heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)
Note:
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White

MI-FHSE-S2-yy Analogue addressable class A1S fixed temperature heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)
Note:
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White

MI-RHSE-S21-yy Analogue addressable class A1R rate of rise heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)
Note:
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White

MI-FHSE-S21-yy Analogue addressable class A1S fixed temperature heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)
Note:
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White

Bases:
MI-B501 Standard analogue detector base
B501 standard analogue detector base
B501AP intelligent detector base
B524IEFT-1 analogue short circuit isolator base
B524HTR heater base
B524RTE latching relay base


Point Smoke Detectors

Certificated Products

MI-PSE-S2-yy Analogue addressable optical smoke detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)
Notes:
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White
2) Meets the requirements of EN 54-7: 2000 at high and low sensitivity

MI-PSE-S21-yy Analogue addressable optical smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)
Notes:
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White
2) Meets the requirements of EN 54-7: 2000 at high and low sensitivity

Bases:
MI-B501 standard analogue detector base
B501 standard analogue detector base
B501AP intelligent detector base
B524IEFT-1 analogue short circuit isolator base
B524HTR heater base
B524RTE latching relay base
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### Point Smoke Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ab/01</td>
<td>22051EI Analogue addressable optical smoke sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>199ab/02</td>
<td>72051EI High Sensitivity Point Optical Smoke Detector with Short Circuit Isolator (B501AP)</td>
</tr>
<tr>
<td>199m/01</td>
<td>ECO1003 Conventional Photoelectric Smoke Detector (ECO1000B, ECO1000BBD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000, ECO1000BR1000SD, ECO1000DB, ECO1000DBR and ECO1000DBR122L, ECO1000DBR122NL and ECO1000DBR124L bases)</td>
</tr>
<tr>
<td>199m/03</td>
<td>2351E Conventional photoelectric smoke detector (B401, B40DG, B401R, B401SD and B401RSD bases)</td>
</tr>
<tr>
<td>199m/07</td>
<td>22051EISE Intrinsically safe addressable photoelectric smoke detector (B501, B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>199m/10</td>
<td>22051E Analogue Addressable Optical Smoke Sensor (B501AP, B524IEFT-1 and B524HTR bases)</td>
</tr>
<tr>
<td>199m/11</td>
<td>ECO1003ABL Conventional Photoelectric Smoke Detector (ECO1000B, ECO1000BBD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000, ECO1000BR1000SD, ECO1000DB, ECO1000DBR and ECO1000DBR122L, ECO1000DBR122NL and ECO1000DBR124L bases)</td>
</tr>
</tbody>
</table>

### Bases:
- 2020B standard base
- 2020DB deep base
- 2020BSD standard base with schottky diode
- 2020DBSD deep base with schottky diode
- B401 standard base
- B401DG deep base
- B401R standard base with 470 ohm resistor
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B501 standard analogue detector base
- B501AP intelligent detector base
- B501DG analogue sensor deep base
- B524IEFT analogue sensor isolator base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- ECO1000B standard base
- ECO1000BBD standard base with schottky diode
- ECO1000BR standard base, 470 ohm resistor
- ECO1000BR680 standard base, 470 ohm resistor and schottky diode
- ECO1000BR680SD standard base, 680 ohm resistor
ECO1000BR680SD standard base, 680 ohm resistor and schottky diode.
ECO1000BR1000 standard base, 1000 ohm resistor.
ECO1000BR1000SD standard base, 1000 ohm resistor and schottky diode.
ECO1000DB deep base
ECO1000DBR deep base with 470 ohm resistor
ECO1000DBRSD deep base with 470 ohm resistor and schottky diode
ECO2000B mounting base
ECO1000BREL12L 12Vdc Relay base (latching)
ECO1000BREL12NL 12Vdc Relay base (non-latching)
ECO1000BREL24L 24Vdc Relay base (latching)


**Point Heat Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analogue addressable class A1S fixed temperature heat sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>199ac/01</td>
</tr>
<tr>
<td>Analogous addressable class BS fixed temperature heat sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>199ac/02</td>
</tr>
<tr>
<td>Class 1R Conventional Thermal Detector (ECO1000B, ECO1000BSD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000, ECO1000BR1000SD, ECO1000DB, ECO1000DBR and ECO1000DBRSD, ECO1000DBREL12L, ECO1000DBREL12NL and ECO1000DBREL24L bases)</td>
<td>199n/01</td>
</tr>
<tr>
<td>Class A2S Conventional Fixed Temperature Detector (ECO1000B, ECO1000BSD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000, ECO1000BR1000SD, ECO1000DB, ECO1000DBR and ECO1000DBRSD, ECO1000DBREL12L, ECO1000DBREL12NL and ECO1000DBREL24L bases)</td>
<td>199n/06</td>
</tr>
<tr>
<td>Class A1R conventional rate of rise heat detector (B401, B401DG, B401R, B401SD, &amp; B401RSD bases)</td>
<td>199n/07</td>
</tr>
<tr>
<td>Class BS conventional heat detector (B401, B401DG, B401R, B401SD, &amp; B401RSD bases)</td>
<td>199n/08</td>
</tr>
<tr>
<td>Class BS Conventional High Temperature Heat Detector (ECO1000DB, ECO1000DBR, ECO1000DBRSD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 and ECO1000BR1000SD, ECO1000DBREL12L, ECO1000DBREL12NL and ECO1000DBREL24L bases)</td>
<td>199n/09</td>
</tr>
<tr>
<td>Class A2S conventional fixed temperature heat detector (2020B, 2020DB, 2020BSD)</td>
<td>199n/10</td>
</tr>
<tr>
<td>Class BS conventional fixed temperature heat detector (2020B, 2020DB, 2020BSD)</td>
<td>199n/11</td>
</tr>
<tr>
<td>Class A1R conventional rate of rise heat detector (2020B, 2020DB, 2020BSD)</td>
<td>199n/12</td>
</tr>
<tr>
<td>Conventional class A2S fixed temperature heat detector</td>
<td>199n/13</td>
</tr>
<tr>
<td>Analogous addressable class A1R rate of rise heat detector (B501AP, B501, B524EFT-1, B524HTR and B524RTE bases)</td>
<td>199n/15</td>
</tr>
<tr>
<td>Analogous addressable class BS fixed temperature heat detector (B501AP, B501, B524EFT-1, B524HTR and B524RTE bases)</td>
<td>199n/16</td>
</tr>
<tr>
<td>Analogous addressable class A1S fixed temperature heat detector (B501AP, B501, B524EFT-1, B524HTR and B524RTE bases)</td>
<td>199n/17</td>
</tr>
<tr>
<td>Class BS Conventional High Temperature Heat Detector (ECO1000DB, ECO1000DBR, ECO1000DBRSD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 and ECO1000BR1000SD bases)</td>
<td>199n/18</td>
</tr>
<tr>
<td>Class A1R Conventional Thermal Detector (ECO1000DB, ECO1000DBR, ECO1000DBRSD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 and ECO1000BR1000SD bases)</td>
<td>199n/19</td>
</tr>
<tr>
<td>Class A2S Conventional Fixed Temperature Heat Detector (ECO1000DB, ECO1000DBR, ECO1000DBRSD, ECO1000BR, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000 and ECO1000BR1000SD bases)</td>
<td>199n/20</td>
</tr>
</tbody>
</table>

**Bases:**

2020B standard base
2020DB deep base
2020BSD standard base with schottky diode
2020DBSD deep base with schottky diode
B401 standard base
B401DG deep base
B401R standard base with 470 ohm resistor
B401RSD standard base with 470 ohm resistor and schottky diode
B401DGR deep base with 470 ohm resistor
B401DGR1000 deep base with 1000 ohm resistor
B401DGSO deep base with schottky diode
B501 standard analogue detector base
B501AP intelligent detector base
B501DG analogue sensor deep base
B501DGR analogue sensor isolator base
B501DGR1000 deep base with 1000 ohm resistor
B501DGSD deep base with schottky diode
B401 standard base.
B401AP intelligent base
B401BG analogue sensor base
B401DGR analogue sensor isolator base
B501DGR1000 deep base with 1000 ohm resistor
B501DGSD deep base with schottky diode
B501BREL12L 12Vdc Relay base (latching)
B501BREL12NL 12Vdc Relay base (non-latching)
B501BREL24L 24Vdc Relay base (latching)


Multi-criteria Detectors
Certificated Products

22051TLEI Analogue addressable photo-thermal-IR multi-criteria smoke sensor with short circuit isolator (B501AP, B524HTR & B524RTE bases)
   Note: Certified at the following settings:
   - Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

22051TE Analogue addressable photo-thermal multi-criteria sensor
   Note: Certified at the following settings:
   - Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

ECO1002 Conventional Photo-Thermal Detector (ECO1000B, ECO1000BSD, ECO1000BR, ECO1000BRSD, ECO1000BR680, ECO1000BR680SD, ECO1000BR1000, ECO1000BR1000SD, ECO1000DB, ECO1000DBR and ECO1000DBRSD, ECO1000BREL12L, ECO1000BREL12NL and ECO1000BREL24L bases)
   Note: Meets the requirements of EN 54-5: 2000 at Class A1R and EN 54-7: 2000 at preset sensitivity

2351TEM Conventional optical/thermal detector (B401, B401DG, B401R, B401SD, & B401RSD bases)
   Note: Meets the requirements of EN 54-5: 2000 at Class A1R and EN 54-7: 2000 at ‘High’ ‘Medium’ and ‘Low’ sensitivity settings.


22051TLE Analogue addressable photo-thermal-IR multi-criteria sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)
   Note: Certified at the following settings:
   - Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

22051TE Analogue addressable photo-thermal multi-criteria sensor

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### COMMERCIAL DETECTORS

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>199p/08</td>
<td>ECO1002ABL Conventional Photo-Thermal Detector</td>
</tr>
<tr>
<td>199t/01</td>
<td>2251CTLE-xx-yy Analogue addressable multi-criteria fire detector incorporating CO, photoelectric, thermal and IR sensors</td>
</tr>
</tbody>
</table>

#### Bases:

- 2020B standard base
- 2020DB deep base
- 2020BSD standard base with schottky diode
- 2020DBSD deep base with schottky diode
- B401 standard base
- B401DG deep base
- B401R standard base with 470 ohm resistor
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B401R1000 standard base with 1000 ohm resistor
- B401DGR deep base with 470 ohm resistor
- B401DGR1000 deep base with 1000 ohm resistor
- B401DGSD deep base with schottky diode
- B501 standard analogue detector base
- B501AP intelligent detector base
- B501DG analogue sensor deep base
- B524IEFT analogue sensor isolator base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- ECO1000B standard base
- ECO1000BSD standard base with schottky diode
- ECO1000BR standard base, 470 ohm resistor
- ECO1000BRSD standard base, 470 ohm resistor and schottky diode
- ECO1000BR680 standard base, 680 ohm resistor
- ECO1000BR680SD standard base, 680 ohm resistor and schottky diode
- ECO1000BR1000 standard base, 1000 ohm resistor
- ECO1000BR1000SD standard base, 1000 ohm resistor and schottky diode
- ECO1000DB deep base
- ECO1000DBR deep base with 470 ohm resistor
- ECO1000DBRD deep base with 470 ohm resistor and schottky diode
- ECO1000DBSD deep base with 470 ohm resistor and schottky diode
- ECO1000DBR1000 deep base with 1000 ohm resistor
- ECO1000DBR1000SD deep base with 1000 ohm resistor and schottky diode
- ECO1000DBR24 deep base with 470 ohm resistor
- ECO1000DBR24L 24Vdc Relay base (latching)
- ECO1000DBREL12L 12Vdc Relay base (latching)
- ECO1000DBREL12NL 12Vdc Relay base (non-latching)
- ECO1000DBREL24L 24Vdc Relay base (latching)
**Beam Detectors**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>199u/01</td>
<td>6500R Conventional optical beam detector</td>
<td>1. Meets the requirements of EN 54-12: 2015 at sensitivity levels 1, 2 and 3 2. Approved to 10m-70m Range 3. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK</td>
</tr>
<tr>
<td>199u/01</td>
<td>6500RS Conventional optical beam detector with self test facility</td>
<td>1. Meets the requirements of EN 54-12: 2015 at sensitivity levels 1, 2 and 3 2. Approved to 10m-70m Range 3. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK</td>
</tr>
<tr>
<td>199w/01</td>
<td>6500-xx Analogue Optical Beam Detector with Short Circuit Isolator Feature</td>
<td>1. Meets the requirements of BS EN54-12: 2015 at sensitivity levels 1, 2 and 3 2. xx= (Range 00-99) and indicates the software protocol 3. Approved to 10m-70m Range 4. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK</td>
</tr>
<tr>
<td>199w/02</td>
<td>6500S-xx Analogue Optical Beam Detector with Self Test Facility and Short Circuit Isolator Feature</td>
<td>1. Meets the requirements of BS EN54-12: 2015 at sensitivity levels 1, 2 and 3 2. xx= (Range 00-99) and indicates the software protocol 3. Approved to 10m-70m Range 4. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK</td>
</tr>
</tbody>
</table>

**Ancillaries:**

- RTS151-KEY Remote test Station
- 6500 - LRK/BEAMLRK Long Range Kit
- 6500 - MMK/BEAMMK Multi-Mounting Kit
- 6500 - SMK/BEAMSMK Surface Mounting Kit

**Aspirating Smoke Detectors**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ad/01</td>
<td>FL0111E-HS Stand Alone Single Channel Aspirating Detector (F-INF-25 In line filter)</td>
<td>1. For compliance with Clause 5.10 of EN54-20: 2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4. 2. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeIQ software. 3. The approval of the detector is conditional upon the following requirements: Design including accessories used, installation and commissioning are performed in accordance with the Advanced Set-up and Control Guide (I56-3888-xxx).</td>
</tr>
<tr>
<td>199ad/02</td>
<td>FL0112E-HS Stand Alone Single Channel Unit Common Chamber Aspirating Detector (F-INF-25 In line filter)</td>
<td>1. This device has single channel capability with two high sensitivity smoke sensors in a common chamber. 2. For compliance with Clause 5.10 of EN54-20: 2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4. 3. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeIQ software. 4. The approval of the detector is conditional upon the following requirements: Design including accessories used, installation and commissioning are performed in accordance with the Advanced Set-up and Control Guide (I56-3888-xxx).</td>
</tr>
</tbody>
</table>
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COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL0122E-HS</td>
<td>Stand Alone Dual Channel Aspirating Detector (F-INF-25 In line filter)</td>
<td>199ad/03</td>
</tr>
<tr>
<td>FL2011EI-HS</td>
<td>Analogue Addressable Single Channel Loop-Based Aspirating Detector (F-INF-25 In line filter)</td>
<td>199ae/01</td>
</tr>
<tr>
<td>FL2012EI-HS</td>
<td>Analogue Addressable Loop-Based Single Channel Unit Common Chamber Aspirating Detector, Dual Sensors (F-INF-25 In line filter)</td>
<td>199ae/02</td>
</tr>
<tr>
<td>FL2022EI-HS</td>
<td>Analogue Addressable Dual Channel Loop-Based Aspirating Detector, Dual Sensors (F-INF-25 In line filter)</td>
<td>199ae/03</td>
</tr>
</tbody>
</table>

Accessories
F-INF-25  In line filter

Horing LiH Industrial Co Ltd
No. 35, Er-Hu Road, Hu-Hsi Village, Yuan-Shan Hsiang, Yilan Hsien 264, Taiwan ROC
Tel: +886 2 22487599  •  Fax: +886 2 22407752

## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

### Point Smoke Detectors
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506a/01</td>
<td>AHS-871 Conventional photoelectric smoke detector (AHMB-L mounting base)</td>
</tr>
<tr>
<td>506a/02</td>
<td>AH-0311-2 (2 wire) Conventional photoelectric smoke detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506a/03</td>
<td>AH-0311-3 (3 wire) Conventional photoelectric smoke detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506a/04</td>
<td>AH-0311-4 (4 wire) Conventional photoelectric smoke detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506a/05</td>
<td>Q01-2 Conventional 2-wire optical smoke detector (AHMB-061-2 and AHMB-071-2 bases)</td>
</tr>
<tr>
<td>506a/06</td>
<td>Q01-3 Conventional 3-wire optical smoke detector with remote (AHMB-061-3 and AHMB-071-3 bases)</td>
</tr>
<tr>
<td>506a/07</td>
<td>Q01-4 Conventional 4-wire optical smoke detector with relay output (AHMB-061-4 and AHMB-071-4 bases)</td>
</tr>
</tbody>
</table>

**Bases:**
- AHMB-031 mounting base
- AHMB-L mounting base
- AHMB-061-2 Standard base
- AHMB-061-3 Standard base
- AHMB-061-4 Standard base
- AHMB-071-2 Base Unit
- AHMB-071-3 Base Unit
- AHMB-071-4 base Unit


### Multi-criteria Detectors
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506b/01</td>
<td>AH-0315-2 (2 wire) Optical smoke and class A2 heat detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506b/02</td>
<td>AH-0315-3 (3 wire) Optical smoke and class A2 heat detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506b/03</td>
<td>AH-0315-4 (4 wire) Optical smoke and class A2 heat detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506b/04</td>
<td>Q05-2 Conventional 2-wire optical smoke and class A2 heat detector (AHMB-061-2 and AHMB-071-2 bases)</td>
</tr>
<tr>
<td>506b/05</td>
<td>Q05-3 Conventional 3-wire optical smoke and class A2 heat detector with remote LED (AHMB-061-3 and AHMB-071-3 bases)</td>
</tr>
<tr>
<td>506b/06</td>
<td>Q05-4 Conventional 4-wire optical smoke and class A2 heat detector with relay output (AHMB-061-4 and AHMB-071-4 bases)</td>
</tr>
</tbody>
</table>

**Bases:**
- AHMB-031 mounting base
- AHMB-061-2 Standard base
- AHMB-061-3 Standard base
- AHMB-061-4 Standard base
- AHMB-071-2 Base Unit
- AHMB-071-3 Base Unit
- AHMB-071-4 base Unit


### Point Heat Detector
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506c/01</td>
<td>AH-0316-2 (2 wire) Conventional Class A2 rate of rise and fixed temperature heat detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506c/02</td>
<td>AH-0316-3 (3 wire) Conventional three wire rate of rise and fixed temperature heat detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506c/03</td>
<td>AH-0316-4 (4 wire) Conventional four wire rate of rise and fixed temperature heat detector (AHMB-031 Base)</td>
</tr>
<tr>
<td>506c/04</td>
<td>Q06-2 Conventional 2-wire Class A2 heat detector (AHMB-061-2 and AHMB-071-2 bases)</td>
</tr>
<tr>
<td>506c/05</td>
<td>Q06-3 Conventional 3-wire Class A2 heat detector with remote LED (AHMB-061-3 and AHMB-071-3 bases)</td>
</tr>
<tr>
<td>506c/06</td>
<td>Q06-4 Conventional 4-wire Class A2 heat detector with relay output (AHMB-061-4 and AHMB-071-4 bases)</td>
</tr>
</tbody>
</table>

**Bases:**
- AHMB-031 mounting base
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COMMERCIAL DETECTORS

AHMB-061-2 Standard base
AHMB-061-3 Standard base
AHMB-061-4 Standard base
AHMB-071-2 Base Unit
AHMB-071-3 Base Unit
AHMB-071-4 Base Unit

Certificate No: 506g to EN 54-10:2002 + A1:2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>506g/01</td>
<td>Infrared Single Flame Detector (AHMB-071)</td>
<td>Meets EN 54-10:2002 at Class 2 and 3 Sensitivity</td>
</tr>
<tr>
<td>506g/02</td>
<td>Infrared Dual Flame Detector (AHMB-071)</td>
<td>Meets EN 54-10:2002 at Class 2 and 3 Sensitivity</td>
</tr>
</tbody>
</table>

AHMB-071 Mounting Base

Certificate No: 506h to EN 54-12:2015

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes:</th>
</tr>
</thead>
</table>
| 506h/01       | Reflective Beam Smoke Detector (EDB01)           | 1. Meets the requirements of EN 54-12: 2015 at sensitivity settings 18%, 25%, 35% and 50%  
|               |                                                  | 2. Suitable for use at the following separation ranges:             |
|               |                                                  | a) 5 to 20 metres Short Path (1 x prism reflector required)        |
|               |                                                  | b) 20 to 50 metres Short Path (1 x prism reflector required)       |
|               |                                                  | c) 50 to 70 metres Normal Path (4 x prism reflector required)      |
|               |                                                  | d) 70 to 100 metres Long Path (4 x prism reflector required)       |

Accessories:
1 x Prism Reflector
4 x Prism Reflector

INIM Electronics S.R.L
Via Dei Lavoratori 10, Frazione Centobuchi, Monteprandone (AP) 63076, Italy
Tel: +39 0735 705007 • Fax: +39 0735 704912
E-mail: info@inim.biz • Website: www.inim.biz


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes:</th>
</tr>
</thead>
</table>
| 991a/01       | Conventional Multi-Criteria Detector (EB0010 and EB0020 bases) | 1) Meets EN 54-7:2000 with Low, Medium-Low, Medium-High and High sensitivities.  
|               |                                                  | 2) Meets EN 54-5:2000 at class A1R and class B.                        |
| 991b/01       | Intelligent Analogue Addressable Multi-Criteria Detector with Short Circuit Isolator (EB0010 and EB0020 bases) | 1) Meets EN 54-7:2000 with Low, Medium-Low, Medium-High and High sensitivities.  
|               |                                                  | 2) Meets the requirements of EN 54-5:2000 at class A1R and class B. |

Bases:
EB0010 Standard Base
EB0020 Relay Base
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>991c/01</td>
<td>ID100 Conventional Optical Smoke Detector (EB0010 and EB0020 bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets EN 54-7:2000 with Low, Medium-Low, Medium-High and High sensitivities.</td>
</tr>
<tr>
<td>991d/01</td>
<td>ED100 Intelligent Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (EB0010 and EB0020 bases).</td>
</tr>
<tr>
<td></td>
<td>Note: 1) Meets EN 54-7:2000 with Low, Medium-Low, Medium-High and High sensitivities.</td>
</tr>
</tbody>
</table>

Bases:
- EB0010 Standard Base
- EB0020 Relay Base

KMW Systems S.R.L.
Str.Sambetei, Nr. 6 Iasi, , Romania
Tel: 0040232247288
E-mail: marius.gavriluta@kmw.ro


Smoke Detectors

Approved Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174a/01</td>
<td>KM-FC5100 Conventional Optical Smoke Detector (KM-FC5101 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-7: 2000 at default sensitivity setting only</td>
</tr>
<tr>
<td></td>
<td>Bases</td>
</tr>
<tr>
<td></td>
<td>KM-FC5101 Base</td>
</tr>
<tr>
<td></td>
<td>KM-FA6101 Digital Detector Base</td>
</tr>
<tr>
<td>1174a/02</td>
<td>KM-FA6100 Digital Smoke Detector (KM-FC6101 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-7:2000 at the following sensitivities:</td>
</tr>
<tr>
<td></td>
<td>Base</td>
</tr>
<tr>
<td></td>
<td>KM-FC5101</td>
</tr>
<tr>
<td></td>
<td>KM-FA6101 Digital Detector Base</td>
</tr>
</tbody>
</table>

### Heat Detectors

#### Approved Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174b/01</td>
<td>KM-FC5110 Conventional Heat Detector (KM-FC5101 base)</td>
</tr>
<tr>
<td>1174b/02</td>
<td>KM-FA6110 Digital Heat Detector (KM-FA6101 base)</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5:2000 at class A2R
2. Meets the requirements of EN 54-5:2000 at class A1R and A2

### Multi-Sensor/Multi-Criteria Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174f/01</td>
<td>KM-FA6120 Digital Multi-Sense Detector (KM-FA6101 base)</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-5:2000 at Class A1R and A2
2. Meets the requirements of EN 54-7:2000 at the following sensitivity settings:
   - Smoke Mode 2 and A1R
   - Smoke Mode 2 and A2
   - Smoke Mode 2 (Smoke only), heat disabled

### Beam Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1283a/01</td>
<td>BM100 Conventional Optical Beam Smoke Detector (Double Pass)</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of EN 54-12 at the following sensitivity settings only:
   - 18% obscuration high sensitivity at between 5-20m
   - 30% obscuration medium sensitivity at between 20-100m
2. Suitable for use with BM50-1 prismatic reflector over distances from 5 to 50m
3. Suitable for use with BM100-4 set of reflectors over distances from 50 to 100m

### Ancillaries

- BM50-1 Single prism reflector
- BM100-4 Set of 4 x prism reflectors

PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Labor Strauss Sicherungsanlagenbau GmbH
Wiegelestrasse 36, A-1231 Vienna, Austria
Tel: +43 1 52114-44 • Fax: +43 1 52114-27
E-mail: andreas.schumacher@lst.at • Website: www.laborstrauss.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>928e/02</td>
<td>FC650/O Conventional Photo Detector (FC600/B, FC600/BR and FC600/BRD bases)</td>
<td>1. Meets the requirements of EN 54-7 at the following sensitivity settings: Level 1 - High Level 2 - Normal Level 3 - Low 2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
<tr>
<td>928k/02</td>
<td>FI720/RF/O Wireless Libra Addressable Optical Smoke Detector (WAB100 Base)</td>
<td></td>
</tr>
</tbody>
</table>

Bases
- FC600/B Universal adaptor base
- FC600/BR Universal adaptor base with resistor
- FC600/BRD Universal adaptor base with resistor and Schottky diode
- F1750/B Low profile adaptor base
- WAB100 Wireless Adaptor Base


**Point Heat Detector**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>928j/02</td>
<td>FI720/RF/T Wireless Libra Addressable Class P Heat Detector (WAB100 Base)</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R and BS 2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

Base
- F1750/B Low profile adaptor base


**Heat Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>928d/02</td>
<td>FC650/TDIFF/57 Conventional Class A1R Thermal Detector (FC600/B, FC600/BR and FC600/BRD bases)</td>
<td></td>
</tr>
<tr>
<td>928d/02</td>
<td>FC650/TMAX/78 Conventional Class B Thermal Detector (FC600/B, FC600/BR and FC600/BRD bases)</td>
<td></td>
</tr>
</tbody>
</table>

Bases
- FC600/B Universal adaptor base
- FC600/BR Universal adaptor base with resistor
- FC600/BRD Universal adaptor base with resistor and Schottky diode


**Multi-Sensor/Multi-Criteria Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>928m/02</td>
<td>FI720/RF/OT Wireless Libra Addressable Multicriteria Detector (WAB100 Base)</td>
<td></td>
</tr>
</tbody>
</table>

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Notes:
1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 at the following sensitivity settings:
   Level 1 - High
   Level 2 - Normal
   Level 3 - Low
3. The device must be used with the following battery type only:
   CR123A (3 Vdc) - Primary and Secondary Battery

Base
FI750/B Low profile adaptor base

Mavilli Elektronik Ticaret Ve Sanayi A.S.
Serifali Mah, Kutup Sok, No: 27:, 1-2-4 Umranıye, İstanbul TR 34775, Turkey
Tel: +90 216 4664 505 • Fax: +90 216 4664 510
E-mail: mavili@mavili.com.tr • Website: www.mavili.com.tr


Point Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG-9100</td>
<td>Intelligent analogue addressable system photoelectric smoke detector (MG-3510 base)</td>
</tr>
<tr>
<td>MGR-2100</td>
<td>Mavigard Conventional Photo-Electric Smoke Detector with Relay Output (MG-3550 base)</td>
</tr>
<tr>
<td>ML-2110</td>
<td>Maxlogic Conventional System Photoelectric Smoke Detector (ML-0140, ML-0121, ML-0150)</td>
</tr>
</tbody>
</table>

Bases:
MG-3510 Standard Mounting Base
MG-3550 Mavigard Detector Mounting Base
ML-0140 MaxLogic Detector Base
ML-0121 Surface Mounting Back Box
ML-0150 Recessed Mounting Base


Point Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG-9300</td>
<td>Intelligent analogue addressable system class A1R rate of rise heat detector (MG-3510 base)</td>
</tr>
<tr>
<td>ML-2120</td>
<td>Maxlogic Conventional System A1S Fixed Heat Detector (ML-0140, ML-0121, ML-0150)</td>
</tr>
<tr>
<td>ML-2130</td>
<td>Maxlogic Conventional System A1R Rate of Rise Heat Detector (ML-0140, ML-0121, ML-0150)</td>
</tr>
</tbody>
</table>

Bases:
MG-3510 Standard Mounting Base
ML-0140 MaxLogic Detector Base
ML-0121 Surface Mounting Back Box
ML-0150 Recessed Mounting Base

# Multi-criteria Detectors

## Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Multi-criteria Detectors</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>926c/01</td>
<td>MG-9400</td>
<td>Intelligent analogue addressable system class A1R multisensor detector (MG-3510 base)</td>
</tr>
<tr>
<td>926p/01</td>
<td>MGR-2500</td>
<td>MaviGard Conventional Multisensor (Photoelectric Smoke &amp; Heat) Detector with Relay Output (MG-3550 base)</td>
</tr>
<tr>
<td>926p/02</td>
<td>ML-2140</td>
<td>Maxlogic Conventional System Multisensor (Photoelectric Smoke &amp; Heat) Detector (ML-0140, ML-0121, ML-0150)</td>
</tr>
</tbody>
</table>

### Notes:
1. Meets the requirements of EN 54-5: 2000 at Class A1R
2. Meets the requirements of EN 54-7: 2000 at the default sensitivity
3. The relay output is not certified to EN 54-18:2005

## Bases:

- MG-3510 Standard Mounting Base
- MG-3550 Mavigard Detector Mounting Base
- ML-0140 MaxLogic Detector Base
- ML-0121 Surface Mounting Back Box
- ML-0150 Recessed Mounting Base

Certificate No: 926m to EN 54-12:2015 & EN 54-17:2005
Certificate No: 926j to EN 54-12:2015

## Beam Detectors

## Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Beam Detectors</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>926j/01</td>
<td>ML-2170</td>
<td>Maxlogic Conventional Beam Type Smoke Detector (incorporating ML-2171 &amp; ML-2172)</td>
</tr>
<tr>
<td>926j/02</td>
<td>ML-2173</td>
<td>Maxlogic Conventional Reflector Beam Type Smoke Detector (incorporating ML-0171 or ML-0174)</td>
</tr>
<tr>
<td>926m/01</td>
<td>ML-1170.SCI</td>
<td>Maxlogic Intelligent Analogue Addressable Beam Type Smoke Detector with Short Circuit Isolator (incorporating ML-1171 &amp; ML-1172)</td>
</tr>
<tr>
<td>926m/02</td>
<td>ML-1173.SCI</td>
<td>Maxlogic Intelligent Analogue Addressable Reflector Beam Type Smoke Detector with Short Circuit Isolator (incorporating ML-0171 or ML-0174)</td>
</tr>
</tbody>
</table>

### Notes:
1. Meets the requirements of EN 54-12:2015 at the sensitivity setting 25% obscuration.
2. Suitable for use at the following distances:
   - 1: 5 to 25 metres
   - 2: 25 to 50 metres
   - 3: 50 to 75 metres
   - 4: 75 to 100 metres
3. Suitable for use at the following Optical way distance settings:
   - 1: 5 to 25 metres
   - 2: 25 to 50 metres
   - 3: 50 to 75 metres
   - 4: 75 to 100 metres
   - 5 to 35 metres using one reflector panel
   - 35 to 50 metres using four reflector panels
Ancillaries
ML-0171 Single Reflector Panel
ML-0174 4 x Single Reflector Panel
ML-1171 Receiver
ML-1172 Transmitter

Morley-IAS Fire Systems by Honeywell (Pittway Systems Technology Group (Europe) Ltd)
Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@morleyias.co.uk • Website: www.morley-ias.co.uk


Point Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-FHSE-S2I</td>
<td>Analogue addressable class A1S fixed temperature heat sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-HTSE-S2I</td>
<td>Analogue addressable class BS fixed temperature heat sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-RHSE-S2I</td>
<td>Analogue addressable class A1R rate of rise heat sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-RHSE-S2</td>
<td>Analogue addressable class A1R rate of rise heat sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-HTSE-S2</td>
<td>Analogue addressable class BS fixed temperature heat sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-FHSE-S2</td>
<td>Analogue addressable class A1S fixed temperature heat sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
</tbody>
</table>

Bases:
B501 standard analogue detector base
B501DG analogue deep base
B524IEFT analogue short circuit isolator base
B501AP intelligent sensor base
B524IEFT-1 short circuit isolator
B524HTR heater base
B524RTE latching relay base
HRZ-1000BSD standard base with Schottky diode


Multi-criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-PTIR-S2I</td>
<td>Analogue addressable photo-thermal-IR multi-criteria smoke sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-PTSE-S2I</td>
<td>Analogue addressable photo-thermal multi-criteria smoke sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
<tr>
<td>MI-PTIR-S2</td>
<td>Analogue addressable photo-thermal-IR multi-criteria smoke sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
</tbody>
</table>

Note: Certified at the following settings:
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

Note: Certified at the following settings:
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R

Note: Certified at the following settings:
Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R
### Commercial Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-PTSE-S2</td>
<td>Analogue addressable photo-thermal multi-criteria sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>199p/07</td>
</tr>
</tbody>
</table>

**Bases:**
- B501 standard analogue detector base
- B501AP intelligent detector base
- B501DG analogue sensor deep base
- B524IEFT analogue short circuit isolator base
- B524IEFT-1 analogue sensor short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- HRZ-1000BSD standard base with Schottky diode

**Certificate No:** 199m to EN 54-7: 2000 + A1: 2002
**Certificate No:** 199ab-(cl-3) to EN 54-7: 2000 + A1: 2002 & EN 54-17: 2005

### Point Smoke Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-PSE-S2I</td>
<td>Analogue addressable optical smoke sensor with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>199ab/01</td>
</tr>
</tbody>
</table>

**MI-LZR-S3I**
- High Sensitivity Point Optical Smoke Detector with Short Circuit Isolator (B501AP)
- Note:
  1. Meets the requirements of EN 54-7: 2000 at high sensitivity

**MI-PSE-S2**
- Analogue addressable optical smoke sensor (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)
- Note: Meets the requirements of EN 54-7: 2000 at high and low sensitivity

**Bases:**
- B501 analogue detector base
- B501DG analogue deep base
- B524IEFT analogue short circuit isolator base
- B501AP intelligent sensor base
- B524IEFT-1 short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- HRZ-1000BSD standard base with Schottky diode

**Certificate No:** 199m/10 to EN 54-7: 2000 + A1: 2002 & EN 54-17: 2005

### Beam Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-LPB2-S2I</td>
<td>Analogue Optical Beam Detector with Short Circuit Isolator Feature</td>
<td>199w/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of BS EN54-12: 2015 at sensitivity levels 1, 2 and 3
2. yy= (Range 00-99) and indicates the software protocol
3. Approved to 10m-70m Range
4. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK

**Ancillaries:**
- RTS151-KEY Remote test Station
- 6500 - LRK/BEAMLRK Long Range Kit
- 6500 - MMK/BEAMMMK Multi-Mounting Kit
- 6500 - SMK/BEAMSMK Surface Mounting Kit

**Certificate No:** 199ae-(cl-1) to EN54-17: 2005 & EN54-20: 2006
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Aspirating Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>MI-FL2011EI-HS Analogue Addressable Single Channel Loop-Based Aspirating Detector (F-INF-25 in line filter) Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ae/01</td>
<td>1. For compliance with Clause 5.10 of EN54-20: 2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.</td>
</tr>
<tr>
<td></td>
<td>2. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeIQ software.</td>
</tr>
<tr>
<td></td>
<td>3. The approval of the detector is conditional upon the following requirements:</td>
</tr>
<tr>
<td></td>
<td>• Design including accessories used, installation and commissioning are performed in accordance with the Advanced Set-up and Control Guide (I56-3888-xxx).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>MI-FL2012EI-HS Analogue Addressable Loop-Based Single Channel Unit Common Chamber Aspirating Detector, Dual Sensors (F-INF-25 in line filter) Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ae/02</td>
<td>1. This device has single channel capability with two high sensitivity smoke sensors in a common chamber.</td>
</tr>
<tr>
<td></td>
<td>2. For compliance with Clause 5.10 of EN54-20: 2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.</td>
</tr>
<tr>
<td></td>
<td>3. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeIQ software.</td>
</tr>
<tr>
<td></td>
<td>4. The approval of the detector is conditional upon the following requirements:</td>
</tr>
<tr>
<td></td>
<td>• Design including accessories used, installation and commissioning are performed in accordance with the Advanced Set-up and Control Guide (I56-3888-xxx).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>MI-FL2022EI-HS Analogue Addressable Dual Channel Loop-Based Aspirating Detector, Dual Sensors (F-INF-25 in line filter) Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ae/03</td>
<td>1. For compliance with Clause 5.10 of EN54-20: 2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.</td>
</tr>
<tr>
<td></td>
<td>2. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeIQ software.</td>
</tr>
<tr>
<td></td>
<td>3. The approval of the detector is conditional upon the following requirements:</td>
</tr>
<tr>
<td></td>
<td>• Design including accessories used, installation and commissioning are performed in accordance with the Advanced Set-up and Control Guide (I56-3888-xxx).</td>
</tr>
</tbody>
</table>

Accessories
F-INF-25 In line filter

Multron Systems Pte Ltd
217 Kallang Bahru, Multron Building, Singapore 339 347, Singapore
Tel: +65 6743 2555 / 6395 6868 • Fax: +65 6743 2777 / 6395 6869
E-mail: info@multron.com • Website: www.multron.com


Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>DET-C632 Conventional rate of rise &amp; fixed temperature heat detector (standard base) Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1148a/01</td>
<td>Meets the requirements of EN 54-5 at Class A2R</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>MX110 Intelligent Heat Detector (MX980 base) Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330c/01</td>
<td>1 Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
</tbody>
</table>

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### Photoelectric Smoke Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DET-C631</td>
<td>Conventional optical smoke detector (DB-6 Standard base)</td>
<td>1148b/01</td>
</tr>
<tr>
<td>MX100</td>
<td>Intelligent Smoke Detector (MX980 base)</td>
<td>1330b/01</td>
</tr>
</tbody>
</table>

**Bases:**
- DZ-03 Standard detector base
- DB-6 Standard detector base
- DB1 Mounting base
- MX980 Base

**Certificate No:** 1148b to EN 54-7:2001 + A1: 2002 + A2: 2006

**Certificate No:** 1330b-(cl-3) to EN 54-7:2000 + A1:2002 + A2:2006

**Note:** Meets the requirements of EN 54-7 in the normal sensitivity setting.

### Beam Detectors

**Certificated Products**

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DET 640RB</td>
<td>Conventional Reflective Beam Detector</td>
<td>1330a/01</td>
</tr>
</tbody>
</table>

**Bases:**
- DZ-03 Standard detector base
- DB-6 Standard detector base
- DB1 Mounting base
- MX980 Base

**Certificate No:** 1330a-(cl-2) to EN 54-12: 2015

**Notes:**
1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:
   - Level 1: 2.6 dB High sensitivity
   - Level 2: 3.8 dB Medium sensitivity
   - Level 3: 5.8 dB Low sensitivity

2. Suitable for use at the following separation ranges:
   - Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)
   - Span 2: 20 to 40 meters Short Path (1 x mirror reflector required)
   - Span 3: 40 to 70 meters Normal Path (4 x mirror reflector required)
   - Span 4: 70 to 100 meters Long Path (4 x mirror reflector required)

### Accessories

- Mounting Bracket
- DET-640RB-R 1 x Mirror Reflector
- DET-640RB-R 4 x Mirror Reflector

### Heat Detectors

**Bases**
- DB1 Mounting base

---

**NA-DE Elektronik Sanayi Ve Tic AS**

Istanbul Deri Organize Sanayi, Bolgesi, Tuse, Sokak No: 8, M1-8 Ozel, Parsel, 34953 Tuzla, Istanbul, Turkey

Tel: 021222524460 • Fax: 02122933813

E-mail: haldun@na-de.com.tr • Website: www.na-de.com.tr

**Certificate No:** 1107a-(cl-1) to EN 54-5:2000 + A1:2002
### PART 1: SECTION 4.1

**COMMERCIAL DETECTORS**

#### Heat Detector

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD7120 Analogue Addressable Rate of Rise Heat Detector (7100 base)</td>
<td>1107a/01</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5 at Class A2R</td>
<td></td>
</tr>
<tr>
<td>FD8020 Conventional Rate of Rise Heat Detector (8000 base)</td>
<td>1107a/02</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5 at Class A2R</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

- 7100 Standard analogue detector base
- 8000 Standard conventional detector base

**Certificate No:** 1107b-(cl-1) to EN 54-7:2000 + A1:2002 + A2:2006

#### Smoke Detector

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD8030 Conventional Optical Smoke Detector (8000 base)</td>
<td>1107/02</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-7 in the normal sensitivity setting</td>
<td></td>
</tr>
<tr>
<td>FD7130 Analogue Addressable Optical Smoke Detector (7100 base)</td>
<td>1107b/01</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-7 in the normal sensitivity setting</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

- 7100 Standard analogue detector base
- 8000 Standard conventional detector base


#### Multi Criteria Detector

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD7160 Analogue Addressable Combined Heat &amp; Optical Smoke Detector (7100 base)</td>
<td>1107c/01</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5: 2000 (Class A2R) &amp; EN 54-7: 2000 at default normal sensitivity setting</td>
<td></td>
</tr>
<tr>
<td>FD8060 Conventional Combined Heat &amp; Optical Smoke Detector (8000 base)</td>
<td>1107c/02</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-5: 2000 (Class A2R) &amp; EN 54-7: 2000 at default normal sensitivity setting</td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

- 7100 Standard analogue detector base
- 8000 Standard conventional detector base

#### Nittan Europe Limited

Hipley Street, Old Woking, Surrey GU22 9LQ, United Kingdom
Tel: +44 (0)1483 769555/8 • Fax: +44 (0)1483 756686
E-mail: sales@nittan.co.uk • Website: www.nittan.co.uk

**Certificate No:** 041f to EN54-7: 2000 + A1: 2002 + A2: 2006
**Certificate No:** 755a-(cl-1) to EN54-7:2018
**Certificate No:** 1461a-(cl-1) to EN 54-7:2000 + A1:2002 + A2:2006

#### Point Smoke Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV-P Analogue Addressable Optical Smoke Detector (UB-4,UB-4-EV, STB-4SE-EV and UB-6-EV bases)</td>
<td>041f/01</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-7 at 'Lowest' and 'Highest' sensitivity settings only.</td>
<td></td>
</tr>
<tr>
<td>EVC-P Conventional Optical Smoke Detector</td>
<td>041f/03</td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVC-P</td>
<td>1461a/01</td>
</tr>
<tr>
<td>ST-P-OM</td>
<td>1461a/02</td>
</tr>
<tr>
<td>ST-PY-AS</td>
<td>1461a/03</td>
</tr>
<tr>
<td>EV-P</td>
<td>1461a/04</td>
</tr>
<tr>
<td>EVC-DP</td>
<td>755a/01</td>
</tr>
</tbody>
</table>

EVC-P
Conventional Optical Smoke Detector
(STB-4SE-24VR, STB-4SE, UB-4, UB-4-EV, UB-4SD, STB-4SE-EV and UB-6-EV bases)

ST-P-OM
Conventional Optical Smoke Detector
(STB-4SE-24VR, STB-4SE, STB-4SE-EV, UB-4, UB-4R-470, UB-4SDR-470 and UB-6-EV bases)

ST-PY-AS
Analogue Addressable Photoelectric Smoke Detector (STB-4SE, UB-4 and UB-6-EV bases)
Note:
1. Meets the requirements of EN 54-7 at 'Lowest' and 'Highest' sensitivity settings.

EV-P
Analogue Addressable Photoelectric Smoke Detector (STB-4SE-EV, UB-4, UB-4-EV and UB-6-EV bases)
Note:
1. Meets the requirements of EN 54-7 at 'Lowest' and 'Highest' sensitivity settings.

EVC-DP
Conventional Dual Optical Smoke Detector
(STB-4, STB-4SD, STB-4SE-24VR, UB-4 and UB-5 bases)

Bases

<table>
<thead>
<tr>
<th>Base</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STB-4SE-24VR</td>
<td>Relay Mounting base</td>
</tr>
<tr>
<td>STB-4SE</td>
<td>Standard Deep Mounting base</td>
</tr>
<tr>
<td>UB-4</td>
<td>Universal Mounting base</td>
</tr>
<tr>
<td>UB-4-EV</td>
<td>Universal Mounting base</td>
</tr>
<tr>
<td>UB-4R-470</td>
<td>Mounting base with Schottky Diode</td>
</tr>
<tr>
<td>UB-4SDR-470</td>
<td>Standard base with Schottky diode and 470 ohm Resistor</td>
</tr>
<tr>
<td>UB-6-EV</td>
<td>Universal Mounting base</td>
</tr>
</tbody>
</table>


Point Heat Detectors

Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV-H-A1R</td>
<td>041h/01</td>
</tr>
<tr>
<td>EV-H-CS</td>
<td>041h/02</td>
</tr>
<tr>
<td>EVC-H-A2S</td>
<td>041h/03</td>
</tr>
<tr>
<td>EVC-H-CS</td>
<td>041h/04</td>
</tr>
<tr>
<td>EVC-H-A2S</td>
<td>1461c/01</td>
</tr>
<tr>
<td>EVC-H-CS</td>
<td>1461c/02</td>
</tr>
<tr>
<td>EV-H-A1R</td>
<td>1461c/03</td>
</tr>
<tr>
<td>EV-H-CS</td>
<td>1461c/04</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UB-4</td>
<td>Universal base</td>
</tr>
<tr>
<td>UB-4-EV</td>
<td>Universal base</td>
</tr>
<tr>
<td>UB-4SD</td>
<td>Universal base with Shottky diode</td>
</tr>
<tr>
<td>UB-6-EV</td>
<td>Universal Mounting base</td>
</tr>
<tr>
<td>STB-4SE-24VR</td>
<td>Relay Mounting base</td>
</tr>
</tbody>
</table>


Multi-criteria Detectors

Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV-PH</td>
<td>041g/01</td>
</tr>
<tr>
<td>EV-PH</td>
<td>1461b/01</td>
</tr>
</tbody>
</table>

EV-PH
Analogue Addressable Optical Smoke / Class A1R Heat Detector
(STB-4SE-EV and UB-6-EV bases)

EV-PH
Analogue Addressable Optical Smoke / Class A1R Heat Detector
(UB-4, UB-4-EV, STB-4SE-EV and UB-6-EV bases)

Note: Meets the requirements of EN 54-7 at 'Lowest' and 'Highest' sensitivity settings.
## Part 1: Section 4.1
### Commercial Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>199m to EN 54-7: 2000 + A1: 2002</td>
<td>NFXI-OPT Analogue addressable optical smoke sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199ab/01</td>
<td>Note: Meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
</tr>
<tr>
<td>199m/03</td>
<td>NFXI-VIEW High Sensitivity Point Optical Smoke Detector with Short Circuit Isolator (B501AP)</td>
</tr>
<tr>
<td>199ab/03</td>
<td>Note: Meets the requirements of EN 54-7: 2000 at high sensitivity</td>
</tr>
<tr>
<td>199n/03</td>
<td>SD-851E Conventional photoelectric smoke detector (B401 base)</td>
</tr>
<tr>
<td>199n/07</td>
<td>IDX-751 AE Intrinsically safe analogue addressable photoelectric smoke detector (B501, B501AP bases)</td>
</tr>
<tr>
<td>199m/07</td>
<td>Note: Meets EN54-7: 2000 at High, Normal &amp; Low sensitivity settings</td>
</tr>
<tr>
<td>199n/10</td>
<td>NFX-OPT Analogue addressable optical smoke sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199n/13</td>
<td>Note: Meets the requirements of EN 54-7: 2000 at high and low sensitivity</td>
</tr>
</tbody>
</table>

#### Bases:

- B501 base
- B401 base
- B501DG deep base
- B5241EFT short circuit isolator base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- B501AP Intelligent detector base

#### Certificate No:

- 199m to EN 54-5: 2000 + A1: 2002

### Point Heat Detectors

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>199ac/01</td>
<td>NFXI-TFIX58 Analogue addressable class A1S fixed temperature heat sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199ac/02</td>
<td>NFXI-TFIX78 Analogue addressable class BS fixed temperature heat sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199ac/03</td>
<td>NFXI-TDIFF Analogue addressable class A1R rate of rise heat sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199n/07</td>
<td>FD-851RE Conventional Class A1R rate of rise heat detector (B401 base)</td>
</tr>
<tr>
<td>199n/08</td>
<td>FD-851HTE Conventional Class BS heat detector (B401 base)</td>
</tr>
<tr>
<td>199n/14</td>
<td>FD-851TE Conventional Class A2S Fixed Temperature Heat Detector (B401, B401R, B401SD, B401RSD, B401DG, B401DGDR, B401DGDRSD bases)</td>
</tr>
<tr>
<td>199n/15</td>
<td>NFX-TDIFF Analogue addressable class A1R rate of rise heat sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td>199n/16</td>
<td>NFX-TFIX78 Analogue addressable class BS fixed temperature heat sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
</tr>
</tbody>
</table>

### Notifier by Honeywell (Pittway Systems Technology Group (Europe) Ltd)

Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@notifiersystems.co.uk • Website: www.notifierfiresystems.co.uk

PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>199n/17</td>
<td>NFX-TFIX58 Analogue addressable class A1S fixed temperature heat sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
</tr>
</tbody>
</table>

Bases:
- B501 base
- B401 base
- B401R standard base with resistor
- B401RSD standard base with resistor and schottky diode
- B401SD standard base with schottky diode
- B401DG deep base
- B501AP intelligent sensor base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base


Multi-criteria Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>199aa/01</td>
<td>NFXI-SMT3 Analogue addressable photo-thermal-IR multi-criteria smoke sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Certified at the following settings: -</td>
</tr>
<tr>
<td></td>
<td>Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R</td>
</tr>
<tr>
<td>199aa/02</td>
<td>NFXI-SMT2 Analogue addressable photo-thermal multi-criteria smoke sensor with short circuit isolator (B501AP, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Certified at the following settings: -</td>
</tr>
<tr>
<td></td>
<td>Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R</td>
</tr>
<tr>
<td>199p/03</td>
<td>SD-851TE Conventional photoelectric/thermal detector (B401 base)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN54-7: 2000 at &quot;High&quot;, 'Medium' and 'Low' sensitivity settings</td>
</tr>
<tr>
<td>199p/06</td>
<td>NFX-SMT3 Analogue addressable photo-thermal-IR multi-criteria sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Certified at the following settings: -</td>
</tr>
<tr>
<td></td>
<td>Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R</td>
</tr>
<tr>
<td>199p/07</td>
<td>NFX-SMT2 Analogue addressable photo-thermal multi-criteria sensor (B501AP, B501, B524IEFT-1, B524HTR &amp; B524RTE bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Certified at the following settings: -</td>
</tr>
<tr>
<td></td>
<td>Alarm level 6 (Heat only mode): EN 54-5: 2000 class A1R</td>
</tr>
<tr>
<td>199/01</td>
<td>IRX-751CTEM Analogue addressable multi-criteria fire detector incorporating CO, photoelectric, thermal and IR sensors (B501, B501DG and B524IEFT-1 bases)</td>
</tr>
<tr>
<td></td>
<td>Note: Certified at the following settings: -</td>
</tr>
<tr>
<td></td>
<td>Normal Mode:</td>
</tr>
<tr>
<td></td>
<td>Alarm Levels 1 to 5 (Multi-criteria): EN54-5 Class A1R, EN54-7, LPS1279 and CEA 4021</td>
</tr>
<tr>
<td></td>
<td>Alarm Level 6 (Heat Only Mode): EN54-5 Class A1R</td>
</tr>
</tbody>
</table>

Nuisance Environment Applications:
- Application 0, Alarm Level 4: EN54-7, LPS1279 & CEA 4021
- Application 1, Alarm Level 5: EN54-5 Class A1R, EN54-7 & CEA 4021
- Application 2, Alarm Level 4 or 5: EN54-5 Class A1R, EN54-7 & CEA 4021
- Application 3, Alarm Level 5: EN54-5 Class A1R, EN54-7 & CEA 4021
- Application 4, Alarm Level 5: EN54-5 Class A1R, EN54-7 & CEA 4021
- Application 5, Alarm Level 5: EN54-5 & CEA 4021
- Application 6, Alarm Level 5: EN54-5 Class A1R, EN54-7 & CEA 4021

Bases:
- B501 base
- B401 base
- B501DG deep base
- B524IEFT-1 analogue short circuit isolator base
### Beam Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFXI-BEAM</td>
<td>199w/01</td>
</tr>
<tr>
<td>NFXI-BEAM-T</td>
<td>199w/02</td>
</tr>
</tbody>
</table>

**Notes:**
1. Meets the requirements of BS EN54-12: 2015 at sensitivity levels 1, 2 and 3
2. \( \text{yy}=\) (Range 00-99) and indicates the software protocol
3. Approved to 10m-70m Range
4. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK

### Ancillaries:

- RTS151-KEY: Remote Test Station
- 6500-LRK/BEAMLRK: Long Range Kit
- 6500-MMK/BEAMMMK: Multi-Mounting Kit
- 6500-SMK/BEAMSMK: Surface Mounting Kit

### Aspirating Smoke Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFXI-ASD11-HS</td>
<td>199af/01</td>
</tr>
<tr>
<td>NFXI-ASD12-HS</td>
<td>199af/02</td>
</tr>
<tr>
<td>NFXI-ASD22-HS</td>
<td>199af/03</td>
</tr>
</tbody>
</table>

**Notes:**
1. For compliance with Clause 5.10 of EN54-20:2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeIQ software.
3. The approval of the detector is conditional upon the following requirements:
   - Design including accessories used, installation and commissioning are performed in accordance with the Advanced Set-up and Control Guide (I56-3888-xxx).
Notifier Fire Systems India
Honeywell Fire Systems, BSEL Tech Park, Floor 6, 603, Sector 30A, opposite Vashi Station, Vashi, New Mumbia, India
Tel: +91 022 67122427 • Fax: +91 02267122422
E-mail: rk.raman@honeywell.com • Website: www.myhoneywell.com


Multi-criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFX-SMT2-yy</td>
<td>Analogue addressable photo-thermal multi-criteria detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>550b/05</td>
</tr>
<tr>
<td>NFXI-SMT2-yy</td>
<td>Analogue addressable photo-thermal multi-criteria smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550e/02</td>
</tr>
</tbody>
</table>

Bases:
B501 Standard base
B501DG Deep analogue detector base
B524IEFT-1 Short circuit isolator base
B501AP intelligent detector base
B524HTR heater base
B524RTE latching relay base


Point Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFX-TDIFF-yy</td>
<td>Analogue addressable class A1R rate of rise heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>550c/06</td>
</tr>
<tr>
<td>NFX-TFIX58-yy</td>
<td>Analogue addressable class A1S fixed temperature heat detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
<td>550c/07</td>
</tr>
<tr>
<td>NFXI-TDIFF-yy</td>
<td>Analogue addressable class A1R rate of rise heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550f/01</td>
</tr>
<tr>
<td>NFXI-TFIX58-yy</td>
<td>Analogue addressable class A1S fixed temperature heat detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
<td>550f/02</td>
</tr>
</tbody>
</table>

Bases:
B501 Standard base
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

B501DG Deep analogue detector base  
B542IEFT-1 Short circuit isolator base  
B501AP Intelligent detector base  
B524HTR heater base  
B524RTE latching relay base


#### Point Smoke Detectors
Certificated Products  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>550a/04</td>
<td>Analogue addressable optical smoke detector (B501AP, B501, B524IEFT-1, B524HTR and B524RTE bases)</td>
</tr>
</tbody>
</table>

**Notes:**  
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White  
2) Meets the requirements of EN 54-7: 2000 at high and low sensitivity

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>550d/01</td>
<td>Analogue addressable optical smoke detector with short circuit isolator (B501AP, B524HTR and B524RTE bases)</td>
</tr>
</tbody>
</table>

**Notes:**  
1) yy = Colour option ~ IV = Ivory, BK = Black, no reference indicates White  
2) Meets the requirements of EN 54-7: 2000 at high and low sensitivity

#### Bases:  
B501 standard analogue detector base  
B501DG deep analogue detector base  
B524IEFT-1 analogue short circuit isolator base  
B501AP intelligent detector base  
B524HTR heater base  
B524RTE latching relay base

---

### Olympia Electronics S.A.  
Kolindros Pierias, 60061, Greece  
Tel: (+30) 2353051200 • Fax: (+30) 2353051486  
E-mail: info@olympia-electronics.gr • Website: www.olympia-electronics.gr


#### Smoke Detectors
Certificated Products  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1010b/01</td>
<td>Analogue addressable optical smoke detector (BSR-6055/A base)</td>
</tr>
</tbody>
</table>

**Note:**  
1. Meets the requirements of EN 54-7: 2000 at sensitivity setting 0.120dB/m

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1010b/02</td>
<td>Conventional optical smoke detector (BS-655 base)</td>
</tr>
</tbody>
</table>

#### Bases  
BS-655 Base  
BSR-6055/A Base


#### Heat Detectors
Certificated Products  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1010d/01</td>
<td>Conventional Class A2R Rate of Rise Heat Detector (BS-660)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1010d/02</td>
<td>Addressable Class A2R Rate of Rise Heat Detector (BSR-6060/A)</td>
</tr>
</tbody>
</table>

#### Bases  
BS-660  
BSR-6060/A

---

396 20 Oct 2020
Orient Corporation Pte. Ltd.
Block 3018, Bedok North Street 5, #05-51, Eastlink Light Industrial Building 486132, Singapore
Tel: (+65) 6242 5489 • Fax: (+65) 6241 2291
E-mail: corporate@orientcorp.net


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506a/02</td>
<td>OCI 60041 (2 wire) Conventional photoelectric smoke detector (OCI 60041-MPB base)</td>
</tr>
</tbody>
</table>

Base

OCI 60041-MPB Mounting Base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506b/01</td>
<td>OCI 60042 (2 Wire) Optical smoke and class A2 heat detector (OCI 60041-MPB base)</td>
</tr>
</tbody>
</table>

Note: 1. Meets the requirements of EN54-5 for class A2

Base

OCI 60041-MPB Mounting Base


Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506c/01</td>
<td>OCI 60043 (2 Wire) Conventional Class A2 rate of rise and fixed temperature heat detector (OCI 60041-MPB base)</td>
</tr>
</tbody>
</table>

Note: 1. Meets the requirements of EN54-5 for class A2

Base

OCI 60041-MPB Mounting base

Patol Ltd
Archway House, Bath Road, Padworth, Berkshire RG7 5HR, United Kingdom
Tel: +44 (0) 118 9701 701
E-mail: info@patol.uk.com • Website: www.patol.co.uk

Certificate No: 1492a-(cl-1) to LPCB Test Schedule P107397/1.2

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1492a/01</td>
<td>FIBRESENSE LTS 240 SC Fibre Optic Linear Heat Detector - Single Channel</td>
</tr>
</tbody>
</table>

Note: Approval is conditional on the following:
1. The use of SensorLine II, SensorTube II optical fibres (Stainless Steel) or SensorLine II Legacy
2. The optical fibre lengths should not exceed 4km.
3. The system should be installed and configured in accordance with the manufacturers instructions.
4. The zone/alarm configuration parameters should be set in accordance with the manufacturers instructions for an alarm response equivalent to Class A1R as specified in EN 54-5: 2000 + A1: 2002.
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patol Part Number</strong></td>
<td></td>
</tr>
<tr>
<td>100-510 4km Rack Mount</td>
<td></td>
</tr>
<tr>
<td>100-514 4km Cabinet Mount</td>
<td></td>
</tr>
<tr>
<td>100-492 2km Rack Mount</td>
<td></td>
</tr>
<tr>
<td>100-495 2km Cabinet Mount</td>
<td></td>
</tr>
</tbody>
</table>

FIBRESENSE LTS 240 TC Fibre Optic Linear Heat Detector - Twin Channel

Note:
1. Approval is conditional on the following:
   - The use of SensorLine II, SensorTube II optical fibres (Stainless Steel) or SensorLine II Legacy
   - The optical fibre lengths should not exceed 4km.
   - The system should be installed and configured in accordance with the manufacturers instructions.
   - The zone/alarm configuration parameters should be set in accordance with the manufacturers instructions for an alarm response equivalent to Class A1R as specified in EN 54-5: 2000 + A1: 2002.

<table>
<thead>
<tr>
<th>Patol Part Number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100-488 4km Rack Mount</td>
<td></td>
</tr>
<tr>
<td>100-479 4km Cabinet Mount</td>
<td></td>
</tr>
<tr>
<td>100-498 2km Rack Mount</td>
<td></td>
</tr>
<tr>
<td>100-508 2km Cabinet Mount</td>
<td></td>
</tr>
</tbody>
</table>

---

**POLON-ALFA S.A.**
ul. Glinki 155, Bydgoszcz 85 861, Poland
Tel: +48523639269 / +48691999933
E-mail: tomasz.piaskowski@polon-alfa.pl

Certificate No: 1283a to EN 54-12: 2002

**Beam Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOP-6001R Conventional Optical Beam Smoke Detector (Double Pass)</td>
<td>1283a/01</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-12 at the following sensitivity settings only:
   - 18% obscuration high sensitivity at between 5-20m
   - 30% obscuration medium sensitivity at between 20-100m
2. Suitable for use with E39-R8 prismatic reflector over distances from 5 to 50m
3. Suitable for use with 4 x E39-R8 set of reflectors over distances from 50 to 100m

Ancillaries
E39-R8 Single prism reflector
4 x E39-R8 Set of 4 x prism reflectors

---

**Protec Fire Detection plc**
Protec House, Churchill Way, Nelson, Lancashire BB9 6RT, United Kingdom
Tel: +44 (0)1282 717171 • Fax: +44 (0)1282 717273
E-mail: sales@protec.co.uk • Website: www.protec.co.uk


**Point Smoke Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLS/OP Wireless Addressable Optical Smoke Detector (WAB100 Base)</td>
<td>928k/02</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Level 1 - High
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>Level 2 - Normal</th>
<th>Level 3 - Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
<td></td>
</tr>
</tbody>
</table>

Bases
WAB100 Wireless adaptor base


**Point Heat Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>WLS/HT</th>
<th>Wireless Addressable Class P Heat Detector (WAB100 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R and BS</td>
</tr>
<tr>
<td></td>
<td>2. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

Bases
WAB100 Wireless adaptor base


**Multi-criteria Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>WLS/MS</th>
<th>Wireless Addressable Multicriteria Detector (WAB100 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-7 at the following sensitivity settings: Level 1 - High Level 2 - Normal Level 3 - Low</td>
</tr>
<tr>
<td></td>
<td>3. The device must be used with the following battery type only: CR123A (3 Vdc) - Primary and Secondary Battery</td>
</tr>
</tbody>
</table>

Bases
WAB100 Wireless adaptor base


**PT. Servvo Fire Indonesia**

Pusat Niaga Roxy Mas Blok D5/17, Jl.K.H. Hasyim Ashari Blok 125, Cideng, Gambir, Jakarta Pusat, DKI Jakarta Raya 10150, Indonesia
Tel: +62216330330
E-mail: info@servvo.com Info@servvo.co.id • Website: www.servvo.com or www.servvo.co.id


**Certificated Products**

<table>
<thead>
<tr>
<th>SHD 638</th>
<th>Addressable Heat Detector (Base DZ-912)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>Meets the requirements of EN 54-5 for Class A2</td>
</tr>
</tbody>
</table>

Base
DZ-912

Certificate No: 1426c-(cl-4) to EN 54-7: 2000 + A2: 2006
Certificated Products

SSD 537  Addressable Smoke detector (DZ-912 Base)
Notes:
Meets the requirements of EN 54-7 for 1 sensitivity setting

Ravel Electronics Ltd
Unit 11, Chancel Industrial Estate, Newhall Street, Willenhall WV13 1NX, United Kingdom
Tel: 0845 835 8855
E-mail: exportsales@ravelfire.co.uk


Smoke Detectors
Certificated Products
RE-336S  Conventional 2 wire photoelectric smoke detector with remote LED output (RE-334B base)

Base:
RE-334B 4-wire detector base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products
RE-336SH  Conventional 2 wire photoelectric smoke and heat detector with remote LED output (RE-334B base)

Base:
RE-334B 4-wire detector base


Heat Detectors
Certificated Products
RE-336H  Conventional 2 wire 24VDC class A2R fixed temperature and rate-of-rise heat detector with LED output (RE-332B base)

Base:
RE-332B 2-wire detector base

Certificate No: 1330a-(cl-4) to EN 54-12:2015

Certificated Products
RE 438  Conventional Reflective Beam Detector
Notes:
1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:
   - Level 1: 2.6 dB High sensitivity
   - Level 2: 3.8 dB Medium sensitivity
   - Level 3: 5.8 dB Low sensitivity
2. Suitable for use at the following separation ranges:
   - Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)
   - Span 2: 20 to 40 meters Short Path (1 x mirror reflector required)
   - Span 3: 40 to 70 meters Normal Path (4 x mirror reflector required)
   - Span 4: 70 to 100 meters Long Path (4 x mirror reflector required)
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Accessories:
Mounting Bracket
RE 438-R  1 x Mirror Reflector
RE 438-R  4 x Mirror Reflector

Ravel Electronics Pvt Ltd.
150A, 1st Main Road, Electronics Industrial Estate, Perungudi, Chennai 600 096, India
Tel: 044424961004
E-mail: rajasekaran@ravelfire.com • Website: http://ravelfire.com/

Certificate No: 1283a-(cl-5) to EN 54-12:2002

Beam Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1283a/01</td>
<td>RE-428FR/HR Conventional Optical Beam Smoke Detector (Double Pass)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-12 at the following sensitivity settings only:
   - 18% obscuration high sensitivity at between 5-20m
   - 30% obscuration medium sensitivity at between 20-100m
2. Suitable for use with RE-96R prismatic reflector over distances from 5 to 50m
3. Suitable for use with 4 x RE-96R set of reflectors over distances from 50 to 100m

Ancillaries:
RE-96R Single prism reflector
4 x RE-96R Set of 4 x prism reflectors

Realty Automation & Security Systems Pvt Ltd.
Survey No. 11/11, Karanjakar Estate, Nanded Gaon, Pune MH- 411041, India
Tel: +91-9011033259
E-mail: sales@vighnaharta.in • Website: www.vighnaharta.in


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>010h/01</td>
<td>MSD-700TSF TrueSafe Multisensor Detector Addressable (BASE-210TSF)</td>
</tr>
</tbody>
</table>

Notes:
1. Certified at the following settings:
   - Mode 1 High sensitivity smoke detector with standard heat enhancement
   - Mode 2 Smoke detection only
   - Mode 3 Medium sensitivity smoke detector with standard heat enhancement
   - Mode 4 Low sensitivity smoke detector with high heat enhancement
   - Mode 5 Class A1 heat detector
   - Also approved in conventional alarm modes 1, 2, 3, 4 and 5

Base
BASE-210TSF TrueSafe Detector Base

Rezontech Co., Ltd.
(Gwanyang-dong), 72-9, Beommal-ro, Dongan-gu, Anyang-si, Gyeonggi-do 14058, Republic of Korea
Tel: +82-31-348-4246~8
E-mail: sales@rezontech.com • Website: http://rezontech.co.kr//en/index.php

**PART 1: SECTION 4.1**
COMMERCIAL DETECTORS

**Flame Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Flame Detectors</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RFD-2000X</td>
<td>1574a/01</td>
</tr>
<tr>
<td>Note:</td>
<td>UV &amp; IR Flame Detector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meets EN 54-10:2002 + A1:2005 at Class 1</td>
<td></td>
</tr>
</tbody>
</table>

**Safe Detection**
33 Jurong West Street, 41#11-41, Jurong 649413, Singapore
Tel: 98797913
E-mail: sales@safedtec.com


**Smoke Detectors**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Smoke Detectors</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SD10</td>
<td>1148b/01</td>
</tr>
<tr>
<td>Note:</td>
<td>Conventional Optical Smoke Detector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(DB-6 Standard Base)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meets the requirements of EN 54-7 in the normal sensitivity setting</td>
<td></td>
</tr>
</tbody>
</table>


**Heat Detectors**
Certificated Products

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HD10</td>
<td>1148a/01</td>
</tr>
<tr>
<td>Note:</td>
<td>Conventional Rate of Rise &amp; Fixed Temperature Heat Detector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(DB-6 Standard Base)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meets the requirements of EN 54-5 at Class A2R</td>
<td></td>
</tr>
</tbody>
</table>

**Schneider Electric Fire & Security Oy**
Sokerilinnantie 11C, 02600, Espoo, Finland
Tel: +358 10 446 511 • Fax: +358 10 446 5103
E-mail: FI-FireSecurity-Info@schneider-electric.com • Website: www.schneider-electric.com

Certificate No: 199u to EN 54-12: 2015
Certificate No: 199w to EN 54-12: 2015 and EN 54-17: 2005

**Beam Detectors**
Certificated Products

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EB-6500R</td>
<td>199u/01</td>
</tr>
<tr>
<td>Notes:</td>
<td>Conventional Optical Beam Detector</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-12: 2015 at sensitivity levels 1,2 and 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. 10m-70m and 70m-100m Range using 6500-LRK/BEAMLRK</td>
<td></td>
</tr>
<tr>
<td>Ancillaries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTS151-KEY</td>
<td>Remote test Station</td>
<td></td>
</tr>
<tr>
<td>6500-LRK/BEAMLRK</td>
<td>Long Range Kit</td>
<td></td>
</tr>
<tr>
<td>6500-MMK/BEAMMMK</td>
<td>Multi-Mounting Kit</td>
<td></td>
</tr>
<tr>
<td>6500-SMK/BEAMSMK</td>
<td>Surface Mounting Kit</td>
<td></td>
</tr>
</tbody>
</table>

|               | EB-6500RS      | 199u/02       |
| Notes:        | Conventional Optical Beam Detector with Self Test Facility |               |

402 20 Oct 2020
1. Meets the requirements of EN 54-12: 2015 at sensitivity levels 1, 2 and 3
2. 10m-70m and 70m-100m Range using 6500-LRK/BEAMLRK

**Certificated Products**

| LPCB Ref. No. | Certificated Products | Notes:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Meets the requirements of BS EN54-12: 2015 at sensitivity levels 1, 2 and 32. yy= (Range 00-99) and indicates the software protocol3. Approved to 10m-70m Range4. Approved to 70m-100m Range when using 6500-LRK/BEAMLRK</td>
<td></td>
</tr>
<tr>
<td>199w/01</td>
<td>EB-6500A Analogue Optical Beam Setector with Short Circuit Isolator Feature</td>
<td></td>
</tr>
</tbody>
</table>

**Ancillaries**

| LPCB Ref. No. | Certificated Products | Notes:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RTS151-KEY Remote test Station</td>
<td></td>
</tr>
<tr>
<td>6500-LRK/BEAMLRK Long Range Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6500-MMK/BEAMMMK Multi-Mounting Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6500-SMK/BEAMSMK Surface Mounting Kit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Smoke Detectors**

| LPCB Ref. No. | Certificated Products | Notes:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>010bc/01</td>
<td>EDE222-I ESMI Essentia Optical Smoke Detector (EBE200-N base)</td>
<td></td>
</tr>
<tr>
<td>010q/02</td>
<td>EDI-10 ESMI Intellia Ionisation Smoke Detector (EBI-10 and EBI-12 bases)</td>
<td></td>
</tr>
<tr>
<td>010q/03</td>
<td>EDI-20 ESMI Intellia Optical Smoke Detector (EBI-10 and EBI-12 bases)</td>
<td></td>
</tr>
<tr>
<td>010s/01</td>
<td>EDC-20 ESMI Conventia Optical Smoke Detector (Approved for use with EBC-10, EBC-20 &amp; EBC-11 bases)</td>
<td></td>
</tr>
<tr>
<td>010/01</td>
<td>EDC-30 ESMI Conventia Multisensor Smoke Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td></td>
</tr>
</tbody>
</table>
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED2351E</td>
<td>199m/03</td>
</tr>
</tbody>
</table>

**ED2351E** Conventional photoelectric detector
(B401, B401DG, B401R, B401SD and B401RSD bases)

**Note:**
1. Meets EN 54-7: 2000 with Low, Medium and High sensitivities

**Bases:**
- B401 standard base
- B401DG deep base
- B401R standard base with 470 ohm resistor
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B501 Analogue sensor base
- B501DG Analogue sensor deep base
- B524IEFT Analogue sensor isolator base
- B524HTR Heater base
- B524RTE Latching relay base
- EBI-10 ESMI Intellia Mounting Base
- EBI-20 ESMI Intellia Mounting Base
- EBC-10 ESMI Conventia TimeSaver Base
- EBC-11 ESMI Conventia Time Saver Deep Base
- EBC-20 ESMI Conventia Relay Base
- EBE200-N ESMI Essentia Xpert 8 Mounting Base

**Certificate No:** 199n to EN 54-5: 2000 + A1: 2002
**Certificate No:** 010p to EN 54-5:2000 + A1:2002
**Certificate No:** 010r to EN 54-5:2000 + A1:2002
**Certificate No:** 010bd-(cl-2) to EN 54-5:2000 + A1:2002 & EN 54-17:2005

<table>
<thead>
<tr>
<th>Heat Detectors</th>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE221-I</td>
<td>ESMI Essentia Heat Detector (EBE200-N base)</td>
<td>010bd/01</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td>EDI-50</td>
<td>ESMI Intellia Heat Detector (EBI-10 and EBI-12 bases)</td>
<td>010p/03</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN54: Part 5 at the following modes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class A1R in mode 1 and in conventional mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class A2 in mode 2 and in conventional mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class A2S in mode 3 and in conventional mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class CR in mode 4 and in conventional mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class CS in mode 5 and in conventional mode</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery Heat Detector in accordance with manufacturer’s instructions.</td>
<td></td>
</tr>
<tr>
<td>EDC-20/A1R</td>
<td>ESMI Conventia Class A1R Heat Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td>010r/01</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meets the requirements of EN 54:Part 5 at Class A1R</td>
<td></td>
</tr>
<tr>
<td>EDC-50/A2S</td>
<td>ESMI Conventia Class A2S Heat Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td>010r/02</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54:Part 5 at Class A2S</td>
<td></td>
</tr>
<tr>
<td>EDC-50/BR</td>
<td>ESMI Conventia Class BR Heat Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td>010r/03</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54:Part 5 at Class BR</td>
<td></td>
</tr>
<tr>
<td>EDC-50/BS</td>
<td>ESMI Conventia Class BS Heat Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td>010r/04</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54:Part 5 at Class BS</td>
<td></td>
</tr>
<tr>
<td>EDC-50/CR</td>
<td>ESMI Conventia Class CR Heat Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td>010r/05</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54:Part 5 at Class CR</td>
<td></td>
</tr>
<tr>
<td>EDC-50/A1S</td>
<td>ESMI Conventia Class A1S Heat Detector (EBC-10, EBC-11 &amp; EBC-20 bases)</td>
<td>010r/07</td>
</tr>
</tbody>
</table>
### Commercial Detectors

#### Part 1: Section 4.1

**Certificated Products**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED5351E</td>
<td>199n/07</td>
</tr>
<tr>
<td>ED4351E</td>
<td>199n/08</td>
</tr>
<tr>
<td>ED5351TE</td>
<td>199n/14</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bases:**
- B401 standard base
- B401DG deep base
- B401R standard base with 470 ohm resistor
- B401SD standard base with schottky diode
- B401RSD standard base with 470 ohm resistor and schottky diode
- B501 analogue sensor base
- B501AP intelligent detector base
- B501DG analogue sensor deep base
- B524IEFT analogue sensor isolator base
- B524IEFT-1 analogue short circuit isolator base
- B524HTR heater base
- B524RTE latching relay base
- EBI-10 ESMI Intellia Mounting Base
- EBI-12 ESMI Intellia Mounting Base
- EBC-10 ESMI Conventia TimeSaver Base
- EBC-11 ESMI Conventia TimeSaver Deep Base
- EBC-20 ESMI Conventia Relay Base
- EBE200-N ESMI Essentia Xpert 8 Mounting Base

**Multi Criteria Detectors**

#### Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE223-I</td>
<td>010bb/01</td>
</tr>
<tr>
<td>EDI-30</td>
<td>010h/01</td>
</tr>
<tr>
<td>ED2351TEM</td>
<td>199p/03</td>
</tr>
<tr>
<td>ESMI2251CTLE</td>
<td>199n/01</td>
</tr>
</tbody>
</table>

**Certificated at the following settings:**
- **Mode 1:** High sensitivity smoke detector with high heat enhancement
- **Mode 2:** Standard smoke sensitivity only
- **Mode 3:** Medium sensitivity smoke detector with medium heat enhancement
- **Mode 4:** Low sensitivity smoke detector with high heat enhancement
- **Mode 5:** Class A1R heat detector

**Note:**
- Each detector meets the requirements of EN 54-5:2000 at class A1R and EN 54-7:2000 at High, Medium and Low.

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**20 Oct 2020**

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Alarm Levels 1 to 5 (Multi-criteria) EN54-5 Class A1R, EN54-7, LPS1279 and CEA 4021
Alarm Level 6 (Heat Only Mode): EN54-5 Class A1R

Nuisance Environment Applications:
Application 0, Alarm Level 4 EN54-7, LPS1279 & CEA 4021
Application 1, Alarm Level 5 EN54-5 Class A1R, EN54-7 & CEA 4021
Application 2, Alarm Level 4 or 5 EN54-5 Class A1R, EN54-7 & CEA 4021
Application 3, Alarm Level 5 EN54-5 Class A1R, EN54-7 & CEA 4021
Application 4, Alarm Level 5 EN54-5 Class A1R, EN54-7 & CEA 4021
Application 5, Alarm Level 5 EN54-7 & CEA 4021
Application 6, Alarm Level 5 EN54-5 Class A1R, EN54-7 & CEA 4021

Bases:
B401 standard base
B401DG deep base
B401R standard base with 470 ohm resistor
B401SD standard base with schottky diode
B401RSD standard base with 470 ohm resistor and schottky diode
B501 standard analogue detector base
B501AP intelligent detector base
B501DG Deep detector base
B524IEFT Short circuit isolator base
B524HTR Heater base
B524RTE Latching relay base
EB1-10 Standard Intelligent Mounting Base
EB1-12 ESMI Intellia Mounting Base
EBE200-N ESMI Essentia Xpert 8 Mounting Base

Shenzhen Fanhai Sanjiang Electronics CO., Ltd
3/F., Guangcai Xintiandi Mansion, Nanshan Road, Nanshan District, Shenzhen, Guangdong 518054, China
Tel: +86 755 26521071
E-mail: shuxian.wei@fhsjdz.com


Certificated Products
A9030T Addressable Smoke Detector 1426c/01
Notes:
Meets the requirements of EN 54-7 for 1 sensitivity setting

Base
DZ-912
A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com


Certificated Products
A9020T Addressable Heat Detector 1426b/01
Meets the requirements of EN 54-5 for Class A2
Shenzhen Heiman Technology Co Ltd
No 84 Fuqian Road, Yuexingwei Community, Guanlan, Longhua New District, Shenzhen 518110, China
Tel: +86 75584193930 x8018 • Fax:
E-mail: office@heiman.com.cn

Smoke Detectors
Certificated Products
LPCB Ref. No.

HM-612PC-4 Conventional 4-WIRE photoelectric smoke detector with relay output (B-01 base) 1138a/01
HM-612PC-2 Conventional 2-WIRE photoelectric smoke detector with remote LED (B-01 base) 1138a/02
HM-613PC-4 Conventional 4-WIRE photoelectric smoke detector with relay output (B-01 base) 1138a/03
HM-613PC-2 Conventional 2-WIRE photoelectric smoke detector with remote LED (B-01 base) 1138a/04

Base
B-01 Standard base

SHIELD FIRE, SAFETY AND SECURITY LIMITED
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 1708 377731 • Fax: +44 1708 347637
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com

Smoke Detectors
Certificated Products
LPCB Ref. No.

TEN-A8011 Photo-Electric Smoke Detector with Isolator (TEN-A8030 base) 010bc/01

Certified at the following settings:
Mode 1: High sensitivity smoke detector with fast response time
Mode 2: High sensitivity smoke detector with standard response time
Mode 3: Standard smoke sensitivity with fast response time
Mode 4: Standard smoke sensitivity with standard response time
Mode 5: Medium-Low sensitivity smoke detector with fast response time

SIL-A8021 SIL Optical Detector (SEN-A4001 mounting base) 010g/03
Notes:
1. Meets the requirements of EN54: Part 7 in modes 1, 2, 3, 4 and 5 and in conventional mode.
2. Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.

SEN-C2013 Conventional Ionisation Smoke Detector - Flashing LED (SEN-C2001 mounting base) 010g/05
SEN-C2011 Conventional Optical Detector - Flashing LED (SEN-C2001 mounting base) 010g/11
SEN-C2012 Conventional Optical Smoke Detector mounting base) 010g/12
SEN-A4012 Analogue Addressable Ionisation Smoke Detector (SEN-A4001 mounting base) Certified with Communication protocol in accordance with manufacturers instructions. 010g/16
SEN-A4011 Analogue Addressable Optical Smoke Detector mounting base) Certified with Communication protocol in accordance with manufacturers instructions. 010g/18
SIL-A8011 SIL I.S. Optical Detector (SIL-A8058 base) 010g/22
Notes:
Certified with Apollo Series 90 and XP95 digital communications protocol.

SW-3210 Wireless Addressable Optical Smoke Detector 928k/02
Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
Level 1 - High
Level 2 - Normal
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Level 3 - Low
2. The device must be used with the following battery type only:
   CR123A (3 Vdc) - Primary and Secondary Battery

Bases:
SEN-C2001 Conventional mounting base
SEN-A4001 Addressable mounting base
TEN-A8030 Standard Mounting Base
WAB100 Wireless Adaptor Base


Multi-Sensor/Multi-Criteria Detectors

Certificated Products

TEN-A8013 Multisensor Detector with Isolator (TEN-A8030 base) 010bb/01
   Certified at the following settings:
   Mode 1: High sensitivity smoke detector with high heat enhancement
   Mode 2: Standard smoke sensitivity only
   Mode 3: Medium sensitivity smoke detector with medium heat enhancement
   Mode 4: Low sensitivity smoke detector with high heat enhancement
   Mode 5: Class A1R heat detector

SIL-A8023 SIL Multisensor Detector (SEN-A4001 mounting base) 010h/01
   Notes:
   1. Certified at the following settings:
      Mode 1 – High sensitivity smoke detector with standard heat enhancement
      Mode 2 – Smoke detection only
      Mode 3 – Medium sensitivity smoke detector with standard heat enhancement
      Mode 4 – Low sensitivity smoke detector with high heat enhancement
      Mode 5 – Class A1 heat detector
   2. Approved with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery multisensor detector in accordance with manufacturer's instructions.

SEN-A4015 Analogue Addressable Multisensor Detector (SEN-A4001 mounting base) 010m/01
   Certified with digital communication protocol that has been configured for the multisensor detector in accordance with manufacturers instructions.

SW-3220 Wireless Addressable Multicriteria Detector 928m/02
   Notes:
   1. Meets the requirements of EN 54-5 for Class A1R
   2. Meets the requirements of EN 54-7 at the following sensitivity settings:
      Level 1 - High
      Level 2 - Normal
      Level 3 - Low
   3. The device must be used with the following battery type only:
      CR123A (3 Vdc) - Primary and Secondary Battery

Bases:
SEN-A4001 Addressable mounting base
TEN-A8030 Standard Mounting Base
WAB100 Wireless Adaptor Base


Heat Detectors

Certificated Products

TEN-A8012 Heat Detector with Isolator (TEN-A8030 base) 010bd/01
   Note:
### Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIL-A8022</td>
<td>SIL Heat Detector (SEN-A4001 mounting base)</td>
<td>010p/03</td>
</tr>
<tr>
<td>SEN-C2020</td>
<td>Conventional Class CS Heat Detector Flashing LED (SEN-C2001 mounting base)</td>
<td>010p/14</td>
</tr>
<tr>
<td>SEN-A4013</td>
<td>Analogue Addressable Class A2S Heat Detector mounting base</td>
<td>010p/20</td>
</tr>
<tr>
<td>SEN-A4014</td>
<td>Analogue Addressable Class CS Heat Detector mounting base</td>
<td>010p/21</td>
</tr>
<tr>
<td>SIL-A8012</td>
<td>SIL I.S. Heat Detector (SIL-A8058 base)</td>
<td>010p/23</td>
</tr>
<tr>
<td>SW-3230</td>
<td>Wireless Addressable Class P Heat Detector</td>
<td>928j/02</td>
</tr>
</tbody>
</table>

**Notes:**
- 1. Meets the requirements of EN54: Part 5 at the following modes:
  - Class A1R in mode 1 and in conventional mode
  - Class A2 in mode 2 and in conventional mode
  - Class A2S in mode 3 and in conventional mode
  - Class CR in mode 4 and in conventional mode
  - Class CS in mode 5 and in conventional mode
- 2. Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery Heat Detector in accordance with manufacturer’s instructions.

**Bases:**
- SEN-C2001 Conventional mounting base
- SEN-A4001 Addressable mounting base
- TEN-A8030 Standard Mounting Base
- SIL-A8058 Intrinsically Safe Mounting Base
- WAB100 Wireless Adaptor Base

**Certificate No:** 1204b-(cl-1) to EN 54-10: 2002 + A1: 2005

### Flame Detectors

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEN-C2030</td>
<td>S65 Conventional UV Flame Detector (with base SEN-C2001)</td>
<td>1204b/04</td>
</tr>
</tbody>
</table>

**Note:**
- Meets EN 54-10:2002 at Class 1 and Class 3

**SEN-C2001** Standard base

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**SHIELD FIRE, SAFETY AND SECURITY LTD**
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 207 712 1610 • Fax: +44 207 712 1578
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com

### Beam Detectors

**Certificate No:** 548d-(cl-4) to EN 54-7: 2000 + A1: 2002 + A2: 2006

### Smoke Detectors

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-C401</td>
<td>Conventional photoelectric smoke detector (DZ-03 base)</td>
<td>548d/01</td>
</tr>
</tbody>
</table>
### Part 1: Section 4.1

**Commercial Detectors**

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>548d/02</td>
<td>D-A411 Intelligent photoelectric smoke detector (DZ-03 base)</td>
</tr>
</tbody>
</table>

**Bases:**

DZ-03 Standard detector base

**Certificate No:** 548c-(cl-4) to EN 54-5: 2000 + A1: 2002

### Heat Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>548c/01</td>
<td>D-C402 Conventional Class A1R heat detector (DZ-03 base)</td>
</tr>
<tr>
<td>548c/02</td>
<td>D-A412 Intelligent Class A1R heat detector (DZ-03 base)</td>
</tr>
</tbody>
</table>

**Bases:**

DZ-03 Standard detector base


#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>548q/01</td>
<td>D-C400 Conventional Optical Smoke and Heat Multisensor Detector (DB-CA Base, DZ-03D Base &amp; DZ-03 Base)</td>
</tr>
<tr>
<td>548q/02</td>
<td>D-A410 Intelligent Optical Smoke and Heat Multisensor Detector (DZ-03 Base)</td>
</tr>
</tbody>
</table>

**Bases**

- DB-CA Active EOL Unit
- DZ-03D Diode Base
- DZ-03 Standard Base

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**Siemens Switzerland Ltd**

Theilerstrasse 1a, , CH-6300 Zug, Switzerland

Website: [www.siemens.com](http://www.siemens.com)

**Certificate No:** 126bb to EN 54-10:2002 + A1:2005

**Certificate No:** 126bc to EN 54-10:2002 + A1:2005, EN 54-17:2005

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>126bb/01</td>
<td>DF1101-Ex Conventional I.S. Infra-Red Flame Detector (DFB1190 Base)</td>
</tr>
<tr>
<td>126bc/05</td>
<td>FDF241-9 Analogue Addressable Infra-Red Flame Detector with Short Circuit Isolator (FDFB291 base)</td>
</tr>
</tbody>
</table>

**Base:**

DFB1190 Base

FDFB291 Base

**Certificate No:** 126bd to EN 54-12:2015, EN 54-17:2005

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>126bd/02</td>
<td>FDL241-9 Analogue Addressable Beam Detector with Short Circuit Isolator (FDLB291 base)</td>
</tr>
</tbody>
</table>

---
Certificated Products

Certificated at sensitivity settings 30%, 50% and 65%

Bases:
FDLB291 Base


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>126bf/01</td>
<td>FDO221 Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (FDB221, FDB201, FDB291 and FDB292 bases)</td>
</tr>
<tr>
<td>126bf/02</td>
<td>FDO241 Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (FDB221, FDB201, FDB291 and FDB292 bases)</td>
</tr>
<tr>
<td>531e/01</td>
<td>OP720 Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (DB720, DB721, DB722 bases, BA720, BA721 base adaptor)</td>
</tr>
<tr>
<td>531e/04</td>
<td>OP360 Analogue Addressable Optical Smoke Detector with Short Circuit Isolator (DB720, DB721, DB722 bases, BA720, BA721 base adaptor)</td>
</tr>
</tbody>
</table>


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>126bv/01</td>
<td>FDOOT241-A5 Addressable Optical Smoke and Heat Multi-Sensor Detector with Short Circuit Isolator (DB1151A, FDB251, FDB295, FDB221, FDB222, FDB291 and FDB293 Bases)</td>
</tr>
</tbody>
</table>

Notes:
1. The following modes are approved when used with Sinteso FDnet protocol:

EN 54-29 and EN 54-7 Settings:
- Mode 0 - Neural Fire Detector
  - Parameter: Robust
    - No
  - Parameter: Balanced
    - 2
  - Parameter: Suppression
    - 4
  - Parameter: Fast Response
    - 5
  - Parameter: High Compensation
    - 6
  - Parameter: High Sensitive Fast
    - 7
  - Parameter: Super Sensitive
    - 9

EN 54-5 Settings:
- Mode 1 - Heat Detector
  - Parameter: A1R
    - No
  - Parameter: BR
    - 1
  - Parameter: A1S
    - 2
  - Parameter: BS
    - 3
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

EN 54-7 Settings:
Mode 2 - Smoke Detector
Parameter No
Universal 1
Robust 2
Sensitive 3
Super Sensitive 5

2. The following modes are approved when used with the AlgoRex Interactive protocol:

EN 54-29 and EN 54-7 Settings:
Mode 0 - Neural Fire Detector
Parameter No
Balanced 4
Suppression 5
Fast Response 6
High Sensitive Fast 9
Super Sensitive 11

EN 54-5 Settings:
Mode 1 - Heat Detector
Parameter No
A1R 1
BR 2
A1S 3
BS 4

EN 54-7 Settings:
Mode 2 - Smoke Detector
Parameter No
Universal 1
Sensitive 3
Super Sensitive 5

3. Refer to manufacturers documentation A6V10323158 when making changes to interactive protocol and replacing the following detectors.

DOT1151A, DOT1152A replaced by FDOOT241-A5
EN 54-29 and EN 54-7 Settings:
Mode 0 - Neural Fire Detector - Multisensor Detector
Parameter No legacy setting
Balanced 4 APS005S, APS006S, APS015S, APS019S, APS009S, APS082S
Suppression 5 APS084S
Fast Response 6 APS007S, APS085S
High Sensitive Fast 9 APS081S
Super Sensitive 11 APS080S

DT1152A replaced by FDOOT241-A5
EN 54-5 Settings:
Mode 1 - Heat Detector
Parameter No legacy setting
A1R 1 APS100T
BR 2 APS105T
A1S 3 APS103T
BS 4 APS107T

Smoke detector DO1151A, DO1152A replaced by FDOOT241-A5
EN 54-5 Settings:
Mode 2 - Smoke detector
Parameter No legacy setting
Universal 1 APS005S
Sensitive 3 APS006S
Super Sensitive 5 APS007S, APS009S

Smoke detector DO1153A replaced by FDOOT241-A5
EN 54-7 Settings:
Mode 2 - Smoke detector
Parameter No legacy setting
Super Sensitive 5 APS073SH

FDOOT241-A3 Multisensor Detector with Short Circuit Isolator
(FDB221, FDB222, DB1131A, FDB291, FDB293, FDB295 and FDB241 bases)

126bv/02
Note - the following modes are approved

1 - Parameter sets for detection when connected to FDnet communication protocol

EN 54-29 and EN 54-7 Settings:
Mode 0 - "Neural Fire Detector-Multisensor Detector":

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust</td>
<td>2</td>
</tr>
<tr>
<td>Balanced</td>
<td>4</td>
</tr>
<tr>
<td>Suppression</td>
<td>5</td>
</tr>
<tr>
<td>Fast Response</td>
<td>6</td>
</tr>
<tr>
<td>High Compensation</td>
<td>7</td>
</tr>
<tr>
<td>High Sensitive Fast</td>
<td>9</td>
</tr>
<tr>
<td>Super Sensitive</td>
<td>11</td>
</tr>
</tbody>
</table>

EN 54-5 Settings:
Mode 1 - "Heat Detector"

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1R</td>
<td>1</td>
</tr>
<tr>
<td>BR</td>
<td>2</td>
</tr>
<tr>
<td>A1S</td>
<td>3</td>
</tr>
<tr>
<td>BS</td>
<td>4</td>
</tr>
</tbody>
</table>

EN 54-7 Settings:
Mode 2 - "Smoke Detector"

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal</td>
<td>1</td>
</tr>
<tr>
<td>Robust</td>
<td>2</td>
</tr>
<tr>
<td>Sensitive</td>
<td>3</td>
</tr>
<tr>
<td>Super Sensitive</td>
<td>5</td>
</tr>
</tbody>
</table>

2 - Parameter sets for detection when connected to AnalogPLUS communication protocol

Smoke only as DO1131A

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitive</td>
<td>3</td>
</tr>
<tr>
<td>Universal Fast</td>
<td>4</td>
</tr>
</tbody>
</table>

Smoke with heat enhancement as DOT1131A

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast Response</td>
<td>6</td>
</tr>
<tr>
<td>Universal Fast</td>
<td>12</td>
</tr>
</tbody>
</table>

Rate of Rise heat detection as DT1131A

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1R</td>
<td>1</td>
</tr>
</tbody>
</table>

Fixed temperature heat detection as DT1132A

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>4</td>
</tr>
</tbody>
</table>

FDOOT241-A9

Multisensor Detector with Short Circuit Isolator
(FDB221, FDB222, FDB201, FDB202, FDB299, FDB291, FDB293, FDB295, DB1101A and SPF600 bases)

Note: - the following modes are approved

1 - Parameter sets for detection when connected to FDnet communication protocol and collective detector line

EN 54-29 and EN 54-7 Settings:
Mode 0 - "Neural Fire Detector-Multisensor Detector":

<table>
<thead>
<tr>
<th>Parameter</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust</td>
<td>2</td>
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<tr>
<td>Balanced</td>
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</tr>
<tr>
<td>Suppression</td>
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<tr>
<td>Fast Response</td>
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</tr>
<tr>
<td>High Compensation</td>
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</tr>
<tr>
<td>High Sensitive Fast</td>
<td>9</td>
</tr>
<tr>
<td>Super Sensitive</td>
<td>11</td>
</tr>
</tbody>
</table>

EN 54-5 Settings:
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

OOH740
126bv/04
Anologue Addressable Multisensor Detector with Short Circuit Isolator (DB720, DB721, DB722, BA720, BA721, DB721D & DB110 bases)

FDOOT241-A
126bv/05
Multi Sensor Detector with Short Circuit Isolator (FDB221, FDB222, FDB291, FDB293, FDB295 bases)

Mode 1 - "Heat Detector":

Parameter  No
A1R 1
BR 2
A1S 3
BS 4

EN 54-7 Settings:
Mode 2 - "Smoke Detector":

Parameter  No
Universal 1
Robust 2
Sensitive 3
Super Sensitive 5

EN 54-29 and EN 54-7 Settings:
Mode 0 - "Neural Fire Detector"

Parameter  No
Robust 2
Balanced 4
Suppression 5
Fast Response 6
High Compensation 7
High Sensitive Fast 9

EN 54-5 Settings:
Mode 1 - "Heat Detector":

Parameter  No
A1R 1
BR 2
A1S 3
BS 4

EN 54-7 Settings:
Mode 2 - "Smoke Detector"

Parameter  No
Universal 1
Robust 2
Sensitive 3
Super Sensitive 5

2 - Parameter sets for detection when connected to collective detector line

EN 54-29 and EN 54-7 Settings:
Mode 0 - "Multisensor Detector":

Parameter  No
Balanced 4
Suppression 5
Fast Response 6
High Compensation 7
High Sensitive Fast 9

EN 54-5 Settings:
Mode 1 - "Heat Detector":

Parameter  No
A1R 1
BR 2

Note: - the following modes are approved

1 - Parameter sets for detection when connected to C-Net detector line

2 - Parameter sets for detection when connected to collective detector line

Note: - the following modes are approved

1 - Parameter sets for detection when connected to FDnet communication protocol and collective detector line
### Certificated Products

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<tbody>
<tr>
<td>531d/01</td>
<td>OH720 Analogue Addressable Multi Sensor Smoke Detector (DB720, DB721 bases)</td>
</tr>
</tbody>
</table>

**Note:**
1. Meets the requirements of EN 54-7 in the following sensitivities:
   1. Robust 3.5%/m
   2. Sensitive 2.5%/m

- FDB221 Addressable Detector Base
- FDB222 Addressable Flat Detector Base
- DB1151A Base for Sinteso & AlgoRex systems
- DB1131A Base for Analog Plus Fire Detectors
- FDB251 Base Adaptor for Sinteso & AlgoRex systems
- FDB295 Base Attachment Wet
- FDB291 Base Attachment for Surface Mount Cable Entry
- FDB293 Base Adaptor Humid
- FDB241 Base Adaptor for Migration Detectors
- FDB201 Detector Base Collective
- FDB202 Detector Base Collective, Flat
- FDB299 Base Adaptor for Migration Detectors
- DB1101A Base for Collective Fire Detectors
- SPF600 Detector Base for Sigmasys


### Certificated Products

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<td>126bh/01</td>
<td>FDOOT241-9 Analogue Addressable Multisensor Detector with Short Circuit Isolator (FDB201, FDB202, FDB221, FDB222, FDB291 and FDB293 bases)</td>
</tr>
</tbody>
</table>

**Note:**
1. Meets the requirements of EN 54-5: 2000 at Class A2R & A2S and EN 54-7: 2000 at sensitivity settings:
   - Parameter No. 1 Universal
   - Parameter No. 2 Robust with thermal enhancement
   - Parameter No. 3 Sensitive
   - Parameter No. 4 Balanced with thermal enhancement
   - Parameter No. 5 Suppression with thermal enhancement
   - Parameter No. 6 Response with thermal enhancement
   - Parameter No. 7 Robust / BGD with thermal enhancement

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<td>126bh/04</td>
<td>FDOOTC241 Analogue Addressable Multisensor Detector with Short Circuit Isolator (FDB221, FDB222, FDSB291 &amp; FDSB293 bases)</td>
</tr>
</tbody>
</table>

**Note - the following modes are approved:**

#### Mode 0 - Neural Fire Detector:
- 0.0 High Compensation
- 0.2 Robust
- 0.4 Balanced
- 0.5 Suppression
- 0.6 Fast Response
- 0.7 High Compensation
- 0.9 High Sensitive Fast
- 0.10 Balanced CO
- 0.12 Suppression CO

#### Mode 1 - Heat Detector:
- 1.1 A1R
- 1.2 BR
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

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</tr>
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<tbody>
<tr>
<td>126bh/06</td>
<td>OOHC740 Analogue Addressable Multisensor Detector with Short Circuit Isolator (DB720, DB721, DB722 &amp; BA720 bases)</td>
</tr>
<tr>
<td></td>
<td>Note: - the following modes are approved</td>
</tr>
<tr>
<td></td>
<td>- Parameter sets for detection when connected to C-Net detector line</td>
</tr>
<tr>
<td></td>
<td>Mode 0 - &quot;Neural Fire Detector&quot;</td>
</tr>
<tr>
<td></td>
<td>Parameter</td>
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<tr>
<td></td>
<td>Robust</td>
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<tr>
<td></td>
<td>Balanced</td>
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<td></td>
<td>Suppression</td>
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<td></td>
<td>Fast Response</td>
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<tr>
<td></td>
<td>High Compensation</td>
</tr>
<tr>
<td></td>
<td>High Sensitive Fast</td>
</tr>
<tr>
<td>126bw/01</td>
<td>FDOOT221 Analogue Addressable Multisensor Detector with Short Circuit Isolator (FDB221, FDB222, FDB293, FDB291, FDB295 bases)</td>
</tr>
<tr>
<td></td>
<td>EN 54-29 and EN 54-7 Settings:</td>
</tr>
<tr>
<td></td>
<td>Note: The following sensitivity settings are approved:</td>
</tr>
<tr>
<td></td>
<td>Parameter No. 2 Standard</td>
</tr>
<tr>
<td></td>
<td>Parameter No. 4 Standard Plus</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base</th>
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</thead>
<tbody>
<tr>
<td>FDB201</td>
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<td>FDB202</td>
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<tr>
<td>FDB221</td>
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<tr>
<td>FDB222</td>
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<td>FDB291</td>
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<tr>
<td>FDB299</td>
</tr>
<tr>
<td>DB1101A</td>
</tr>
<tr>
<td>SPF600</td>
</tr>
<tr>
<td>DB1131A</td>
</tr>
<tr>
<td>FDB241</td>
</tr>
<tr>
<td>DB720</td>
</tr>
<tr>
<td>DB721</td>
</tr>
<tr>
<td>DB721D</td>
</tr>
<tr>
<td>BA720</td>
</tr>
<tr>
<td>FDB251</td>
</tr>
<tr>
<td>FDB295</td>
</tr>
<tr>
<td>DB1151A</td>
</tr>
<tr>
<td>DB110</td>
</tr>
</tbody>
</table>

### COMMERCIAL DETECTORS

#### Certificated Products

<table>
<thead>
<tr>
<th>Part</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDT221</td>
<td>126bj/01</td>
<td>Analogue Addressable Rate of Rise Heat Detector with Short Circuit Isolator (FDB221, FDB201, FDB291 and FDB292 bases) Note: Meets EN 54-5: 2000 at Class A1R and BR</td>
</tr>
<tr>
<td>FDT241</td>
<td>126bj/02</td>
<td>Analogue Addressable Rate of Rise Heat Detector with Short Circuit Isolator (FDB221, FDB201, FDB291 and FDB292 bases) Note: Meets EN 54-5: 2000 at Class A1R, A1S, BR and BS</td>
</tr>
<tr>
<td>HI720</td>
<td>531f/01</td>
<td>Analogue Addressable Class A2S and A2R Heat Detector with Short Circuit Isolator (DB720, DB721, DB722 bases, BA720, BA721 base adaptor) Notes: Meets the requirements of EN 54-5 at classes A2S and A2R</td>
</tr>
<tr>
<td>HI722</td>
<td>531f/02</td>
<td>Analogue Addressable Class A2S Heat Detector with Short Circuit Isolator (DB720, DB721, DB722 bases, BA720, BA721 base adaptor) Notes: Meets the requirements of EN 54-5 at class A2S</td>
</tr>
<tr>
<td>HI360</td>
<td>531f/05</td>
<td>Analogue Addressable Class A2S and A2R Heat Detector with Short Circuit Isolator (DB721, DB722, DB720 bases, BA720, BA721 base adaptor) Note: 1. Meets the requirements of EN 54-5 at classes A2S and A2R</td>
</tr>
</tbody>
</table>

#### Bases

- FDB221: Base
- FDB201: Base "Collective"
- FDB291: Base attachment surface
- FDB292: Base attachment surface wet
- DB720: Detector base
- DB721: Detector base with loop contact
- DB722: Detector base
- BA720: Base adaptor
- BA721: Base adaptor

---

### ST-ASD-W

**Intelligent Analogue Addressable Optical Smoke Detector (White)** (ST-ABI-I, ST-ABI-SC, ST-ABS-I and ST-ABSF-WWL bases)

Note: 1. Meets the requirements of EN 54-7 in low and high sensitivity settings.

#### Bases:

- ST-ABI-I: Mounting base
- ST-ABI-SC: Short circuit isolator base
- ST-ABS-I: Base sounder
- ST-ABSF-WWL: Base sounder beacon (White LED)

---

### ST-AMD-W


Note: Certificated at the following modes:

- Mode 0 - Thermally enhanced smoke detector at 2% and 4.5% sensitivity
- Mode 1 - Optical smoke detector at 2% and 4.5% sensitivity
- Mode 2 - Fixed temperature heat detector at class A1 & C

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Silver-Tec Limited

Unit 1-2, Building 53B, Pensnett Trading Estate, Kingswinford, West Midlands DY6 7XQ, United Kingdom

Tel: +44 (0)1384 671611

E-mail: info@silver-tec.co.uk • Website: www.silver-tec.co.uk


PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificate No: 117g-(cl-2) to EN 54-5:2000 + A1:2002

Certificated Products  
LPCB Ref. No.

ST-AHDW-W Weather Proof Intelligent Analogue Addressable Class P Heat Detector  (ST-ABI-I base)  
Note: Classes A1R, A1S, BR, BS, CR and CS when used with ACB-E protocol and  
classes A1S, BS and CS when used with ATG-E protocol.  
117g/10

Note: Classes A1R, BR, CR, A1S, BS and CS.  
117g/14

Certificate No: 117k-(cl-1) to EN 54-10:2002 + A1:2005

Certificated Products  
LPCB Ref. No.

ST-CFD-W Conventional Class 1 IR Flame Detector  (ST-CBI-base)  
117k/01

Base:  
ST-CBI-I Conventional Standard Base

SMS (Novar Systems Ltd)
Hamilton Industrial Park, 140 Waterside Road, Leicester LE5 1TN, United Kingdom  
Tel: +44 (0)116 246 2100 • Fax: +44 (0)116 246 2016  
Website: www.smsfire.co.uk

Certificate No: 042ak to EN 54-5: 2000 + A1: 20002, EN 54-3: 2001 + A1: 2002, CEA GEI 1-084: Draft 08.08.00, CEA GEI 1-052: 11.06.97 Draft 2.0,

Point Heat Detectors
Certificated Products  
LPCB Ref. No.

SEN-780 S-Quad Analogue Addressable Class P Heat Detector with Sounder with Short Circuit  
Isolator  
(S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit)  
Notes:  
1. Meets the requirement of EN 54-5 at the following settings:  
   - State 0 - Class A1 heat  
   - State 5 - Class B heat  
   - State 6 - Class BS heat  
   - State 7 - Class A2S heat  
   - State 13 - Class A2 heat  
2. Meets the requirements of EN 54: Part 3 at the following sounder tone settings:  
   High - Continuous 933 Hz  
   Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs  

Bases:  
S4-700 standard base  
S4-FLUSH semi-flush fixing kit

20 Oct 2020
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Multi Criteria Detectors
Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
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<th>Product Description</th>
<th>Notes</th>
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</thead>
</table>
| 042an/04 | Multi Criteria Detectors
SEN-770 S-Quad analogue addressable optical smoke and Class A1 heat multisensor detector with sounder (S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit) |
1. Meets the requirement of EN 54-5 and EN 54-7 at the following settings:
   - State 0 - Medium optical / Class A1 heat
2. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs |

| 042an/06 | SEN-770-ST S-Quad analogue addressable optical smoke and Class A1 heat multisensor detector with sounder and strobe (S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit) |
1. Meets the requirement of EN 54-5 and EN 54-7 at the following settings:
   - State 0 - Medium optical / Class A1 heat
2. Meets the requirements of EN 54: Part 3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
3. Strobe not included in scope of approval. |

| 042bf/01 | SEN-710 S-Quad Analogue Addressable Optical Smoke and Class A1 Heat Multi-Sensor Detector (S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit) |
Note: 1. Meets the requirement of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spoke) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class BS heat
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat
   - State 12 - Off / Class A1 heat
   *Does not meet the requirement of EN 54-7 |

| 567aa/01 | SEN-780-S Analogue Addressable Class P Heat Sensor with Sounder with Short Circuit Isolator (S4-700 Standard base) |
Notes: 1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Class A1 heat
   - State 5 - Class B heat
   - State 6 - Class BS heat
   - State 7 - Class A2S heat
   - State 13 - Class A2 heat |

| 567ab/01 | SEN-770-VAD-HPR Analogue Addressable Optical Smoke and Class P Heat Multi-Sensor Detector with Sounder and Red Visual Alarm (S4-701 Base) |
Notes: 1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat
   - State 3 - High sensitivity / Class A1 heat
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products | LPCB Ref. No.
--- | ---
SEN-770-VAD-HPW | 567ab/02
SEN-770-VAD-LPW | 567ab/03
SEN-770-VAD-LPR | 567ab/09

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-7 for the following category (light pattern details):
- High power setting - (Category C: C-3-14 and Category O: O-4-14)
- Medium power setting - (Category C: C-3-13 and Category O: O-4-13)
- Low power setting - (Category C: C-3-10)
- Synchronization
- Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High- Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs
2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spike) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class BS heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*

*Does not meet the requirements of EN 54-7
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

- High- Continuous 933 Hz
- Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 and EN 54-7 at the following settings:
   - State 0 - Medium Optical / Class A1 Heat
   - State 5 - Medium Optical / Class B Heat
   - State 8 - Delayed Medium Optical / Class A1 Heat

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - Low power setting - (Category C: C-3-10)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C

SEN-780-VAD-HPR Analogue Addressable Class P Heat Sensor with Red Visual Alarm and Sounder with Short Circuit Isolator (S4-701 Base)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 at the following settings:
   - State 0 - Class A1 heat
   - State 5 - Class B heat
   - State 6 - Class BS Heat
   - State 7 - Class A2S heat
   - State 13 - Class A2 heat

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - High power setting - (Category C: C-3-14 and Category O: O-4.5-14)
   - Medium power setting - (Category C: C-3-13 and Category O: O-4-13)
   - Low power setting - (Category C: C-3-10 and Category O: None)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

SEN-780-VAD-LPW Analogue Addressable Class P Heat Sensor with White Visual Alarm and Sounder with Short Circuit Isolator (S4-701 Base)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 at the following settings:
   - State 0 - Class A1 heat
   - State 5 - Class B heat
   - State 6 - Class BS Heat
   - State 7 - Class A2S heat
   - State 13 - Class A2 heat

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - Low power setting - (Category C: C-3-10 and Category O: None)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

4. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C

SEN-780-VAD-HPW Analogue Addressable Class P Heat Sensor with White Visual Alarm and Sounder with Short Circuit Isolator (S4-701 Base)

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

2. Meets the requirements of EN 54-5 at the following settings:
   - State 0 - Class A1 heat
   - State 5 - Class B heat
   - State 6 - Class BS Heat
   - State 7 - Class A2S heat
   - State 13 - Class A2 heat

3. The ceiling mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following category (light pattern details):
   - High power setting - (Category C: C-6-16 and Category O: None)
   - Medium power setting - (Category C: C-3-14 and Category O: 5-14)
   - Low power setting - (Category C: C-3-10.8 and Category O: 4-10.8)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)
Certificated Products

SEN-770-S
Analogue Addressable Optical Smoke and Class P Heat Multi-Sensor Detector with Sounder
(S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit)
Notes:
1. Must be used with the S4-701 base and IP seal plate in order to achieve IP21C.
2. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - High - Continuous 933 Hz
   - Alternate - High 933 Hz for 0.25 secs / Low 700 Hz for 0.25 secs

3. Meets the requirements of EN 54-5 and EN 54-7 at the following settings except where otherwise stated:
   - State 0 - Medium optical / Class A1 heat
   - State 2 - Low sensitivity / Class A1 heat*
   - State 3 - High sensitivity / Class A1 heat
   - State 4 - Medium optical (no spike) / Class A1 heat
   - State 5 - Medium optical / Class B heat
   - State 6 - Low sensitivity / Class BS heat*
   - State 7 - Medium optical / Class A2S heat
   - State 8 - Delayed medium optical / Class A1 heat
   - State 11 - Low sensitivity / Class B heat*
   - State 12 - Off / Class A1 heat*
*Does not meet the requirements of EN 54-7

Bases:
S4-700 standard base
S4-701 S4 Quad Plate and Base
S4-FLUSH Semi-flush fixing kit


Point Smoke Detectors
Certificated Products

SEN-715
S-Quad Analogue Addressable Optical Smoke Detector with Short Circuit Isolator
(S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit)
Note:
1. Meets the requirements of EN 54-7 at the following settings:
   - State 0 - Medium optical
   - State 3 - High sensitivity
   - State 4 - Medium optical (no spike)
   - State 8 - Delayed medium optical

SEN-720
S-Quad Analogue Addressable Class P Heat Detector with Short Circuit Isolator
(S4-700 Standard base with or without S4-FLUSH semi-flush mounting kit)
Note:
1. Meets the requirement of EN 54-5 at the following settings:
   - State 0 - Class A1 heat
   - State 5 - Class B heat
   - State 6 - Class BS heat
   - State 7 - Class A2S heat
   - State 13 - Class A2 heat

Bases:
S4-700 standard base
S4-FLUSH semi-flush fixing kit

Certificate No: 042bh to EN 54-12:2015 & EN 54-17:2005

Beam Detectors
Certificated Products

SENTRI-BEAM
Analogue addressable optical beam smoke detector with short circuit isolator (SEN-741-01, SEN-741-03 and S4-700 base)
Notes:
1. The SENTRI-BEAM sensor pair comprises of an SENTRI-BEAM-TX beam transmitter, plus an SENTRI-BEAM-RX beam receiver.
2. Meets the requirements of EN 54-12 at the following sensitivity settings:
   States 0, 1: 3.01dB
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
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<th>LPCB Ref. No.</th>
<th>States 2, 3: 1.25dB</th>
</tr>
</thead>
</table>

- SEN-741-01  Beam Angle Bracket
- SEN-741-03  Beam Parallel Bracket
- S4-700      Base

SS Fire & Security Sdn Bhd
80A, Jalan Megat, Batu Pahat, Johor 83000, Malaysia
Tel: +60167788888
E-mail: ss@ssfiresecurity.com


**Heat Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Note:</th>
</tr>
</thead>
</table>

- SHC-9103E Conventional Rate of Rise and Fixed Temperature Heat Detector (SE-DB-01 & SE-DB-01D Bases and SE-DP-9907 Unit)
  Note:
  1. Meets the requirements of EN 54-5:2000 for Class A1R, A2S & BS

- SHA-9103E Intelligent Rate of Rise and Fixed Temperature Heat Detector (SE-DB-01 Base)
  Note:
  1. Meets the requirements of EN 54-5:2000 for Class A1R, A2S & BS

**Bases**

- SE-DB-01      Standard Base
- SE-DB-01D     Diode Base
- SE-DP-9907    Active End of Line Unit


**Smoke Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Note:</th>
</tr>
</thead>
</table>

- SMC-9102E Conventional Photoelectric Smoke Detector (SE-DB-01 & SE-DB-01D Bases and SE-DP-9907 Unit)
  Note:
  1. Meets the requirements of EN 54-7:2000 at sensitivity level 1 (default) setting only

- SMA-9102E Intelligent Photoelectric Smoke Detector (SE-DB-01 Base)
  Note:
  1. Meets the requirements of EN 54-7:2000 at sensitivity level 1 (default) setting only

**Bases**

- SE-DB-01      Standard Base
- SE-DB-01D     Diode Base
- SE-DP-9907    Active End of Line Unit

Certificate No: 548k-(cl-7) to EN 54-12: 2015

**Beam Detectors**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Notes:</th>
</tr>
</thead>
</table>

- SE-9105R Intelligent Optical Beam Detector
  Notes:
  1) Meets the requirements of EN 54-12 at the following sensitivity settings:
     Level 1 - 1.61 dB
     Level 2 - 2.31 dB

## PART 1: SECTION 4.1
COMMERCIAL DETECTORS

### Multi-Sensor/Multi-Criteria Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC-9101E</td>
<td>Conventional Combination Heat / Photoelectric Smoke Detector (SE-DB-01 &amp; SE-DB-01D Bases and SE-DP-9907 Unit)</td>
<td>548q/03</td>
</tr>
<tr>
<td>SCA-9101E</td>
<td>Intelligent Combination Heat / Photoelectric Smoke Detector (SE-DB-01 Base)</td>
<td>548q/04</td>
</tr>
</tbody>
</table>

#### Notes:
1. Meets the requirements of EN 54-7: 2000 at sensitivity level 1 (default) setting only
2. Meets the requirements of EN 54-5: 2000 for Class A2R

### Bases

- SE-DB-01 Standard Base
- SE-DB-01D Diode Base
- SE-DP-9907 Active End of Line Unit

---

**Sterling Safety Systems**

Unit B12a, Holly Farm Business Park, Honiley, Warwickshire CV8 1NP, United Kingdom

Tel: +44(0)1926485282 • Fax: +44(0)1926485090

E-mail: info@sterlingsafety.co.uk • Website: www.sterlingsafety.co.uk


#### Certificated Products

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFI-TA-05</td>
<td>Analogue Addressable Class P Heat Detector with Short-Circuit Isolator (HFI-DMBS-05 Base)</td>
<td>928a/02</td>
</tr>
<tr>
<td>HFI-TAE-05</td>
<td>Addressable Class P Heat Detector (HFI-DMBS-05 Base)</td>
<td>928d/03</td>
</tr>
</tbody>
</table>

#### Notes:
1. Meets the requirements of EN 54-5 for Class A1R, Class B and Class BS

### Bases

- HFI-UB-01 Universal adaptor base
- HFI-DUB-01 Deep adaptor base
- HFI-DMB-01 Vega adaptor base
- HFI-DDB-01 Vega deep adaptor base
- HFI-UBS-01 Universal adaptor base with shorting clip
- HFI-DUBS-01 Deep adaptor base with shorting clip
- HFI-DMBS-01 Vega adaptor base with shorting clip
- HFI-DDBS-01 Vega deep adaptor base with shorting clip
- WAB100 Wireless Adaptor Base
- HFI-DMBS-05 Low profile adaptor base


### Point Smoke Detectors

#### Certificated Products

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFI-PA-05</td>
<td>Addressable Photoelectric Smoke Detector with Short-Circuit Isolator (HFI-DMBS-05 Base)</td>
<td>928b/02</td>
</tr>
<tr>
<td>HFI-PAE-05</td>
<td>Addressable Photoelectric Smoke Detector (HFI-DMBS-05 Base)</td>
<td>928e/03</td>
</tr>
</tbody>
</table>

#### Notes:
1. Meets the requirements of EN 54-7 at the following sensitivity settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low

---

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HFI-MA-05 Addressable Multi-Criteria Detector with Short-Circuit Isolator (HFI-DMBS-05 Base)</td>
</tr>
<tr>
<td>928c/02</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 (Class A1) &amp; EN 54-7 at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Multi criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Class A1R heat only response</td>
</tr>
<tr>
<td></td>
<td>3. Meets the requirements of EN 54-7 at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Optical only level 1 - High</td>
</tr>
<tr>
<td></td>
<td>Optical only level 2</td>
</tr>
<tr>
<td></td>
<td>Optical only level 3</td>
</tr>
<tr>
<td></td>
<td>Optical only level 4 - Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HFI-MAE-05 Addressable Photo &amp; Class A1R Heat Detector (HFI-DMBS-05 Base)</td>
</tr>
<tr>
<td>928f/02</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 (Class A1) &amp; EN 54-7 at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 2 - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 3 - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>Multi criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Class A1R heat only response</td>
</tr>
<tr>
<td></td>
<td>3. Meets the requirements of EN 54-7 at the following settings:</td>
</tr>
<tr>
<td></td>
<td>Optical only level 1 - High sensitivity</td>
</tr>
<tr>
<td></td>
<td>Optical only level 2</td>
</tr>
<tr>
<td></td>
<td>Optical only level 3</td>
</tr>
<tr>
<td></td>
<td>Optical only level 4 - Low sensitivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HFW-MA-05 Wireless Libra Addressable Multicriteria Detector (WAB100 Base)</td>
</tr>
<tr>
<td>928m/02</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-7 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td>Level 1 - High sensitivity</td>
</tr>
<tr>
<td></td>
<td>Level 2 - Normal</td>
</tr>
<tr>
<td></td>
<td>Level 3 - Low</td>
</tr>
<tr>
<td></td>
<td>3. The device must be used with the following battery type only:</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFI-UB-01</td>
<td>Universal adaptor base</td>
</tr>
<tr>
<td>HFI-DUB-01</td>
<td>Deep adaptor base</td>
</tr>
<tr>
<td>HFI-DMB-01</td>
<td>Vega adaptor base</td>
</tr>
<tr>
<td>HFI-DDB-01</td>
<td>Vega deep adaptor base</td>
</tr>
<tr>
<td>HFI-UBS-01</td>
<td>Universal adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DUBS-01</td>
<td>Deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DMBS-01</td>
<td>Vega adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DDBS-01</td>
<td>Vega deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DMBS-05</td>
<td>Low profile adaptor base</td>
</tr>
<tr>
<td>WAB 100</td>
<td>Wireless Adaptor Base</td>
</tr>
</tbody>
</table>

**PART 1: SECTION 4.1**

**COMMERCIAL DETECTORS**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CR123A (3 Vdc) - Primary and Secondary Battery</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

<table>
<thead>
<tr>
<th>Bases</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFI-UB-01</td>
<td>Universal adaptor base</td>
</tr>
<tr>
<td>HFI-DUB-01</td>
<td>Deep adaptor base</td>
</tr>
<tr>
<td>HFI-DMB-01</td>
<td>Vega adaptor base</td>
</tr>
<tr>
<td>HFI-DDB-01</td>
<td>Vega deep adaptor base</td>
</tr>
<tr>
<td>HFI-UBS-01</td>
<td>Universal adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DUBS-01</td>
<td>Deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DMBS-01</td>
<td>Vega adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DDBS-01</td>
<td>Vega deep adaptor base with shorting clip</td>
</tr>
<tr>
<td>HFI-DMBS-05</td>
<td>Low profile adaptor base</td>
</tr>
<tr>
<td>WAB 100</td>
<td>Wireless Adaptor Base</td>
</tr>
</tbody>
</table>


**Smoke Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 928k/01       | Wireless optical smoke detector (WAB100 base) | 1. Meets the requirements of EN 54-7 in the normal sensitivity setting  
2. The device must be used with the following batteries only:  
   - CR123A (3 Vdc) - main battery  
   - CR2032A (3 Vdc) - secondary battery |
| 928k/02       | Wireless Libra Addressable Optical Smoke Detector (WAB100 Base) | 1. Meets the requirements of EN 54-7 at the following sensitivity settings:  
   - Level 1 - High  
   - Level 2 - Normal  
   - Level 3 - Low  
2. The device must be used with the following battery type only:  
   - CR123A (3 Vdc) - Primary and Secondary Battery |

**ROP-E**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 928k/02       | Wireless Addressable Optical Smoke Detector (WAB100 Base) | 1. Meets the requirements of EN 54-7 at the following sensitivity settings:  
   - Level 1 - High  
   - Level 2 - Normal  
   - Level 3 - Low  
2. The device must be used with the following battery type only:  
   - CR123A (3 Vdc) - Primary and Secondary Battery |

**Bases:**

<table>
<thead>
<tr>
<th>Bases</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAB100</td>
<td>Wireless Adaptor Base</td>
</tr>
</tbody>
</table>


**Multi-Criteria Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 928m/01       | Wireless multi-criteria detector (WAB100 base) | 1. Meets the requirements of EN 54-5 for Class A1R  
2. Meets the requirements of EN 54-7 in the normal sensitivity setting  
3. The device must be used with the following batteries only:  
   - CR123A (3 Vdc) - main battery  
   - CR2032A (3 Vdc) - secondary battery |
| 928m/02       | Wireless Libra Addressable Multicriteria Detector (WAB100 Base) | 1. Meets the requirements of EN 54-5 for class A1R  
2. Meets the requirements of EN 54-7 in the normal sensitivity setting  
   - Level 1 - High  
   - Level 2 - Normal  
   - Level 3 - Low  
3. The device must be used with the following batteries only:  
   - CR123A (3 Vdc) - Primary and Secondary Battery |
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>928m/02</td>
<td></td>
</tr>
</tbody>
</table>

**RMC-E**

Wireless Addressable Multicriteria Detector (WAB100 Base)

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R
2. Meets the requirements of EN 54-7 in the normal sensitivity setting

   - Level 1 - High
   - Level 2 - Normal
   - Level 3 - Low
3. The device must be used with the following batteries only

   - CR123A (3 Vdc) - Primary and Secondary Battery

**Bases:**

- WAB100 Wireless Adaptor Base


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>928j/01</td>
<td></td>
</tr>
<tr>
<td>928j/02</td>
<td></td>
</tr>
<tr>
<td>928j/05</td>
<td></td>
</tr>
</tbody>
</table>

**HFW-TA-01**

Wireless Heat Detector (WAB100 Base)

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R
2. The device must be used with the following batteries only:
   - CR123A (3 Vdc) - Main Battery
   - CR2032A (3 Vdc) - Secondary Battery

**HFW-TA-05**

Wireless Libra Addressable Class P Heat Detector (WAB100 Base)

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R and BS
2. The device must be used with the following battery type only:
   - CR123A (3 Vdc) - Primary and Secondary Battery

**RHT-E**

Wireless Addressable Class P Heat Detector (WAB100 Base)

**Notes:**

1. Meets the requirements of EN 54-5 for Class A1R and BS
2. The device must be used with the following battery type only:
   - CR123A (3 Vdc) - Primary and Secondary Battery

WAB 100 Wireless Adaptor Base

**Syncoln Ltd**

3rd Floor, 14 Hanover Street, Mayfair, London W1S 1YH, United Kingdom

Tel: +44 (0)207 514 5813

E-mail: sales@syncoln.com • Website: www.syncoln.com

**Certificate No:** 010p-(cl-6) to EN 54-5:2000 + A1:2002

**Heat Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>010p/03</td>
<td></td>
</tr>
<tr>
<td>010p/05</td>
<td></td>
</tr>
<tr>
<td>010p/08</td>
<td></td>
</tr>
</tbody>
</table>

**5000-300**

Syncoln Analogue Addressable Heat Detector (5000-100 base)

**Notes:**

1. Meets the requirements of EN54: Part 5 at the following modes:
   - Class A1R in mode 1 and in conventional mode
   - Class A2 in mode 2 and in conventional mode
   - Class A2S in mode 3 and in conventional mode
   - Class CR in mode 4 and in conventional mode
   - Class CS in mode 5 and in conventional mode

Certified with Apollo Discovery, XP95, and S90 digital communications protocols configured for the Discovery Heat Detector in accordance with manufacturer's instructions.

**2000-300**

Syncoln Series 27 A1R Heat Detector with Flashing LED (2000-100 base)

**Note:**

Meets the requirements of EN54: Part 5 at Class A1R

**2000-301**

Syncoln Series 27 BR Heat Detector with Flashing LED (2000-100 base)
## PART 1: SECTION 4.1
### COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class BR</td>
<td></td>
</tr>
<tr>
<td><strong>Syncoln Series 27 CS Heat Detector with Flashing LED</strong> (2000-100 base)</td>
<td>010p/14</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class CS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bases</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-100</td>
<td>Syncoln Series 27 Standard Base</td>
</tr>
<tr>
<td>5000-100</td>
<td>Syncoln Mounting Base</td>
</tr>
</tbody>
</table>


### Smoke Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5000-200</strong></td>
<td>Syncoln Analogue Addressable Photoelectric Smoke Detector (5000-100 base)</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 7 in modes 1, 2, 3, 4 and 5 and unconventional mode. Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.</td>
<td></td>
</tr>
<tr>
<td><strong>2000-200</strong></td>
<td>Syncoln Series 27 Optical Smoke Detector with Flashing LED (2000-100 base)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bases</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-100</td>
<td>Syncoln Series 27 Standard Base</td>
</tr>
<tr>
<td>5000-100</td>
<td>Syncoln Mounting Base</td>
</tr>
</tbody>
</table>


### Multi-Sensor/Multi-Criteria Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5000-400</strong></td>
<td>Syncoln Analogue Addressable Multisensor Detector (5000-100 base)</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Certified at the following settings:</td>
<td></td>
</tr>
<tr>
<td>Mode 1 - High sensitivity smoke detector with standard heat enhancement</td>
<td></td>
</tr>
<tr>
<td>Mode 2 - Smoke detection only</td>
<td></td>
</tr>
<tr>
<td>Mode 3 - Medium sensitivity smoke detector with standard heat enhancement</td>
<td></td>
</tr>
<tr>
<td>Mode 4 - Low sensitivity smoke detector with high heat enhancement</td>
<td></td>
</tr>
<tr>
<td>Mode 5 - Class A1 heat detector</td>
<td></td>
</tr>
<tr>
<td>Also approved in conventional alarm modes 1, 2, 3, 4 and 5</td>
<td></td>
</tr>
<tr>
<td>2. Approved with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery multisensor detector in accordance with manufacturer's instructions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Base</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5000-100</td>
<td>Syncoln Mounting Base</td>
</tr>
</tbody>
</table>

---

**Tanda (UK) Limited**

Fourth Floor, 30-31 Furnival Street, London EC4A 1JQ, United Kingdom

Tel: +44 8451162945

E-mail: info@tandauk.com • Website: www.tandauk.com

Certificate No: 1330a-(cl-1) to EN 54-12:2015
**Beam Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>TX7130 Conventional Reflective Beam Detector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330a/01</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td>Level 1: 2.6 dB High sensitivity</td>
</tr>
<tr>
<td></td>
<td>Level 2: 3.8 dB Medium sensitivity</td>
</tr>
<tr>
<td></td>
<td>Level 3: 5.8 dB Low sensitivity</td>
</tr>
<tr>
<td></td>
<td>2. Suitable for use at the following separation ranges:</td>
</tr>
<tr>
<td></td>
<td>Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>Span 2: 20 to 40 meters Short Path (1 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>Span 3: 40 to 70 meters Normal Path (4 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>Span 4: 70 to 100 meters Long Path (4 x mirror reflector required)</td>
</tr>
</tbody>
</table>

**Accessories:**

- Mounting Bracket
- TX7130-R 1 x Mirror Reflector
- TX7130-R 4 x Mirror Reflector

**Certificate No:** 1330c-(cl-1) to EN 54-5:2000 +A1:2002

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**Heat Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>TX7110 Intelligent Heat Detector (TX7980 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330c/01</td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1R.</td>
</tr>
</tbody>
</table>

**Base**

<table>
<thead>
<tr>
<th>TX7980 Detector Base</th>
</tr>
</thead>
</table>

**Certificate No:** 1330b-(cl-1) to EN 54-7:2000 +A1:2002 +A2:2006

---

**Smoke Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>TX7100 Intelligent Smoke Detector (TX7980 base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330b/01</td>
<td></td>
</tr>
</tbody>
</table>

**Base**

| TX7980 Detector base |

---

**Tanda Development Pte Ltd**

21 Bukit Batok Crescent, #15-75 Wcega Tower, Singapore 658065, Singapore

Tel: +65013223307015

E-mail: Wanyuemin@tandatech.com • Website: www.tnafirealarm.com

**Certificate No:** 1330c-(cl-4) to EN 54-5: 2000+ A1: 2002

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>TX7110 Intelligent Heat Detector (TX7980 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330c/01</td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 for Class A1R</td>
</tr>
</tbody>
</table>

**Base**

| TX7980 |

**Certificate No:** 1330b-cl-4) to EN 54-7: 2000+ A1: 2002 + A2: 2006
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX7100</td>
<td>Intelligent Smoke Detector (TX7980 Base)</td>
</tr>
<tr>
<td></td>
<td>Base TX7980</td>
</tr>
<tr>
<td>1330b/01</td>
<td></td>
</tr>
</tbody>
</table>

Certificate No: 1330a-(cl-8) to EN 54-12:2015

Approved Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX7130</td>
<td>Conventional Reflective Beam Detector</td>
</tr>
<tr>
<td>1330a/01</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td>- Level 1: 2.6 dB High sensitivity</td>
</tr>
<tr>
<td></td>
<td>- Level 2: 3.8 dB Medium sensitivity</td>
</tr>
<tr>
<td></td>
<td>- Level 3: 5.8 dB Low sensitivity</td>
</tr>
<tr>
<td></td>
<td>2. Suitable for use at the following separation ranges:</td>
</tr>
<tr>
<td></td>
<td>- Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>- Span 2: 20 to 40 meters Short Path (1 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>- Span 3: 40 to 70 meters Normal Path (4 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>- Span 4: 70 to 100 meters Long Path (4 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td>Accessories</td>
</tr>
<tr>
<td></td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td></td>
<td>TX7130-R 1 x Mirror Reflector</td>
</tr>
<tr>
<td></td>
<td>TX7130-R 4 x Mirror Reflector</td>
</tr>
</tbody>
</table>

Tanda Technologies (Singapore) Pte Ltd
217 Kallang Bahru, #04-02, Singapore 339347, Singapore
Tel: +62913176 • Fax: E-mail: tandatech@yahoo.com


Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DET-C632</td>
<td>Conventional rate of rise &amp; fixed temperature heat detector (DB-6 standard base)</td>
</tr>
<tr>
<td>1148a/01</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-5 at Class A2R</td>
</tr>
<tr>
<td></td>
<td>Bases:</td>
</tr>
<tr>
<td></td>
<td>DB-6 Standard detector base</td>
</tr>
</tbody>
</table>


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DET-C631</td>
<td>Conventional optical smoke detector (DB-6 standard base)</td>
</tr>
<tr>
<td>1148b/01</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7 in the normal sensitivity setting.</td>
</tr>
<tr>
<td></td>
<td>Bases:</td>
</tr>
<tr>
<td></td>
<td>DB-6 Standard detector base</td>
</tr>
</tbody>
</table>
Teledata S.r.l.
Via Giulietti 8, Milan 20132, Italy
Tel: +39 02-27201352 • Fax: +39 02-2593704
E-mail: R.Pennati@teledata-i.com • Website: www.teledata-i.com


Point Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF5300</td>
<td>Analogue Addressable Class P Heat Detector with Short Circuit Isolator (BS5000 Base)</td>
<td>Meets the requirements of EN 54-5 for Class A1R and Class B</td>
</tr>
<tr>
<td>SF5100</td>
<td>Analogue Addressable Photoelectric Smoke Detector with Short Circuit Isolator (BS5000 base)</td>
<td>Note:</td>
</tr>
<tr>
<td>SF5300E</td>
<td>Analogue Addressable Class P Heat Detector Lite (BS5000 base)</td>
<td>Note:</td>
</tr>
<tr>
<td>SF530</td>
<td>Conventional Class P Heat Detector (BS500R base)</td>
<td>Note:</td>
</tr>
<tr>
<td>SF5100E</td>
<td>Analogue Addressable Photoelectric Smoke Detector Lite (BS5000 base)</td>
<td>Note:</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS100</td>
</tr>
<tr>
<td>BS100E</td>
</tr>
<tr>
<td>BS100/S</td>
</tr>
<tr>
<td>BS100E/S</td>
</tr>
<tr>
<td>BS5000</td>
</tr>
<tr>
<td>BS5000R</td>
</tr>
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</table>

Point Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF510</td>
<td>Conventional Photoelectric Smoke Detector (BS500R base)</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>Base Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS100</td>
</tr>
<tr>
<td>BS100E</td>
</tr>
<tr>
<td>BS100/S</td>
</tr>
<tr>
<td>BS100E/S</td>
</tr>
<tr>
<td>BS5000</td>
</tr>
<tr>
<td>BS5000R</td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Multi-Criteria Detectors
Certificated Products

SF5200 Analogue Addressable Class P Heat and Photoelectric Smoke Multi-sensor Detector with Short Circuit Isolator (BS5000 base)
Notes:
1. Meets the requirements of EN 54-5 for (Class A1) & EN 54-7 at the following settings:
   Multi Criteria Level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 heat response
   Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   Multi Criteria Level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
   Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low
1154c/01

SF5200E Analogue Addressable Class P Heat and Photoelectric Smoke Multi-Sensor Detector Lite (BS5000 base)
Notes:
1. Meets the requirements of EN 54-5 (Class A1) & EN 54-7 at the following settings:
   Multi Criteria level 1 (most sensitive) - Thermally enhanced smoke detection with Class A1 Heat Response
   Multi Criteria Level 2 - Thermally enhanced smoke detection with Class A1 heat response
   Multi Criteria Level 3 - Thermally enhanced smoke detection with Class A1 heat response
   Multi Criteria level 4 (least sensitive) - Thermally enhanced smoke detection with Class A1 heat response
2. Meets the requirements of EN 54-5 (Class A1R) at the following settings:
   Class A1R heat only response
3. Meets the requirements of EN 54-7 at the following settings:
   - Optical only level 1 - High
   - Optical only level 2
   - Optical only level 3
   - Optical only level 4 - Low
1154f/01

Bases
BS100 Universal adaptor base
BS100E Vega adaptor base
BS100/S Universal adaptor base with shorting clip
BS100E/S Vega adaptor base with shorting clip
BS5000 Adaptor base

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14A Srebarna Street, Sofia 1407, Bulgaria
Tel: +359 2 9694 700 • Fax: +359 2 9625 213
E-mail: info@teletek-electronics.bg • Website: www.teletek-electronics.com

Teletek Electronics JSC

Heat Detectors
Certificated Products

SensoIRIS T110 IS Intelligent Analogue Addressable Class A1R Fire Alarm Heat Detector with Built-In Isolator Module (B124 Base)
1139j/01
Base: B124 Standard analogue addressable detector base


Smoke Detectors
Certificated Products
SensoIRIS S130 IS Intelligent Analogue Addressable Fire Alarm Optical Smoke Detector with Built-In Isolator Module (B124 Base) 1139k/01

Base: B124 Standard analogue addressable detector base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products
SensoIRIS M140 IS Intelligent Analogue Addressable A1R Combined Heat and Optical Smoke Detector with Built-In Isolator Module (B124 Base) 1139m/01

Tyco Fire & Security GmbH
Victor Von Bruns-Strasse 21, Neuhausen am Rheinfall, Schaffhausen 8212, Switzerland
Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777
E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com


Certificated Products
840PC MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector (4B, 4B-C, 4B-I, and 5B bases) 681b/02
Notes:
1) Approved with the following mode configurations:-
   - UNIV Universal optical smoke and A2S heat multi-criteria detector
   - RESIL Resilient optical smoke and A2S heat multi-criteria detector
   - Heat detector at Class A1R
   - HPO Heat enhanced optical smoke detector at Normal sensitivity
2) The Carbon Monoxide toxic gas/CCO modes are not approved

830PC (516.830.054) MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector (4B, 4B-C, 4B-I, and 5B bases) 681b/03
Notes:
1) Approved with the following mode configurations:-
   - UNIV Universal optical smoke and A2S heat multi-criteria detector
   - RESIL Resilient optical smoke and A2S heat multi-criteria detector
   - Heat detector at Class A1R
   - HPO Heat enhanced optical smoke detector at Normal sensitivity
2) The Carbon Monoxide toxic gas/CCO modes are not approved
3) Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.503)
   - Green matt (517.050.504)
   - Red matt (517.050.505)
   - Brown matt (517.050.506)
   - Blue gloss (517.050.507)
   - Pink gloss (517.050.508)
   - Silver metallic (517.050.509)
   - Gold metallic (517.050.510)
### Certificated Products

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Name</th>
<th>Notes</th>
</tr>
</thead>
</table>
| FC460PC    | FireClass Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector (4B, 4B-C, 4B-I, and 5B bases) | Approved with the following mode configurations:-  
- UNIV: Universal optical smoke and A2S heat multi-criteria detector  
- RESIL: Resilient optical smoke and A2S heat multi-criteria detector  
- Heat detector at Class A1R  
- HPO: Heat enhanced optical smoke detector at Normal sensitivity  
2) The Carbon Monoxide toxic gas/CCO modes are not approved |
| 840PH      | MX Digital Addressable Photoelectric Smoke and Class P Heat Detector (4B, 4B-C, 4B-I, and 5B bases) | Approved with the following mode configurations:-  
- Heat detector at Class A1R  
- Heat detector at Class A2S  
- OPT: Optical smoke detector at High, Normal and Low sensitivity  
- FL OPT: Optical smoke detector at High, Normal and Low sensitivity using FastLogic  
- HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity  
- FL HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity using FastLogic. |
| 4098-6257 | Simplex Digital Addressable Photo / Heat 830 Series Sensor (4098-5272 base) | Approved with the following mode configurations:-  
- Heat detector at Class A1R  
- Heat detector at Class A2S  
- OPT: Optical smoke detector at High, Normal and Low sensitivity  
- FL OPT: Optical smoke detector at High, Normal and Low sensitivity using FastLogic  
- HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity  
- FL HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity using FastLogic. |
| 830PH      | MX Digital Addressable Photoelectric Smoke and Class P Heat Detector (4B, 4B-C, 4B-I, and 5B bases) | Approved with the following mode configurations:-  
- Heat detector at Class A1R  
- Heat detector at Class A2S  
- OPT: Optical smoke detector at High, Normal and Low sensitivity  
- FL OPT: Optical smoke detector at High, Normal and Low sensitivity using FastLogic  
- HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity  
- FL HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity using FastLogic. |
| 601PH      | Conventional High Performance Photoelectric Smoke Detector (4B, 4B-D and 5B Bases) | Approved with the following mode configurations:-  
- Heat detector at Class A1R  
- Heat detector at Class A2S  
- OPT: Optical smoke detector at High, Normal and Low sensitivity  
- FL OPT: Optical smoke detector at High, Normal and Low sensitivity using FastLogic  
- HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity  
- FL HPO: Heat enhanced optical smoke detector at High, Normal and Low sensitivity using FastLogic. |

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Notes</th>
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<tbody>
<tr>
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<tr>
<td>681b/04</td>
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<tr>
<td>681b/05</td>
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<tr>
<td>681w/01</td>
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<tr>
<td>681j/01</td>
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</tr>
<tr>
<td>681b/01</td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERICAL DETECTORS

Certificated Products

- UNIV Universal optical smoke and A2S heat multi-criteria detector
- RESIL Resilient optical smoke and A2S heat multi-criteria detector
- Heat detector at Class A1R
- HPO Heat enhanced optical smoke detector at normal sensitivity

2. The Carbon Monoxide toxic gas/CCO modes are not approved
3. Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.503)
   - Green matt (517.050.504)
   - Red matt (517.050.505)
   - Brown matt (517.050.506)
   - Blue gloss (517.050.507)
   - Pink gloss (517.050.508)
   - Silver metallic (517.050.509)
   - Gold metallic (517.050.510)
   - Black matt (517.050.511)

850PC (516.850.054) MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector with Short Circuit Isolator (4B, 4B-C and 5B bases)

Notes:
1. Approved with the following mode configurations:-
   - UNIV Universal optical smoke and A2S heat multi-criteria detector
   - RESIL Resilient optical smoke and A2S heat multi-criteria detector
   - Heat detector at Class A1R
   - HPO Heat enhanced optical smoke detector at normal sensitivity
2. The Carbon Monoxide toxic gas/CCO modes are not approved
3. Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.503)
   - Green matt (517.050.504)
   - Red matt (517.050.505)
   - Brown matt (517.050.506)
   - Blue gloss (517.050.507)
   - Pink gloss (517.050.508)
   - Silver metallic (517.050.509)
   - Gold metallic (517.050.510)
   - Black matt (517.050.511)

850PC (516.850.054.E) MX Digital Addressable Photoelectric Smoke, Class P Heat and Carbon Monoxide Detector with Short Circuit Isolator (4B, 4B-C and 5B bases)

Notes:
1. Approved with the following mode configurations:-
   - UNIV Universal optical smoke and A2S heat multi-criteria detector
   - RESIL Resilient optical smoke and A2S heat multi-criteria detector
   - Heat detector at Class A1R
   - HPO Heat enhanced optical smoke detector at normal sensitivity
2. The Carbon Monoxide toxic gas/CCO modes are not approved
3. Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.503)
   - Green matt (517.050.504)
   - Red matt (517.050.505)
   - Brown matt (517.050.506)
   - Blue gloss (517.050.507)
   - Pink gloss (517.050.508)
   - Silver metallic (517.050.509)
   - Gold metallic (517.050.510)
   - Black matt (517.050.511)

4098-6251 Simplex Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator (4098-5272 base)

Note:
1. Approved with the following mode configurations:-
   - Heat detector at Class A1R
   - Heat detector at Class A2S
   - OPT Optical smoke detector at High, Normal and Low sensitivity
   - FL OPT Optical smoke detector at High, Normal and Low sensitivity using FastLogic
   - HPO Heat enhanced optical smoke detector at High, Normal and Low sensitivity
   - FL HPO Heat enhanced optical smoke detector at High, Normal and Low sensitivity using FastLogic.
2. Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.503)
   - Green matt (517.050.504)
   - Red matt (517.050.505)
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

- Brown matt (517.050.506)
- Blue gloss (517.050.507)
- Pink gloss (517.050.508)
- Silver metallic (517.050.509)
- Gold metallic (517.050.510)
- Black matt (517.050.511)

850PH (516.850.051)
MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator (4B, 4B-C, and 5B bases)
Note:
1. Approved with the following mode configurations:
   - Heat detector at Class A1R
   - Heat detector at Class A2S
   - OPT Optical smoke detector at High, Normal and Low sensitivity
   - FL OPT Optical smoke detector at High, Normal and Low sensitivity using FastLogic
   - HPO Heat enhanced optical smoke at High, Normal and Low sensitivity
   - FL HPO Heat enhanced optical smoke at High, Normal and Low sensitivity using FastLogic.
2. Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.504)
   - Red matt (517.050.505)
   - Brown matt (517.050.506)
   - Blue gloss (517.050.507)
   - Pink gloss (517.050.508)
   - Silver metallic (517.050.509)
   - Gold metallic (517.050.510)
   - Black matt (517.050.511)

850PH (516.850.051.E)
MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator (4B, 4B-C, and 5B bases)
Note:
1. Approved with the following mode configurations:
   - Heat detector at Class A1R
   - Heat detector at Class A2S
   - OPT Optical smoke detector at High, Normal and Low sensitivity
   - FL OPT Optical smoke detector at High, Normal and Low sensitivity using FastLogic
   - HPO Heat enhanced optical smoke at High, Normal and Low sensitivity
   - FL HPO Heat enhanced optical smoke at High, Normal and Low sensitivity using FastLogic.
2. Also available in the following coloured housings:
   - Orange semi-gloss (517.050.502)
   - Yellow gloss (517.050.504)
   - Red matt (517.050.505)
   - Brown matt (517.050.506)
   - Blue gloss (517.050.507)
   - Pink gloss (517.050.508)
   - Silver metallic (517.050.509)
   - Gold metallic (517.050.510)
   - Black matt (517.050.511)

851PHN
MX Digital Addressable Photoelectric Smoke and Class P Heat Detector with Short Circuit Isolator [Ex N Version] (4B-EN Base)
Note:
1. Approved with the following mode configurations:
   - Heat detector at Class A1R
   - Heat detector at Class A2S
   - OPT Optical smoke detector at High, Normal and Low sensitivity
   - FL OPT Optical smoke detector at High, Normal and Low sensitivity using FastLogic
   - HPO Heat enhanced optical smoke at High, Normal and Low sensitivity
   - FL HPO Heat enhanced optical smoke at High, Normal and Low sensitivity using FastLogic.

Bases:
4B 4" universal mounting base
4B-C 4" continuity base
4B-I 4" isolator base
4B-D 4" diode mounting base
4B-EN 4" Ex(N) mounting base
5B 5" universal mounting base
MUBEx Intrinsically safe detector base
5BEx Intrinsically safe detector base
4098-5272 Standard 4IN detector base
### Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>601H-R</td>
<td>Conventional Class A1R Heat Detector (4B, 4B-D &amp; 5B bases)</td>
<td>681c/02</td>
</tr>
<tr>
<td>MD601Ex</td>
<td>Conventional Intrinsically Safe Class A1R Rate of Rise Heat Detector (MUBEx and 5BEx bases)</td>
<td>681c/04</td>
</tr>
<tr>
<td>MD611Ex</td>
<td>Conventional Intrinsically Safe Class A1S Fixed Temperature Heat Detector (MUBEx and 5BEx bases)</td>
<td>681c/05</td>
</tr>
<tr>
<td>611H-F</td>
<td>Conventional Class A1S Fixed Temperature Heat Detector (4B, 4B-D and 5B bases)</td>
<td>681c/07</td>
</tr>
<tr>
<td>631H-F</td>
<td>Conventional Class CS Fixed Temperature Heat Detector (4B, 4B-D and 5B bases)</td>
<td>681c/08</td>
</tr>
<tr>
<td>840H</td>
<td>MX Digital Addressable Class P Heat Detector (4B, 4B-I, and 5B bases)</td>
<td>681c/09</td>
</tr>
</tbody>
</table>

**Note:**
- Approved with the following mode configurations:
  - Heat detector at Class A1R
  - Heat detector at Class A2S
  - Heat detector at Class CR

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4098-6255</td>
<td>Simplex Digital Addressable Heat 830 Series Sensor (4098-5272 base)</td>
<td>681c/10</td>
</tr>
</tbody>
</table>

**Note:**
- Approved with the following mode configurations:
  - Heat detector at Class A1R
  - Heat detector at Class A2S
  - Heat detector at Class CR

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>830H (516.830.053)</td>
<td>MX Digital Addressable Class P Heat Detector (4B, 4B-I, and 5B bases)</td>
<td>681c/10</td>
</tr>
</tbody>
</table>

**Notes:**
- Approved with the following mode configurations:
  - Heat detector at Class A1R
  - Heat detector at Class A2S
  - Heat detector at Class CR

2. Also available in the following coloured housings:
- Orange semi-gloss (517.050.502)
- Yellow gloss (517.050.503)
- Green matt (517.050.504)
- Red matt (517.050.505)
- Brown matt (517.050.506)
- Blue gloss (517.050.507)
- Pink gloss (517.050.508)
- Silver metallic (517.050.509)
- Gold metallic (517.050.510)
- Black matt (517.050.511)

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC460H</td>
<td>FIRECLASS Digital Addressable Class P Heat Detector (4B, 4B-I and 5B bases)</td>
<td>681c/10</td>
</tr>
</tbody>
</table>

**Note:**
- Approved with the following mode configurations:
  - Heat Detector at Class A1R
  - Heat Detector at Class A2S
  - Heat Detector at Class CR

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>4098-6253</td>
<td>Simplex Digital Addressable Class P Heat Detector with Short Circuit Isolator (4098-5272 base)</td>
<td>681p/01</td>
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</table>

**Notes:**
1. Approved with the following mode configurations:
  - Heat detector at Class A1R
  - Heat detector at Class A2S
  - Heat detector at Class CR

2. Also available in the following coloured housings:
- Orange semi-gloss (517.050.502)
- Yellow gloss (517.050.503)
- Green matt (517.050.504)
- Red matt (517.050.505)
- Brown matt (517.050.506)
- Blue gloss (517.050.507)
- Pink gloss (517.050.508)
- Silver metallic (517.050.509)
- Gold metallic (517.050.510)
- Black matt (517.050.511)

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>850H (516.850.053)</td>
<td>MX Digital Addressable Class P Heat Detector with Short Circuit Isolator (4B, 4B-C and 5B bases)</td>
<td>681p/01</td>
</tr>
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</table>

**Notes:**
1. Approved with the following mode configurations:
  - Heat detector at Class A1R
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Heat detector at Class A2S</td>
</tr>
<tr>
<td></td>
<td>- Heat detector at Class CR</td>
</tr>
<tr>
<td></td>
<td>- Orange semi-gloss (517.050.502)</td>
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<tr>
<td></td>
<td>- Yellow gloss (517.050.503)</td>
</tr>
<tr>
<td></td>
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<td>- Black matt (517.050.511)</td>
</tr>
<tr>
<td></td>
<td>850H (516.850.053.E) MX Digital Addressable Class P Heat Detector with Short Circuit Isolator (4B, 4B-C and 5B bases)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Approved with the following mode configurations:-</td>
</tr>
<tr>
<td></td>
<td>- Heat detector at Class A1R</td>
</tr>
<tr>
<td></td>
<td>- Heat detector at Class A2S</td>
</tr>
<tr>
<td></td>
<td>- Heat detector at Class CR</td>
</tr>
<tr>
<td></td>
<td>2. Also available in the following coloured housings:</td>
</tr>
<tr>
<td></td>
<td>- Orange semi-gloss (517.050.502)</td>
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<tr>
<td></td>
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<td></td>
<td>- Black matt (517.050.511)</td>
</tr>
<tr>
<td></td>
<td>Bases:</td>
</tr>
<tr>
<td></td>
<td>4B 4&quot; universal mounting base</td>
</tr>
<tr>
<td></td>
<td>4B-D 4&quot; diode mounting base</td>
</tr>
<tr>
<td></td>
<td>4B-C 4&quot; continuity base</td>
</tr>
<tr>
<td></td>
<td>4B-I 4&quot; isolator base</td>
</tr>
<tr>
<td></td>
<td>5B 5&quot; universal mounting base</td>
</tr>
<tr>
<td></td>
<td>MUBEx Intrinsically safe detector base</td>
</tr>
<tr>
<td></td>
<td>5BEx Intrinsically safe detector base</td>
</tr>
<tr>
<td></td>
<td>4098-5272 Standard 4IN detector base</td>
</tr>
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Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conventional Photoelectric Smoke Detector (4B, 4B-D and 5B bases)</td>
</tr>
<tr>
<td></td>
<td>MX Digital Addressable Photoelectric Smoke Detector (4B, 4B-I, and 5B bases)</td>
</tr>
<tr>
<td></td>
<td>Approved with the following mode configurations:-</td>
</tr>
<tr>
<td></td>
<td>- OPT Optical smoke detector at High, Normal and Low sensitivity</td>
</tr>
<tr>
<td></td>
<td>- FL OPT Optical smoke detector at High, Normal and Low sensitivity using FastLogic</td>
</tr>
<tr>
<td></td>
<td>Simplex Digital Addressable Photoelectric 830 Series Sensor (4098-5272 base)</td>
</tr>
<tr>
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<td>Approved with the following mode configurations:-</td>
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<td>- OPT Optical smoke detector at High, Normal and Low sensitivity</td>
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<td>MX Digital Addressable Photoelectric Smoke Detector (4B, 4B-I, and 5B bases)</td>
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<td>Approved with the following mode configurations:-</td>
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<td>- Blue gloss (517.050.507)</td>
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<td>Certificated Products</td>
<td>LPCB Ref. No.</td>
</tr>
<tr>
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<td>---------------</td>
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<tr>
<td>FC460P Fireclass Digital Addressable Photoelectric Smoke Detector (4B, 4B-I, and 5B bases)</td>
<td>681d/07</td>
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<tr>
<td>Note: Approved with the following mode configurations:-</td>
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<tr>
<td>- OPT Optical smoke detector at High, Normal and Low sensitivity</td>
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<td>- FL OPT Optical smoke detector at High, Normal and Low sensitivity using FastLogic</td>
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</tr>
<tr>
<td>4098-6252 Simplex Digital Addressable Photoelectric Smoke Detector with Short Circuit Isolator (4098-5272 base)</td>
<td>681z/01</td>
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<tr>
<td>Notes: 1. Approved with the following mode configurations:-</td>
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<tr>
<td>- OPT Optical smoke detector at High, Normal and Low sensitivity</td>
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<tr>
<td>850P (516.850.052) MX digital addressable photoelectric smoke detector with short circuit isolator (4B, 4B-C and 5B bases)</td>
<td>681z/01</td>
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<tr>
<td>Notes: 1. Approved with the following mode configurations:-</td>
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<td>- OPT Optical smoke detector at High, Normal and Low sensitivity</td>
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<tr>
<td>850P (516.850.052.E) MX digital addressable photoelectric smoke detector with short circuit isolator (4B, 4B-C and 5B bases)</td>
<td>681z/01</td>
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<tr>
<td>Notes: 1. Approved with the following mode configurations:-</td>
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<tr>
<td>- OPT Optical smoke detector at High, Normal and Low sensitivity</td>
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<td>- Black matt (517.050.511)</td>
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</tr>
</tbody>
</table>

Bases:
- 4B 4" Universal mounting base
- 4B-C 4" Continuity base
- 4B-D Diode mounting base
- 4B-I 4" Isolator base
- 5B 5" Universal mounting base
- 4098-5272 Standard 4IN detector base
PART 1: SECTION 4.1
COMMERCIAL DETECTORS


Certificated Products

601CH Conventional Class A1R Thermally Enhanced Carbon Monoxide Detector
(4B, 4B-D and 5B Bases)

681e/01

Bases:
4B 4" Universal Mounting Base
4B-D Diode Mounting Base
5B 5" Universal Mounting Base

Certificate No: 681r-(cl-1) to EN 54-10:2002 + A1:2005

Certificated Products

601F Conventional Class 2 Flame Detector (4B, 4B-D and 5B bases)
681r/01

601FEx Conventional Class 2 Intrinsically Safe Flame Detector (MUBEx and 5BEx bases)
681r/02

801F MX Addressable Class 2 Flame Detector (4B and 5B bases)
681r/03

801FEx MX Addressable Class 2 Intrinsically Safe Flame Detector (MUBEx and 5BEx bases)
681r/04

Bases:
4B 4" Standard mounting base
4B-D 4" Diode mounting base
5B Standard mounting base
MUBEx Intrinsically safe mounting base
5BEx Intrinsically safe mounting base

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47 San Stefano Street, Pleven 5800, Bulgaria
Tel: +359 64 891100
E-mail: Office_Pleven@unipos-bg.com • Website: www.unipos-bg.com


Certificated Products

FD7120 Analogue addressable rate of rise heat detector (7100 base)
Note:
Meets the requirements of EN 54-5 at Class A2R
1107a/01

FD8020 Conventional rate-of-rise heat detector (8000 base)
Note:
Meets the requirements of EN 54-5 at Class A2R
1107a/02

Bases
7100 standard analogue detector base
8000 standard conventional detector base


Certificated Products

FD7130 Analogue addressable optical smoke detector (7100 base)
Note:
Meets the requirements of EN 54-7 in the normal sensitivity setting.
1107b/01

FD8030 Conventional optical smoke detector (8000 base)
Note:
Meets the requirements of EN 54-7 in the normal sensitivity setting.
1107b/02

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### PART 1: SECTION 4.1

**COMMERCIAL DETECTORS**

#### Bases
- 7100 standard analogue detector base
- 8000 standard conventional detector base


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD7160 Analogue addressable combined heat &amp; optical smoke detector (7100 base)</td>
<td>1107c/01</td>
</tr>
<tr>
<td>Note: Meets the requirements of EN 54-5: 2000 (Class A2R) &amp; EN 54-7: 2000 at default normal sensitivity setting.</td>
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<tr>
<td>FD8060 Conventional combined heat &amp; optical smoke detector (8000 base)</td>
<td>1107c/02</td>
</tr>
<tr>
<td>Note: Meets the requirements of EN 54-5: 2000 (Class A2R) &amp; EN 54-7: 2000 at default normal sensitivity setting.</td>
<td></td>
</tr>
</tbody>
</table>

**UTC Fire & Security BV**
Kelvinstraat 7, NL-6003DH, Weert, The Netherlands
Tel: + 31 495 58 30 00 • Fax: + 31 495 55 00 42
E-mail: David.Perez@fs.utc.com • Website: www.utcfireandsecurity.com


<table>
<thead>
<tr>
<th>Heat Detectors</th>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT654 Series 65 Conventional Class A1R Heat Detector with Flashing LED (branded as Aritech Ltd)</td>
<td></td>
<td>010p/05</td>
</tr>
<tr>
<td>(DB860 base)</td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class A1R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Also certified for use with DB650, DB650R, 45681-247, 45681-248 and 45681-201 mounting bases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23900-K035-065 Series 65 Conventional Class A1R Heat Detector (branded as Kidde Products Ltd)(23902-H08 base)</td>
<td></td>
<td>010p/06</td>
</tr>
<tr>
<td>Notes:</td>
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<td></td>
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<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class A1R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Also certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DT654 Series 65 Conventional Class A1R Heat Detector (branded as Aritech Ltd)(DB860 base)</td>
<td></td>
<td>010p/06</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class A1R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Also certified for use with DB650, DB650R, 45681-247, 45681-248 and 45681-201 mounting bases.</td>
<td></td>
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</tr>
<tr>
<td>DT655L Series 65 Conventional Class BR Heat Detector with Flashing LED (branded as Aritech Ltd)</td>
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<td>010p/08</td>
</tr>
<tr>
<td>(DB860 base)</td>
<td>Notes:</td>
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<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class BR</td>
<td></td>
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</tr>
<tr>
<td>2. Also certified for use with DB650, DB650R, 45681-247, 45681-248 and 45681-201 mounting bases.</td>
<td></td>
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</tr>
<tr>
<td>23900-K036-065 Series 65 Conventional Class BR Heat Detector (branded as Kidde Products Ltd)(23902-H08 base)</td>
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<td>010p/09</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
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</tr>
<tr>
<td>1. Meets the requirements of EN54: Part 5 at Class BR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Also certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases.</td>
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</tr>
<tr>
<td>DT655 Series 65 Conventional Class BR Heat Detector (branded as Aritech Ltd)(DB860 base)</td>
<td></td>
<td>010p/09</td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Notes:
1. Meets the requirements of EN54: Part 5 at Class BR
2. Also certified for use with DB650, DB650R, 45681-247, 45681-248 and 45681-201 mounting bases.

Bases

23902-H08 Series 60/65 mounting base
DB860 Series 60/65 mounting base
DB650 Series 65 relay mounting base
DB650R Series 65 auxiliary relay mounting base


Smoke Detectors

Certificated Products

23900-K142 Discovery Analogue Addressable Photoelectric Smoke Detector (branded as Kidde Products Ltd) (45681-209 and 45681-210 mounting bases)

Note:
1. Meets the requirements of EN54: Part 7 in modes 1, 2, 3, 4 and 5 and in conventional mode.
2. Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.

23900-K034-065 Series 65 Conventional Optical Smoke Detector (branded as Kidde Products Ltd)(23902-H08 mounting base)

Note:
1. Certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases

23900-K041 XP95 Analogue Addressable Optical Smoke Detector (branded as Kidde Products Ltd)(45681-209 and 45681-210 mounting bases)

Note:
1. Certified for use with 45681-245, 45681-246, 45681-247, 45681-248 and 45681-201 mounting bases

2. Certified with Apollo Discovery, XP95, and S90 digital communication protocols that have been configured for the Discovery optical smoke detectors in accordance with manufacturer's instructions.

Bases

DB860 Series 60/65 mounting base
23902-H08 Series 60/65 mounting base
45681-209 XP95/Discovery standard deep mounting base
45681-210 XP95 mounting base


Certificated Products

23900-K143 Discovery Analogue Addressable Multisensor Detector (23900-H05 base)

Notes:
1. Certified at the following settings:
   Mode 1 - High sensitivity smoke detector with standard heat enhancement
   Mode 2 - Smoke detection only
   Mode 3 - Medium sensitivity smoke detector with standard heat enhancement
   Mode 4 - Low sensitivity smoke detector with high heat enhancement
   Mode 5 - Class A1 heat detector
### Certificated Products

<table>
<thead>
<tr>
<th>Senator 200</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde) (Senator Command Module Ancillary)</th>
</tr>
</thead>
</table>
| Notes:      | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No. | 1199d/03 |

<table>
<thead>
<tr>
<th>Senator 100</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde)</th>
</tr>
</thead>
</table>
| Notes:      | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No. | 1199d/02 |

<table>
<thead>
<tr>
<th>Stratos Micra 100</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde Airsense)</th>
</tr>
</thead>
</table>
| Notes:            | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No.     | 1199d/02 |

<table>
<thead>
<tr>
<th>Stratos Micra 25</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde Airsense)</th>
</tr>
</thead>
</table>
| Notes:           | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.31%/m. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No.    | 1199d/01 |

<table>
<thead>
<tr>
<th>Senator 25</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde)</th>
</tr>
</thead>
</table>
| Notes:           | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.31%/m. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No.    | 1199d/01 |

<table>
<thead>
<tr>
<th>Senator 100</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde)</th>
</tr>
</thead>
</table>
| Notes:           | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No.    | 1199d/02 |

<table>
<thead>
<tr>
<th>Senator 25</th>
<th>High Sensitivity Aspirating Smoke Detector (Branded as Kidde)</th>
</tr>
</thead>
</table>
| Notes:           | 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4.  
2. The approval of the detector is conditional upon the following requirements:  
a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.  
b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD. |
| LPCB Ref. No.    | 1199d/03 |

<table>
<thead>
<tr>
<th>ZP7-SB1</th>
<th>Standard Base</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>23900-H05</th>
<th>XP95 Mounting Base</th>
</tr>
</thead>
</table>

### Notes:

1. Meets the requirements of EN 54-7: 2000 at sensitivity level 1, Profile 4 (default) setting only
2. Meets the requirements of EN 54-5: 2000 for Class A1
Certificated Products | LPCB Ref. No.
--- | ---
Stratos HSSD 2 | 1199d/03
Stratos HSSD 2 (Branded as Kidde Airsense) (Stratos HSSD 2 Stand Alone Command Module Ancillary) | 1199d/03
Notes: 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4. 2. The approval of the detector is conditional upon the following requirements:
   a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.
   b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD.

Senator 200 + Command Module | 1199d/04
High Sensitivity Aspirating Command Module Smoke Detector (Branded as Kidde) | 1199d/04
Notes: 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4. 2. The approval of the detector is conditional upon the following requirements:
   a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.
   b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD.

Stratos HSSD 2 + Command Module | 1199d/04
High Sensitivity Aspirating Command Module Smoke Detector (Branded as Kidde Airsense) | 1199d/04
Notes: 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4. 2. The approval of the detector is conditional upon the following requirements:
   a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.
   b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD.

Senator 200 Minimum Display Module | 1199d/05
High Sensitivity Aspirating Minimum Display Version Smoke Detector (Branded as Kidde) (Senator Command Module Ancillary) | 1199d/05
Notes: 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4. 2. The approval of the detector is conditional upon the following requirements:
   a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.
   b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD.

Stratos HSSD 2 Minimum Display Module | 1199d/05
High Sensitivity Aspirating Minimum Display Version Smoke Detector (Branded as Kidde Airsense) (Stratos HSSD 2 Stand Alone Command Module Ancillary) | 1199d/05
Notes: 1. For compliance with Clause 5.10 of EN 54-20:2006, the detector shall be supplied with power from a power supply complying with EN 54-4. 2. The approval of the detector is conditional upon the following requirements:
   a) Design, installation and commissioning are performed in accordance with the system design manual and instructions.
   b) The device is approved for sensitivity Classes A, B and C for sensitivities up to 0.62%/m, 1.95%/m and 4.65%/m respectively. The Class of any pipe/hole configuration and detector sensitivity must be determined using PipeCAD.

9-30783 | 1199d/07
Detector Module for Stratos ModuLaser (Branded AirSense) Incorporating the following ancillary equipment:
   - Apollo APIC Card for Stratos ModuLaser (Part No: 9-30430) | 1199d/07
Notes: 1. For compliance with EN 54-20:2006, the Detector Module(s) (9-30783) must be used in conjunction with at least one of the following ancillary equipment:
   - Command Display Module, (Part No: 9-30782) - Standard Display Module, (Part No: 9-30781) - Minimum Display Module, (Part No: 9-30780) 2. For compliance with clause 5.10 of EN 54-20:2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.
3. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeCAD software.
4. The approval of the detector is conditional upon the following requirements:
   - Design including accessories used, installation and commissioning are performed in
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1199d/07</td>
<td>9-30783-KID Senator ModuLaser, Detector Module (Branded Kidde)</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following ancillary equipment:</td>
</tr>
<tr>
<td></td>
<td>- Apollo APIC Card for Stratos ModuLaser (Part No: 9-30430)</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. For compliance with EN 54-20:2006, the Detector Module (9-30783-KID) must be used in conjunction with at least one of the following ancillary equipment:</td>
</tr>
<tr>
<td></td>
<td>- Senator ModuLaser, Command Display Module, (Part No: 9-30782-KID) (Branded Kidde)</td>
</tr>
<tr>
<td></td>
<td>- Senator ModuLaser, Standard Display Module, (Part No: 9-30781-KID) (Branded Kidde)</td>
</tr>
<tr>
<td></td>
<td>- Senator ModuLaser, Minimum Display Module, (Part No: 9-30780-KID) (Branded Kidde)</td>
</tr>
<tr>
<td></td>
<td>2. For compliance with clause 5.10 of EN 54-20:2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.</td>
</tr>
<tr>
<td></td>
<td>3. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeCAD software.</td>
</tr>
<tr>
<td></td>
<td>4. The approval of the detector is conditional upon the following requirements:</td>
</tr>
<tr>
<td></td>
<td>- Design including accessories used, installation and commissioning are performed in accordance with the system installation manual 04-4001-501-0003-08.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1199d/07</td>
<td>FHSD8330 LaserSense ModuLaser, Detector Module (Branded Edwards)</td>
</tr>
<tr>
<td></td>
<td>Incorporating the following ancillary equipment:</td>
</tr>
<tr>
<td></td>
<td>- Apollo APIC Card for Stratos ModuLaser (Part No: 9-30430)</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. For compliance with EN 54-20:2006, the Detector Module (FHSD8330) must be used in conjunction with at least one of the following ancillary equipment:</td>
</tr>
<tr>
<td></td>
<td>- LaserSense Module, Command Display Module, (Part No: FHSD8320) (Branded Edwards)</td>
</tr>
<tr>
<td></td>
<td>- LaserSense Module, Standard Display Module, (Part No: FHSD8310) (Branded Edwards)</td>
</tr>
<tr>
<td></td>
<td>- LaserSense Module, Minimum Display Module, (Part No: FHSD8300) (Branded Edwards)</td>
</tr>
<tr>
<td></td>
<td>2. For compliance with clause 5.10 of EN 54-20:2006, all detectors and displays shall be supplied with power from a power supply conforming with the requirements of EN 54-4.</td>
</tr>
<tr>
<td></td>
<td>3. The device is approved for sensitivity Classes A, B and C. The Class of any pipework and hole configuration, detector sensitivity and equipment parameters must be determined using PipeCAD software.</td>
</tr>
<tr>
<td></td>
<td>4. The approval of the detector is conditional upon the following requirements:</td>
</tr>
<tr>
<td></td>
<td>- Design including accessories used, installation and commissioning are performed in accordance with the system installation manual 04-4001-501-2003-08.</td>
</tr>
</tbody>
</table>

Ancillaries:
Stratos HSSD 2 Stand Alone Command Module (Branded as Kidde Airsense)
Senator Command Module (Branded as Kidde)
FHSD8320 Command Display Module (Branded as Edwards)
FHS8310 Standard Display Module (Branded as Edwards)
FHS8300 Minimum Display Module (Branded as Edwards)
9-30782-KID Command Display Module (Branded as Kidde)
9-30781-KID Standard Display Module (Branded as Kidde)
9-30780-KID Minimum Display Module (Branded as Kidde)


Fire Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1062f/01</td>
<td>FF746 Edwards Conventional IR² (Exd) Flameproof Flame Detector (FF705 Bracket)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
</tr>
<tr>
<td>1062f/02</td>
<td>FF766 Edwards Conventional IR³ (Exd) Flameproof Flame Detector (FF705 Bracket)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
</tr>
<tr>
<td>1062f/03</td>
<td>FF756 Edwards Conventional UV/IR² (Exd) Flameproof Flame Detector (FF705 Bracket)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
</tr>
</tbody>
</table>
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF747 Edwards Conventional IR² Intrinsically Safe Flame Detector (FF705 Bracket)</td>
<td>1062f/04</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
<td></td>
</tr>
<tr>
<td>FF767 Edwards Conventional IR³ (IS) Intrinsically Safe Flame Detector (FF705 Bracket)</td>
<td>1062f/05</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
<td></td>
</tr>
<tr>
<td>FF742 Edwards Conventional IR² Flame Detector (FF705 Bracket)</td>
<td>1062f/06</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
<td></td>
</tr>
<tr>
<td>FF762 Edwards Conventional IR³ Flame Detector (FF705 Bracket)</td>
<td>1062f/07</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
<td></td>
</tr>
<tr>
<td>FF751 Edwards Conventional UV/IR² Flame Detector (FF705 Bracket)</td>
<td>1062f/08</td>
</tr>
<tr>
<td>Note: Meets EN 54-10:2002 at Class 1 Only</td>
<td></td>
</tr>
</tbody>
</table>

**Ancillaries:**

FF705 Adjustable Mounting Bracket

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**UTC Fire & Security Inc. Trading as Edwards Systems Technology**

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**Joseph Vidulich**

Tel: 941-309-8616

E-mail: joseph.vidulich@fs.utc.com • Website: www.ccs.utc.com


**Multi-Criteria Detectors**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-IPHSI Intelligent Analogue Addressable Thermally Enhanced Photoelectric and Ionisation Smoke Detector (SIGA-SB, SIGA-SB4, SIGA-IB, SIGA-IB4, SIGI-IBS, SIGA-RB, SIGA- RB4, SIGA-AB4G, SIGA-AB4GI)</td>
<td>904c/01</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1) Meet the requirements of EN 54-7:2000 at sensitivity settings 1.0%/ft, 2%/ft, 2.5%/ft, 3%/ft, and 3.5%/ft</td>
<td></td>
</tr>
<tr>
<td>2) The SIGA-LED Indicator is approved for use with the SIGA-SB and SIGA-SB4 bases</td>
<td></td>
</tr>
</tbody>
</table>

| SIGA-PHSI Intelligent Analogue Addressable Thermally Enhanced Photoelectric Smoke Detector (SIGA-SB, SIGA-SB4, SIGA-IB, SIGA-IB4, SIGI-IBS, SIGA-RB, SIGA-RB4, SIGA-AB4G, SIGA-AB4GI) | 904c/02 |
| Notes: |  |
| 1) Meet the requirements of EN 54-7:2000 at sensitivity settings 1.0%/ft, 2%/ft, 2.5%/ft, 3%/ft, and 3.5%/ft |  |
| 2) The SIGA-LED Indicator is approved for use with the SIGA-SB and SIGA-SB4 bases |  |

| SIGA2-PHSI Intelligent Photoelectric A2R Smoke and Heat Detector (SIGA-SB, SIGA-SB4, SIGA-RB, SIGA- RB4, SIGA-IB, SIGA-IB4 and SIGA-AB4G bases) | 904e/01 |
| Notes: |  |
| 1) Meet the requirements of EN 54-7:2000 at sensitivity settings 1.0%/ft, 2%/ft, 2.5%/ft, 3%/ft, and 3.5%/ft |  |
| 2) The SIGA-LED Indicator is approved for use with the SIGA-SB and SIGA-SB4 bases |  |

| SIGA-PHDI Intelligent A2R Multisensor Photo-Heat Detector (SIGA-SB, SIGA-SB4, SIGA-RB, SIGA-RB4, SIGA- IB, SIGA-IB4, SIGI-IBS and SIGA-AB4G bases) | 904e/02 |
| Notes: |  |
| 1) Meet the requirements of EN 54-7:2000 at sensitivity settings 1.0%/ft, 2%/ft, 2.5%/ft, 3%/ft, and 3.5%/ft |  |
| 2) Meet the requirements of EN 54-5 at Class A2R |  |
| 3) The SIGA-LED Indicator is approved for use with the SIGA-SB and SIGA-SB4 bases |  |

Bases:
SIGI-IBS Isolator base with switch
SIGA-SB Standard base
SIGA-SB4 Standard base with trim skirt
SIGA-RB Relay base
SIGA-RB4 Relay base with trim skirt
SIGA-IB Isolator Base
SIGA-IB4 Isolator base with 4 inch mounting adaptors
SIGA-AB4G Sounder base
SIGA-AB4GI Addressable Type A sounder base RoHS model

Accessories:
SIGA-LED Indicator

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Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-PSI</td>
<td>Intelligent Analogue Addressable Photoelectric Smoke Detector (SIGA-SB, SIGA-SB4, SIGA-IB, SIGA-IB4, SIGI-IBS, SIGA-RB, SIGA-RB4, SIGA-AB4G, SIGA-AB4GI)</td>
</tr>
<tr>
<td>SIGA2-PSI</td>
<td>Intelligent Photoelectric Smoke Detector (SIGA-SB, SIGA-SB4, SIGA-IB, SIGA-IB4, SIGI-IBS, SIGA-RB, SIGA-RB4, SIGA-AB4G)</td>
</tr>
<tr>
<td>SIGA-PDI</td>
<td>Intelligent Photoelectric Smoke Detector (SIGA-SB, SIGA-SB4, SIGA-IB, SIGA-IB4, SIGI-IBS, SIGA-RB, SIGA-RB4, SIGA-AB4G)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-7:2000 at sensitivity settings 1.0%/ft, 2%/ft, 2.5%/ft, 3%/ft, and 3.5%/ft.
2. The SIGA-LED indicator is approved for use with the SIGA-SB and SIGA-SB4 bases

Bases:
SIGI-IBS Isolator base
SIGA-SB Standard base
SIGA-SB4 Standard base with trim skirt
SIGA-RB Relay base
SIGA-RB4 Relay base with trim skirt
SIGA-IB Isolator Base
SIGA-IB4 Isolator base with 4 inch mounting adaptors
SIGA-AB4G Sounder base
SIGA-AB4GI Addressable Type A sounder base RoHS model

Accessories:
SIGA-LED Indicator

Joseph Vidulich
Tel: 941-309-8616
E-mail: joseph.vidulich@fs.utc.com • Website: www.ccs.utc.com

Certificate No: 904b-(cl-1) to EN 54-5:2000 + A1:2002

Point Heat Detectors

Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-HRSI</td>
<td>Intelligent Analogue Addressable Class A1 &amp; A2R Rate of Rise Heat Detector (SIGA-SB, SIGA-SB4, SIGA-IB, SIGA-IB4, SIGI-IBS, SIGA-RB, SIGA-RB4, SIGA-AB4G, SIGA-AB4GI)</td>
</tr>
</tbody>
</table>

LPCB Ref. No.
904d/01
904d/02
904d/03
904b/01
### PART 1: SECTION 4.1
COMMERCIAL DETECTORS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certificated Products</strong></td>
<td><strong>LPCB Ref. No.</strong></td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The SIGA-LED indicator is also approved for use with the SIGA-SB and SIGA-SB4 bases</td>
<td></td>
</tr>
<tr>
<td><strong>SIGA2-HRSI</strong></td>
<td>Intelligent A1/A2R Rate of Rise Heat Detector (SIGA-SB, SIGA-SB4, SIGA-RB, SIGA-RB4, SIGA-IB, SIGA-IB4, SIGA-AB4G bases)</td>
</tr>
<tr>
<td>904b/02</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1) The SIGA-LED indicator is also approved for use with the SIGA-SB and SIGA-SB4 bases</td>
<td></td>
</tr>
<tr>
<td><strong>SIGA-HRDI</strong></td>
<td>Intelligent A1/A2R Fixed Temperature and Rate of Rise Heat Detector (SIGA-SB, SIGA-SB4, SIGA-RB, SIGA-RB4, SIGA-IB, SIGA-IB4, SIGI-IBS and SIGA-AB4G bases)</td>
</tr>
<tr>
<td>904b/03</td>
<td></td>
</tr>
<tr>
<td><strong>Bases:</strong></td>
<td></td>
</tr>
<tr>
<td>SIGI-IBS</td>
<td>Isolator base</td>
</tr>
<tr>
<td>SIGA-SB</td>
<td>Standard base</td>
</tr>
<tr>
<td>SIGA-SB4</td>
<td>Standard base with trim skirt</td>
</tr>
<tr>
<td>SIGA-RB</td>
<td>Relay base</td>
</tr>
<tr>
<td>SIGA-RB4</td>
<td>Relay base with trim skirt</td>
</tr>
<tr>
<td>SIGA-IB</td>
<td>Isolator Base</td>
</tr>
<tr>
<td>SIGA-IB4</td>
<td>Isolator base with 4 inch mounting adaptors</td>
</tr>
<tr>
<td>SIGA-AB4G</td>
<td>Sounder base</td>
</tr>
<tr>
<td>SIGA-AB4GI</td>
<td>Addressable Type A sounder base RoHS model</td>
</tr>
<tr>
<td><strong>Accessories:</strong></td>
<td></td>
</tr>
<tr>
<td>SIGA-LED</td>
<td>Indicator</td>
</tr>
</tbody>
</table>

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**V-GREAT GLOBAL CORPORATION**
Second Floor, Capital City, Independence Avenue, P O Box 1008, Victoria, Mahe, Seychelles
Tel: 008613581542023
E-mail: vgreatech@hotmail.com


<table>
<thead>
<tr>
<th><strong>Smoke detector</strong></th>
<th><strong>Certificated Products</strong></th>
<th><strong>LPCB Ref. No.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VG-6623</strong></td>
<td>Conventional Optical Smoke Detector (VG-6611 base)</td>
<td>1174a/o1</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7: 2000 at default sensitivity setting only</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VG-6627</strong></td>
<td>Addressable Optical Smoke Detector (VG-6617 base)</td>
<td>1174a/o2</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-7:2000 at the following sensitivities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mode 0 (High)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mode 1 (Factory Setting)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mode 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mode 3 (Low)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bases**

| **VG-6611** | |
| **VG-6617** | Addressable mounting base |


<table>
<thead>
<tr>
<th><strong>Heat Detector</strong></th>
<th><strong>Certificated Products</strong></th>
<th><strong>LPCB Ref. No.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VG-6633</strong></td>
<td>Conventional Heat Detector (VG-6611 base)</td>
<td>1174b/01</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-5: 2000 at class A2R</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VG-6637</strong></td>
<td>Addressable Heat Detector (VG-6617 base)</td>
<td>1174b/02</td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

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Note:
1. Meets the requirements of EN 54-5:2000 at class A1R and A2

Bases
VG-6611
VG-6617  Addressable mounting base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

Note:
1) Meets the requirements of EN 54-5:2000 at Class A1R and A2
2) Meets the requirements of EN 54-7:2000 at the following sensitivity settings
   - Smoke Mode 2 and A1R
   - Smoke Mode 2 and A2
   - Smoke Mode 2 (Smoke only), heat disabled

Bases
VG-6617  Addressable mounting base

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Smoke Detectors
Certificated Products

FX-502/FIREMAX  Conventional 2 Wire Photoelectric Smoke Detector (P/N852001 base)
FX-502L/FIREMAX Conventional 2 Wire Photoelectric Smoke Detector with Remote LED Output (P/N854001 base)
FX-504/FIREMAX  Conventional 4 Wire Photoelectric Smoke Detector (P/N854001 base)

Bases
P/N852001 2-Wire detector base
P/N854001 4-Wire detector base


Multi-Sensor/Multi-Criteria Detectors
Certificated Products

FX-802/FIREMAX  Conventional 2 Wire Photoelectric Smoke and Heat Detector (P/N852001 base)
FX-804/FIREMAX  Conventional 4 Wire Photoelectric Smoke and Heat Detector (P/N854001 base)

Bases
P/N854001 4-Wire detector base
P/N852001 2-Wire detector base
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COMMERCIAL DETECTORS


**Heat Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>512d/01</td>
<td>FX-702/FIREMAX Conventional 2 Wire 24VDC Class A2S Fixed Temperature and Rate-of-rise Heat Detector (P/N852001 base)</td>
</tr>
<tr>
<td>512d/05</td>
<td>FX-704/FIREMAX Conventional 4 wire 12VDC Class A2S Fixed Temperature and Rate-of-rise Heat Detector (P/N854001 base)</td>
</tr>
</tbody>
</table>

**Bases**

- P/N854001 4-Wire detector base
- P/N852001 2-Wire detector base

VIVA ELEKTRONIK SISTEMLER
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Tel: 0090 549 797 70 80
E-mail: info@vivafire.com • Website: www.vivafire.com


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426B/01</td>
<td>VI 200-T Intelligent Addressable Heat Detector (DZ-912 Base) Notes: Meets the requirements of EN 54-5 for class A2</td>
</tr>
</tbody>
</table>

**Base**

DZ-912


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426c/01</td>
<td>VI 200-O Intelligent Addressable Smoke Detector (DZ-912 Base) Notes: Meets the requirements of EN 54-7 for 1 sensitivity setting</td>
</tr>
</tbody>
</table>

Wagner Group GmbH
Schleswigstraße 5, D-30853 Langenhagen, Germany
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E-mail: info@wagner.de • Website: www.wagner.de

Certificate No: 524c to EN 54-20: 2006

**Aspirating Smoke Detectors**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>524c/01</td>
<td>TITANUS PRO-SENS Notes: Approval of the detector is conditional upon the following requirements:</td>
</tr>
</tbody>
</table>

1. For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. System design, installation and commissioning shall be performed in accordance with the manufacturer’s installation guide, associated manuals and design software TF-SC-1.
3. The detector shall be installed with sampling pipe conforming to EN 61386-1,
2. Approved detector configurations (Class A, Class B and Class C):
   - TP-1/a (standard version, no bargraph display, 1 alarm, not available for networking)
   - TP-1-F/a (deep freeze version, no bargraph display, 1 alarm, not available for networking)
   - TP-1-SL (silent version, no bargraph display, 1 alarm, not available for networking)

3. The approved detector must incorporate one or two of the following detector modules:
   - DM-TP-01-L (standard version, sensitivity of 0.015%/m)
   - DM-TP-01-L-F (deep freeze version, sensitivity of 0.015%/m)
   - DM-TP-10-L (standard version, sensitivity of 0.10%/m)
   - DM-TP-10-L-F (deep freeze version, sensitivity of 0.10%/m)
   - DM-TP-50-L (standard version, sensitivity of 0.50%/m)
   - DM-TP-50-L-F (deep freeze version, sensitivity of 0.50%/m)

Notes:
1. Approval of the detector is conditional upon the following requirements:
   - For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
   - System design, installation and commissioning shall be performed in accordance with the manufacturer’s installation guide, associated manuals and design software TF-SC-1.
   - The detector shall be installed with sampling pipe conforming to EN 61386-1, to at least Class 1131.

2. Approved detector configurations (Class A, Class B and Class C):
   - TT-1/a (standard version, bargraph display, 3 alarms, prepared for networking)
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COMMERCIAL DETECTORS

Certificated Products

- TT-1-F/a (deep freeze version, bargraph display, 3 alarms, prepared for networking)
- TT-1-SL (silent version, bargraph display, 3 alarms, prepared for networking)

3. The approved detector must incorporate one or two of the following detector modules:
   - DM-TT-01-L (standard version, sensitivity of 0.015%/m)
   - DM-TT-01-L-F (deep freeze version, sensitivity of 0.015%/m)
   - DM-TT-10-L (standard version, sensitivity of 0.10%/m)
   - DM-TT-10-L-F (deep freeze version, sensitivity of 0.10%/m)
   - DM-TT-50-L (standard version, sensitivity of 0.50%/m)
   - DM-TT-50-L-F (deep freeze version, sensitivity of 0.50%/m)

Notes:
1. Approval of the detector is conditional upon the following requirements:
   - For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
   - System design, installation and commissioning shall be performed in accordance with the manufacturer's installation guide, associated manuals and design software TF-SC-1.
   - The detector shall be installed with sampling pipe conforming to EN 61386-1, to at least Class 1131.

2. Approved detector configurations, sensitivity of 0.10%/m (Class A, Class B and Class C):
   - DM-TM-10 (standard version)
   - DM-TM-R-10 (version with ROOM IDENT)
   - DM-TM-B-10 (version with bargraph display)
   - DM-TM-RB-10 (version with ROOM IDENT, bargraph display)
   - DM-TM-Z-10 (version with redundancy fan)
   - DM-TM-ZB-10 (version with redundancy fan, bargraph display)
   - DM-TM-10-F (deep freeze version)
   - DM-TM-B-10-F (version with bargraph display, deep freeze)
   - DM-TMV-10 (version with 2 stages of alarm)
   - DM-TMV-10 (version with 2 stages of alarm, ROOM IDENT)
   - DM-TMV-B-10 (version with 2 stages of alarm, bargraph display)
   - DM-TMV-R-10 (version with 2 stages of alarm, ROOM IDENT, bargraph display)
   - DM-TMV-B-10 (version with 2 stages of alarm, bargraph display, deep freeze)
   - DM-MB-TM-10 (version without fan to be used as detector box)
   - DM-MB-TM-B-10 (version without fan to be used as detector box, bargraph display)

3. Approved detector configurations, sensitivity of 0.50%/m (Class A, Class B and Class C):
   - DM-TM-50 (standard version)
   - DM-TM-R-50 (version with ROOM IDENT)
   - DM-TM-B-50 (version with bargraph display)
   - DM-TM-RB-50 (version with ROOM IDENT, bargraph display)
   - DM-TM-Z-50 (version with redundancy fan)
   - DM-TM-ZB-50 (version with redundancy fan, bargraph display)
   - DM-TM-50-F (deep freeze version)
   - DM-TM-B-50-F (version with bargraph display, deep freeze)
   - DM-TMV-50 (version with 2 stages of alarm)
   - DM-TMV-50 (version with 2 stages of alarm, ROOM IDENT)
   - DM-TMV-R-50 (version with 2 stages of alarm, ROOM IDENT, bargraph display)
   - DM-TMV-B-50 (version with 2 stages of alarm, bargraph display, deep freeze)
   - DM-MB-TM-50 (version without fan to be used as detector box)
   - DM-MB-TM-B-50 (version without fan to be used as detector box, bargraph display)
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

Notes:
1. Approval of the detector is conditional upon the following requirements:
   • For compliance with Clause 5.10 of EN 54-20: 2006, the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
   • System design, installation and commissioning shall be performed in accordance with the manufacturer’s installation guide, associated manuals and design software TF-SC-1.
   • The detector shall be installed with sampling pipe conforming to EN 61386-1, to at least Class 1131.

2. Approved detector configurations (Class A, Class B and Class C):
   • TR1-10 (placed in a ’1U’ housing, sensitivity of 0.10%/m)
   • TR1-50 (placed in a ’1U’ housing, sensitivity of 0.50%/m)
   • TR2-10 (placed in a ’2U’ housing, sensitivity of 0.10%/m)
   • TR2-50 (placed in a ’2U’ housing, sensitivity of 0.50%/m)

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E-mail: rock@wizmart.com • Website: http://wizmart.biz/


Heat Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163g/01</td>
<td>NB380-H2 2-Wire Conventional Heat Detector (972913 Base)</td>
<td>1. Meets the requirement of Class A1R</td>
</tr>
<tr>
<td>1163g/02</td>
<td>NB380-H2L 2-Wire Conventional Heat Detector with Remote LED Output (972914 Base)</td>
<td>1. Meets the requirement of Class A1R</td>
</tr>
<tr>
<td>1163g/03</td>
<td>NB380-H4R 4-Wire Conventional Heat Detector with Relay Output (972915 Base)</td>
<td>1. Meets the requirement of Class A1R</td>
</tr>
<tr>
<td>1163g/04</td>
<td>NB380F-H2 2-Wire Conventional Heat Detector (LED Flashes when Quiescent) (972913 Base)</td>
<td>1. Meets the requirement of Class A1R</td>
</tr>
<tr>
<td>1163g/05</td>
<td>NB380F-H2L 2-Wire Conventional Heat Detector with Remote LED Output (LED Flashes when Quiescent) (972914 Base)</td>
<td>1. Meets the requirement of Class A1R</td>
</tr>
<tr>
<td>1163g/06</td>
<td>NB380F-H4R 4-Wire Conventional Heat Detector with Relay Output (LED Flashes when Quiescent) (972915 Base)</td>
<td>1. Meets the requirement of Class A1R</td>
</tr>
</tbody>
</table>

Bases
972913 Low profile 100mm diameter base
972914 Low profile 100mm diameter base with remote LED Connection
972915 Low profile 100mm diameter base w 4 wire


Smoke Detectors
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163h/01</td>
<td>NB380-S2 2-Wire Conventional Smoke Detector (972913 Base)</td>
<td></td>
</tr>
<tr>
<td>1163h/02</td>
<td>NB380-S2L 2-Wire Conventional Smoke Detector with Remote LED Output (972914 Base)</td>
<td></td>
</tr>
<tr>
<td>1163h/03</td>
<td>NB380-S4R 4-Wire Conventional Smoke Detector with Relay Output (972915 Base)</td>
<td></td>
</tr>
<tr>
<td>1163h/04</td>
<td>NB380F-S2 2-Wire Conventional Smoke Detector (LED Flashes when Quiescent) (972913 Base)</td>
<td></td>
</tr>
<tr>
<td>1163h/05</td>
<td>NB380F-S2L 2-Wire Conventional Smoke Detector with Remote LED Output (LED Flashes when Quiescent) (972914 Base)</td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Commercial Detectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163h/06</td>
<td>NB380F-S4R 4-Wire Conventional Smoke Detector with Relay Output (LED Flashes when Quiescent) (972915 Base)</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>972913: Low profile 100mm diameter base</td>
</tr>
<tr>
<td></td>
<td>972914: Low profile 100mm diameter base with remote LED Connection</td>
</tr>
<tr>
<td></td>
<td>972915: Low profile 100mm diameter base 4 wire</td>
</tr>
</tbody>
</table>


Multi-Sensor/Multi-Criteria Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Commercial Detectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1163j/01</td>
<td>NB380-SH2 2-Wire Conventional Smoke and Heat Detector (972913 Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of Class A2</td>
</tr>
<tr>
<td>1163j/02</td>
<td>NB380-SH2L 2-Wire Conventional Smoke and Heat Detector with Remote LED Output (972914 Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of Class A2</td>
</tr>
<tr>
<td>1163j/03</td>
<td>NB380-SH4R 4-Wire Conventional Smoke and Heat Detector with Relay Output (972915 Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of Class A2</td>
</tr>
<tr>
<td>1163j/04</td>
<td>NB380F-SH2 2-Wire Conventional Smoke and Heat Detector (LED Flashes when Quiescent) (972913 Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of Class A2</td>
</tr>
<tr>
<td>1163j/05</td>
<td>NB380F-SH2L 2-Wire Conventional Smoke and Heat Detector with Remote LED Output (LED Flashes when Quiescent) (972914 Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of Class A2</td>
</tr>
<tr>
<td>1163j/06</td>
<td>NB380F-SH4R 4-Wire Conventional Smoke and Heat Detector with Relay Output (LED Flashes when Quiescent) (972915 Base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of Class A2</td>
</tr>
</tbody>
</table>

Bases

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>972913: Low profile 100mm diameter base</td>
</tr>
<tr>
<td></td>
<td>972914: Low profile 100mm diameter base with remote LED Connection</td>
</tr>
<tr>
<td></td>
<td>972915: Low profile 100mm diameter base 4 wire</td>
</tr>
</tbody>
</table>

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Certificate No: 305e to EN 54-20: 2006
Certificate No: 305d to EN 54-20: 2006
Certificate No: 305g to EN 54-20: 2006

Aspirating Smoke Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Commercial Detectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>305d/01</td>
<td>VESDA VLF-250-xx (VLF-250-01NF) high sensitivity incorporating the following ancillary equipment:</td>
</tr>
<tr>
<td></td>
<td>- VIC-010 VESDAnet network card</td>
</tr>
<tr>
<td></td>
<td>- VIC-020 Multifunction control card</td>
</tr>
<tr>
<td></td>
<td>- VIC-030 Multifunction control card</td>
</tr>
</tbody>
</table>
### Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRT-V00 Remote VLF display (with 7 relays)</td>
<td></td>
</tr>
<tr>
<td>VRT-W00 Remote VLF display (no relays)</td>
<td></td>
</tr>
<tr>
<td>VRT-500 Remote relay unit (with 7 relays)</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLF product guide (07208).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. xx denotes alternative language version where xx (range 00 to 99) designates the language of the product labels.
7. Alternative model number with suffix* as indicated, intended for French market.
8. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

### VESDA VLF-500-xx (VLF-500-01NF*) high sensitivity aspirating smoke detector

<table>
<thead>
<tr>
<th>Incorporating the following ancillary equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- VIC-010 VESDAnet network card</td>
</tr>
<tr>
<td>- VIC-020 Multifunction control card</td>
</tr>
<tr>
<td>- VIC-030 Multifunction control card</td>
</tr>
<tr>
<td>- VRT-V00 Remote VLF display (with 7 relays)</td>
</tr>
<tr>
<td>- VRT-W00 Remote VLF display (no relays)</td>
</tr>
<tr>
<td>- VRT-500 Remote relay unit (with 7 relays)</td>
</tr>
</tbody>
</table>

**Notes:**
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLF product guide (07209).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. xx denotes alternative language version where xx (range 00 to 99) designates the language of the product labels.
7. Alternative model number with suffix* as indicated, intended for French market.
8. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

### VESDA VLC High sensitivity aspirating smoke detector

<table>
<thead>
<tr>
<th>Approved configurations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- VLC-500 (VLF-50000-NF*) VLC Relays only (RO) version</td>
</tr>
<tr>
<td>- VLC-505 (VLF-50500-NF*) VLS VESDAnet (VN) version</td>
</tr>
<tr>
<td>- VLC-400 (VLF-400-NF*) VLC Apollo (AP) version</td>
</tr>
<tr>
<td>- VLC-700 (V01519.F0*) VLC ESSER (EB) version</td>
</tr>
<tr>
<td>- VLC-800 (VLF-800-NF*) VLC Tyco (MX) version</td>
</tr>
</tbody>
</table>

**Approved remote units with the VLC-505 VESDAnet (VN) version:**
- VRT-J00 Remote VLC display (with 7 relays)
- VRT-K00 Remote VLC display (no relays)
- VRT-500 Remote relay unit (with 7 relays)

**Notes:**
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLC product guides (10280 [VLC-500 & VLC-500], 03494 [VLC-400], 09411 [VLC-700], 09515 [VLC-800]).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).

6. Alternative model numbers with suffix* as indicated, intended for French market.

7. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

VESDA VLP High sensitivity aspirating smoke detector

Approved Configurations:
- VLP-012 (VLP-01200-NF*) VLP detector with Display & Programmer
- VLP-002 (VLP-00200-NF*) VLP detector with Display
- VLP-400 (VLP-00000-NF*) VLP detector with Fire/OK LEDs only
- VLP-401 (VLP-00100-NF*) VLP detector with Programmer & Fire/OK LEDs
- VLP-100 VLP detector with OEM cover

Approved remote units:
- VRT-100 Remote Programmer
- VRT-200 Remote VLP Display unit (with 7 relays)
- VRT-300 VESDAnet socket
- VRT-500 Remote Relay unit (with 7 relays)
- VRT-600 Remote VLP Display unit (without relays)

Notes:
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLP product guide (10278).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. Alternative model numbers with suffix* as indicated, intended for French market.
7. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

VESDA VLS High sensitivity aspirating smoke detector

Approved Configurations:
- VLS-600 (VLS-20000-NF*) VLS with 7 relays and Fire/OK LEDs
- VLS-204 (VLS-20400-NF*) VLS with 7 Relays and Display Module
- VLS-214 (VLS-21400-NF*) VLS with 7 Relays, Display and Program Module
- VLS-700 (VLS-30000-NF*) VLS with 12 relays and Fire/OK LEDs
- VLS-304 (VLS-30400-NF*) VLS with 12 Relays and Display Module
- VLS-314 (VLS-31400-NF*) VLS with 12 Relays, Display and Program Module
- VLS-100 VLS with 7 Relays and OEM cover
- VLS-500 VLS with 12 Relays and OEM cover

Approved Remote Units:
- VRT-400 Remote Scanner Display with 7 relays
- VRT-700 Remote Scanner Display with no relays
- VRT-800 Remote Scanner Display with 12 relays
- VRT-900 Remote Scanner Relays -12 relays
- VRT-E00 Remote Scanner Relays - 7 relays

Notes:
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLS product guide (10279).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. Alternative model numbers with suffix* as indicated, intended for French market.
7. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

VESDA VLF-250-xx (VLF- Incorporating the following ancillary equipment:

Notes:
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>250-01NF*</td>
<td>20 Oct 2020</td>
</tr>
<tr>
<td>-</td>
<td>VIC-010 VESDAnet network card</td>
</tr>
<tr>
<td>-</td>
<td>VIC-020 Multifunction control card</td>
</tr>
<tr>
<td>-</td>
<td>VIC-030 Multifunction control card</td>
</tr>
<tr>
<td>-</td>
<td>VRT-V00 Remote VLF display (with 7 relays)</td>
</tr>
<tr>
<td>-</td>
<td>VRT-W00 Remote VLF display (no relays)</td>
</tr>
<tr>
<td>-</td>
<td>VRT-500 Remote relay unit (with 7 relays)</td>
</tr>
</tbody>
</table>

**Notes:**
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLF product guide (07208).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. xx denotes alternative language version where xx (range 00 to 99) designates the language of the product labels.
7. Alternative model number with suffix* as indicated, intended for French market.
8. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VESDA VLF-500-xx (VLF-500-01NF*)</td>
<td>high sensitivity aspirating smoke detector</td>
</tr>
<tr>
<td>Incorporating the following ancillary equipment:</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>VIC-010 VESDAnet network card</td>
</tr>
<tr>
<td>-</td>
<td>VIC-020 Multifunction control card</td>
</tr>
<tr>
<td>-</td>
<td>VIC-030 Multifunction control card</td>
</tr>
<tr>
<td>-</td>
<td>VRT-V00 Remote VLF display (with 7 relays)</td>
</tr>
<tr>
<td>-</td>
<td>VRT-W00 Remote VLF display (no relays)</td>
</tr>
<tr>
<td>-</td>
<td>VRT-500 Remote relay unit (with 7 relays)</td>
</tr>
</tbody>
</table>

**Notes:**
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLF product guide (07209).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. xx denotes alternative language version where xx (range 00 to 99) designates the language of the product labels.
7. Alternative model number with suffix* as indicated, intended for French market.
8. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VESDA VLC High sensitivity aspirating smoke detector</td>
<td>Approved configurations:</td>
</tr>
<tr>
<td>-</td>
<td>VLC-500 (VLF-50000-NF*) VLC Relays only (RO) version</td>
</tr>
<tr>
<td>-</td>
<td>VLC-505 (VLF-50500-NF*) VESDAnet (VN) version</td>
</tr>
<tr>
<td>-</td>
<td>VLC-400 (VLF-400-NF*) VLC Apollo (AP) version</td>
</tr>
<tr>
<td>-</td>
<td>VLC-700 (801519.F0*) VLC Eser (EB) version</td>
</tr>
<tr>
<td>-</td>
<td>VLC-800 (VLF-800-NF*) VLC Tyco (MX) version</td>
</tr>
<tr>
<td>Approved remote units with the VESDA VLF-500 VESDAnet (VN) version:</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>VRT-J00 Remote VLC display (with 7 relays)</td>
</tr>
<tr>
<td>-</td>
<td>VRT-K00 Remote VLC display (no relays)</td>
</tr>
<tr>
<td>-</td>
<td>VRT-500 Remote relay unit (with 7 relays)</td>
</tr>
</tbody>
</table>

**Notes:**
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLC product guides (10280 [VLC-500 & VLC-505], 03494 [VLC-400], 09411 [VLC-700]).
### Part 1: Section 4.1

#### Commercial Detectors

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>VESDA VLP High sensitivity aspirating smoke detector</td>
<td>305d/09</td>
<td>Approved Configurations:</td>
</tr>
<tr>
<td>VLP-012 (VLP-01200-NF*) VLP detector with Display &amp; Programmer</td>
<td></td>
<td>1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.</td>
</tr>
<tr>
<td>VLP-002 (VLP-00200-NF*) VLP detector with Display</td>
<td></td>
<td>2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.</td>
</tr>
<tr>
<td>VLP-400 (VLP-00000-NF*) VLP detector with Fire/OK LEDs only</td>
<td></td>
<td>3. System design, installation and commissioning shall be performed in accordance with the VESDA VLP product guide (10278).</td>
</tr>
<tr>
<td>VLP-401 (VLP-00100-NF*) VLP detector with Programmer &amp; Fire/OK LEDs</td>
<td></td>
<td>4. Remote display, programmer and relay modules are also approved in a 19 sub rack.</td>
</tr>
<tr>
<td>VLP-100 VLP detector with OEM cover</td>
<td></td>
<td>5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).</td>
</tr>
<tr>
<td>Approved remote units:</td>
<td></td>
<td>6. Alternative model numbers with suffix* as indicated, intended for French market.</td>
</tr>
<tr>
<td>VRT-100 Remote Programmer</td>
<td></td>
<td>7. When installing pipework systems containing in-line components, guidance from the 18336 “Xtralis Open-flow In-Line Components” document shall be sought and the recommendations followed.</td>
</tr>
<tr>
<td>VRT-200 Remote VLP Display unit (with 7 relays)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-300 VESDAnet socket</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-500 Remote Relay unit (with 7 relays)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-600 Remote VLP Display unit (without relays)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VESDA VLS High sensitivity aspirating smoke detector</td>
<td>305d/10</td>
<td>Approved Configurations:</td>
</tr>
<tr>
<td>VLS-600 (VLS-20000-NF*) VLS with 7 relays and Fire/OK LEDs</td>
<td></td>
<td>1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.</td>
</tr>
<tr>
<td>VLS-204 (VLS-20400-NF*) VLS with 7 Relays and Display Module</td>
<td></td>
<td>2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.</td>
</tr>
<tr>
<td>VLS-214 (VLS-21400-NF*) VLS with 7 Relays, Display and Program Module</td>
<td></td>
<td>3. System design, installation and commissioning shall be performed in accordance with the VESDA VLS product guide (10279).</td>
</tr>
<tr>
<td>VLS-700 (VLS-30000-NF*) VLS with 12 relays and Fire/OK LEDs</td>
<td></td>
<td>4. Remote display, programmer and relay modules are also approved in a 19 sub rack.</td>
</tr>
<tr>
<td>VLS-304 (VLS-30400-NF*) VLS with 12 Relays and Display Module</td>
<td></td>
<td>5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).</td>
</tr>
<tr>
<td>VLS-314 (VLS-31400-NF*) VLS with 12 Relays, Display and Program Module</td>
<td></td>
<td>6. Alternative model numbers with suffix* as indicated, intended for French market.</td>
</tr>
<tr>
<td>VLS-100 VLS with 7 Relays and OEM cover</td>
<td></td>
<td>7. When installing pipework systems containing in-line components, guidance from the 18336 “Xtralis Open-flow In-Line Components” document shall be sought and the recommendations followed.</td>
</tr>
<tr>
<td>VLS-500 VLS with 12 Relays and OEM cover</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approve Remote Units:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-400 Remote Scanner Display with 7 relays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-700 Remote Scanner Display with no relays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-800 Remote Scanner Display with 12 relays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-900 Remote Scanner Relays - 12 relays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VRT-E00 Remote Scanner Relays - 7 relays</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.1
COMMERCIAL DETECTORS

Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
</table>
| XCC-010 (XCC-01000-NF) | Xtralis Class C aspirating smoke detector | From the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.  
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming with the requirements of EN 54-4.  
2. System design, installation and commissioning shall be performed in accordance with the Xtralis Class C XCC-010 product guide (Document 14159).  
3. The device is approved for sensitivity Class C.  
4. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).  
5. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.  
6. XCC-01000-NF alternative model number intended for French market. |
| XCC-010 (XCC-01000-NF) | Xtralis Class C aspirating smoke detector | 305e02 |
| XCC-011 (XCC-01100-NF) | Xtralis Class C aspirating smoke detector | From the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.  
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming with the requirements of EN 54-4.  
2. System design, installation and commissioning shall be performed in accordance with the Xtralis Class C XCC-011 product guide (Document 19137).  
3. The device is approved for sensitivity Class C.  
4. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).  
5. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.  
6. XCC-01100-NF alternative model number intended for French market. |
| XCC-011 (XCC-01100-NF) | Xtralis Class C aspirating smoke detector | 305e03 |
| VLI-880 | VESDA Laser Industrial aspirating smoke detector | Incorporating the following ancillary equipment:  
- VRT-Q00 Remote VLI display (with 7 relays)  
- VRT-T00 Remote VLI display (no relays)  
- VRT-500 Remote relay unit (with 7 relays)  
Notes:  
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming with the requirements of EN 54-4.  
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.  
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLI product guide (18500). |

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PART 1: SECTION 4.1
COMMERCIAL DETECTORS

4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. VLI-88000-NF is the alternative model number intended for French market.
7. When installing pipework systems containing in-line components, guidance from the 18336 Open-flow In-Line Components* document shall be sought and the recommendations followed.

VLI-885
(VLI-88500-NF) VESDA Laser Industrial aspirating smoke detector with VESDAnet card
Incorporating the following ancillary equipment:
- VRT-Q00 Remote VLI display (with 7 relays)
- VRT-T00 Remote VLI display (no relays)
- VRT-500 Remote relay unit (with 7 relays)

Notes:
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity must be determined using ASPIRE2.
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLI product guide (18500).
4. Remote display, programmer and relay modules are also approved in a 19 sub rack.
5. The detector is also approved when used with in-line filter models, E700-FILASSY and VSP-850 in accordance with the appropriate VESDA application guide (10856 or 17785).
6. VLI-88500-NF alternative model number intended for French market.
7. When installing pipework systems containing in-line components, guidance from the 18336 Open-flow In-Line Components* document shall be sought and the recommendations followed.

VLQ-100 (VLQ-10000-NF) VESDA VLQ Aspirating Smoke Detector
Notes:
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity is provided in the VESDA VLQ Product Guide (26104).
3. System design, installation and commissioning shall be performed in accordance with the VESDA VLQ Product Guide (26104).
4. The detector is also approved when used with in-line filter model, VSP-850 in accordance with the VESDA application guide (17785).
5. The detector is also approved when used with the ECO gas detection module when fitted with the ECO-LQ Adaptor.
6. VLQ-10000-NF is the alternative model number intended for French market (Product Guide 26746).
7. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

ILQ-100 (ILQ-10000-NF) ICAM ILQ Aspirating Smoke Detector
Notes:
1. For compliance with clause 5.10 of EN 54-20 the detector shall be supplied with power from a power supply conforming to the requirements of EN 54-4.
2. The device is approved for sensitivity Classes A, B and C. The Class of any pipe/hole configuration and detector sensitivity is provided in the ICAM ILQ Product Guide (26105).
3. System design, installation and commissioning shall be performed in accordance with the ICAM ILQ Product Guide (26105).
4. The detector is also approved when used with in-line filter model, VSP-850 in accordance with the application guide (17785).
5. The detector is also approved when used with the ECO gas detection module when fitted with the ECO-LQ Adaptor.
6. ILQ-10000-NF is the alternative model number intended for French market (Product Guide 26749).
7. When installing pipework systems containing in-line components, guidance from the 18336 "Xtralis Open-flow In-Line Components" document shall be sought and the recommendations followed.

Accessories:
E700-FILASSY In line filter
Yingkou Tiancheng Fire Protection Equipment Co., Ltd
No. 11-2, Kechechang Xili., Xishi District, Yingkou, Pilot Free Trade Zone, Liaoning 115004, China
Tel: 0417-2607119 • Fax: 0417-2867119
E-mail: wayne@tcfiretech.com • Website: www.tcfiretech.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>JTY-GM-TC5161</th>
<th>Addressable Photoelectric Smoke Detector (TCDZ5000 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1450c/01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Base

TCDZ5000 – Standard Base

Certificate No: 1450d to EN 54-5:2000+ A1; 2002

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>JTW-ZOM-TC5162</th>
<th>Addressable Class A2R Rate of Rise and Fixed Temperature Heat Detector (TCDZ5000 Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1450d/01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Zeta Alarms Limited
Detection House, 72-78 Morfa Road, Swansea SA1 2EN, United Kingdom
Tel: +44 (0)1792 455175 • Fax: +44 (0)1792 455176
E-mail: ghassan@zetaalarmsystems.com • Website: www.zetaalarmsystems.com


Point Smoke Detectors

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>MKII-OP</th>
<th>MKII-AOP</th>
</tr>
</thead>
<tbody>
<tr>
<td>330n/01</td>
<td>Fyreye II Conventional optical smoke detector (FE-CB/D base, FE-CB/S base and FE-CB base)</td>
<td>Fyreye II Addressable optical smoke detector (MKII-CB/D base and MKII-CB base)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-7:2000 at Smoke Sensitivity setting Range: 0.08%dB – 0.12%dB</td>
<td>1) Meets the requirements of EN 54-7:2000 at Smoke Sensitivity setting Range: 0.09%dB – 0.11%dB</td>
</tr>
</tbody>
</table>

Bases:
80-050 FE CB Common mounting base
80-052 FE DB Diode mounting base
80-054 FE RB Relay mounting base
80-080 FEA RB Addressable relay mounting base
80-090 FE IB Negative switching isolating base
FE-CB/D deep base
FE-CB/S shallow base
FE-CB standard base
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COMMERCIAL DETECTORS


#### Point Heat Detectors
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>330q/01</td>
<td>MKII-HF Fyre II Conventional A2S heat detector (FE-CB/D base, FE-CB/S base and FE-CB base)</td>
</tr>
<tr>
<td>330q/02</td>
<td>MKII-HR Fyre II Conventional A2R heat detector (FE-CB/D base, FE-CB/S base and FE-CB base)</td>
</tr>
<tr>
<td>330q/03</td>
<td>MKII-AHF Fyre II Addressable A2S heat detector (MKII-CB/D base and MKII-CB base)</td>
</tr>
<tr>
<td>330q/04</td>
<td>MKII-AHR Fyre II Addressable A1R heat detector (MKII-CB/D base and MKII-CB base)</td>
</tr>
<tr>
<td>330q/05</td>
<td>MKII-AHF/CS90 Fyre II Addressable Fixed Heat Detector 90 Degrees (MKII-CB/D base and MKII-CB base)</td>
</tr>
<tr>
<td>330q/06</td>
<td>MKII-HF/CS90 Fyre II Conventional Fixed Heat Detector 90 Degrees (MKII-CB/D base and MKII-CB base)</td>
</tr>
</tbody>
</table>

**Bases:**
- 80-050 FE CB Common mounting base
- 80-052 FE DB Diode mounting base
- 80-054 FE RB Relay mounting base
- 80-080 FEA RB Addressable relay mounting base
- 80-090 FE IB Negative switching isolating base
- FE-CB/D deep base
- FE-CB/S shallow base
- FE-CB standard base
- MKII-CB/D Deep base
- MKII-CB Shallow base


#### Multi-Sensor/Multi-Criteria Detectors
**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>330p/01</td>
<td>MKII-OH Fyre II Conventional optical and heat detector (FE-CB/D base, FE-CB/S base and FE-CB base)</td>
</tr>
<tr>
<td>330p/02</td>
<td>MKII-AOH Fyre II Addressable optical and heat detector (MKII-CB/D base and MKII-CB base)</td>
</tr>
</tbody>
</table>

**Bases:**
- FE-CB/D deep base
- FE-CB/S shallow base
- FE-CB standard base
Zhongshan Guta Fire Equipment Technology Co., Ltd
4/F 10# Xingye Road,, Huojo District, Zhongshan City, Guangdong 528400, China
Tel: 8613828765759
E-mail: strongwang@asenware.com • Website: www.guta-fire.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>AW-CSD381</th>
<th>Conventional Photo-electronic Smoke Detector (AW-BS01)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1395a/01</td>
<td></td>
<td>Meets the requirements of EN 54-7 for 1 sensitivity setting</td>
</tr>
</tbody>
</table>

Base
AW-BS01


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>AW-CTD382</th>
<th>Conventional Rate of Rise Heat Detector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1395b/01</td>
<td></td>
<td>Notes: Meets the requirements of EN 54-5 for Class A2R</td>
</tr>
</tbody>
</table>

AW-BS01 - base

Certificate No: 1330a-(cl-7) to EN 54-12: 2015

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>AW-BK901</th>
<th>Conventional Reflective Beam Detector (Asenware)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1330a/01</td>
<td></td>
<td>Notes: 1. Meets the requirements of EN 54-12: 2015 at the following sensitivity settings:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Level 1: 2.6 dB High sensitivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Level 2: 3.8 dB Medium sensitivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Level 3: 5.8 dB Low sensitivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Suitable for use at the following separation ranges:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Span 1: 8 to 20 meters Short Path (1 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Span 2: 20 to 40 meters Short Path (1 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Span 3: 40 to 70 meters Normal Path (4 x mirror reflector required)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Span 4: 70 to 100 meters Long Path (4 x mirror reflector required)</td>
</tr>
</tbody>
</table>

Mounting Bracket
AW-BK901-R 1 x Mirror Reflector
AW-BK901-R 4 x Mirror Reflector
Statistics show that Government initiatives, which have increased the amount of self-contained smoke alarms fitted in domestic dwellings, have had a significant impact in reducing the amount of deaths and injuries caused by fire in the UK.

In Section 1: Fire detection and fire alarm systems of the Building Regulations 2010, Document B1 Fire Safety in Dwellings it states that “All new dwelling houses shall be provided with a fire detection and fire alarm system in accordance with the relevant recommendations of BS 5839-6: 2004 to at least a Grade D, Category LD3 standard”

BS 5839-6: 2004 Grade D requires a system of one or more mains-powered smoke alarms each with an integral standby supply (i.e. battery back-up). The system may in addition incorporate one or more mains powered heat alarms, each with an integral standby supply.

LPCB’s list of approved products in this section is intended to help you select equipment that complies with these regulatory requirements. The initial approval and continued approval processes of these types of detectors are outlined in scheme document SD078.

Products listed in this section have been approved to:
- BS 5446-1: 2000 Fire detection and fire alarm devices for dwellings Part 1 Specification for smoke alarms
- BS 5446-2: 2003 Fire detection and fire alarm devices for dwellings Part 2 Specification for heat alarms
- BS 5446-3: 2005 Specification for smoke alarm kits for deaf and hard of hearing people
- EN 14604: 2005 Smoke alarm devices
- EN 50291: 2001 Electrical apparatus for the detection of Carbon monoxide in domestic premises - Test method and performance requirements
- EN 50291-1: 2010 Electrical apparatus for the detection of Carbon monoxide in domestic premises - Test method and performance requirements
- EN 50291-2: 2010 Electrical apparatus for the detection of Carbon monoxide in domestic premises - Part 2: Electrical apparatus for continuous operation in a fixed installation in recreational vehicles and similar premises including recreational craft-Additional test method and performance requirements.
- LPS1282: Issue 1 Requirements and testing procedures for combined domestic smoke and carbon monoxide detectors.

For domestic applications, care needs to be taken over the correct choice of the type of detector, its siting and the condition of batteries in order to maintain the alarm in accordance with the manufacturer’s requirements.

Further guidance is available from LPCB if required.

Audit:
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

Note:
1. EN 14604: 2005 supersedes BS 5446-1: 2000 which was withdrawn in July 2008. Information concerning the date of withdrawal of conflicting standards in the foreword to EN 14604: 2005 is incorrect. The correct data is given in the Foreword to the UK version of BS EN 14604: 2005 and gives the date of withdrawal of BS 5446: 2000 as July 2008. However, EN 14604: 2005 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 1 August 2008. It is therefore recommended that detectors are certificated to EN 14604: 2005 as soon as possible.
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

4 Fire International ApS
Sadelmagervej 27, Vejle DK7100, Denmark
Tel: +4520445168
E-mail: info@4fire-int.com • Website: www.4fire-int.com

Certificate No: 1275c-(cl-1) to EN 14604:2005/AC:2008

Smoke Alarms
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMD18-01</td>
<td>Ten Year Battery Operated Photoelectric Domestic Smoke Alarm</td>
</tr>
</tbody>
</table>

Notes:
1. This smoke alarm uses a non-replaceable battery
2. Battery types approved with this domestic smoke alarm
   - Pairdeer Lithium CR123A 3V
   - HCB Primary Lithium CR17355/CR123A
   - Energizer123 (EL123AP)

Al Tahadi Security And Safety Equipment Trading
PO Box 45668, Ind. Area 11, Sharjah, United Arab Emirates
Tel: +971 5 0868 4543 • Fax: +971 6535 9220
E-mail: Sharqawi61@yahoo.com • Website: www.tahadi-fire.com

Certificate No: 506f-(cl-1) to EN 14604:2005
Certificate No: 1529a-(cl-1) to EN 14604:2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-004</td>
<td>Omex Smoke Alarm, Battery Operated 3V, Non-Replaceable 10 Year Lithium Battery</td>
</tr>
</tbody>
</table>

Notes:
1. This smoke alarm uses a non-replaceable battery
2. Battery types approved with this domestic smoke alarm
   - Lithium Huiderui CR123A

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-005</td>
<td>Omex Smoke Alarm, 3V, User Replaceable Lithium Battery, Wireless Interconnect</td>
</tr>
</tbody>
</table>

Notes:
1. This smoke alarm uses a replaceable battery
2. Battery types approved with this domestic smoke alarm
   - Lithium Huiderui CR123A

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-015</td>
<td>Smoke Alarm, Battery Operated 3V, Non-Replaceable 10-year Lithium Battery, Wireless Interconnect</td>
</tr>
</tbody>
</table>

Notes:
1. This smoke alarm uses a non-replaceable battery
2. Battery types approved with this domestic smoke alarm
   - Lithium Huiderui CR17450

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM-BS9</td>
<td>Single Station Smoke Detector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-001</td>
<td>Battery Operated 3V, Non-Replaceable 10 Year Lithium Battery Smoke Alarm</td>
</tr>
</tbody>
</table>

Notes:

Ambest Electronics (Ningbo) Co Ltd T/A Numens
55 Yunhui Road, Yingzhou District, Ningbo, Zhejiang 315137, China
Tel: +86 574 82817218
E-mail: allen.cheng@numens.com

Certificate No: 1529a to EN 14604:2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-001</td>
<td>Battery Operated 3V, Non-Replaceable 10 Year Lithium Battery Smoke Alarm</td>
</tr>
</tbody>
</table>

Notes:

20 Oct 2020
**PART 1: SECTION 4.2**  
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>205-002 Smoke Alarm, 3V, User Replaceable Lithium Battery, Wireless Interconnect</td>
<td>1529a/02</td>
</tr>
<tr>
<td>Notes: 1. This smoke alarm uses a replaceable battery 2. Battery types approved with this domestic smoke alarm - Lithium Huiderui CR123A</td>
<td></td>
</tr>
<tr>
<td>205-004 Battery Operated 3V, Non-Replaceable 10 Year Lithium Battery Smoke Alarm</td>
<td>1529a/03</td>
</tr>
<tr>
<td>Notes: 1. This smoke alarm uses a non-replaceable battery 2. Battery types approved with this domestic smoke alarm - Lithium Huiderui CR123A</td>
<td></td>
</tr>
<tr>
<td>205-005 Smoke Alarm, 3V, User Replaceable Lithium Battery, Wireless Interconnect</td>
<td>1529a/04</td>
</tr>
<tr>
<td>Notes: 1. This smoke alarm uses a replaceable battery 2. Battery types approved with this domestic smoke alarm - Lithium Huiderui CR123A</td>
<td></td>
</tr>
<tr>
<td>205-014 Smoke Alarm, Battery Operated 3V, Non-Replaceable 10-year Lithium Battery, Wireless Interconnect</td>
<td>1529a/05</td>
</tr>
<tr>
<td>Notes: 1. This smoke alarm uses a non-replaceable battery 2. Battery types approved with this domestic smoke alarm - Lithium Huiderui CR17450</td>
<td></td>
</tr>
<tr>
<td>205-015 Smoke Alarm, Battery Operated 3V, Non-Replaceable 10-year Lithium Battery, Wireless Interconnect</td>
<td>1529a/06</td>
</tr>
<tr>
<td>Notes: 1. This smoke alarm uses a non-replaceable battery 2. Battery types approved with this domestic smoke alarm - Lithium Huiderui CR17450</td>
<td></td>
</tr>
</tbody>
</table>

---

**Castorama France**  
BP 101, 59175 Templemars, , France  
Tel: 0 810 104 104  
Website: [http://www.castorama.fr/](http://www.castorama.fr/)


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>639707 (Single unit per pack SM2I) Replaceable Battery Operated Photoelectric Smoke Alarm incorporating Alarm Silence Feature</td>
<td>904a/10</td>
</tr>
</tbody>
</table>
| Note: Battery types approved with this domestic smoke alarm: 9V DC Carbon Zinc Batteries:  
  - Eveready: 1222  
  - Gold Peak: GP1604P, GP1604S  
9V DC Alkaline Batteries:  
  - Gold Peak: GP1604A  
  - Energizer: 522  
  - Panasonic: 6AM6, 6AM-6, 6AM-6PI, 6AM6X, 6LR61 (GA)  
9V DC Lithium Batteries:  
  - Ultralife: U9VL-J-P  
  - Marsell: CR9V  
  - FDK, CP-V9UL |
| 639708 (Twin unit per pack SM2I) Replaceable Battery Operated Photoelectric Smoke Alarm incorporating Alarm Silence Feature | 904a/10 |
| Note: Battery types approved with this domestic smoke alarm: 9V DC Carbon Zinc Batteries:  
  - Eveready: 1222  
  - Gold Peak: GP1604P, GP1604S  
9V DC Alkaline Batteries:  
  - Gold Peak: GP1604A  
  - Energizer: 522  
  - Panasonic: 6AM6, 6AM-6, 6AM-6PI, 6AM6X, 6LR61 (GA) |
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Certificated Products

9V DC Lithium Batteries:
- Ultralife: U9VL-J-P
- Marsell: CR9V
- FDK: CP-V9U

Demco Industries Sdn. Bhd.
Lot 3928, Jalan Keretapi Lama, Off Jalan Kapar 5 ½ Miles, Klang, Selangor Darul Ehsan 42100, Malaysia
Tel: +60 3 3290 3333 • Fax: +60 3 3290 2288
E-mail: sales@demcoalarm.com • Website: www.demcoalarm.com

Certificate No: 1471a-(cl-2) to EN 14604: 2005/ AC:2008

Certificated Products

D-243-4 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery) 1471a/01
Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 – 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 – 9V (Alkaline) Energizer Holdings
   (f). MN1604 – 9V (Alkaline) Duracell Incorporation
   (g). GP1604A – 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
   (h). PP1604E – 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd

D-243-5 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery) 1471a/02
Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 – 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 – 9V (Alkaline) Energizer Holdings
   (f). MN1604 – 9V (Alkaline) Duracell Incorporation
   (g). GP1604A – 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
   (h). PP1604E – 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd

D-243-6 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery) 1471a/03
Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 – 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 – 9V (Alkaline) Energizer Holdings
   (f). MN1604 – 9V (Alkaline) Duracell Incorporation
   (g). GP1604A – 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
   (h). PP1604E – 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Digital Security Controls, a Division of Tyco Safety Products Canada Ltd
3301 Langstaff Road, Concord, ON L4K 4L2, Canada
Tel: (001) 905 760 3000 • Fax: (001) 905 760 3020
E-mail: dnita@tycoint.com • Website: www.dsc.com


Smoke Alarms
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSC PG4913</td>
<td>Type A Battery Operated, Wireless, Carbon Monoxide Alarm</td>
</tr>
<tr>
<td>DSC PG8913</td>
<td>Type A Battery Operated, Wireless, Carbon Monoxide Alarm</td>
</tr>
</tbody>
</table>

Notes:
1. Battery type approved with this Carbon Monoxide alarm
2. The wireless functionality is not included within the scope of the approval.
3. Only approved for use in EN mode.

1018b/01

Eltrato-Michael Slabosz
Munchener Str. 73, Essen 45145, Germany
Tel: +49-201-26980150
E-mail: einkauf@eltrato.de


Smoke Alarms
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM01</td>
<td>Ten Year Battery Operated Photoelectric Smoke Alarm</td>
</tr>
</tbody>
</table>

Notes:
1. This smoke alarm uses a non-replaceable battery.
2. The only battery types approved with this domestic smoke alarm are
   - CR17335 CR123A, 3V DC manufactured by HCB Battery Co., Ltd

1138b/02

Europasonic (UK) Ltd
11 Sherborne Street, Manchester, Manchester M3 1JS, United Kingdom
Tel: 0161 831 7879
E-mail: eurosonic@europasonic.com


Carbon Monoxide Alarm
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA1160</td>
<td>Battery Operated Type B Carbon Monoxide Alarm (branded PIFCO)</td>
</tr>
</tbody>
</table>

Note:
1. Battery types approved with this carbon monoxide alarm:
   - LR6 1.5V DC AA Alkaline Battery, Zhongyin (Ningbo) Battery Co. Ltd

1275b/01
Everday Technology Co. Limited
No.,95., Sec. 2., Ligong 1 St. Road., Letzer Industrial Park, Yilan County 26841, Taiwan ROC
Tel: +886 3 990 6099 • Fax: +862 3 990 6029
E-mail: alex.hsieh@everday.com • Website: www.everday.com

Certificate No: 512m to EN 50291-1:2010 + A1:2012

**Carbon Monoxide Alarms**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>512m/01</td>
<td>M333 Type B Battery Operated Carbon Monoxide Alarm without Drain Holes (Base Mounting Plate)</td>
</tr>
<tr>
<td>512m/02</td>
<td>M333I Type A Battery Operated Carbon Monoxide Alarm with Interconnection Function without Drain Holes (Base Mounting Plate)</td>
</tr>
<tr>
<td>512m/03</td>
<td>M333RL Type A Battery Operated Carbon Monoxide Alarm with Relay Output without Drain Holes (Base Mounting Plate)</td>
</tr>
</tbody>
</table>

**Note:**
1. Battery types approved with this carbon monoxide alarm
   - Energizer # E91 Alkaline battery
   - Energizer # L91 Lithium battery
   - GP # LR6 Lithium battery

**Base:**
Base mounting plate

---

Eyston Company Ltd
27 Zhen Tian South Road, Wei Xing Industrial Zone, Yan Tian, Feng Gang, Dongguan, Guangdong, China
Tel: +852 25573135 • Fax: +852 28970249
E-mail: emerson@eyston.com • Website: www.eyston.com

Certificate No: 679b to EN 14604: 2005

**Smoke Alarm**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>679b/03</td>
<td>SD-1982 9V Battery operated photoelectric smoke alarm with alarm silence feature</td>
</tr>
<tr>
<td>679b/05</td>
<td>SD-196H Battery operated photoelectric smoke alarm with alarm silence feature</td>
</tr>
</tbody>
</table>
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

FireAngel Safety Technology Ltd
Vanguard Centre, Sir William Lyons Road, Coventry CV4 7EZ, United Kingdom
Tel: +44 (0)2476 323232 • Fax: +44 (0)2476 693610
E-mail: Info@fireangeltech.com • Website: www.fireangeltech.com


Smoke Alarms
Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-630-XX</td>
<td>FireAngel Thermoptek Battery Operated Thermally Enhanced Photoelectric Smoke Alarm</td>
<td>651d/11</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Battery types approved with this smoke alarm:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- CR17335/T1 (EVE)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- CR123AP-Tag (Hao Cheng)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Panasonic 3V CR-2/3AZ</td>
<td></td>
</tr>
<tr>
<td>WST-630-XX</td>
<td>FireAngel Thermoptek Battery Operated Thermally Enhanced Photoelectric Smoke Alarm - with RF Transceiver Module</td>
<td>651d/12</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. The RF transmitter module is not covered within the scope of this approval</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Battery types approved with this smoke alarm:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- CR17335/T1 for alarm (EVE)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- CR123AP-Tag for alarm (Hao Cheng)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Panasonic 3V CR-2/3AZ for alarm only</td>
<td></td>
</tr>
<tr>
<td>WST-AE630-XX</td>
<td>AngelEye Thermoptek Battery Operated Thermally Enhanced Photoelectric Smoke Alarm - with RF Transceiver Module</td>
<td>651d/12</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. The RF transmitter module is not covered within the scope of this approval</td>
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<td>2. Battery types approved with this smoke alarm:</td>
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<td></td>
<td>- CR123AP-Tag for alarm (Hao Cheng)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Panasonic 3V CR-2/3AZ for alarm only</td>
<td></td>
</tr>
<tr>
<td>ST-632</td>
<td>FireAngel Thermoptek Battery Operated Thermally Enhanced Photoelectric Smoke Alarm</td>
<td>651d/13</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Battery types approved with this smoke alarm:</td>
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</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>- CR123AP-Tag (Hao Cheng)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Panasonic 3V CR-2/3AZ</td>
<td></td>
</tr>
<tr>
<td>ST-632-DE</td>
<td>FireAngel Thermoptek Battery Operated Thermally Enhanced Photoelectric Smoke Alarm</td>
<td>651d/13</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
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<td>1. Battery types approved with this smoke alarm:</td>
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<td>- CR17335/T1 (EVE)</td>
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<td>- CR123AP-Tag (Hao Cheng)</td>
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<td>- Panasonic 3V CR-2/3AZ</td>
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Additional Information

XXX, denotes Country and Language variants

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<td>Denmark variant</td>
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<td>EU</td>
<td>Generic European variant</td>
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### Smoke Alarms

#### Fireblitz Extinguisher Ltd

Units 15/17 Manford Industrial Estate, Manor Road, Erith, Kent DA8 2AJ, United Kingdom

Tel: +44 (0)1322 342238 • Fax: +44 (0)1322 331532

E-mail: sales@fireblitz.co.uk • Website: www.fireblitz.co.uk

Certificate No: 971a-(cl-2) to EN 14604:2005

<table>
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<th>Smoke Alarms</th>
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<tr>
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<td>FireHawk FHB10</td>
<td>971a/01</td>
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<td></td>
<td>FireHawk FHB10i</td>
<td>971a/02</td>
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<td>10 year battery photoelectric smoke alarm with interlink</td>
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<td>FireHawk FH250BB</td>
<td>971a/03</td>
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<td></td>
<td>Mains powered operated photoelectric smoke alarm with primary back-up battery</td>
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<td>FireHawk FH250RB</td>
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<td>Mains powered operated photoelectric smoke alarm with rechargeable lithium back-up battery</td>
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<td>FireHawk FH250LB</td>
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<td></td>
<td>Mains powered operated photoelectric smoke alarm with longlife lithium back-up battery</td>
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#### Firesafe

10 Sanderson Way, Marton, Blackpool, Lancashire FY4 4NB, United Kingdom

Tel: 01253 699500 • Fax: 01253 699550

E-mail: info@firesafe.co.uk • Website: www.firesafe.co.uk

Certificate No: 971a-(cl-5) to EN14604:2005

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<td>FRAOMBL</td>
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<td>Mains powered operated photoelectric smoke alarm with rechargeable lithium back-up battery</td>
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#### Frontier Safety Ltd UK

85 Great Portland Street, London, England W1W 7, United Kingdom

Tel: 00447708000050

E-mail: mikefrontiersafety@gmail.com • Website: www.frontierpumps.com

Certificate No: 1529a-(cl-2) to EN 14604:2005

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<tr>
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<td>FRN 205-01</td>
<td>1529a/01</td>
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<td>Smoke Alarm, Battery Operated 3V, Non-Replaceable 10 Year Lithium Battery</td>
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Notes:
### PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

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<tr>
<td>FRN 205-04 Smoke Alarm, Battery Operated 3V, Non-Replaceable 10 Year Lithium Battery</td>
<td>1529a/03</td>
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<tr>
<td>FRN 205-05 Smoke Alarm, 3V, User Replaceable Lithium Battery, Wireless Interconnect</td>
<td>1529a/04</td>
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---

**Guangdong Isafenest Co., Ltd**  
Rm402, Building 7, Tianfulai I, No 37 Changbao West Road,, Ronggui, Shunde, Foshan City, Guangdong 528305, China  
Tel: +86-757-29382335 • Fax: 0757-29293200  
E-mail: scarlett.shun@letmesmarthome.com

Certificate No: 1471a to EN 14604:2005

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**Domestic Alarms**

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<th>Certificated Products</th>
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<td>LZ-1901 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)</td>
<td>1471a/01</td>
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Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 - 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 - 9V (Alkaline) Energizer Holdings
   (f). MN1604 - 9V (Alkaline) Duracell Incorporation
   (g). GP1604A - 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
   (h). PP1604E - 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd

| LZ-1902 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery) | 1471a/02 |

Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 – 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 – 9V (Alkaline) Energizer Holdings
   (f). MN1604 – 9V (Alkaline) Duracell Incorporation
   (g). GP1604A – 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
   (h). PP1604E – 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd

| LZ-1903 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery) | 1471a/03 |

Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 – 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 – 9V (Alkaline) Energizer Holdings
   (f). MN1604 – 9V (Alkaline) Duracell Incorporation
   (g). GP1604A – 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
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<th>Certificated Products</th>
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<tr>
<td>(h). PP1604E – 9V (Carbon-Zinc) Gold Peak Industries(Holdings) Ltd</td>
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<tr>
<td>LZ-1921 Battery Operated Photoelectric Smoke Alarm (10 Year Irreplaceable Battery)</td>
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<td>1. Battery types approved with this domestic smoke alarm:</td>
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<tr>
<td>(a). CR123A -3V, (1500mAh- Lithium-Manganese Dioxide)</td>
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<tr>
<td>By Guangzhou Great Power Energy &amp; Technology Co., Ltd.</td>
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<tr>
<td>(b). CR123A -3V, (1500mAh- Paideer Lithium-Manganese Dioxide)</td>
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<td>By Zhongyin (Ningbo) Battery Co., Ltd.</td>
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<tr>
<td>LZ-1922 Battery Operated Photoelectric Smoke Alarm (10 Year Irreplaceable Battery)</td>
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<td>(a). CR123A -3V, (1500mAh- Lithium-Manganese Dioxide)</td>
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<tr>
<td>(b). CR123A -3V, (1500mAh- Paideer Lithium-Manganese Dioxide)</td>
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Hesdo BV
Aziëlaan 12, 's-Hertogenbosch 5232BA, The Netherlands
Tel: +31 7307506250
E-mail: MT@hesdo.nl • Website: www.Alecto.nl

Certificate No: 1471a-(cl-4) to EN 14604:2005 / AC: 2008

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<th>Smoke Alarms</th>
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<tr>
<td>(a). MN1604 - 9V (Alkaline) Duracell Incorporation</td>
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<td>(b). GP1604A - 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.</td>
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<td>(c). PP1604E - 9V (Carbon-Zinc) Gold Peak Industries(Holdings) Ltd</td>
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<td>(b). GP1604A - 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.</td>
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<td>(c). PP1604E - 9V (Carbon-Zinc) Gold Peak Industries(Holdings) Ltd</td>
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<td>RM-012 Battery Operated Photoelectric Smoke Alarm (10 Year Irreplaceable Battery)</td>
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<td>(b). CR123A -3V, (1500mAh- Paideer Lithium-Manganese Dioxide)</td>
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<tr>
<td>By Zhongyin (Ningbo) Battery Co., Ltd.</td>
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<td>SA-210 Battery Operated Photoelectric Smoke Alarm (10 Year Irreplaceable Battery)</td>
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<td>(a). CR123A -3V, (1500mAh- Lithium-Manganese Dioxide)</td>
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<td>By Guangzhou Great Power Energy &amp; Technology Co., Ltd.</td>
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<td>(b). CR123A -3V, (1500mAh- Paideer Lithium-Manganese Dioxide)</td>
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<tr>
<td>By Zhongyin (Ningbo) Battery Co., Ltd.</td>
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Horing LIH Industrial Co Ltd
No. 35, Er-Hu Road, Hu-Hsi Village, Yuan-Shan Hsiang, Yilan Hsien 264, Taiwan ROC
Tel: +886 2 22487599 • Fax: +886 2 22407752

Certificate No: 506f to EN 14604:2005

Certificated Products

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<td>506f01</td>
<td>Single Station Smoke Detector</td>
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IKEA of Sweden AB
Tulpänvagen 8, Box 702, Älmhult SE 34381, Sweden
Tel: +46 476 81000
E-mail: sipp@ikea.com • Website: WWW.IKEA.COM

Certificate No: 1159a-(cl-2) to EN 14604:2005/AC:2008

Domestic Alarms - Smoke, heat and carbon monoxide

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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</table>
| 1159a/02      | 9V Battery Operated Photoelectric Smoke Alarm with Alarm Silence Feature (Standard base)

Notes:
1) This smoke alarm uses replaceable DC 9V Batteries:
   a) Carbon Zinc Batteries by: Gold Peak: GP1604P & GN1604G
      Golden Power: G6F22 & G6F22Mb
   b) Alkaline Battery by: Gold Peak: GN1604A

IKEA 6LR61

Bases:
Standard base

Certificate No: 1463a-(cl-2) to EN 14604:2005/AC:2008

Certificated Products

<table>
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<th>LPCB Ref. No.</th>
<th>Product Description</th>
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| 1463a/02      | 9V Battery Operated Photoelectric Smoke Alarm with alarm silence feature (Standard base)

Notes:
1) This smoke alarm uses replaceable DC 9V Batteries:
   a) Carbon Zinc Batteries by: Gold Peak: GP1604P & GN1604G
      Golden Power: G6F22 & G6F22Mb
   b) Alkaline Battery by: Gold Peak: GN1604A

IKEA 6LR61

Kidde Safety Europe Ltd
Mathisen Way, Colnbrook, Berkshire SL3 0HB, United Kingdom
Tel: 01753 685148 • Fax: 01753 685096
E-mail: Simon.Jones@kiddesafety.co.uk • Website: www.kiddesafetyeurope.co.uk

Certificate No: 904a-(cl-1) to EN 14604: 2005

Domestic Alarms

Certificated Products

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PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Certificated Products

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<td>904a/06</td>
<td>i9040EU Replaceable 9V Battery operated ionization smoke alarm with alarm silence feature</td>
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<td>904a/06</td>
<td>I9040EU Lifesaver Replaceable 9V Battery operated ionization smoke alarm with alarm silence feature</td>
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<td>904a/07</td>
<td>i9080EU Replaceable 9V Battery operated ionization smoke alarm with emergency light and alarm silence feature</td>
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<td>904a/09</td>
<td>SM2H Replaceable Battery Operated Photoelectric Smoke Alarm incorporating Alarm Silence Feature</td>
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<td>904a/11</td>
<td>SM2J Replaceable Battery Operated Photoelectric Smoke Alarm incorporating Alarm Silence Feature</td>
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Note:
1. Battery types approved with this domestic smoke alarm:
   9V DC Carbon Zinc Batteries:
   - Eveready: 1222
   - Gold Peak: GP1604P, GP1604S

   9V DC Alkaline Batteries:
   - Gold Peak: GP1604A
   - Energizer: 522
   - Panasonic: 6AM6, 6AM-6, 6AM-6PI, 6AM6X, 6LR61 (GA)

   9V DC Lithium Batteries:
   - Ultralife: U9VL-J-P
   - Marsell: CR9V
   - FDK: CP-V9JU

NewtonStein Corp
19C Trolley Square, Wilmington, Newcastle, Delaware 19806, USA
E-mail: admin@newtonstein.com • Website: www.newtonstein.com

Domestic Smoke Alarms
Certificated Products

<table>
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<th>Certificated Products</th>
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<tr>
<td>1138b/02</td>
<td>NS-626PHS Ten Year Battery Operated Photoelectric Smoke Alarm</td>
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</table>

Notes:
1. This smoke alarm uses a non-replaceable battery.
2. The only battery type approved with this domestic smoke alarm is:
   - CR17335 CR123A. 3V DC manufactured by HCB Battery Co., Ltd

Ningbo Kingdun Electronic Industry Co Ltd
No 28 Fengyuan Road, South of Economic Development Area, Yuyao City, Zhejiang Province 315400, China
Tel: 86-13245660018
E-mail: eric@kingdun.com
### PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

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<th>Certificated Products</th>
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<td><strong>LM-107A</strong> Ten Year Battery Operated Photoelectric Domestic Smoke Alarm</td>
<td>1275a/01</td>
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<tr>
<td>2. Battery types approved with this domestic smoke alarm</td>
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<tr>
<td>- Pairdeer Lithium CR123A 3V</td>
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<tr>
<td>- HCB Primary Lithium CR17355/CR123A</td>
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<td>- Energizer123 (EL123AP)</td>
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<td>- EVE CR123A</td>
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<td><strong>LM-107B</strong> Ten Year Battery Operated Photoelectric Domestic Smoke Alarm</td>
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<tr>
<td>2. Battery types approved with this domestic smoke alarm</td>
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</tr>
<tr>
<td>- Pairdeer Lithium CR123A 3V</td>
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<tr>
<td>- HCB Primary Lithium CR17355/CR123A</td>
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<tr>
<td>- Energizer123 (EL123AP)</td>
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<td>- EVE CR123A</td>
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<tr>
<td><strong>LM-107C</strong> Ten Year Battery Operated Photoelectric Domestic Smoke Alarm</td>
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<td><strong>Notes:</strong></td>
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<td>1. This smoke alarm uses a non-replaceable battery</td>
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<td>2. Battery types approved with this domestic smoke alarm</td>
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</tr>
<tr>
<td>- Pairdeer Lithium CR123A 3V</td>
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<tr>
<td>- HCB Primary Lithium CR17355/CR123A</td>
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<tr>
<td>- Energizer123 (EL123AP)</td>
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<td>- EVE CR123A</td>
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<tr>
<td><strong>LM-101LA</strong> Battery Operated Domestic Smoke Alarm with RF Interlinkable Function (502003 mounting plate)</td>
<td>1275a/04</td>
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<td>- Pair Deer 9V 6F22</td>
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<td>- GP 9V 1604S</td>
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<td>- Mustang 9V 6F22</td>
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<td>- Pair Deer 9V 6LR61</td>
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<td>- GP 9V 1604A</td>
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<tr>
<td>- Pair Deer 3 x 1.5V LR6/AA</td>
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<tr>
<td>- GP 3 x 1.5V GP15AU</td>
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<tr>
<td>- Mustang 3 x 1.5V LR6/AA</td>
<td></td>
</tr>
<tr>
<td>2. The radio link functionality is not included within the scope of approval</td>
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<tr>
<td><strong>LM-101LB</strong> Battery Operated Domestic Smoke Alarm with RF Interlinkable Function (502003 mounting plate)</td>
<td>1275a/05</td>
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<tr>
<td><strong>Notes:</strong></td>
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<tr>
<td>1. Battery types approved with this domestic smoke alarm</td>
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</tr>
<tr>
<td>- Pair Deer 9V 6F22</td>
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<tr>
<td>- GP 9V 1604S</td>
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<td>- Mustang 9V 6F22</td>
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<tr>
<td>- Pair Deer 9V 6LR61</td>
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<td>- GP 9V 1604A</td>
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<tr>
<td>- Pair Deer 3 x 1.5V LR6/AA</td>
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<td>- Mustang 3 x 1.5V LR6/AA</td>
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<td><strong>LM-101LC</strong> Battery Operated Domestic Smoke Alarm with RF Interlinkable Function (502003 mounting plate)</td>
<td>1275a/06</td>
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<td>- Pair Deer 9V 6F22</td>
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<td>- GP 9V 1604S</td>
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<td>- GP 9V 1604A</td>
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<tr>
<td>- Pair Deer 3 x 1.5V LR6/AA</td>
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<td>- Mustang 3 x 1.5V LR6/AA</td>
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<td>2. The radio link functionality is not included within the scope of approval</td>
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<td><strong>LM-101LD</strong> Battery Operated Domestic Smoke Alarm with RF Interlinkable Function (502003 mounting plate)</td>
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<tr>
<td>- Pair Deer 9V 6F22</td>
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<tr>
<td>- GP 9V 1604S</td>
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20 Oct 2020
### Certificated Products

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<tr>
<th>Product Code</th>
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<tbody>
<tr>
<td>Mustang 9V 6F22</td>
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<tr>
<td>Pair Deer 9V 6LR61</td>
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<td>GP 9V 1604A</td>
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<tr>
<td>Pair Deer 3 x 1.5V LR6/AA</td>
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<tr>
<td>GP 3 x 1.5V GP15AU</td>
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<tr>
<td>Mustang 3 x 1.5V LR6/AA</td>
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</tbody>
</table>

**Notes:**
- Mustang 9V 6F22
- Pair Deer 9V 6LR61
- GP 9V 1604A
- Pair Deer 3 x 1.5V LR6/AA
- GP 3 x 1.5V GP15AU
- Mustang 3 x 1.5V LR6/AA

---

**PART 1: SECTION 4.2**

**DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE**

### LM-101LE

**Battery Operated Domestic Smoke Alarm with RF Interlinkable Function**

#### Notes:
- Battery types approved with this domestic smoke alarm
  - Pair Deer 9V 6F22
  - GP 9V 1604S
  - Mustang 9V 6F22
  - Pair Deer 9V 6LR61
  - GP 9V 1604A
  - Pair Deer 3 x 1.5V LR6/AA
  - GP 3 x 1.5V GP15AU
  - Mustang 3 x 1.5V LR6/AA

---

**LM-101LF**

**Battery Operated Domestic Smoke Alarm with RF Interlinkable Function**

#### Notes:
- Battery types approved with this domestic smoke alarm
  - Pair Deer 9V 6F22
  - GP 9V 1604S
  - Mustang 9V 6F22
  - Pair Deer 9V 6LR61
  - GP 9V 1604A
  - Pair Deer 3 x 1.5V LR6/AA
  - GP 3 x 1.5V GP15AU
  - Mustang 3 x 1.5V LR6/AA

---

**LM-109A**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-109B**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-109C**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-109D**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-109E**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-109F**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-109G**

**Battery Operated Photoelectric Smoke Alarm with 10 Years Life**

#### Note:
- Battery type approved with this smoke alarm:
  - HCB Battery Co. Ltd CP952434, Li ion, 3Vdc

---

**LM-101LAW**

**Domestic Smoke Alarm with RF interlinkable function (Mounting Plate)**

#### Notes:
- Battery types approved with this domestic smoke alarm
  - Pair Deer 9V 6F22
  - GP 9V 1604S
  - Mustang 9V 6F22
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>1275a/18</td>
<td>LM-101LG</td>
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<tr>
<td></td>
<td>Battery Operated Domestic Smoke Alarm with RF interlinkable function (Mounting Plate)</td>
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<tr>
<td></td>
<td>The radio link functionality is not included within the scope of approval</td>
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<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Battery types approved with this domestic smoke alarm</td>
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<td>- Pair Deer 9V 6LR61</td>
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<tr>
<td></td>
<td>- GP 9V 1604A</td>
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<tr>
<td></td>
<td>- Pair Deer 3 x 1.5V LR6/AA</td>
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<tr>
<td></td>
<td>- GP 3 x 1.5V GP15AU</td>
</tr>
<tr>
<td></td>
<td>- Mustang 3 x 1.5V LR6/AA</td>
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</tbody>
</table>

| 1275a/19      | KD-125A |
|               | Battery Operated Photoelectric Smoke Alarm with a 5 year Battery (502003 mounting plate) |
|               | Note: |
|               | 1. Battery types approved with this domestic smoke alarm |
|               | - Pair Deer 2 x 1.5V LR03/AAA |
|               | - Mustang Raymax 2 x 1.5V LR03 |
|               | - Dukecell 2 x 1.5V LR03 |

| 1275a/20      | KD-125B |
|               | Battery Operated Photoelectric Smoke Alarm with a 5 year Battery (502003 mounting plate) |
|               | Note: |
|               | 1. Battery types approved with this domestic smoke alarm |
|               | - Pair Deer 2 x 1.5V LR03/AAA |
|               | - Mustang Raymax 2 x 1.5V LR03 |
|               | - Dukecell 2 x 1.5V LR03 |

| 1275a/21      | KD-125C |
|               | Battery Operated Photoelectric Smoke Alarm with a 5 year Battery (502003 mounting plate) |
|               | Note: |
|               | 1. Battery types approved with this domestic smoke alarm |
|               | - Pair Deer 2 x 1.5V LR03/AAA |
|               | - Mustang Raymax 2 x 1.5V LR03 |
|               | - Dukecell 2 x 1.5V LR03 |

| 1275a/22      | KD-122LA |
|               | Wireless Interconnected Fire Detecting Smoke Alarm with a 10 Year Life (502003 Mounting Plate) |
|               | Notes: |
|               | 1. Battery types approved with this domestic smoke alarm |
|               | - CP605050 3.0V |
|               | 2. The radio link functionality is not included within the scope of approval |

| 1275a/23      | KD-122LC |
|               | Wireless Interconnected Fire Detecting Smoke Alarm with a 10 Year Life (502003 Mounting Plate) |
|               | Notes: |
|               | 1. Battery types approved with this domestic smoke alarm |
|               | - CP605050 3.0V |
|               | 2. The radio link functionality is not included within the scope of approval |

| 1275a/24      | KD-122LE |
|               | Wireless Interconnected Fire Detecting Smoke Alarm (502003 mounting plate) |
|               | Notes: |
|               | 1. Battery types approved with this domestic smoke alarm |
|               | - Pair Deer 2x1.5V LR03/AAA |
|               | - Dukecell 2x1.5V LR03/AAA |
|               | 2. The radio link functionality is not included within the scope of approval |

Base: 502003 Mounting Plate
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE


Certificated Products

<table>
<thead>
<tr>
<th>LPC PB Ref. No</th>
<th>Domestic Smoke Alarm (Mounting Plate)</th>
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<tbody>
<tr>
<td>LM-201A</td>
<td>Battery Operated Type B Carbon Monoxide Alarm</td>
</tr>
</tbody>
</table>

Note:
1. Battery types approved with this carbon monoxide alarm:
   LR6 1.5V DC AA Alkaline Battery, Zhongyin (Ningbo) Battery Co. Ltd

Ningbo Sentek Electronics Co. Ltd
448 Yingchun Road, Wangchun Industrial Park, Ningbo City 315175, China
Tel: 0086-574-8715 5635
E-mail: service@sentek.cc • Website: http://www.sentek.cc/

Certificate No: 1050b to EN 14604:2005

Certificated Products

<table>
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<tr>
<th>LPC PB Ref. No</th>
<th>Domestic Smoke Alarm (Mounting Plate)</th>
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<tbody>
<tr>
<td>SK-20</td>
<td>Battery Operated Domestic Smoke Alarm</td>
</tr>
</tbody>
</table>

Notes:
1. This smoke alarm uses a non-replaceable battery
2. Battery types approved with this smoke alarm:
   - Energizer 3V Lithium EL123AP
   - EVE 3V Lithium CR17335
   - Huizhou Huiderui 3V Lithium CR123A/CR17345

<table>
<thead>
<tr>
<th>LPC PB Ref. No</th>
<th>Battery Operated Domestic Smoke Alarm</th>
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<tbody>
<tr>
<td>SK40</td>
<td>Battery Operated Domestic Smoke Alarm</td>
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</table>

Notes:
1. This smoke alarm uses a replaceable 9V battery
2. Battery types approved with this smoke alarm:
   - Pairdeer 6F22 (Carbon Zinc battery)
   - Pairdeer 6LR61 (Alkaline battery)
   - Pairdeer CR-V9 (Lithium battery)
   - Duracell MN1604 (Alkaline battery)
   - Gold Peak 1604P & Gold Peak 1604A (Alkaline battery), Gold Peak 1604S (Carbon Zinc battery)
   - Golden Power G6F22 (Carbon Zinc battery)
   - Golden Power GL6F22A (Alkaline battery)
   - Eveready 522 (Alkaline battery)
   - Eveready 216 (Carbon Zinc battery)
   - Eveready 1222 (Carbon Zinc battery)

Ancillary
Mounting Plate
REV Ritter GmbH
Frankenstrasse 1-4, Frankenstrasse 1-4
Mömbris, 63776, Germany
Tel: +49 6029 707 766
E-mail: marcus.huth@rev.de • Website: www.rev.de

Certificate No: 1050b-(cl-3) to EN 14604:2005

Certificated Products | LPCB Ref. No.
--- | ---
RWM-20 Domestic Smoke Alarm (Mounting Plate) | 1050b/01

Notes:
1. This smoke alarm uses a non-replaceable battery
2. Battery types approved with this smoke alarm:
   - Energizer 3V Lithium EL123AP
   - EVE 3V Lithium CR17335
   - Huizhou Huiderui 3V Lithium CR123A/CR17345

Ancillary
Mounting Plate

Sabre Fire & Security Ltd
6 South Mundells, Welwyn Garden City, Herts AL7 1EP, United Kingdom
Tel: 01707 393888
E-mail: sales@sabre-fire.co.uk

Certificate No: 971a-(cl-4) to EN14604:2005

Certificated Products | LPCB Ref. No.
--- | ---
4WOB Mains powered operated photoelectric smoke alarm with primary back-up battery | 971a/06

Safewithme OY
Asessorinkatu 13, Asessorinkatu 13
20780 Kaarina, 20780, Finland
Tel: +358 40 574 9295
E-mail: www.safewith.me

Certificate No: 1050b-(cl-2) to EN 14604:2005

Certificated Products | LPCB Ref. No.
--- | ---
PV-20 NANO Domestic Smoke Alarm (Mounting Plate) | 1050b/01

Notes:
1. This smoke alarm uses a non-replaceable battery
2. Battery types approved with this smoke alarm:
   - Energizer 3V Lithium EL123AP
   - EVE 3V Lithium CR17335
   - Huizhou Huiderui 3V Lithium CR123A/CR17345

Ancillary
Mounting Plate
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Sentura Group (including Fire Depot and Firechief Global)
Sentura House, 3 Lands End Way, Oakham, Rutland LE15 6RB, United Kingdom
Tel: +44 (0)330 999 22 33 • Fax: +44 (0)1572 770133
E-mail: sales@firedepot.co.uk • Website: www.firedepot.co.uk

Certificate No: 1471a-(cl-3) to EN 14604:2005/AC:2008

Certificated Products
LPCB Ref. No.
FBSD1 Battery Operated Photoelectric Smoke Alarm (Replaceable Battery) 1471a/02
Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 - 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 - 9V (Alkaline) Energizer Holdings
   (f). MN1604 - 9V (Alkaline) Duracell Incorporation
   (g). GP1604A - 9V (Alkaline) Gold Peak Industries(Holdings) Ltd.
   (h). PP1604E - 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd

Shanghai Huiying Industry Co Ltd
Room 1313, Tower A, 1088 New Jinqiao Road, 201206, Shanghai, China
Tel: +86 21 61681700 • Fax: +86 21 61681701
E-mail: sales@pike-fire.com • Website: www.pike-fire.com


Carbon Monoxide Alarms
Certificated Products
LPCB Ref. No.
DT-KCM01 Battery Operated Type B Carbon Monoxide Alarm 1275b/01
Note:
1. Battery types approved with this carbon monoxide alarm:
   LR6 1.5V DC AA Alkaline Battery, Zhongyin (Ningbo) Battery Co. Ltd

Smoke Alarm
Certificated Products
LPCB Ref. No.
DT-122LA Wireless Interconnected Fire Detecting Smoke Alarm with a 10 Year Life (502003 Mounting Plate) 1275a/22
Notes:
1. Battery types approved with this domestic smoke alarm
   - CP605050 3.0V
2. The radio link functionality is not included within the scope of approval

Bases:
502003 Mounting Plate

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PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Shanghai Mosafe Equipment Co.Ltd
Unit 203, Block B2, 889 Shangcheng Road, Pudong New Area, Shanghai 200120, China
Tel: +86 21 60753200

Certificate No: 1159a-(cl-1) to EN 14604: 2005/AC: 2008

Smoke Alarms
Certificated Products

EK3060 9V Battery Operated Photoelectric Smoke Alarm with Alarm Silence Feature (Standard Base)
Notes:
1) This smoke alarm uses replaceable DC 9V Batteries:
   a) Carbon Zinc Batteries by; Gold Peak: GP1604P & GN1604G
   b) Alkaline Battery by; Golden Power: G6F22 & G6F22M
   IKEA 6LR61

Bases:
Standard Base

Certificate No: 1463a-(cl-1) to EN 14604:2005/AC:2008

Certificated Products

EK3060 9V Battery Operated Photoelectric Smoke Alarm with alarm silence feature (Standard base)
Notes:
1) This smoke alarm uses replaceable DC 9V Batteries:
   a) Carbon Zinc Batteries by; Gold Peak: GP1604P & GN1604G
   b) Alkaline Battery by; Golden Power: G6F22 & G6F22M
   IKEA 6LR61

Shenzhen Fanhai Sanjiang Electronics CO., Ltd
3/F., Guangcai Xintiandi Mansion, Nanshan Road, Nanshan District, Shenzhen, Guangdong 518054, China
Tel: +86 755 26521071
E-mail: shuxian.wei@fhsjdz.com

Certificate No: 1159a-(cl-3) to EN 14604:2005/AC:2008

Smoke Alarms
Certificated Products

EK3060 9V Battery Operated Photoelectric Smoke Alarm with Alarm Silence Feature (Standard base)
Notes:
1) This smoke alarm uses replaceable DC 9V Batteries:
   a) Carbon Zinc Batteries by; Gold Peak: GP1604P & GN1604G
   b) Alkaline Battery by; Golden Power: G6F22 & G6F22M
   IKEA 6LR61

Standard Base

Certificate No: 1463a-(cl-3) to EN 14604:2005/AC:2008
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Certificated Products

EK3060
9V Battery Operated Photoelectric Smoke Alarm with Alarm Silence Feature (Standard base)
Notes:
1) This smoke alarm uses replaceable DC 9V Batteries:
   a) Carbon Zinc Batteries by: Gold Peak: GP1604P & GN1604G
      Golden Power: G6F22 & G6F22Mb
   b) Alkaline Batteries by: Gold Peak:GN1604A
      IKEA 6LR61

Standard Base

Shenzhen Heiman Technology Co Ltd
No 84 Fuqian Road, Yuexingwei Community, Guanlan, Longhua New District, Shenzhen 518110, China
Tel: +86 75584193930 x8018 • Fax:
E-mail: office@heiman.com.cn

Certificated Products

HM-625PHS
Ten Year Battery Operated Photoelectric Smoke Alarm
Notes:
1. This smoke alarm uses a non-replaceable battery.
2. The only battery type approved with this domestic smoke alarm is
   - CR17335 CR123A, 3V DC battery manufactured by HCB Battery Co Ltd

HM-626PHS
Ten Year Battery Operated Photoelectric Smoke Alarm
Notes:
1. This smoke alarm uses a non-replaceable battery.
2. The only battery type approved with this domestic smoke alarm is
   - CR17335 CR123A, 3V DC battery manufactured by HCB Battery Co Ltd

Shenzhen Yanjen Technology Co., Ltd
Rm 601, No.302 Dabutou Road, Songyuanxia Community, Guanlan, Longhua District, Shenzhen 518110, China
Tel: +86755521034677
E-mail: sales@yanjen.com • Website: www.yanjen.com
Certificate No: 1471a-(cl-1) to EN 14604:2005

Certificated Products

YJ-121
Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)
Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 - 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
   (e). 522 - 9V (Alkaline) Energizer Holdings
   (f). MN1604 - 9V (Alkaline) Duracell Incorporation
   (g). GP1604A - 9V (Alkaline) Gold Peak Industries(Holdings) Ltd
   (h). PP1604E - 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd

YJ-123
Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)
Notes:
1. Battery types approved with this domestic smoke alarm:
   (a). 6F22 - 9V (Carbon-Zinc) Foshan Zhaoneng Battery Industrial Co.Ltd
   (b). 6LR61 - 9V (Alkaline) Foshan Zhaoneng Battery Industrial Co.Ltd
   (c). 6F22 - 9V (Carbon-Zinc) Zhongyin (Ningbo) Battery Co. Ltd
   (d). 6LR61 – 9V (Alkaline) Zhongyin (Ningbo) Battery Co. Ltd
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Certificated Products

(e). 522 – 9V (Alkaline)  Energizer Holdings
(f). MN1604 – 9V (Alkaline)  Duracell Incorporation
(g). GP1604A – 9V (Alkaline)  Gold Peak Industries (Holdings) Ltd.
(h). PP1604E – 9V (Carbon-Zinc) Gold Peak Industries (Holdings) Ltd.

Siterwell Electronics CO., Limited
No 666 Qingfeng Road, Jiangbei District, Ningbo, Zhejiang 315034, China
Tel: +31 657615907
E-mail: Roosd@cosaconnects.eu • Website: www.china-siter.com


Certificated Products

GS506  Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)
1. Battery types approved with this domestic smoke alarm
   - Raymax: 6LR61
   - Duracell: 6LR61 or MN1604
   - Golite: G6F22 or 1604D
   - Forte: ER9V
   - Gold Peak: GP1604S
   - Golden Power: G6F22A or G6F22M or S006P
   - Lonlife: 6F22
   Note: 1. Battery types approved with this domestic smoke alarm
   - Raymax: 6LR61
   - Duracell: 6LR61 or MN1604
   - Golite: G6F22 or 1604D
   - Forte: ER9V
   - Gold Peak: GP1604S
   - Golden Power: G6F22A or G6F22M or S006P
   - Lonlife: 6F22

GS503  Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)
Note: 1. Battery types approved with this domestic smoke alarm
   - Raymax: 6LR61
   - Duracell: 6LR61 or MN1604
   - Golite: G6F22 or 1604D
   - Forte: ER9V
   - Gold Peak: GP1604S
   - Golden Power: G6F22A or G6F22M or S006P
   - Lonlife: 6F22

GS506A Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)
Note: 1. Identical to GS506 with silver coloured cover

GS506H Battery Operated Photoelectric Smoke Alarm (Replaceable Battery)
Note: 1. Identical to GS506 with wood coloured cover

Smartwares Europe
Jules Verneweg 87, 5015 BH Tilburg, The Netherlands
Tel: +31 161 455363
E-mail: janny.janssens@smartwaresgroup.com • Website: www.smartwares.eu


Carbon Monoxide Alarm
Certificated Products

FA370  Battery Operated Type B Carbon Monoxide Alarm
Note: 1. Battery types approved with this carbon monoxide alarm:
   L6R 1.5V DC AA Alkaline Battery, Zhongyin (Ningbo) Battery Co. Ltd
RM370  Battery Operated Type B Carbon Monoxide Alarm
Note: 1. Battery types approved with this carbon monoxide alarm:
   L6R 1.5V DC AA Alkaline Battery, Zhongyin (Ningbo) Battery Co. Ltd
RM377  Battery Operated Type B Carbon Monoxide Alarm
Note: 1. Battery types approved with this carbon monoxide alarm:
   L6R 1.5V DC AA Alkaline Battery, Zhongyin (Ningbo) Battery Co. Ltd

484 20 Oct 2020
PART 1: SECTION 4.2
DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

Certificated Products

1. Battery types approved with this carbon monoxide alarm:
   LR6 1.5V DC AA Alkaline Battery, Zhongyiin (Ningbo) Battery Co. Ltd

Syconln Ltd
3rd Floor, 14 Hanover Street, Mayfair, London W1S 1YH, United Kingdom
Tel: +44 (0)207 514 5813
E-mail: sales@synconln.com • Website: www.synconln.com

Certificate No: 1275b-(cl-4) to EN 50291-1:2010 + A1:2012

Carbon Monoxide Alarms
Certificated Products

1060 SYN Battery Operated Type B Carbon Monoxide Alarm
Note:
1. Battery types approved with this carbon monoxide alarm:
   LR6 1.5V DC AA Alkaline Battery, Zhongyiin (Ningbo) Battery Co. Ltd

Visonic
24 Habarzel Street, Tel Aviv 69710, Israel
Tel: +44 (0)870 7300810 • Fax: +44 (0)870 7300801
E-mail: zuri.rubin@jci.com • Website: www.visonic.com

Certificate No: 512e-(cl-1) to EN 50291: 2001

Carbon Monoxide Alarms
Certificated Products

MCT-442 Type A battery operated carbon monoxide alarm
GSD-442 PG2 Type A Battery Operated, Wireless, Carbon Monoxide Alarm
Notes:
1. Battery types approved with this Carbon Monoxide alarm
   - Lithium battery, 9V UltraLife Lithium U9VL-J-P
   - Alkaline battery, 9V Energizer Alkaline #522
   - Alkaline battery, 9V, Duracell MN1604
2. The wireless functionality is not included within the scope of the approval
3. Only approved for use in EN mode

Wizmart Technology Inc.
Building B, No 88, Changyang Road, Jiangbei Investment Pioneering Park, Ningbo, Zhejiang 315033, China
Tel: +86-574-55003366
E-mail: rock@wizmart.com • Website: http://wizmart.biz/

Certificate No: 1163d to BS 5446-2:2003

Combined Smoke and Carbon Monoxide alarms
Certificated Products

NB840-H AC-DC Domestic Heat Alarm
Notes:
1. Class A2 approved only

20 Oct 2020
# PART 1: SECTION 4.2
## DOMESTIC ALARMS - SMOKE, HEAT AND CARBON MONOXIDE

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery types approved with this domestic heat alarm:</td>
<td>1163e/01</td>
</tr>
<tr>
<td>- EVE CR9V-P</td>
<td></td>
</tr>
<tr>
<td>- GP 1604S</td>
<td></td>
</tr>
<tr>
<td>- GP GN1604A</td>
<td></td>
</tr>
<tr>
<td>- PAIRDEER 6F22</td>
<td></td>
</tr>
<tr>
<td>- PAIRDEER 6LR61</td>
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</tr>
<tr>
<td>NB840-S</td>
<td>AC-DC Domestic Smoke Alarm</td>
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<tr>
<td>Note:</td>
<td>1163f/01</td>
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<tr>
<td>1. Battery types approved with this domestic smoke alarm:</td>
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</tr>
<tr>
<td>- EVE CR9V-P</td>
<td></td>
</tr>
<tr>
<td>- GP 1604S</td>
<td></td>
</tr>
<tr>
<td>- GP GN1604A</td>
<td></td>
</tr>
<tr>
<td>- PAIRDEER 6F22</td>
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<tr>
<td>- PAIRDEER 6LR61</td>
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<tr>
<td>NB840-SH</td>
<td>AC-DC Domestic Multi Alarm</td>
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<td>Notes:</td>
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<td>1. Class A2 Approved Only</td>
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<td>2. Battery types approved with this domestic multi alarm:</td>
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<td>- GP 1604S</td>
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<td>- GP GN1604A</td>
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<td>- PAIRDEER 6F22</td>
<td></td>
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<tr>
<td>- PAIRDEER 6LR61</td>
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</tr>
</tbody>
</table>

---

**Zeta Alarms Limited**  
Detection House, 72-78 Morfa Road, Swansea SA1 2EN, United Kingdom  
Tel: +44 (0)1792 455175 • Fax: +44 (0)1792 455176  
E-mail: ghassan@zetaalarmsystems.com • Website: www.zetaalarmsystems.com

**Certificate No:** 330u to EN 14604:2005/AC:2008

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>ZT-MS</td>
<td>Smoke Alarm Device</td>
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<td>Note:</td>
<td></td>
</tr>
<tr>
<td>1. Battery types approved with this domestic heat alarm:</td>
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</tr>
<tr>
<td>- EVE CR9V-P</td>
<td></td>
</tr>
<tr>
<td>- GP 1604S</td>
<td></td>
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<tr>
<td>- GP GN1604A</td>
<td></td>
</tr>
<tr>
<td>- PAIRDEER 6F22</td>
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<td>- PAIRDEER 6LR61</td>
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</table>

**Certificate No:** 330t to BS 5446-2:2003

<table>
<thead>
<tr>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>ZT-MH</td>
<td>Heat Alarm Device</td>
</tr>
<tr>
<td>Notes:</td>
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</tr>
<tr>
<td>1. Class A2 approved only</td>
<td></td>
</tr>
<tr>
<td>2. Battery types approved with this domestic heat alarm:</td>
<td></td>
</tr>
<tr>
<td>- EVE CR9V-P</td>
<td></td>
</tr>
<tr>
<td>- GP 1604S</td>
<td></td>
</tr>
<tr>
<td>- GP GN1604A</td>
<td></td>
</tr>
<tr>
<td>- PAIRDEER 6F22</td>
<td></td>
</tr>
<tr>
<td>- PAIRDEER 6LR61</td>
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</tr>
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### Combined Smoke and Carbon Monoxide alarms

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>ZT-MH</th>
<th>Smoke and Heat Alarm Device</th>
</tr>
</thead>
</table>

**Notes:**
1. Class A2 Approved Only
2. Battery types approved with this domestic heat alarm:
   - EVE CR9V-P
   - GP 1604S
   - GP GN1604A
   - PAIRDEER 6F22
   - PAIRDEER 6LR61

**LPCB Ref. No.**
- 330v/01
The purpose of a manual call point is to enable a person discovering a fire to initiate the operation of a fire alarm system so that appropriate measures can be taken. Therefore it is important for the manual call point to be recognizable and simple to use. For this reason, the European standard has attempted to standardise their appearance and function.

There are basically two types of manual call points which are related to the method of operation.
- Type A: direct operation (single action).
- Type B: indirect operation (double action).

Both types require the breaking or the visible displacement by change of position of a frangible element forming part of the front face.

Guidance on the selection, siting and speed of response should be sought from the applicable installation rule or code of practice (e.g. BS 5839-1). For example BS 5839-1 recommends only type A with a speed of evacuation signal within 3 seconds. Other codes of practice, may require a type B installation.

This section lists manual call points approved for use in fire detection and fire alarm systems in buildings. The initial approval and continued approval processes for manual call points are outlined in scheme document SD041.

Products listed in this section have been approved to:

- EN 54-11: 2001 Manual call points
- EN 54-25: 2008 Components using radio links

Audit:
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

Notes:
1. EN 54-11: 2001 supersedes BS 5839-2: 1983 which was withdrawn in November 2003. EN 54-11: 2001 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market from 1 September 2008.

2. EN 54-25: 2008 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 1 March 2011. It is therefore recommended that radio link components are certificated to EN 54-25: 2008

3. Since the LPCB uses national and international standards for the listing of products, in some instances the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.
### PART 1: SECTION 5

**MANUAL CALL POINTS**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>20-SGCP100-ADV</td>
<td>928p/01</td>
</tr>
<tr>
<td>Wireless type A resettable indoor manual call point (SRO1 surface mount back box)</td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The device must be used with the following batteries only:</td>
<td></td>
</tr>
<tr>
<td>CR123A (3Vdc) - main battery</td>
<td></td>
</tr>
<tr>
<td>CR2032A (3Vdc) - secondary</td>
<td></td>
</tr>
</tbody>
</table>

**Ancillaries**

- SR01 Surface mounting box
- Flush mounting plate

---

**Advantronic Systems S.L.**

C/Yunque 9 Nave B1, Tres Cantos, Madrid 28760, Spain
Tel: +34 91 806 2343 • Fax: +34 91 803 1171
E-mail: jpedrouzo@advantronic.es • Website: www.advantronic.es


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV111AL Analogue addressable Type A indoor re-settable manual call point with short circuit isolator (SR01 and Flush mounting plate)</td>
<td>928h/01</td>
</tr>
<tr>
<td>AVW111AL Wireless type A resettable indoor manual call point (SRO1 surface mount back box)</td>
<td>928p/01</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The device must be used with the following batteries only:</td>
<td></td>
</tr>
<tr>
<td>CR123A (3Vdc) - main battery</td>
<td></td>
</tr>
<tr>
<td>CR2032A (3Vdc) - secondary</td>
<td></td>
</tr>
<tr>
<td>AV411AL Altair Type A Indoor Addressable Manual Call Point with Short Circuit Isolator (ALCI- Transparent hinged cover and FMP-303 Flush Fitting Bezel)</td>
<td>928h/02</td>
</tr>
<tr>
<td>AV411ALE Altair Type A Outdoor Addressable Manual Call Point with Short Circuit Isolator (Waterproof) (ALCI-Transparent hinged cover)</td>
<td>928h/03</td>
</tr>
<tr>
<td>AVW411AL Wireless Type A Indoor Addressable Manual Call Point (ALCI-Transparent hinged cover)</td>
<td>928p/02</td>
</tr>
<tr>
<td><strong>Note:</strong></td>
<td></td>
</tr>
<tr>
<td>This device must be used with the following battery only:</td>
<td></td>
</tr>
<tr>
<td>CR123A (3Vdc) Batteries</td>
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</tr>
</tbody>
</table>

**Ancillaries**

- SR01 Surface mounting box
- Flush mounting plate
- ALCI -Transparent hinged cover
- FMP-303 Flush Fitting Bezel

---

**Al Rayan Security & Safety Trading**

Warehouse No, 12, Al Quais Industrial Area 4, P O Box 233949, Dubai, United Arab Emirates
Tel: +971 42630396 • Fax: +971 42630397
E-mail: rayandxb@eim.ae • Website: www.rayandxb.ae


<table>
<thead>
<tr>
<th>Manual Call Points</th>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC-6653</td>
<td>Conventional Resettable Type A Indoor Manual Call Point (branded as SECURE)</td>
<td>1174d/01</td>
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<tr>
<td>SI-6657</td>
<td>Addressable Resettable Type A Indoor Manual Call Point (branded as SECURE)</td>
<td>1174d-(cl-5)</td>
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</table>

20 Oct 2020
PART 1: SECTION 5
MANUAL CALL POINTS

Al Tahadi Security And Safety Equipment Trading
PO Box 45668, Ind. Area 11, Sharjah, United Arab Emirates
Tel: +971 5 0688 4543 • Fax: +971 6535 9220
E-mail: Sharqawi61@yahoo.com • Website: www.tahadi-fire.com


Manual Call Points
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Manual Call Points</th>
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<tbody>
<tr>
<td>506d/01</td>
<td>OM-0217 Conventional Type A Indoor Surface/Flush Mounting Manual Call Point</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
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<tr>
<td></td>
<td>1. Approved for surface mount use when used with the AHMB-0217 back box</td>
</tr>
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</table>

Accessories:
AHMB-0217 Back box for surface mounting

Ampac Pty Ltd
7 Ledgar Road, Balcatta 6021, Australia
Tel: +618 (9242) 3333 • Fax: +618 (9242) 3334
E-mail: askellham@ampac.net • Website: www.ampac.net

Certificate No: 010w to EN 54-11:2001 and EN 54-17:2005
Certificate No: 010n-(cl-2) to EN54-11: 2001 + A1: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>010w/01</td>
<td>213-0051 Analogue addressable manual call point with short circuit isolator and surface mounting box</td>
</tr>
<tr>
<td>010w/06</td>
<td>58100-951AMP Discovery analogue addressable waterproof manual call point with short circuit isolator</td>
</tr>
<tr>
<td>010bh/01</td>
<td>43785-278 Mounting Bracket</td>
</tr>
<tr>
<td></td>
<td>58100-908AMP Intelligent Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator (Mounting Bracket and Back Box)</td>
</tr>
<tr>
<td></td>
<td>43785-279 Back Box</td>
</tr>
</tbody>
</table>

490 20 Oct 2020
### Apollo Fire Detectors Limited

36 Brookside Road, Havant, Hampshire PO9 1JR, United Kingdom  
Tel: +44 (0)2392 492412 • Fax: +44 (0)2392 492754  
E-mail: enquiries@apollo-fire.co.uk

### Sales Enquiries Germany

Apollo Deutschland GmbH  
Tel: +49 5241 330 60 • Fax: +49 5241 330 629  
E-mail: info@apollo-feuer.de

### Sales Enquiries Spain

Apollo Espana  
Tel: +34 627 988 061 • Fax: +34 949 335 289  
E-mail: apollo.espana@apollo-fire.com

### Sales Enquiries China

Apollo Fire Detectors Limited, Shanghai representative office  
Tel: +86 21 5237 0922 • Fax: +86 21 5237 0920  
E-mail: tony.ye@apollo-fire.com

Certificate No: 010n to EN 54-11: 2001  
Certificate No: 010w to EN 54-11: 2001 and EN 54-17: 2005  

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<tr>
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<tr>
<td>010n/02</td>
<td>XP95 Analogue addressable manual call point with surface mounting box</td>
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<tr>
<td>010n/06</td>
<td>Discovery Analogue addressable manual call point with surface mounting box</td>
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<tr>
<td>010w/01</td>
<td>Analogue addressable manual call point with short circuit isolator and surface mounting box</td>
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<td>010w/03</td>
<td>Analogue addressable manual call point with short circuit isolator and glass frangible element and surface mounting box</td>
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<tr>
<td>010n/08</td>
<td>Discovery Analogue addressable waterproof manual call point</td>
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<tr>
<td>010n/09</td>
<td>XP95IS Analogue addressable intrinsically safe manual call point.</td>
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<tr>
<td>010w/06</td>
<td>Discovery Analogue addressable waterproof manual call point with short circuit isolator</td>
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<td>010au/01</td>
<td>Discovery Analogue addressable Type A Indoor Manual Call Point (38532-008 Back Box)</td>
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<td>Discovery Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator</td>
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<td>Discovery Analogue Addressable Type A Indoor Manual Call Point with short Circuit Isolator</td>
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<td>Discovery Analogue Addressable Type A Indoor Manual Call Point with short Circuit Isolator</td>
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<td>Discovery Analogue addressable Type A Indoor Manual Call Point</td>
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<td>Conventional Type A Indoor Manual Call Point</td>
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<td>010bh/01</td>
<td>Intelligent Analogue Addressable Manual Call Point with Short Circuit Isolator (Mounting Bracket and Back Box)</td>
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<td>010bh/03</td>
<td>Intelligent Analogue Addressable Marine Manual Call Point with Short Circuit Isolator (Mounting Bracket and Back Box)</td>
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<td>Alarmsense Type A Indoor Manual Call Point (43785-278 Mounting Bracket and 43785-279 Back Box)</td>
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<td>010bh/05</td>
<td>Intelligent Analogue Addressable Type A Indoor Manual Call Point with Short Circuit</td>
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**PART 1: SECTION 5**

**MANUAL CALL POINTS**

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<tr>
<td>Intelligent Analogue Addressable Type A Indoor Marine Manual Call Point with Short Circuit Isolator (Mounting Bracket and Back Box)</td>
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<tr>
<td>XP95 Analogue Addressable Manual Call Point with Short Circuit Isolator and Surface Mounting Box</td>
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<tr>
<td>Discovery Analogue Addressable Manual Call Point with Short Circuit Isolator and Surface Mounting Box</td>
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<tr>
<td>Discovery Analogue Addressable Waterproof Manual Call Point</td>
<td>010n/08</td>
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<tr>
<td>XP95 IS Analogue Addressable Intrinsically Safe Manual Call Point</td>
<td>010n/09</td>
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<tr>
<td>Discovery Analogue Addressable Manual Call Point with Short Circuit Isolator and Surface Mounting Box</td>
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### Bases

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<tbody>
<tr>
<td>38532-008</td>
<td>Back Box</td>
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<tr>
<td>43785-278</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>43785-279</td>
<td>Back Box</td>
</tr>
</tbody>
</table>

**Argus Security S.r.l.**

Via del Canneto 14, Valle delle Noghere, 34015 Muggia, Trieste, Italy

Tel: +39 (0) 402821110 • Fax: +39 (0) 402823483

E-mail: dcresseri@argussecurity.it • Website: www.argussecurity.it


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analogue addressable Type A re-settable manual call point with short circuit isolator (SR01 and Flush mounting plate)</td>
<td>928h/01</td>
</tr>
<tr>
<td>Wireless type A re-settable indoor manual call point (SRO1 surface mount back box)</td>
<td>928p/01</td>
</tr>
<tr>
<td>Wireless type A re-settable indoor manual call point (SRO1 surface mount back box)</td>
<td>928p/01</td>
</tr>
<tr>
<td>Altair Type A Indoor Addressable Manual Call Point with Short Circuit Isolator (ALCI-Transparent hinged cover and FMP-303 Flush Fitting Bezel)</td>
<td>928h/02</td>
</tr>
<tr>
<td>Altair Type A Outdoor Addressable Manual Call Point with Short Circuit Isolator (Waterproof) (ALCI-Transparent hinged cover)</td>
<td>928h/03</td>
</tr>
<tr>
<td>Wireless Type A Indoor Addressable Manual Call Point (ALCI-Transparent hinged cover)</td>
<td>928p/02</td>
</tr>
<tr>
<td>This device must be used with the following battery only: - CR123A (3Vdc) Batteries</td>
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### Ancillaries

<table>
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<tbody>
<tr>
<td>SR01</td>
<td>Surface mounting box</td>
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<tr>
<td>Flush mounting plate</td>
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</tr>
<tr>
<td>ALCI-Transparent hinged cover</td>
<td></td>
</tr>
<tr>
<td>FMP-303 Flush Fitting Bezel</td>
<td></td>
</tr>
</tbody>
</table>
### Argus Spectrum International

65 Serdobolskaya St, St. Petersburg 197342, Russian Federation  
Tel: +7 812 7037500 • Fax: +7 812 7037501  
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com


#### Manual Call Points

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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</thead>
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<tr>
<td>603h/01</td>
<td>ARG-WL8-CP Wireless Type A Indoor Manual Call Point</td>
</tr>
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</table>

Note:
1. The device must be used with the following batteries only:  
   - Primary CR123A (3V)  
   - Secondary CR2032 (3V)

---

### Armor Safety & Security Ltd

120 Baker Street, London W1U 6TU, United Kingdom  
Tel: +971506531199  
Website: www.armorsafety.org


#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>928h/02</td>
<td>ARM-ALCP100 Altair Type A Indoor Addressable Manual Call Point with Short Circuit Isolator (ALCI-Transparent hinged cover and FMP-303 Flush Fitting Bezel)</td>
</tr>
</tbody>
</table>

Ancillaries
ALCI - Transparent hinged cover  
FMP-303 Flush Fitting Bezel

---

### ASENWARE LTD

6 Prospect Way, Royal Oak Industrial Estate, Daventry, Northamptonshire NN11 8PL, United Kingdom  
Tel: +8613828765759  
E-mail: info@asenware.com


#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>1426d/01</td>
<td>AW-D305 Addressable Manual Call Point</td>
</tr>
</tbody>
</table>

---

### ASI Oy Ltd (Argus Spectrum International)

Laitaatsillantie 3, Savonlinna 57170, Finland  
Tel: +358 20 730 8550  
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com/

PART 1: SECTION 5
MANUAL CALL POINTS

Manual Call Points
Certificated Products

ARF-WL8-CP  Wireless Type A Indoor Manual Call Point
Note:
1. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR2032 (3V)

EK-WL8-CP  (EKHO Brand) Wireless Type A Indoor Manual Call Point
Note:
1. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR2032 (3V)

ATEIS Middle East FZCO
LIU 11 Dubai Silicon Oasis, Post Box 293640, Dubai, United Arab Emirates
Tel: +971 4 3262730 • Fax: +971 4 3262731
E-mail: info@ateis.ae • Website: www.ateis.ae


Certificated Products

VELOX WLCP100  Wireless type A resettable indoor manual call point
(SR01 surface mount back box)
Note:
1. The device must be used with the following batteries only:
   CR123A (3Vdc) - main battery
   CR2032A (3Vdc) - secondary

VELOX 40800  Analogue addressable Type A resettable indoor manual call point with short circuit
isolator
(SR01 and Flush mounting plate)

VCP100  Analogue Addressable Type A Resettable Indoor Manual Call Point with
Short Circuit Isolator (SR01 and Flush mounting plate)

Ancillaries
SR01 Surface mounting box
Flush mounting plate

Beijing Leader Huaxin Electronics Co. Ltd
No. 17 Rongjing Eastern Road, Economy & Technology Developed Area, Beijing 100176, China
Tel: +86 10 6787681 • Fax: +86 10 67863972
E-mail: hy.chen@beijingleader.com.cn • Website: www.beijingleader.com.cn


Certificated Products

J-SA P-M-LD2000EN  Manual Call Point
Note:
1. Analogue Addressable Type A Indoor Manual Call Point

Base
LD20-EN  MCP Base
PART 1: SECTION 5
MANUAL CALL POINTS

Beijing VSAIL Fire Protection Equipment Co Ltd
No. 401, Unit A, Building 32., No. 99 14th Kechuang Street, BDA, Beijing 100176, China
Tel: +86 10-56691196 • Fax: +86 10-56691100
E-mail: erichenx@vsail.com.cn • Website: www.vsail.com.cn


**Manual Call Points**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
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<tbody>
<tr>
<td>1174d/01</td>
<td>VC-6653 Conventional Resettable Type A Indoor Manual Call Point</td>
</tr>
<tr>
<td>1174d/02</td>
<td>VI-6657 Addressable Resettable Type A Indoor Manual Call Point</td>
</tr>
</tbody>
</table>

---

Bristol Fire Engineering LLC
Al Quoz Industrial Area 3, P.O.Box 74582, Dubai, United Arab Emirates
Tel: +971 4 347 2426 • Fax: +971 4 347 2363
E-mail: sami@bristol-fire.com • Website: www.bristol-fire.com

Certificate No: 1330g-(cl-2) to EN 54-11:2001 + A1:2005

**Manual Call Points**

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<tbody>
<tr>
<td>1174d/01</td>
<td>B61-5101 Conventional Resettable Type A Indoor Manual Call Point</td>
</tr>
<tr>
<td>1330g/01</td>
<td>IGN-8401 Intelligent Analogue Addressable Type A Indoor Surface Mounted Manual Call Point</td>
</tr>
</tbody>
</table>

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Ceasefire Industries Private Ltd
E6, Upsidc Industrial Area,, Selaqui, Dehradun, Uttarakhand 24001, India
Tel: +911204223473
E-mail: amit@ceasefire.in


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>928p/01</td>
<td>TI-002257A Wireless Type A Resettable Indoor Manual Call Point (SRO1 Surface Mount Back Box)</td>
</tr>
<tr>
<td></td>
<td>Note: The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>- CR123A (3Vdc) Main Battery</td>
</tr>
<tr>
<td></td>
<td>- CR2032A (3Vdc) Secondary Battery</td>
</tr>
<tr>
<td>928p/02</td>
<td>TI-002347A Wireless Type A Indoor Addressable Manual Call Point (ALCI-Transparent hinged cover)</td>
</tr>
<tr>
<td></td>
<td>Note: This device must be used with the following battery only:</td>
</tr>
<tr>
<td></td>
<td>- CR123A (3Vdc) Batteries</td>
</tr>
</tbody>
</table>

**Ancillaries**

SR01 Surface Mount Back Box
ALCI Transparent hinged cover

PART 1: SECTION 5
MANUAL CALL POINTS

Certificated Products

TI-002226  Analogue Addressable Type A Indoor Re-Settable Manual Call Point with Short Circuit Isolator (SR01 and Flush mounting plate)

Ancillaries

SR01 Surface mounting box
Flush mounting plate

Computationics Limited (Trading as C-Tec)
Challenge Way, Martland Park, Wigan, Lancashire WD5 0LD, United Kingdom
Tel: +44 (0)1942 322744/42444 • Fax: +44 (0)1942 829867
E-mail: sales@C-tec.co.uk • Website: www.c-tec.co.uk


Certificated Products

CA470  Type A Indoor Addressable CAST Manual Call Point with Short Circuit Isolator

Accessories:
Red Single Gang Back Box

Context Plus Ltd
Export House, 175 Mauldeth Road, Fallowfield, Manchester M14 6SG, United Kingdom
Tel: +44 (0)161 257 2541 • Fax: +44 (0)161 225 8817
E-mail: xportsales@xportsales.com • Website: www.xportsales.com

Certificate No: 010w to EN 54-11:2001 and EN 54-17:2005
Certificate No: 166b-(cl-3) to EN 54-11:2001 + A1:2005

Certificated Products

55100-908 IMC  Analogue addressable manual call point with short circuit isolator and surface mounting box.
SA5900-908IMC  Intelligent Addressable Manual Call Point with Short Circuit Isolator (43785-278 Mounting Bracket and 43785-279 Back Box)
MCP1A-525IMC  Indoor Surface/Flush Mounting Conventional Call Point

Accessories:
43785-278  Mounting Bracket
43785-279  Back Box
SR  Surface mounting plastic box
SR1T  Surface mounting plastic box c/w 1 terminal
SR2T  Surface mounting plastic box c/w 2 terminals
SR3T  Surface mounting plastic box c/w 3 terminals
SR4T  Surface mounting plastic box c/w 4 terminals
MR  Surface mounting metal box
ETT  European Terminal Tray ETT1, 2 & 3
L  Earth Continuity Link
BZR/1  Bezel Type 1
BZR/2  Bezel Type 2
BZR/3  Bezel Type 3
M141W  Spacer Piece
PTR  Pattress PTR, PTR2T, PTR2TE, PTR3T & PTR3TE
C  Hinged Cover
PART 1: SECTION 5
MANUAL CALL POINTS

Detect Fire LLC
1050 Temple Ave, Colonial Heights, Virginia 23834, USA
Tel: 804-417-2244
E-mail: marketing@detectfire.info • Website: http://detectfire.info/


Manual Call Points
Certificated Products
DF-610-CCP Conventional Type A Outdoor Manual Call Point
Note: 1. Approved for surface mount use when used with the AHMB-0817 back box

AHMB-0817 Back box for surface mounting

Eaton Electrical Products Limited
Llantarnam Park, Cwmbran, South Wales NP44 3AW, United Kingdom
Tel: +44 (0)1633 628500 • Fax: +44 (0)1633 866346
E-mail: sales@fulleon.co.uk • Website: www.cooperfulleon.com


Certificated Products
CXL/GP/R/WP Conventional type A glass or plastic re-settable indoor/outdoor manual call point
CXL/GP/R/BB Conventional type A glass or plastic re-settable indoor manual call point, with surface mount back box
CXL/GP/R/WP Conventional type A glass or plastic re-settable indoor/outdoor manual call point

* Approved with V4NCSET7 Mk1 or V4NSET7-UL micro switches only.

Accessories:
/BB surface mounted (plastic back box)

Eaton Electrical Systems Limited
Wheatley Hall Road, Doncaster, South Yorkshire DN2 4NB, United Kingdom
Tel: +44 (0)1302 303397 • Fax: +44 (0)1302 303397


Certificated Products
CBG 370S Addressable Type A Glass Indoor Manual Call Point with Surface Mount Back Box
MBG813 Addressable Type A Glass Indoor Manual Call Point with Surface Mount Back Box
FXN501 Addressable Type A Glass Indoor Manual Call Point with Surface Mount Back Box
CBG 370WP Addressable Weatherproof Type A Glass Indoor/Outdoor Manual Call Point
MBG817 Addressable Weatherproof Type A Glass Indoor/Outdoor Manual Call Point
FXN503 Addressable Weatherproof Type A Glass Indoor/Outdoor Manual Call Point
CBG 370-O Addressable Type A Glass Indoor Manual Call Point, Flush Mounted
CBG 370WP-O Addressable Weatherproof Type A Glass Indoor/Outdoor Manual Call Point

### Elite Security Products (ESP)

Unit 7, Target Park, Shawbank Road, Redditch, Birmingham B98 8YN, United Kingdom  
Tel: +44 (0)1527 515150  
E-mail: info@espuk.com • Website: https://www.espuk.com/

Certificate No: 331d-(cl-1) to EN 54-11: 2001 + A1: 2005

<table>
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<tr>
<th>Certificated Products</th>
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<tr>
<td>MAGDUOCP</td>
<td>331d/03</td>
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<tr>
<td>MAGDUOCP/IP65</td>
<td>331d/04</td>
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</tbody>
</table>

Accessories:  
- For indoor devices  
- 45-0079-205 Standard Backbox  
- 25-0078-205 Bezel

### Emirates Fire Fighting Equipment Factory L.L.C. (FIREX)

P.O.Box 22436, Industrial Area 13, Sharjah, United Arab Emirates  
Tel: +971 6 5340300 • Fax: +971 6 5340090  
E-mail: firex@emirates.net.ae • Website: www.firexuae.com

Certificate No: 506d to EN 54-11: 2001

<table>
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<tr>
<td>FX-0217</td>
<td>506d/01</td>
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</tbody>
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Accessories:  
- AHMB-0217 back box for surface mounting

### Eurofyre Limited

Unit C1 Knowle Village Business Park, Mayles Lane, Wickham, Fareham PO17 5DY, United Kingdom  
Tel: 01329 830 462  
E-mail: jon@eurofyre.com


<table>
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<th>Manual call points</th>
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<tr>
<td>16-020</td>
<td>330m/01</td>
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<tbody>
<tr>
<td>ProFyre Addressable Indoor Type A Manual Call Point with Short Circuit Isolator</td>
<td>330m/01</td>
</tr>
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</table>

---
PART 1: SECTION 5
MANUAL CALL POINTS

Eurotech Fire Systems Limited
19/20 Stratfield Park, Elettra Avenue, Waterlooville, Hampshire PO7 7XN, United Kingdom
Tel: +44 (0)203 141 0999 • Fax: +44 (0)239 225 2554
E-mail: MICHELLE.AGIUS@eurotechfire.com • Website: www.eurotechfire.com


Manual Call points
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>653a/01</td>
<td>EURVC-MCP Conventional Type A re-settable indoor flush/surface manual call point.</td>
</tr>
<tr>
<td>1213m/02</td>
<td>100-2003V EURV-MCP Intelligent Type A Indoor Manual Call Point with Short Circuit Isolator (SR01 &amp; Flush Mounting Plate)</td>
</tr>
<tr>
<td>1213m/03</td>
<td>200-500A Odyssey Intelligent Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator (Mounting Bracket and Back Box)</td>
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Accessories

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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<tbody>
<tr>
<td>M200</td>
<td>wall plate</td>
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<tr>
<td>M125</td>
<td>back box</td>
</tr>
<tr>
<td>M223</td>
<td>back box</td>
</tr>
<tr>
<td>SR01</td>
<td>Surface mounting box</td>
</tr>
<tr>
<td>Flush</td>
<td>mounting plate</td>
</tr>
<tr>
<td>43785-278</td>
<td>Mounting Bracket</td>
</tr>
<tr>
<td>43785-279</td>
<td>Back Box</td>
</tr>
</tbody>
</table>


Manual Call points
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>1213z/01</td>
<td>EUW-CP-01 Wireless Type A Removable Indoor Call Point (SR01 Surface Mount Back Box)</td>
</tr>
</tbody>
</table>

Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - Main Battery
   - CR2032A (3Vdc) - Secondary Battery

Ancillaries

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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<tr>
<td>SR01</td>
<td>Surface Mount Back Box</td>
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Everday Technology Co. Limited
No,.95., Sec. 2., Ligong 1 St. Road., Letzer Industrial Park, Yilan County 26841, Taiwan ROC
Tel: +886 3 990 6099 • Fax: +862 3 990 6029
E-mail: alex.hsieh@everday.com • Website: www.everday.com


20 Oct 2020
PART 1: SECTION 5
MANUAL CALL POINTS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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</thead>
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<tr>
<td>512f/01</td>
<td>EM921 Conventional manual call point with LED</td>
</tr>
<tr>
<td>512f/02</td>
<td>EM921-F Conventional manual call point with flashy LED</td>
</tr>
<tr>
<td>512f/03</td>
<td>EM921-TC Conventional manual call point with LED and transparent cover</td>
</tr>
<tr>
<td>512f/04</td>
<td>EM921-FTC Conventional manual call point with flashy LED and transparent cover</td>
</tr>
<tr>
<td>512f/05</td>
<td>EM928 Intelligent Analogue Addressable Type A Indoor Surface Mounted Manual Call Point</td>
</tr>
</tbody>
</table>

Accessories:
EM921B1 Regular mounting base, 28mm
EM921B2 High mounting base, 40mm
EM921B3 High mounting base, 59m

Fike Safety Technology Ltd
Unit 31, Springvale Industrial Estate, Cwmbran, Gwent NP44 5BD, United Kingdom
Tel: +44 (0)1633 865558 • Fax: +44 (0)1633 866656
E-mail: fstinfo@fike.com • Website: www.fikesafetytechnology.co.uk


Certificated Products

<table>
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<th>LPCB Ref. No.</th>
<th>Description</th>
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<tr>
<td>331e/01</td>
<td>403-0006 Sita analogue addressable Type A indoor manual call point with short circuit isolator</td>
</tr>
<tr>
<td>331e/02</td>
<td>403-0007 Sita analogue addressable Type A outdoor manual call point with short circuit isolator</td>
</tr>
<tr>
<td>331d/01</td>
<td>400-0006 Zeon conventional Type A indoor manual call point</td>
</tr>
<tr>
<td>331d/02</td>
<td>400-0007 Zeon conventional Type A outdoor manual call point</td>
</tr>
<tr>
<td>331d/03</td>
<td>402-0006 Twinflex conventional Type A indoor manual call point</td>
</tr>
<tr>
<td>331d/04</td>
<td>402-0007 Twinflex conventional Type A outdoor manual call point</td>
</tr>
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</table>

Accessories
for indoor devices
45-0079-205 Standard backbox
25-0078-205 Bezel

Finder Elektronik A.S.
Liman Mah., 6. Sok., No: 10 07070, Konyaalti, Antalya, Turkey
Tel: +90 242 259 04 20 • Fax: +90 242 259 28 88
E-mail: finder@finder.com.tr • Website: www.finder.com.tr


Certificated Products

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>928h/01</td>
<td>FF VB200 Analogue addressable Type A indoor re-settable manual call point with short circuit isolator (SR01 and Flush mounting plate)</td>
</tr>
</tbody>
</table>

Ancillaries
SR01 Surface mounting box
Flush mounting plate
Deep back box
Safety cover
Wall flush mount plate (white only) and external trim frame (white only)
PART 1: SECTION 5
MANUAL CALL POINTS

Finder Yangin Güvenlik Elektronik Sistemler A.Ş
Kepez Mh, 5071 Sk. No: 10, Kepez, Antalya 07090, Turkey
Tel: +90 242 221 40 07 • Fax: +90 242 259 28 88
E-mail: info@finder.com.tr • Website: www.finder.com.tr

Certificate No: 1450e-(cl-1) to EN 54-11: 2001 + A1: 2005

Certificated Products

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>FF CP500</th>
<th>Intelligent Addressable Type A Re-settable Manual Call Point</th>
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Fire Fighter CO Security and Safety Equipment Trading LLC
Al Qusais Industry Area 4, P O Box 84926, Dubai, United Arab Emirates
Tel: 00971-4-2554494
E-mail: mutasem@firefighterco1.ae


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FST-6657</th>
<th>Addressable Resettable Type A Indoor Manual Call Point (branded as FST)</th>
</tr>
</thead>
</table>

Fireguard Safety Equipment Co Ltd
Unit 11 Chancel Industrial Estate, Newhall Street, Willenhall, West Midlands WV13 1NX, United Kingdom
Tel: +44 (0)8450 751042 • Fax: +44 (0)845 2991039
E-mail: info@fireguard-uk.com • Website: www.fireguard-uk.com

Certificate No: 512f-(cl-1) to EN 54-11: 2001 + A1: 2005

Certificated Products

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>Fireguard FG921-FTC</th>
<th>Conventional manual call point with flashy LED and transparent cover</th>
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<tbody>
<tr>
<td>512f/04</td>
<td>FGCP100</td>
<td>Analogue addressable Type A resettable indoor manual call point with short circuit isolator (SR01 and Flush mounting plate)</td>
</tr>
<tr>
<td>928h/01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Accessories:
Fireguard FG921B1 Regular mounting base, 28mm
Fireguard FG921B2 High mounting base, 40mm
Fireguard FG921B3 High mounting base, 55m

Ancillaries:
SR01 Surface mounting box
Flush mounting plate
**PART 1: SECTION 5**
MANUAL CALL POINTS

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**Firesafe**
10 Sanderson Way, Marton, Blackpool, Lancashire FY4 4NB, United Kingdom
Tel: 01253 699500 • Fax: 01253 699550
E-mail: info@firesafe.co.uk • Website: www.firesafe.co.uk


**Manual Call points**
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>928p/01</td>
<td>Wireless Type A Resettable Indoor Manual Call Point (SRO1 Surface Mount Back Box)</td>
</tr>
<tr>
<td>Note:</td>
<td>1. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>- CR123A (3Vdc) - Main Battery</td>
</tr>
<tr>
<td></td>
<td>- CR2032A (3Vdc) - Secondary Battery</td>
</tr>
</tbody>
</table>

Ancillaries
SRO1 Surface mount back box
Flush mounting plate

---

**FIREX Protection System Technology Ltd**
28-38 Desborough St, High Wycombe, Buckinghamshire, United Kingdom
Tel: 00971 653 40300 • Fax: 00971 653 40090
E-mail: QC@firexuae.com • Website: www.firexuae.com

Certificate No: 548g-(cl-3) to EN 54-11: 2001 + A1: 2005

**Certificated Products**

<table>
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<tbody>
<tr>
<td>548g/07</td>
<td>Conventional Innovation Type A Manual Call Point, Surface and Flush Mounting</td>
</tr>
<tr>
<td>548g/08</td>
<td>Digital Addressable Type A Manual Call Point, Surface and Flush Mounting</td>
</tr>
</tbody>
</table>

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**Frontier Safety Ltd UK**
85 Great Portland Street, London, England W1W 7, United Kingdom
Tel: 00447708000050
E-mail: mikefrontiersafety@gmail.com • Website: www.frontierpumps.com


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426d/01</td>
<td>Intelligent Addressable Fire Alarm Manual Call Point</td>
</tr>
</tbody>
</table>
### Gent By Honeywell (Novar Systems Ltd)

140 Waterside Road, Hamilton Industrial Park, Leicester LE5 1TN, United Kingdom  
Tel: +44 (0)116 246 2000 • Fax: +44 (0)116 246 2300  
E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk

**Middle East Sales Enquiries:**  
E-mail: gent.export@honeywell.com

Certificate No: 166b-(cl-2) to EN 54-11: 2001 + A1: 2005  

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<tr>
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<tbody>
<tr>
<td>XENS-850 Indoor flush mounting conventional call point</td>
<td>166b/39</td>
</tr>
<tr>
<td>XENS-805 Indoor surface mounting conventional call point</td>
<td>166b/39</td>
</tr>
<tr>
<td>XENS-801 Indoor surface mounting conventional call point</td>
<td>166b/43</td>
</tr>
<tr>
<td>XENS-829 Outdoor surface mounting conventional call point</td>
<td>166b/51</td>
</tr>
<tr>
<td>S4-34800 Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator (S4-34895 surface mount back box)</td>
<td>042bq/01</td>
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<tr>
<td><strong>Note:</strong> Approved for use with glass non re-settable element</td>
<td></td>
</tr>
<tr>
<td>S4-34842 Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator &amp; Protective Cover (S4-34895 surface mount back box)</td>
<td>042bq/02</td>
</tr>
<tr>
<td><strong>Note:</strong> Approved for use with glass non re-settable element</td>
<td></td>
</tr>
<tr>
<td>S4-34805 Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator (S4-34895 surface mount back box)</td>
<td>042bq/03</td>
</tr>
<tr>
<td><strong>Note:</strong> Approved for use with plastic re-settable element</td>
<td></td>
</tr>
<tr>
<td>S4-34845 Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator &amp; Protective Cover (S4-34895 surface mount back box)</td>
<td>042bq/04</td>
</tr>
<tr>
<td><strong>Note:</strong> Approved for use with plastic re-settable element</td>
<td></td>
</tr>
<tr>
<td>S4-34805-EP Analogue Addressable Type A Outdoor Manual Call Point with Short Circuit Isolator (MIM1Z003.0 Surface Mounting Base)</td>
<td>042bq/05</td>
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<tr>
<td><strong>Note:</strong> 1. Approved for use with plastic re-settable element</td>
<td></td>
</tr>
</tbody>
</table>

**Ancillaries**  
S4-34895 surface mount back box  
MIM1Z003.0 Surface Mounting Base

---

### Godrej & Boyce Mfg. Co. Ltd

Godrej Security Solutions, Plant 17, Pirojshanagar, Vikhroli (East), Mumbai 400079, India  
Tel: +91 22 679 64797 • Fax: +91 22 679 61509  
E-mail: securityexports@godrej.com or secure@godrej.com • Website: www.godrejsecure.com


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-MCP-ID Intelligent Manual Call Point (43785-278 Bracket and 43785-279 Back Box)</td>
<td>010bh/01</td>
</tr>
</tbody>
</table>

**Ancillaries**  
43785-278 Mounting Bracket  
43785-279 Back Box

---

20 Oct 2020 503
PART 1: SECTION 5
MANUAL CALL POINTS

Gulf Security Technology Co., Ltd.
No 80 Changjiang East Road, QETDZ, Qinhuangdao, Hebei Province 066004, China
Tel: +86 0335 8502434 • Fax: +86 0335 8502532
E-mail: sales@carrier.com • Website: www.gst.com.cn

Certificate No: 548g to EN 54-11: 2001 + A1: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>548g/07</td>
<td>DC-9204E Conventional Innovation Manual Call Point, Surface and Flush Mounting</td>
</tr>
<tr>
<td>548g/08</td>
<td>DI-9204E Digital Addressable Manual Call Point, Surface and Flush Mounting</td>
</tr>
<tr>
<td>548g/09</td>
<td>DC-9204E-HK Conventional Innovation Type A Indoor Manual Call Point, Surface and Flush Mounting</td>
</tr>
<tr>
<td>548g/10</td>
<td>DI-9204E-HK Digital Addressable Type A Indoor Manual Call Point, Surface and Flush Mounting</td>
</tr>
</tbody>
</table>

Accessories:
D-92FC Transparent cover

Hochiki Europe (UK) Limited
Grosvenor Road, Gillingham Business Park, Gillingham, Kent ME8 0SA, United Kingdom
Tel: +44 (0)1634 260133 • Fax: +44 (0)1634 260132
E-mail: info@hochikieurope.com • Website: www.hochikieurope.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>164j/06</td>
<td>SCP-DPS Intelligent Analogue Addressable Type A Indoor Manual Call Point</td>
</tr>
<tr>
<td>164r/01</td>
<td>HCP-E(SCI) Intelligent Analogue Addressable Manual Call Point with short circuit isolator (SR mounting box)</td>
</tr>
<tr>
<td>164r/01</td>
<td>HCP-E(HFP)-SCI Intelligent Analogue Addressable Manual Call Point with short circuit isolator (SR mounting box)</td>
</tr>
<tr>
<td>164r/02</td>
<td>HCP-W(SCI) Weather Proof Intelligent Analogue Addressable Manual Call Point with Short Circuit Isolator</td>
</tr>
<tr>
<td>164r/02</td>
<td>HCP-W(HFP)-SCI Weather Proof Intelligent Analogue Addressable Manual Call Point with Short Circuit Isolator</td>
</tr>
<tr>
<td>928p/01</td>
<td>RSM-CP Wireless Type A Resettable Indoor Manual Call Point (SRO1 Surface Mount Back Box)</td>
</tr>
</tbody>
</table>

Note:
1. The device must be used with the following batteries only:
   CR123A (3Vdc) - main battery
   CR2032A (3Vdc) - secondary

HCP-E(DPS)-SCI Type A Indoor Dual Pole Switching Intelligent Addressable Call Point with Short Circuit Isolator (SR-1T Mounting Box)
HCP-W(DPS)-SCI Type A Outdoor Dual Pole Switching Intelligent Addressable Weatherproof Call Point with Short Circuit Isolator
SCP-W(DPS) Intelligent Analogue Addressable Type A Weatherproof Manual Call Point

Accessories:
SR Surface mounting plastic box - indoor models only
SR1T Surface mounting plastic box c/w 1 terminal
SR01 Surface mount back box
**PART 1: SECTION 5**

**MANUAL CALL POINTS**

---

### Honeywell International (I) Pvt. Ltd.
Sector 36, Pace City - II, Gurgaon, Haryana 122004, India  
E-mail: Amrish.Sharma@Honeywell.com • Website: https://www.systemsensor.com/

Certificate No: 550h-(cl-3) to EN 54-11:2001 + A1:2005

**Manual Call Points**  
Certificated Products  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>550h/05</td>
<td>HW-MCP-GLASS Addressable Type A Indoor Manual Call Point</td>
</tr>
</tbody>
</table>

---

### Honeywell Morley-IAS by Honeywell International (I) Pvt. Ltd
Sector 36, Pace City - II, Gurgaon, Haryana 122004, India  
Tel: +91 124 4752700 • Fax: +91 124 4752750  
E-mail: amit.puri@honeywell.com • Website: www.honeywell.com

Certificate No: 550h-(cl-2) to EN 54-11:2001 + A1:2005

**Manual Call Points**  
Certificated Products  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>550h/04</td>
<td>HM-MCP-GLASS Addressable Type A Indoor Manual Call Point</td>
</tr>
</tbody>
</table>

---

### Horing LIH Industrial Co Ltd
No. 35, Er-Hu Road, Hu-Hsi Village, Yuan-Shan Hsiang, Yilan Hsien 264, Taiwan ROC  
Tel: +886 2 22487599 • Fax: +886 2 22407752


**Certificated Products**  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
</table>
| 506d/01       | AH-0217 Conventional indoor surface/flush mounting manual call point  
Note: Approved for surface mount use when used with the AHMB-0217 back box |
| 506d/02       | AH-0817 Conventional Type A outdoor Manual Call Point  
Note: Approved for surface mount use when used with the AHMB-0817 back box |

**Accessories:**  
AHMB-0217 back box for surface mounting  
AHMB-0817 back box for surface mounting

---

### INIM Electronics S.R.L
Via Dei Lavoratori 10, Frazione Centobuchi, Monteprandone (AP) 63076, Italy  
Tel: +39 0735 705007 • Fax: +39 0735 704912  
E-mail: info@inim.biz • Website: www.inim.biz


**Certificated Products**  

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>991h/01</td>
<td>EC0020 Addressable Type A Indoor Re-settable Manual Call Point with Short Circuit Isolator</td>
</tr>
<tr>
<td>991j/01</td>
<td>IC0020 Conventional Type A Indoor Re-settable Manual Call Point</td>
</tr>
</tbody>
</table>

---

20 Oct 2020
## PART 1: SECTION 5
### MANUAL CALL POINTS

KAC Alarm Company Limited
KAC House, Thornhill Road, North Moons Moat, Redditch, Worcestershire B98 9ND, United Kingdom
Tel: +44 (0)1527 406655 • Fax: +44 (0)1527 406677
E-mail: sales@kac.co.uk OR marketing@kac.co.uk • Website: www.kac.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP1A-Rxxxx-yyyy-zzIS</td>
<td>Indoor surface/flush mounting conventional call point 166b/39</td>
</tr>
<tr>
<td>MCP1B-Rxxxx-yyyy-zz</td>
<td>Indoor surface/flush mounting conventional call point 166b/40</td>
</tr>
<tr>
<td>MCP2A-Rxxxx-yyyy-zz</td>
<td>Indoor surface/flush mounting conventional call point 166b/41</td>
</tr>
<tr>
<td>MCP2B-Rxxxx-yyyy-zz</td>
<td>Indoor surface/flush mounting conventional call point 166b/42</td>
</tr>
<tr>
<td>MCP3A-Rxxxx-yyyy-zz</td>
<td>Indoor surface/flush mounting conventional call point 166b/43</td>
</tr>
<tr>
<td>MCP4A-R000xx-yyyy-zz</td>
<td>Indoor surface/flush mounting conventional call point 166b/44</td>
</tr>
<tr>
<td>MCP5A-RP01wwxx-yyyy-zz</td>
<td>Indoor surface/flush mounting addressable call point 166b/45</td>
</tr>
<tr>
<td>MCP5A-RP03wwxx-yyyy-zz</td>
<td>Advanced Protocol (and System Sensor 500 series protocol) 166b/47</td>
</tr>
<tr>
<td>WCP1A-RxxxSx-yyyy-zz</td>
<td>Outdoor surface mounting conventional waterproof call point 166b/51</td>
</tr>
<tr>
<td>WCP1B-RxxxSx-yyyy-zz</td>
<td>Outdoor surface mounting conventional waterproof call point 166b/52</td>
</tr>
<tr>
<td>WCP2A-RxxxSx-yyyy-zz</td>
<td>Outdoor surface mounting conventional waterproof call point 166b/53</td>
</tr>
<tr>
<td>WCP2B-RxxxSx-yyyy-zz</td>
<td>Outdoor surface mounting conventional waterproof call point 166b/54</td>
</tr>
<tr>
<td>WCP3A-RxxxSx-yyyy-zz</td>
<td>Outdoor surface mounting conventional waterproof call point 166b/55</td>
</tr>
<tr>
<td>WCP4A-R000Sx-yyyy-zz</td>
<td>Outdoor surface mounting conventional waterproof call point 166b/56</td>
</tr>
<tr>
<td>WCP5A-RPwwSx-yyyy-zz</td>
<td>Outdoor surface mounting addressable waterproof call point Advanced Protocol (and System Sensor 500 series protocol) 166b/57</td>
</tr>
<tr>
<td>WCP5A-RPwwSx-yyyy-zz</td>
<td>Outdoor surface mounting addressable waterproof call point Advanced Protocol (and Honeywell 500 series protocol) 166b/59</td>
</tr>
</tbody>
</table>

Notes:
1. **ww** (Range 0-99 odd numbers only) indicates the communication software protocol
2. **S** (Glass element) **G** (Flexible element)
3. **yyyy** (Range A000 to Z999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label
4. **zz** (Range 0-99) indicates customer marking options detailed on KAC controlled drawing 08/2639
5. **IS** indicates the intrinsically safe version.
PART 1: SECTION 5
MANUAL CALL POINTS

Certificated Products

<table>
<thead>
<tr>
<th>LPBC Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>166b/43</td>
<td>MCP3A-Rxxxxx-yyyy-zzIS Indoor surface/flush mounting conventional call point</td>
</tr>
<tr>
<td>166b/44</td>
<td>MCP4A-R000xx-yyyy-zzIS Indoor surface/flush mounting conventional call point</td>
</tr>
<tr>
<td>166b/67</td>
<td>MCP5A-RP07xx-zz Indoor surface/flush mounting addressable call point (Labor Strauss protocol)</td>
</tr>
<tr>
<td>166b/68</td>
<td>WCP5A-RP07Sx-zz Outdoor surface mounting addressable call point (Labor Strauss protocol)</td>
</tr>
<tr>
<td>166b/51</td>
<td>WCP1A-RxxxxSx-yyyy-zzIS Outdoor surface mounting conventional waterproof call point</td>
</tr>
<tr>
<td>166b/52</td>
<td>WCP1B-RxxxxSx-yyyy-zzIS Outdoor surface mounting conventional waterproof call point</td>
</tr>
<tr>
<td>166b/53</td>
<td>WCP2A-RxxxxSx-yyyy-zzIS Outdoor surface mounting conventional waterproof call point</td>
</tr>
<tr>
<td>166b/54</td>
<td>WCP2B-RxxxxSx-yyyy-zzIS Outdoor surface mounting conventional waterproof call point</td>
</tr>
<tr>
<td>166b/55</td>
<td>WCP3A-RxxxxSx-yyyy-zzIS Outdoor surface mounting conventional waterproof call point</td>
</tr>
</tbody>
</table>

Notes:

1. XXX xx indicates the electrical configuration (000 xx = no resistor, 001 xx = single pole changeover connections)
2. xxxx x indicates mounting (S = Surface mounted, F = Flush mounted, P = Pattress mounted, 1-4 = Surface mounted with 1-4 terminals)
3. xxxx G (Glass element) xxxx F (Flexible element)
4. yyyy (Range A000 to Z999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label
5. zz (Range 0-99) indicates customer marking options detailed on KAC controlled drawing 08/2639
6. IS indicates the intrinsically safe version.
Part 1: Section 5
Manual Call Points

Certificated Products

<table>
<thead>
<tr>
<th>Product Details</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WCP4A-R000Sx-yyy-zzIS Outdoor surface mounting conventional waterproof call point</td>
<td>166b/56</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. S G (Glass element) S F (Flexible element)</td>
<td></td>
</tr>
<tr>
<td>2. yyyy (Range A000 to 2999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label</td>
<td></td>
</tr>
<tr>
<td>3. zz (Range 0-99) indicates customer marking options detailed on KAC controlled drawing 08/2639</td>
<td></td>
</tr>
<tr>
<td>4. IS indicates the intrinsically safe version.</td>
<td></td>
</tr>
</tbody>
</table>

MCP6H-RC01xx-yyyy-zz Indoor surface/flush mounting conventional call point
Notes:
1. RC01 X x indicates mounting (S =Surface mounted, F =Flush mounted,
P =Pattress mounted, 1-4 = Surface mounted with 1-4 terminals)
2. RC01x G (Glass element) RC01x F (Flexible element)
3. yyyy (Range A000 to 2999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label
4. zz (Range 0-99) indicates customer marking options detailed on KAC controlled drawing 08/2639.

MCP6V-RC01xx-yyyy-zz Indoor surface/flush mounting conventional call point
Notes:
1. RC01 X x indicates mounting (S =Surface mounted, F =Flush mounted,
P =Pattress mounted, 1-4 = Surface mounted with 1-4 terminals)
2. RC01x G (Glass element) RC01x F (Flexible element)
3. yyyy (Range A000 to 2999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label
4. zz (Range 0-99) indicates customer marking options detailed on KAC controlled drawing 08/2639.

Accessories:
- SR Surface mounting plastic box (1)
- SR1T Surface mounting plastic box c/w 1 terminal (1)
- SR2T Surface mounting plastic box c/w 2 terminals (1)
- SR3T Surface mounting plastic box c/w 3 terminals (1)
- SR4T Surface mounting plastic box c/w 4 terminals (1)
- ETT European Terminal Tray ETT1, 2 & 3 (1)
- L Earth Continuity Link (1)
- M141W Spacer Piece (1)
- PTR Pattress PTR, PTRE, PTR2T, PTR2TE, PTR3T & PTR3TE (1)
- C Hinged Cover (2)

Notes:
1. The above accessories are only supplied with MCP 1-7 Series manual call points
2. The hinged cover is only supplied with the MCP & WCP Series manual call points optionally indicated by the presence of ‘C’ at the end of the model number.

Certificated Products

<table>
<thead>
<tr>
<th>Product Details</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP5A-RPwwxx-yyyy-zz Indoor/Outdoor surface/flush mounting addressable call point with short circuit isolator</td>
<td>166e/02</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. ww (Range 0-99 even numbers only) indicates the communication software protocol</td>
<td></td>
</tr>
</tbody>
</table>
| 2. WW X x indicates mounting (S =Surface mounted, F =Flush mounted,
P =Pattress mounted, 1-4 = Surface mounted with 1-4 terminals) |               |
| 3. x G (Glass element) x F (Flexible element)                                  |               |
| 4. yyyy (Range A000 to 2999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label |               |


Certificated Products

<table>
<thead>
<tr>
<th>Product Details</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCP5A-RPwwxx-yyyy-zz Indoor/Outdoor surface/flush mounting addressable call point with short circuit isolator</td>
<td>166e/02</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. ww (Range 0-99 even numbers only) indicates the communication software protocol</td>
<td></td>
</tr>
</tbody>
</table>
| 2. WW X x indicates mounting (S =Surface mounted, F =Flush mounted,
P =Pattress mounted, 1-4 = Surface mounted with 1-4 terminals) |               |
| 3. x G (Glass element) x F (Flexible element)                                  |               |
| 4. yyyy (Range A000 to 2999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label |               |
PART 1: SECTION 5
MANUAL CALL POINTS

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>166e/03</td>
<td>WCP5A-RPwwSx-yyyy-zz Outdoor surface mounting addressable waterproof call point with short circuit isolator Advanced Protocol (and System Sensor 500 series protocol)</td>
</tr>
<tr>
<td>166e/04</td>
<td>WCP5A-RPwwSx-yyyy-zz Outdoor surface mounting addressable waterproof call point with short circuit isolator Advanced Protocol (and Honeywell 500 series protocol)</td>
</tr>
<tr>
<td>166e/07</td>
<td>MCP5A-RP08xx-zz Indoor surface/flush mounting addressable call point with short circuit isolator Advanced Protocol (and Labor Strauss protocol)</td>
</tr>
<tr>
<td>166e/08</td>
<td>WCP5A-RP08Sx-zz Outdoor surface mounting addressable call point with short circuit isolator Advanced Protocol (and Labor Strauss protocol)</td>
</tr>
</tbody>
</table>

Notes:

1. ww (Range 0-99 even numbers only) indicates the communication software protocol
2. S G (Glass element) S F (Flexible element)
3. yyyy (Range A000 to Z999 or STCK for standard stocked product), indicates a customer account code. Only specific account codes are LPCB approved and indicated by the presence of the LPCB logo placed on the product label
4. zz (Range 0-99) indicates customer marking options detailed on KAC controlled drawing 08/2639.

Accessories:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR Surface mounting plastic box</td>
<td>1</td>
</tr>
<tr>
<td>SR1T Surface mounting plastic box c/w 1 terminal</td>
<td>1</td>
</tr>
<tr>
<td>SR2T Surface mounting plastic box c/w 2 terminal</td>
<td>1</td>
</tr>
<tr>
<td>SR3T Surface mounting plastic box c/w 3 terminal</td>
<td>1</td>
</tr>
<tr>
<td>SR4T Surface mounting plastic box c/w 4 terminal</td>
<td>1</td>
</tr>
<tr>
<td>ETT European Terminal Tray</td>
<td>1</td>
</tr>
<tr>
<td>L Earth Continuity Link</td>
<td>1</td>
</tr>
<tr>
<td>M141W Spacer Piece</td>
<td>1</td>
</tr>
<tr>
<td>PTR Pattress PTR, PTR2T, PTR2TE, PTR3T &amp; PTR3TE</td>
<td>1</td>
</tr>
<tr>
<td>C Hinged Cover</td>
<td>2</td>
</tr>
</tbody>
</table>

Notes:

1. The above accessories are only supplied with MCP Series manual call points
2. The hinged cover is supplied with the MCP & WCP Series manual call points optionally indicated by the present of ‘C’ at the end of the model number.


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>550h/02</td>
<td>MCP2A-R470FF/01 Conventional Type A Indoor Flush Mounted Flexible Element Manual Call Point</td>
</tr>
<tr>
<td>550h/03</td>
<td>MCP2A-R470SF/01 Conventional Type A Indoor Surface Mounted Flexible Element Manual Call Point</td>
</tr>
</tbody>
</table>

KMW Systems S.R.L.
Str.Sambetei, Nr. 6 Iasi, Romania
Tel: 0040232247288
E-mail: marius.gavriluta@kmw.ro


20 Oct 2020
PART 1: SECTION 5
MANUAL CALL POINTS

Manual Call Points
Certificated Products
LPCB Ref. No.
KM-FC5300 Conventional Resettable Type A Indoor Manual Call Point 1174d/01
KM-FA6300 Addressable Resettable Type A Indoor Manual Call Point 1174d/02

Labor Strauss Sicherungsanlagenbau GmbH
Wiegelestrasse 36, A-1231 Vienna, Austria
Tel: +43 1 52114-44 • Fax: +43 1 52114-27
E-mail: andreas.schumacher@lst.at • Website: www.laborstrauss.com


Certificated Products
LPCB Ref. No.
FI700/MCP Analogue addressable Type A re-settable manual call point with short circuit isolator (SR01 and Flush mounting plate) 928h/01
FI750/MCP Altair Type A Indoor Addressable Manual Call Point with Short Circuit Isolator (ALCI - Transparent hinged cover and FMP-303 Flush Fitting Bezel) 928h/02
FI750/MCPIP67 Altair Type A Outdoor Addressable Manual Call Point with Short Circuit Isolator (Waterproof) (ALCI - Transparent hinged cover) 928h/03
FI750/RF/MCP Wireless Type A Indoor Addressable Manual Call Point (ALCI- Transparent hinged cover) 928p/02

Note:
This device must be used with the following battery only:
CR123A (3Vdc) Batteries

Ancillaries
SR01 Surface mounting box
Flush mounting plate
ALCI - Transparent hinged cover
FMP-303 Flush Fitting Bezel

Mavili Elektronik Ticaret Ve Sanayi A.S.
Serifali Mah, Kutup Sok, No: 27:, 1-2-4 Umranıye, İstanbul TR 34775, Turkey
Tel: +90 216 4664 505 • Fax: +90 216 4664 510
E-mail: mavili@mavili.com.tr • Website: www.mavili.com.tr


Certificated Products
LPCB Ref. No.
ML-2710 Conventional Type A Indoor Manual Call Point, Resettable 926h/01
ML-1710 Maxlogic Intelligent Analogue Addressable Type A Indoor Resettable Manual Call Point 926h/02
ML-1710.SCI Maxlogic Intelligent Analogue Addressable Type A Indoor Resettable Manual Call Point with Short Circuit Isolator 926k/01
PART 1: SECTION 5
MANUAL CALL POINTS

Morley-IAS Fire Systems by Honeywell (Pittway Systems Technology Group (Europe) Ltd)
Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@morleyias.co.uk • Website: www.morley-ias.co.uk

Certificate No: 166e to EN 54-11: 2001 and EN 54-17: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-MCP-xxxxx-I</td>
<td>Indoor surface/flush mounting addressable call point with short circuit isolator. Advanced Protocol Honeywell 500 series protocol</td>
</tr>
<tr>
<td>MI-MCP-xxxxx</td>
<td>Indoor surface/flush mounting addressable call point Advanced Protocol (and Honeywell 500 series protocol)</td>
</tr>
<tr>
<td>MI-WCP-R/Sx</td>
<td>Outdoor surface mounting addressable waterproof call point Advanced Protocol (and Honeywell 500 series protocol)</td>
</tr>
<tr>
<td>MI-WCP-R/I/Sx</td>
<td>Outdoor surface mounting addressable waterproof call point with short circuit isolator Advanced Protocol (and Honeywell 500 series protocol)</td>
</tr>
</tbody>
</table>

Accessories:

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR</td>
<td>Surface mounting plastic box(1)</td>
</tr>
<tr>
<td>SR1T</td>
<td>Surface mounting plastic box c/w 1 terminal(1)</td>
</tr>
<tr>
<td>SR2T</td>
<td>Surface mounting plastic box c/w 2 terminal(1)</td>
</tr>
<tr>
<td>SR3T</td>
<td>Surface mounting plastic box c/w 3 terminal(1)</td>
</tr>
<tr>
<td>SR4T</td>
<td>Surface mounting plastic box c/w 4 terminal(1)</td>
</tr>
<tr>
<td>ETT</td>
<td>European Terminal Tray ETT 1, 2 &amp; 3(1)</td>
</tr>
<tr>
<td>L</td>
<td>Earth Continuity Link(1)</td>
</tr>
<tr>
<td>BZR/1</td>
<td>Bazel Type 1(1)</td>
</tr>
<tr>
<td>BZR/2</td>
<td>Bazel Type 2(1)</td>
</tr>
<tr>
<td>BZR/3</td>
<td>Bazel Type 3(1)</td>
</tr>
<tr>
<td>M141W</td>
<td>Spacer Piece(1)</td>
</tr>
<tr>
<td>PTR</td>
<td>Pattress PTR, PTR2T, PTR2TE, PTR3T &amp; PTR3TE(1)</td>
</tr>
<tr>
<td>C</td>
<td>Hinged Cover(2)</td>
</tr>
</tbody>
</table>

Notes:
1. The above accessories are only supplied with MI-MCP-xxxxx & MI-MCP-xxxxx-I manual call point
2. The hinged cover may be supplied with all models and is optionally indicated by the presence of ‘C’ at the end of the model number.

Multron Systems Pte Ltd
217 Kallang Bahru, Multron Building, Singapore 339 347, Singapore
Tel: +65 6743 2555 / 6395 6868 • Fax: +65 6743 2777 / 6395 6869
E-mail: info@multron.com • Website: www.multron.com

Certificate No: 1330g-(cl-3) to EN 54-11:2001 + A1: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>MX140</td>
<td>Intelligent Analogue Addressable Type A Indoor Surface Mounted Manual Call Point</td>
</tr>
</tbody>
</table>

20 Oct 2020
PART 1: SECTION 5
MANUAL CALL POINTS

Notifier by Honeywell
Sector 36, Pace City II, Gurgaon-122004, Haryana, India
Tel: +91-124 4752700  ext 2712
E-mail: amit.puri@honeywell.com

Certificate No: 550h-(cl-1) to EN 54-11: 2001 + A1: 2005

Certificated Products

<table>
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<tbody>
<tr>
<td>550h/01</td>
<td>NFX-MCP-GLASS Addressable Type A Manual Call Point</td>
</tr>
</tbody>
</table>

Notifier by Honeywell (Pittway Systems Technology Group (Europe) Ltd)
Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@notifiersystems.co.uk • Website: www.notifierfiresystems.co.uk


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>166e/01</td>
<td>M700KACI-xx Indoor surface/flush mounting addressable call point with short circuit isolator Advanced Protocol (and System Sensor 500 series protocol)</td>
</tr>
<tr>
<td>166b/45</td>
<td>M700KAC-xx Indoor surface/flush mounting addressable call point Advanced Protocol System Sensor 500 series protocol</td>
</tr>
<tr>
<td>166e/03</td>
<td>M700WCP-R/I/Sx Outdoor surface mounting addressable waterproof call point with short circuit isolator Advanced Protocol System Sensor 500 series protocol</td>
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Accessories:

<table>
<thead>
<tr>
<th>Accessories</th>
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<tbody>
<tr>
<td>SR</td>
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<td>SR1T</td>
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<td>SR2T</td>
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<td>SR3T</td>
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<td>ETT</td>
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<tr>
<td>L</td>
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<tr>
<td>BZR/1</td>
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<td>M141W</td>
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<tr>
<td>PTR</td>
</tr>
<tr>
<td>C</td>
</tr>
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</table>

Notes:
1. The above accessories are only supplied with M700KACI-xx & M700KACI-xx manual call points
2. The hinged cover may be supplied with all models and is optionally indicated by the presence of 'C' at the end of the model number.
**Olympia Electronics S.A.**
Kolindros Pierias, 60061, Greece  
Tel: (+30) 2353051200 • Fax: (+30) 2353051486  
E-mail: info@olympia-electronics.gr • Website: www.olympia-electronics.gr


<table>
<thead>
<tr>
<th>Certificated Products</th>
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<tr>
<td>BS-536</td>
<td>1010c/01</td>
</tr>
<tr>
<td>BSR-5036/A</td>
<td>1010c/02</td>
</tr>
</tbody>
</table>

**Protec Fire Detection plc**
Protec House, Churchill Way, Nelson, Lancashire BB9 6RT, United Kingdom  
Tel: +44 (0)1282 717171 • Fax: +44 (0)1282 717273  
E-mail: sales@protec.co.uk • Website: www.protec.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tr>
<td>WLS/MCP</td>
<td>928p/01</td>
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## PART 1: SECTION 5
#### MANUAL CALL POINTS

### Manual Call Points

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>512f/04</td>
<td>Re-736ff Conventional manual call point with flashy LED and transparent cover</td>
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</table>

**Accessories**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>EM921B1</td>
<td>Regular mounting base, 28mm</td>
</tr>
<tr>
<td>EM921B2</td>
<td>High mounting base, 40mm</td>
</tr>
<tr>
<td>EM921B3</td>
<td>High mounting base, 55mm</td>
</tr>
</tbody>
</table>

### Safety Technology International Limited

Taylor House, 34 Sherwood Road, Aston Fields Industrial estate, Bromsgrove, Worcestershire B60 3DR, United Kingdom

Tel: +44 (0)1527 520999 • Fax: +44 (0)1527 501999  
E-mail: sales@sti-europe.com • Website: www.sti-europe.com


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>653a/01</td>
<td>Series 01 Conventional Type A re-settable indoor flush/surface mounted manual call point</td>
</tr>
</tbody>
</table>

**Notes:**

1. Flush mount approved model RP-RF-01 (M200)  
2. Surface mount approved model RP-RS-01 (M200 + M125)  
3. Surface mount approved model RP-RS1-01 (M223)  
4. Flush mount approved model RP-RF2-01 (M200/V2)  
5. Dual mount approved model RP-RD2-01 (M200/V2 + M223/V2)  
6. Surface mount approved model RP-RS2-01 (M223/V2)  
7. Approved colour, red only

**Accessories**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>M200 Wall Plate</td>
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<tr>
<td>M125 Back Box</td>
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</tr>
<tr>
<td>M223 Back Box</td>
<td></td>
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<tr>
<td>M200/V2 Wall Plate</td>
<td></td>
</tr>
<tr>
<td>M223/V2 Back Box</td>
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</tr>
</tbody>
</table>

### Schneider Electric Fire & Security Oy

Sokerilinnantie 11C, 02600, Espoo, Finland

Tel: +358 10 446 511 • Fax: +358 10 446 5103  
E-mail: FI-FireSecurity-Info@schneider-electric.com • Website: www.schneider-electric.com


**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>010bh/01</td>
<td>FFS06723706 Intelligent Addressable Manual Call Point with Short Circuit Isolator (43785-278 Mounting Bracket and 43785-279 Back Box)</td>
</tr>
<tr>
<td></td>
<td>43785-278 Mounting Bracket</td>
</tr>
<tr>
<td></td>
<td>43785-279 Back Box</td>
</tr>
<tr>
<td></td>
<td>ECE221-I ESMI Essentia Manual Call Point ECE221-I</td>
</tr>
<tr>
<td></td>
<td>(43785-278 Mounting Bracket and 43785-279 Back Box)</td>
</tr>
</tbody>
</table>
Shenzhen Fanhai Sanjiang Electronics CO., Ltd
3/F., Guangcai Xintiandi Mansion, Nanshan Road, Nanshan District, Shenzhen, Guangdong 518054, China
Tel: +86 755 26521071
E-mail: shuxian.wel@fhsjdz.com


Certificated Products

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<tr>
<td>A9060T</td>
<td>Addressable Manual Call Point</td>
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</table>

SHIELD FIRE, SAFETY AND SECURITY LIMITED
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 1708 377731 • Fax: +44 1708 347637
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com

Certificate No: 010n-(cl-3) to EN 54-11:2001 + A1:2005

Manual Call points

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>SEN-A4061</td>
<td>Intelligent Addressable Manual Call Point with Short Circuit Isolator</td>
</tr>
<tr>
<td>SIL-A7033</td>
<td>SIL I.S. Manual Call Point</td>
</tr>
<tr>
<td>SIL-A7011</td>
<td>SIL Indoor Manual Call Point with Isolator</td>
</tr>
<tr>
<td>SIL-A7023</td>
<td>SIL Waterproof Manual Call Point with Isolator</td>
</tr>
<tr>
<td>SW-5000</td>
<td>Wireless Type A Resettable Indoor Manual Call Point (SRO1 Surface Mount Back Box)</td>
</tr>
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Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) Main Battery
   - CR2032A (3Vdc) Secondary Battery

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SW-5500</td>
<td>Wireless Type A Indoor Addressable Manual Call Point (ALCI-Transparent hinged cover)</td>
</tr>
</tbody>
</table>

Note:
This device must be used with the following battery only:
- CR123A (3Vdc) Batteries

Ancillaries
SR01 Surface Mount Back Box
ALCI- Transparent hinged cover

SHIELD FIRE, SAFETY AND SECURITY LTD
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 207 712 1610 • Fax: +44 207 712 1578
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com

Certificate No: 548g-(cl-4) to EN 54-11: 2001 + A1: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG-C440F</td>
<td>Conventional Innovation Manual Call Point, Surface and Flush Mounting</td>
</tr>
<tr>
<td>BG-I450F</td>
<td>Digital Addressable Manual Call Point, Surface and Flush Mounting</td>
</tr>
</tbody>
</table>
### PART 1: SECTION 5
### MANUAL CALL POINTS

**Siemens Switzerland Ltd**
Theilerstrasse 1a, CH-6300 Zug, Switzerland
Website: www.siemens.com

Certificate No: 531j-(cl-1) to EN 54-11:2001 + A1:2005

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<td>FDM225-RP</td>
<td>126ap/01</td>
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<tr>
<td>FDM225-RG</td>
<td>126ap/02</td>
</tr>
<tr>
<td>FDM226-RP</td>
<td>126ap/03</td>
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<tr>
<td>FDM226-RG</td>
<td>126ap/04</td>
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<tr>
<td>FDM225-RP (F)</td>
<td>126ap/10</td>
</tr>
<tr>
<td>FDM225-RG (F)</td>
<td>126ap/11</td>
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<tr>
<td>FDM1101-RG</td>
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<tr>
<td>FDM1101-RP</td>
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<td>FDM1101-RG(F)</td>
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<td>FDM1101-RP(F)</td>
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<tr>
<td>DM1104</td>
<td>531j/02</td>
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<tr>
<td>DM1104H</td>
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<tr>
<td>FDM221</td>
<td>531k/07</td>
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<td>FDM223</td>
<td>531k/08</td>
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<td>FDM223H</td>
<td>531k/09</td>
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<td>FDM224</td>
<td>531k/10</td>
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<td>FDM224H</td>
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</tr>
<tr>
<td>FDM231-RP</td>
<td>531k/12</td>
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<tr>
<td>FDM231-RP(F)</td>
<td>531k/13</td>
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<tr>
<td>FDM365-RP</td>
<td>126ap/12</td>
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**Bases:**
- FDMH295-R: Housing Base
- FDMH295-S: Housing Base with Holes and Sockets

**Accessories:**
- FDMC295: Transparent Polycarbonate Protective Cover
- DMZ1197-AC: Protective Cover
- FDMK291: Protective cover
- FDMK231: Key
- FDMK291: Key with cover
PART 1: SECTION 5
MANUAL CALL POINTS

Silver-Tec Limited
Unit 1-2, Building 53B, Pensnett Trading Estate, Kingswinford, West Midlands DY6 7XQ, United Kingdom
Tel: +44 (0)1384 671611
E-mail: info@silver-tec.co.uk • Website: www.silver-tec.co.uk


Certificated Products

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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>166k/03</td>
<td>ST-CAN-SCR Intelligent Analogue Addressable Type A Manual Call Point with Short Circuit Isolator (SR Mounting Box)</td>
</tr>
<tr>
<td>166k/05</td>
<td>ST-ACW-SCR Weatherproof Intelligent Analogue Addressable Type A Manual Call Point with Short Circuit Isolator</td>
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SR  Surface Mounting Plastic Box - Indoor Models Only

SMS (Novar Systems Ltd)
Hamilton Industrial Park, 140 Waterside Road, Leicester LE5 1TN, United Kingdom
Tel: +44 (0)116 246 2100 • Fax: +44 (0)116 246 2016
Website: www.smsfire.co.uk


Certificated Products

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<tr>
<td>042bq/01</td>
<td>SEN-800 Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator (SEN-895 surface mount back box) Note: 1. Approved for use with glass non re-settable element</td>
</tr>
<tr>
<td>042bq/03</td>
<td>SEN-805 Analogue Addressable Type A Indoor Manual Call Point with Short Circuit Isolator (SEN-895 surface mount back box) Note: 1. Approved for use with plastic re-settable element</td>
</tr>
<tr>
<td>042bq/05</td>
<td>SEN-805-EP Analogue Addressable Type A Outdoor Manual Call Point with Short Circuit Isolator (MIM1Z003.0 Surface Mounting Base) Note: 1. Approved for use with plastic re-settable element</td>
</tr>
</tbody>
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Ancillaries
SEN-895 Surface Mount Back Box
MIM1Z003.0 Surface Mounting Base

SS Fire & Security Sdn Bhd
80A, Jalan Megat, Batu Pahat, Johor 83000, Malaysia
Tel: +60167788888
E-mail: ss@ssfiresecurity.com

Certificate No: 548g-(cl-7) to EN 54-11: 2001 + A1: 2005
**PART 1: SECTION 5**
MANUAL CALL POINTS

### Manual Call Points

**Certificated Products**

- SEC-9204E: Conventional Innovation Type A Indoor Manual Call Point, Surface and Flush Mounting
  - LPCB Ref. No: 548g07
- SEA-9204E: Digital Addressable Type A Indoor Manual Call Point, Surface and Flush Mounting
  - LPCB Ref. No: 548g08

---

### Sterling Safety Systems

Unit B12a, Holly Farm Business Park, Honiley, Warwickshire CV8 1NP, United Kingdom

Tel: +44(0)1926485282 • Fax: +44(0)1926485090

E-mail: info@sterlingsafety.co.uk • Website: www.sterlingsafety.co.uk

**Certificate No:** 928h to EN 54-11: 2001 + A1: 2002 and EN 54-17: 2005


**Certificated Products**

- HFI-CP-01: Analogue addressable Type A indoor re-settable manual call point with short circuit isolator (SR01 and Flush mounting plate)
  - LPCB Ref. No: 928h01
- HFW-CP-01: Wireless type A resettable indoor manual call point (SR01 surface mount back box)
  - LPCB Ref. No: 928p01

**Note:**

1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - main battery
   - CR2032A (3Vdc) - secondary

**Ancillaries**

- SR01 Surface mounting box
- Flush mounting plate

---

### Synaps Technology Srl

Via Pietraferrata 9/1, Trieste 34147, Italy

Tel: 0039 0409896002 • Fax: 0039 040 3755361

E-mail: info@synaps-technology.com • Website: www.synaps-technology.com

**Certificate No:** 959a to EN 54-11: 2001 + A1: 2005

**Certificated Products**

- SyCALL R6847L: Conventional Type A Indoor Manual Call Point
  - LPCB Ref. No: 959a01
- CWC99: Conventional Type A Outdoor Manual Call Point
  - LPCB Ref. No: 959a02

**Ancillaries**

- Deep Back Box
- Safety Cover
- Wall Flush Mount Plate (white only) and External Trim Frame (white only)
- CALL-105_A: Back Box for Wall Mounting
- CALL-190_A: Wall Mount Plate (60mm) for Semi-Flush Mounting
- CALL-125_A: Safety Cover
PART 1: SECTION 5
MANUAL CALL POINTS

Syncoln Ltd
3rd Floor, 14 Hanover Street, Mayfair, London W1S 1YH, United Kingdom
Tel: +44 (0)207 514 5813
E-mail: sales@syncoln.com • Website: www.syncoln.com

Certificate No: 512f-(cl-5) to EN 54-11: 2001 + A1: 2005

Manual Call Points
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>010bh/01</td>
<td>Syncoln Addressable Manual Call Point with Isolator (5000-702 Bracket and 5000-710 Back Box)</td>
</tr>
<tr>
<td>512f/04</td>
<td>Conventional Manual Call Point with Flashy LED and Transparent Cover</td>
</tr>
</tbody>
</table>

Ancillaries
- 5000-702 Mounting Bracket
- 5000-710 Back Box

Tanda (UK) Limited
Fourth Floor, 30-31 Furnival Street, London EC4A 1JQ, United Kingdom
Tel: +44 8451162945
E-mail: info@tandauk.com • Website: www.tandauk.com

Certificate No: 1330g-(cl-1) to EN 54-11:2001 + A1:2005

Certificated Products

<table>
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<tr>
<td>1330g/01</td>
<td>TX7140 Intelligent Analogue Addressable Type A Indoor Surface Mounted Manual Call Point</td>
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</table>

Tanda Development Pte Ltd
21 Bukit Batok Crescent, #15-75 Wcega Tower, Singapore 658065, Singapore
Tel: +65 3223307015
E-mail: Wanyuemin@tandatech.com • Website: www.tnafirealarm.com

Certificate No: 1330g-(cl-4) to EN 54-11: 2001 + A1: 2005

Certificated Products

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<tr>
<td>1330g/01</td>
<td>TX7140 Intelligent Analogue Addressable Type A Indoor Surface Mounted Manual Call Point</td>
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</table>

Teledata S.r.l.
Via Giulietti 8, Milan 20132, Italy
Tel: +39 02-27201352 • Fax: +39 02-2593704
E-mail: R.Pennati@teledata-i.com • Website: www.teledate-i.com


Certificated Products

<table>
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<tr>
<td>1154h/01</td>
<td>FDVCP500 Analogue Addressable Type A Resettable Indoor Manual Call Point with Short Circuit</td>
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# PART 1: SECTION 5
## MANUAL CALL POINTS

### Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>Isolator (SR01 and Flush mounting plate)</td>
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</table>

### Ancillaries

- SR01 Surface mounting box
- Flush mounting plate

---

### Teletek Electronics JSC

14A Srebarna Street, Sofia 1407, Bulgaria  
Tel: +359 2 9694 700 • Fax: +359 2 9625 213  
E-mail: info@teletek-electronics.bg • Website: www.teletek-electronics.com


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SensoIRIS MCP150</td>
<td>1139f/01</td>
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</tbody>
</table>

**Note:**
1. Approved to Type A Indoor only

---

### Thorn Security Limited, trading as Tyco Safety Products

Dunhams Lane, Letchworth SG6 1BD, United Kingdom  
Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777  
E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com


<table>
<thead>
<tr>
<th>Certificated Products</th>
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<tbody>
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<tr>
<td>MCP210</td>
<td>166b/41</td>
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<td>MCP250M</td>
<td>166b/41</td>
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<tr>
<td>MCP230</td>
<td>166b/53</td>
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<tr>
<td>MCP260M</td>
<td>166b/53</td>
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---

### Tyco Fire & Security GmbH

Victor Von Bruns-Strasse 21, Neuhausen am Rheinfall, Schaffhausen 8212, Switzerland  
Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777  
E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com


<table>
<thead>
<tr>
<th>Certificated Products</th>
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<tr>
<td>FC421CP-I</td>
<td>681ab/01</td>
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<tr>
<td>MCP830M</td>
<td>681ab/02</td>
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**Note:**
1. Approved with glass and flexible element options
PART 1: SECTION 5
MANUAL CALL POINTS

Certificated Products

<table>
<thead>
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<th>Description</th>
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<td>MCP820</td>
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<td>FC420CP-I</td>
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<tr>
<td>MCP820M</td>
<td>Indoor Surface/Flush Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator (Marine Version)</td>
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<td>Note: Approved with glass element only option</td>
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<tr>
<td>4099-5211</td>
<td>Simplex Outdoor Surface Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator</td>
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<tr>
<td>MCP820 (514.800.611.CN)</td>
<td>Indoor Surface/Flush Mounting Analogue Addressable Type A Call Point with Short Circuit Isolator (Chinese version)</td>
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<td></td>
<td>Note: Approved with glass and flexible element options</td>
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UTC Fire & Security BV
Kelvinstraat 7, NL-6003DH, Weert, The Netherlands
Tel: + 31 495 58 30 00 • Fax: + 31 495 55 00 42
E-mail: David.Perez@fs.utc.com • Website: www.utcfireandsecurity.com


Certificated Products

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<td>Analogue Addressable Type A Indoor Manual Call Point</td>
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<td>Accessories:</td>
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</tr>
<tr>
<td></td>
<td>DMN787 Surface mounting box with earth terminal, red</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DMN790 Flush mount cradle with connectors</td>
<td></td>
</tr>
<tr>
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<td>DMN795 Flush mount cradle with connectors and forkgrips</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DMN782 Hinged transparent MCP protection cover</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DMN715 EN 54 universal MCP glass</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DMN784 Call point test key</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DMN800 Resettable element</td>
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<tr>
<td>ZP785-3S30</td>
<td>Analogue Addressable Type A Indoor Manual Call Point (Branded as Chubb)</td>
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<td>Accessories:</td>
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<td>DMN787 Surface mounting box with earth terminal, red</td>
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<td>DMN790 Flush mount cradle with connectors</td>
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<td>DMN795 Flush mount cradle with connectors and forkgrips</td>
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<td>DMN782 Hinged transparent MCP protection cover</td>
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<td></td>
<td>DMN790 Flush mount cradle with connectors</td>
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<td>DMN795 Flush mount cradle with connectors and forkgrips</td>
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## PART 1: SECTION 5
### MANUAL CALL POINTS

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<tr>
<td>DMN715 EN 54 universal MCP glass</td>
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<td>DMN790 Flush mount cradle with connectors</td>
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<td>DMN782 Hinged transparent MCP protection cover</td>
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<tr>
<td>DMN715 EN 54 universal MCP glass</td>
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<td>DMN784 Call point test key</td>
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<td>DMN790 Flush mount cradle with connectors</td>
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<td>Accessories:</td>
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<td>DMN784 Call point test key</td>
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<tr>
<td>DMN800 Resettable element</td>
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**UTC Fire & Security Inc. Trading as Edwards Systems Technology**
8985 Town Center Parkway, Bradenton, Florida 34202, USA
Tel: 941-739-4214 • Fax: E-mail: sean.hawes@carrier.com • Website: www.ccs.utc.com

Certificate No: 1255c-(cl-1) to EN 54-11: 2001 + A1: 2005

<table>
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<tr>
<th>Certificated Products</th>
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<tr>
<td>SIGI-271 Digital Addressable Indoor Manual Call Point, Surface or Flush Mounted</td>
<td>1255c/01</td>
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<td>Accessories:</td>
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<tr>
<td>KAC SR3T-P Surface mounted box</td>
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<td>KAC ETTI-P Flush mounted box</td>
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</table>

**V-GREAT GLOBAL CORPORATION**
Second Floor, Capital City, Independence Avenue, P O Box 1008, Victoria, Mahe, Seychelles
Tel: 008613581542023 E-mail: vgreatech@hotmail.com

Certificate No: 1174d-(cl-1) to EN 54-11:2001 + A1:2005

<table>
<thead>
<tr>
<th>Manual Call Point</th>
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<td>VG-6653 Conventional Resettable Type A Indoor Manual Call Point</td>
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<tr>
<td>VG-6657 Addressable Resettable Type A Indoor Manual Call Point</td>
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</table>
PART 1: SECTION 5
MANUAL CALL POINTS

Videofon Guvenlik Teknolojileri A.S.
Videofon Plaza, Gursel Mah, Kagithane Cad. No. 40, Kagithane, Istanbul 34400, Turkey
Tel: +902123208560
E-mail: alp@videofon.com.tr • Website: www.videofon.com.tr


Manual Call points
Certificated Products
FX-105/FIREMAX Conventional Manual Call Point with Flashy LED and Transparent Cover (EM921B1, Mounting base)

Accessories
EM921B1 Regular mounting base, 28mm

VIVA ELEKTRONIK SISTEMLER
Rasimpasa Mah. Muhendis Sari Ali, Sok. Birlik Han No:3/1, Kadikoy, İSTANBUL 34716, Turkey
Tel: 0090 549 797 70 80
E-mail: info@vivafire.com • Website: www.vivafire.com


Certificated Products
VI 200-CP Intelligent Addressable Manual Call Point

Yingkou Tiancheng Fire Protection Equipment Co., Ltd
No. 11-2, Kechechang Xili., Xishi District, Yingkou, Pilot Free Trade Zone, Liaoning 115004, China
Tel: 0417-2607119 • Fax: 0417-2867119
E-mail: wayne@tcfiretech.com • Website: www.tcfiretech.com


Certificated Products
J-SAP-TCSB5264 Indoor Analogue Addressable Type A Re-settable Manual Call Point

Zeta Alarms Limited
Detection House, 72-78 Morfa Road, Swansea SA1 2EN, United Kingdom
Tel: +44 (0)1792 455175 • Fax: +44 (0)1792 455176
E-mail: ghassan@zetaalarmsystems.com • Website: www.zetaalarmsystems.com

Certificate No: 653a-(cl-1) to EN 54-11: 2001 + A1: 2005
Certificate No: 330m to EN 54-11: 2001, EN 54-17: 2005

Certificated Products
ZT-CP3 Conventional Type A Re-Settable Indoor Flush/Surface Manual Call Point.
Notes:
1. Flush mount approved model ZT-CP3/F (M200)

Notes:
### Manual Call Points

**Certificated Products**

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>ZT-CP3/AD Addressable Indoor Type A Manual Call Point with Short Circuit Isolator</th>
</tr>
</thead>
<tbody>
<tr>
<td>330m/01</td>
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</table>

**Accessories**

- M200 Wall Plate
- M223 Back Box
- M200/V2 Wall Plate
- M223/V2 Back Box
A Line Unit is the term given to define devices used for functions other than fire detection, which are connected to a fire detection and alarm system transmission path or within other components of the fire detection and alarm system e.g. inside Control and Indicating Equipment. For example, the following devices may be regarded as Line Units:

- short circuit isolators
- input/output interfaces

Short-circuit isolators are used to limit the consequences of low parallel resistance faults between the lines of a transmission path of a fire detection and fire alarm system. The transmission path is normally in a loop configuration which is separated into sections by the short circuit isolators, such that a detected fault in a particular section will isolate that particular section allowing other components in other sections on the loop to function correctly.

Input/output devices are intended for different applications, and may therefore have different functions. Their functions are specified by the manufacturer and they are tested and approved against this specification.

This section lists approved Line Units which are connected to a fire detection and alarm system. The initial approval and continued approval processes for Line Units are outlined in scheme document SD038.

Products listed in this section have been approved to:

- EN 54-17: 2005 Short-circuit isolators
- EN 54-18: 2005 Input/output devices
- EN 54-25: 2008 Components using radio links

Audit:
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

Notes:
1. It is recommended that short circuit isolators and input/output devices are certificated to EN 54-17: 2005 and EN 54-18: 2005 respectively. EN 54-17: 2005 and EN 54-18: 2005 are now harmonised standards for the Construction Products Directive and CE marking is required for most of the European market by 1 December 2008. It is therefore recommended that devices are certificated to EN 54-17: 2005 or EN 54-18: 2005 where applicable as soon as possible.

2. EN 54-25: 2008 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 1 March 2011. It is therefore recommended that radio link components are certificated to EN 54-25: 2008

3. Since the LPCB uses national and international standards for the listing of products, in some instances the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.

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The Bridges, Balliol Business Park, Longbenton, Newcastle-Upon-Tyne NE12 8EW, United Kingdom
Tel: +44 (0)345 894 7000 • Fax: +44 (0)1670 707 222
E-mail: pbrown@advancedco.com • Website: www.advancedco.com

Certificate No: 928r-(cl-1) to EN 54-18: 2005 and EN 54-25: 2008

Certificated Products

<table>
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<th>Description</th>
<th>Ref. No.</th>
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<td>20-VW2W100-ADV</td>
<td>Wire to wireless translator module</td>
<td>928n01</td>
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<td>20-SGCWE100-ADV</td>
<td>Wireless conventional system Expander module</td>
<td>928r01</td>
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PART 1: SECTION 6
LINE UNITS

Certificated Products

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<th>Description</th>
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<td>20-SGWE100-ADV</td>
<td>Wireless Expander module</td>
</tr>
<tr>
<td>20-SGMCB200-ADV</td>
<td>Wireless Battery Powered Output Module</td>
</tr>
<tr>
<td>20-SGMI200-ADV</td>
<td>Wireless Battery Powered Input Module</td>
</tr>
</tbody>
</table>

Note: 1. The device must be used with the following batteries only:
- CR123A (3Vdc) - Main Battery
- CR123A (3Vdc) Secondary Battery

Certificated Products

<table>
<thead>
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<th>Description</th>
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<tr>
<td>AVW190AL</td>
<td>Wire to wireless translator module</td>
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<td>AVW191AL</td>
<td>Wireless conventional system Expander module</td>
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<td>AVW192AL</td>
<td>Wireless Expander module</td>
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Certificated Products

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<tr>
<td>SI-6717</td>
<td>Addressable Resettable Type A Indoor Manual Call Point (branded as SECURE)</td>
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<tr>
<td>SI-6727</td>
<td>Addressable Control Interface (1 Input &amp; 1 Output) (SB-6618 Base) (branded as SECURE)</td>
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<tr>
<td>SI-6777</td>
<td>Addressable Isolator Interface (SB-6618 base) (branded as SECURE)</td>
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Bases

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<tr>
<td>45681-518AMP</td>
<td>Enhanced deep isolating base (Red)</td>
</tr>
<tr>
<td>45681-245AMP</td>
<td>Conventional standard relay base</td>
</tr>
</tbody>
</table>

Advantronic Systems S.L.
C/Yunque 9 Nave B1, Tres Cantos, Madrid 28760, Spain
Tel: +34 91 806 2343 • Fax: +34 91 803 1171
E-mail: jpedrouzo@advantronic.es • Website: www.advantronic.es

Certificate No: 928r-(cl-2) to EN 54-18: 2005 and EN 54-25: 2008

Al Rayan Security & Safety Trading
Warehouse No, 12, Al Qusais Industrial Area 4, P O Box 233949, Dubai, United Arab Emirates
Tel: +971 42630396 • Fax: +971 42630397
E-mail: rayandxb@eim.ae • Website: www.rayandxb.ae

Certificate No: 1174h-(cl-1) to EN 54-18:2005
Certificate No: 1174g-(cl-1) to EN 54-17:2005

Certificated Products

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<td>010aa-(cl-3)</td>
<td>Enhanced deep isolating base (Red)</td>
</tr>
<tr>
<td>010ag-(cl-2)</td>
<td>Conventional standard relay base</td>
</tr>
</tbody>
</table>

Ampac Pty Ltd
7 LEDGAR Road, Balcatta 6021, Australia
Tel: +618 (9242) 3333 • Fax: +618 (9242) 3334
E-mail: askellham@ampac.net • Website: www.ampac.net

Certificate No: 010aa-(cl-3) to EN 54-17: 2005
Certificate No: 010ag-(cl-2) to EN54-18: 2005
Certificate No: 010ah-(cl-5) to EN 54-17:2005 and EN 54-18:2005
**Certificated Products**

<table>
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<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<td>010ah/05</td>
<td>Analogue Addressable Zone Monitor Unit with Isolator</td>
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<td>010ah/08</td>
<td>Analogue Addressable Sounder Controller with Isolator</td>
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<tr>
<td>010ah/09</td>
<td>Analogue Addressable Mini Switch Monitor with Isolator</td>
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<tr>
<td>010ah/11</td>
<td>Soteria Switch Monitor Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td>010ah/12</td>
<td>Soteria DIN Switch Monitor Unit (38532-092 DIN Tub)</td>
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<tr>
<td>010ah/13</td>
<td>Soteria Input/Output Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td>010ah/14</td>
<td>Soteria DIN Input/Output Unit (38532-092 DIN Tub)</td>
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<td>010ah/19</td>
<td>Soteria Mains Input/Output Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td>010ah/21</td>
<td>Soteria Twin Input/Output Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td>010ah/22</td>
<td>Soteria Twin Switch Monitor Unit (45681-400 Backbox)</td>
</tr>
</tbody>
</table>

**Bases:**

- 45681-517AMP Enhanced deep isolating bases (White)
- 45681-518AMP Enhanced deep isolating bases (Red)
- 45681-400 Backbox
- 38532-092 DIN Tub

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**Certificate No:** 010aa to EN 54-17:2005  
**Certificate No:** 010ag to EN54-18: 2005  
**Certificate No:** 010ah to EN54-17: 2005 & EN54-18: 2005

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**Apollo Fire Detectors Limited**

36 Brookside Road, Havant, Hampshire PO9 1JR, United Kingdom  
Tel: +44 (0)2392 492412 • Fax: +44 (0)2392 492754  
E-mail: enquiries@apollo-fire.co.uk

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**Sales Enquiries Spain,**  
Apollo Espana  
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E-mail: apollo.espana@apollo-fire.com

**Sales Enquiries China,**  
Apollo Fire Detectors Limited,, Shanghai representative office  
Tel: +86 21 5237 0922 • Fax: +86 21 5237 0920  
E-mail: tony.ye@apollo-fire.com

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**Certificate No:** 010aa to EN 54-17:2005  
**Certificate No:** 010ag to EN54-18: 2005  
**Certificate No:** 010ah to EN54-17: 2005 & EN54-18: 2005

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**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>010aa/01</td>
<td>XP95/Discovery short circuit isolating base</td>
</tr>
<tr>
<td>010ah/01</td>
<td>XP95 analogue addressable 3 channel input/output unit with isolator</td>
</tr>
<tr>
<td>010ah/03</td>
<td>XP95 analogue addressable switch monitor plus with isolator</td>
</tr>
<tr>
<td>010ah/05</td>
<td>XP95 analogue addressable zone monitor unit with isolator</td>
</tr>
<tr>
<td>010ah/06</td>
<td>XP95 analogue addressable input/output unit with isolator</td>
</tr>
<tr>
<td>010ah/08</td>
<td>XP95 analogue addressable sounder controller with isolator</td>
</tr>
<tr>
<td>010aa/05</td>
<td>XP95 20D negative short circuit isolator (45681-211 Base)</td>
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<tr>
<td>55000-802 XP95 analogue addressable DIN-rail dual isolator</td>
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<tr>
<td>55000-812 XP95 analogue addressable DIN-rail zone monitor</td>
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<tr>
<td>55000-181 XP95 analogue addressable DIN-rail 8A sounder controller unit</td>
<td>010ag/07</td>
</tr>
<tr>
<td>55000-182 XP95 analogue addressable DIN-rail sounder control unit</td>
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<tr>
<td>55000-855 XP95 analogue addressable DIN-rail protocol translator - single</td>
<td>010ag/14</td>
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<td><strong>Note:</strong> to ensure compliance is maintained, all connecting cables to the protocol translator shall be less than 3m.</td>
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<td>55000-856 XP95 analogue addressable DIN-rail protocol translator - dual</td>
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<td>55000-760 XP95/Discovery Analogue addressable mini switch monitor with isolator</td>
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<tr>
<td>45681-518 Enhanced deep isolating base (Red)</td>
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<tr>
<td>45681-242 XP95 analogue addressable low power relay base</td>
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<td>45681-245 S65 conventional standard relay base</td>
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<td>45681-246 S65 conventional auxiliary relay base</td>
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<td>45681-247 S65 conventional end of line 12V relay base</td>
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<td>45681-248 S65 conventional end of line 24V relay base</td>
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<tr>
<td>45681-508 S65 conventional 12V relay base</td>
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<tr>
<td>ORB-RB-10004 Orbis TimeSaver relay base</td>
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<tr>
<td>ORB-SW-10005 Orbis Sav-wire base</td>
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<td>55000-797 XP95 analogue addressable DIN-rail mains input/output unit</td>
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<td><strong>Note:</strong> to ensure compliance is maintained, this device shall be installed within an enclosure weighing greater than 4.75kg.</td>
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<tr>
<td>55000-864 XP95 analogue addressable locally powered zone monitor unit with isolator</td>
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<tr>
<td>SA4700-100 Intelligent Switch Monitor (45681-400 Backbox)</td>
<td>010ah/11</td>
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<tr>
<td>SA4700-300 Intelligent DIN-Rail Switch Monitor (38532-092 DIN Tub)</td>
<td>010ah/12</td>
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<tr>
<td>SA4700-102 Intelligent Input/Output Unit (45681-400 Backbox)</td>
<td>010ah/13</td>
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<td><strong>Note:</strong></td>
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<tr>
<td>1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z</td>
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<tr>
<td>SA4700-302 Intelligent DIN-Rail Input/Output Unit (38532-092 DIN Tub)</td>
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<td><strong>Note:</strong></td>
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<td>1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z</td>
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<tr>
<td>SA4700-103 Intelligent Mains Switching Input/Output Unit (45681-400 Backbox)</td>
<td>010ah/19</td>
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<tr>
<td>SA4700-403 Intelligent DIN-Rail Mains Switching Input/Output Unit (38532-091 DIN Tub)</td>
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<td><strong>Note:</strong></td>
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<td>1. This device to be installed within an enclosure weighing greater than 4.75kg.</td>
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<td>SA4700-104 Intelligent Twin Input/Output Unit (45681-400 Backbox)</td>
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<tr>
<td><strong>Note:</strong></td>
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<tr>
<td>SA6700-100 Intelligent Twin Switch Monitor (45681-400 Backbox)</td>
<td>010ah/22</td>
</tr>
<tr>
<td>SA5000-320 Base Visual Indicator (White Flash) (SA5000-200 Base)</td>
<td>010aa/11</td>
</tr>
<tr>
<td>SA5000-321 Base Visual Indicator (Red Flash) (SA5000-200 Base)</td>
<td>010aa/12</td>
</tr>
<tr>
<td>SA5501-320 Intelligent Open Area Visual Indicator (White Flash, White Body) (SA5000-200, SA5000-202 and 45681-210)</td>
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<tr>
<td>SA5501-321 Intelligent Open Area Visual Indicator (Red Flash, White Body) (SA5000-200, SA5000-202 and 45681-210)</td>
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<tr>
<td><strong>Ancillaries</strong></td>
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<td>45681-211 XP95 Isolator Base</td>
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<td>45681-400 Intelligent Interface Backbox</td>
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<td>38532-092 Interface Small DIN Tub</td>
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<td>38532-091 Interface Large DIN Tub</td>
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<tr>
<td>SA5000-200 XPERT8 (White) Intelligent Base</td>
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<td>SA5000-202 XPERT8 (Red) Intelligent Base</td>
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<tr>
<td>45681-210 Intelligent Mounting Base</td>
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</tr>
</tbody>
</table>
### Argus Security S.r.l.
Via del Canneto 14, Valle delle Noghere, 34015 Muggia, Trieste, Italy  
Tel: +39 (0) 402821110 • Fax: +39 (0) 402823483  
E-mail: dcresseri@argussecurity.it • Website: www.argussecurity.it


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>VW2W100 Wire to wireless translator module</td>
<td>928n/01</td>
</tr>
<tr>
<td>SGCWE100 Wireless conventional system Expander module</td>
<td>928r/01</td>
</tr>
<tr>
<td>SGWE100 Wireless Expander module</td>
<td>928r/02</td>
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<tr>
<td>VW2W128 Wire to Wireless Dynamic Translator Module</td>
<td>928r/05</td>
</tr>
<tr>
<td>SGMCB200 Wireless Battery Powered Output Module</td>
<td>928r/03</td>
</tr>
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</table>
| Note: 1. The device must be used with the following batteries only:  
- CR123A (3Vdc) - Main Battery  
- CR123A (3Vdc) - Secondary Battery |
| SGMI200 Wireless Battery Powered Input Module | 928r/04 |
| Note: 1. The device must be used with the following batteries only:  
- CR123A (3Vdc) - Main Battery  
- CR2032A (3Vdc) - Secondary Battery |

### Argus Spectrum International
65 Serdobolskaya St, St. Petersburg 197342, Russian Federation  
Tel: +7 812 7037500 • Fax: +7 812 7037501  
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com


<table>
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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>ARG-WL8-OUT Wireless Single Output Module</td>
<td>603p/01</td>
</tr>
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</table>
| Note: 1. The device must be used with the following batteries only:  
- Primary CR123A (3V)  
- Secondary CR123A (3V) |
| ARG-WL8-IN Wireless Single Input Module | 603p/02 |
| Note: 1. The device must be used with the following batteries only:  
- Primary CR123A (3V)  
- Secondary CR2032 (3V) |
| ARG-WL8-EXP Wireless Expander Module | 603p/03 |
| ARG-WL8-TRV Wireless Transmitter Module | 603q/01 |
| ARG-WL8-TRH Wireless Transmitter Module | 603q/02 |

### ASENWARE LTD
6 Prospect Way, Royal Oak Industrial Estate, Daventry, Northamptonshire NN11 8PL, United Kingdom  
Tel: +8613828765759  
E-mail: info@asenware.com

Certificate No: 1426e-(cl-3) to EN 54-18:2005  
Certificate No: 1426f-(cl-3) to EN 54-17:2005
# Line Units

## Certificated Products

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<tr>
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<tr>
<td>1426e/01</td>
<td>Addressable I/O Module AW-D319</td>
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<tr>
<td>1426f/01</td>
<td>Loop Isolator AW-D314</td>
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## Base

- DZ-9056
- DZ-9057

---

### ASI Oy Ltd (Argus Spectrum International)

Laitaatsillantie 3, Savonlinna 57170, Finland  
Tel: +358 20 730 8550  
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com/


### Line Units

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1571k/01</td>
<td>Wireless Expander Module ARF-WL8-EXP</td>
</tr>
<tr>
<td>1571j/01</td>
<td>Wireless Translator Module ARF-WL8-TRV</td>
</tr>
<tr>
<td>1571k/03</td>
<td>Wireless Single Output Module ARF-WL8-OUT</td>
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</table>

**Note:**  
1. The device must be used with the following batteries only:  
   - Primary CR123A (3V)  
   - Secondary CR123A (3V)

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<th>Description</th>
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<td>1571j/02</td>
<td>Wireless Translator Module ARF-WL8-TRH</td>
</tr>
<tr>
<td>1571k/01</td>
<td>Wireless Expander Module EK-WL8-EXP</td>
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<tr>
<td>1571k/03</td>
<td>Wireless Single Output Module EK-WL8-OUT</td>
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</table>

**Note:**  
1. The device must be used with the following batteries only:  
   - Primary CR123A (3V)  
   - Secondary CR123A (3V)

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<tr>
<th>Ref. No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1571k/02</td>
<td>Wireless Single Input Module ARF-WL8-IN</td>
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</table>

**Note:**  
1. The device must be used with the following batteries only:  
   - Primary CR123A (3V)  
   - Secondary CR2032 (3V)

<table>
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<tr>
<th>Ref. No.</th>
<th>Description</th>
</tr>
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<tr>
<td>1571j/02</td>
<td>Wireless Single Input Module EK-WL8-IN</td>
</tr>
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</table>

**Note:**  
1. The device must be used with the following batteries only:  
   - Primary CR123A (3V)  
   - Secondary CR2032 (3V)

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### ATEIS Middle East FZCO

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Tel: +971 4 3262730 • Fax: +971 4 3262731  
E-mail: info@ateis.ae • Website: www.ateis.ae

Certificate No: 928r-(cl-4) to EN 54-18: 2005 and EN 54-25: 2008

### Certificated Products

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<td>928n/01</td>
<td>Wire to wireless translator module VELOX WLTM100</td>
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<tr>
<td>928r/01</td>
<td>Wireless conventional system Expander module VELOX WLCEM100</td>
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<tr>
<td>928r/02</td>
<td>Wireless Expander module VELOX WLEM100</td>
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### Part 1: Section 6

#### Line Units

Certificate No: 1154j to EN 54-17: 2005 and EN 54-18: 2005

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<th>LPCB Ref. No.</th>
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<td>VELOX 40100 Addressable Single Supervised Input Module</td>
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<td>VELOX 40010 Addressable Single Supervised Output Module</td>
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<tr>
<td>VELOX 40002 Addressable Dual Form C Relay Output Module</td>
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<td>VELOX 40110 Addressable Single Supervised Input &amp; Output Module</td>
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<td>VELOX 40102 Addressable Supervised Input &amp; Relay Output Module</td>
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<td>VMI100 Addressable Single Supervised Input Module</td>
<td>1154j/06</td>
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<td>VMC100 Addressable Single Supervised Output Module</td>
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<td>VMC120 Addressable Dual Form C Relay Output Module</td>
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<tr>
<td>VMIC120 Addressable Supervised Input &amp; Relay Output Module</td>
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**Autronica Fire & Security AS**  
Postboks 5620 NO-7483, Trondheim, Norway  
Tel: +47 73582500 • Fax: +47 73582501  
E-mail: info@autronicafire.no • Website: www.autronicafire.no

Certificate No: 378g-(cl-1) to EN 54-17: 2005

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<td>378g/01</td>
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<td>Notes:</td>
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<tr>
<td>1) the beacon functionality is not included within the scope of this approval</td>
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<tr>
<td>116-BBL-100/IP Addressable outdoor beacon with isolator</td>
<td>378g/02</td>
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<tr>
<td>1) the beacon functionality is not included within the scope of this approval</td>
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**Beijing Leader Huaxin Electronics Co. Ltd**  
No. 17 Rongjing Eastern Road, Economy & Technology Developed Area, Beijing 100176, China  
Tel: +86 10 67876681 • Fax: +86 10 67863972  
E-mail: hy.chen@beijingleader.com.cn • Website: www.beijingleader.com.cn

Certificate No: 987c to EN 54:18:2005

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<td>LD6800EC-1 Analogue Addressable Input/Output Module</td>
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<tr>
<td>LD6800ED-1 Analogue Addressable Input/Output Module (LD60(ED) Module Base)</td>
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<td>LD60(N) Module Base</td>
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<td>LD60(ED) Module Base</td>
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PART 1: SECTION 6
LINE UNITS

Beijing VSAIL Fire Protection Equipment Co Ltd
No. 401, Unit A, Building 32., No. 99 14th Kechuang Street, BDA, Beijing 100176, China
Tel: +86 10-56691196 • Fax: +86 10-56691100
E-mail: erichenx@vsail.com.cn • Website: www.vsail.com.cn

Certificate No: 1174g to EN 54-17:2005
Certificate No: 1174h to EN 54-18:2005

Certificated Products

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<td>1174g/01</td>
<td>VI-6777 Addressable Isolator Interface (VB-6618 base)</td>
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<td>1174h/01</td>
<td>VI-6717 Addressable Monitor Interface (1 Input) (VB-6618 Base)</td>
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<td>1174h/02</td>
<td>VI-6727 Addressable Control Interface (1 Input &amp; 1 Output) (VB-6618 Base)</td>
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<td>VB-6618 Installation Base</td>
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Bristol Fire Engineering LLC
Al Quoz Industrial Area 3, P.O.Box 74582, Dubai, United Arab Emirates
Tel: +971 4 347 2426 • Fax: +971 4 347 2363
E-mail: sami@bristol-fire.com • Website: www.bristol-fire.com

Certificate No: 1330e-(cl-2) to EN 54-18:2005
Certificate No: 1330f-(cl-2) to EN 54-17:2005

Certificated Products

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<td>1330e/01</td>
<td>IM-8412 Addressable Single Input/Output Module</td>
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<td>1330f/01</td>
<td>IM-8414 Analogue Addressable Isolator Module</td>
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Ceasefire Industries Private Ltd
E6, Upsidc Industrial Area,, Selaqui, Dehradun, Uttarakhand 24001, India
Tel: +911204223473
E-mail: amit@ceasefire.in


Certificated Products

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<tr>
<td>928n/01</td>
<td>TI-002280A Wire to Wireless Translator Module</td>
</tr>
<tr>
<td>928n/01</td>
<td>TI-002283A Wireless Conventional System Expander Module</td>
</tr>
<tr>
<td>928r/02</td>
<td>TI-002282A Wireless Expander Module</td>
</tr>
<tr>
<td>928r/03</td>
<td>TI-002255A Wireless Battery Powered Output Module</td>
</tr>
<tr>
<td></td>
<td>1. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>- CR123A (3Vdc) Main Battery</td>
</tr>
<tr>
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<td>- CR123A (3Vdc) Secondary Battery</td>
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<tr>
<td>928r/04</td>
<td>TI-002253A Wireless Battery Powered Input Module</td>
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<tr>
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<td>1. The device must be used with the following batteries only:</td>
</tr>
<tr>
<td></td>
<td>- CR123A (3Vdc) Main Battery</td>
</tr>
<tr>
<td></td>
<td>- CR2032A (3Vdc) Secondary Battery</td>
</tr>
</tbody>
</table>
**PART 1: SECTION 6**

**LINE UNITS**

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**Chubb Fire & Security Ltd**
Littleton Road, Ashford, Middlesex TW15 1TZ, United Kingdom  
Tel: 01784 244 2100  
E-mail: sales@chubb.co.uk • Website: www.chubb.co.uk

Certificate No: 010ah-(cl-3) to EN 54-18: 2005 and EN54 -17: 2005

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<td>010ah/03</td>
<td>F850429N</td>
<td>XP95 analogue addressable switch monitor plus with isolator</td>
</tr>
<tr>
<td>010ah/05</td>
<td>F3170135N</td>
<td>XP95 analogue addressable zone monitor unit with isolator</td>
</tr>
<tr>
<td>010ah/06</td>
<td>F850352N</td>
<td>XP95 analogue addressable input/output unit with isolator</td>
</tr>
<tr>
<td>010ah/08</td>
<td>F3170138N</td>
<td>XP95 analogue addressable sounder controller with isolator</td>
</tr>
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**Computionics Limited (Trading as C-Tec)**
Challenge Way, Martland Park, Wigan, Lancashire WD5 0LD, United Kingdom  
Tel: +44 (0)1942 322 744/42444 • Fax: +44 (0)1942 829867  
E-mail: sales@C-tec.co.uk • Website: www.c-tec.co.uk

Certificate No: 176j to EN 54-17:2005, EN 54-18:2005

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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Description</th>
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<tbody>
<tr>
<td>176j/01</td>
<td>CA734</td>
<td>CAST Mini I/O Module</td>
</tr>
<tr>
<td>176j/02</td>
<td>CA730</td>
<td>CAST Zone Input Relay Output Module</td>
</tr>
<tr>
<td>176j/03</td>
<td>CA731</td>
<td>CAST Zone Input Mains Relay Output Module</td>
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<tr>
<td>176j/04</td>
<td>CA732</td>
<td>CAST Zone Input Module</td>
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<tr>
<td>176j/01</td>
<td>HP734</td>
<td>HP Mini I/O Module with Short Circuit Isolator (Fire Level 1)</td>
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<tr>
<td>176j/01</td>
<td>HP735</td>
<td>HP Mini I/O Module with Short Circuit Isolator (Fire Level 2)</td>
</tr>
<tr>
<td>176j/03</td>
<td>HP731</td>
<td>HP Mains Switching I/O Module with Short Circuit Isolator (Fire Level 1)</td>
</tr>
<tr>
<td>176j/03</td>
<td>HP732</td>
<td>HP Mains Switching I/O Module with Short Circuit Isolator (Fire Level 2)</td>
</tr>
</tbody>
</table>

**Context Plus Ltd**
Export House, 175 Mauldeth Road, Fallowfield, Manchester M14 6SG, United Kingdom  
Tel: +44 (0)161 257 2541 • Fax: +44 (0)161 225 8817  
E-mail: xportsales@xportsales.com • Website: www.xportsales.com

Certificate No: 010ap-(cl-2) to EN 54-17: 2005  
Certificate No: 010ah-(cl-6) to EN 54-18: 2005 and EN54 -17: 2005

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>010ap/01</td>
<td>45681-505IMC</td>
<td>Negative switching isolating base</td>
</tr>
<tr>
<td>010ah/05</td>
<td>55000-845IMC</td>
<td>Analogue addressable zone monitor with isolator</td>
</tr>
<tr>
<td>010ah/08</td>
<td>55000-852IMC</td>
<td>Analogue addressable sounder control unit with isolator</td>
</tr>
<tr>
<td>010ah/11</td>
<td>SA4700-100IMC</td>
<td>Switch Monitor (45681-400 Backbox)</td>
</tr>
</tbody>
</table>
| 010ah/13      | SA4700-102IMC         | Input/Output Unit (45681-400 Backbox)  
  1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z |
| 010ah/19      | SA4700-103IMC         | Mains Switching Input/Output unit (45681-400 Backbox) |
| 010ah/21      | SA4700-104IMC         | Twin Input/Output Unit (45681-400 Backbox)  
  1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z |
| 010ah/22      | SA6700-100IMC         | Twin Switch Monitor (45681-400 Backbox) |

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20 Oct 2020
PART 1: SECTION 6
LINE UNITS

DEF
7, rue du Saule Trapu, MASSY 91300, France
Tel: +33 (0) 160136772
E-mail: frederic.chateau@coflec.com

Certificate No: 1549a-(cl-1) to EN 54-17:2005, EN 54-18:2005

<table>
<thead>
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<tr>
<td>ETCL</td>
<td>1549a/01</td>
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<tr>
<td>ETCL-B</td>
<td>1549a/02</td>
</tr>
<tr>
<td>ETC230L-B</td>
<td>1549a/03</td>
</tr>
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</table>

Elite Security Products (ESP)
Unit 7, Target Park, Shawbank Road, Redditch, Birmingham B98 8YN, United Kingdom
Tel: +44 (0) 1527 515150
E-mail: info@espuk.com • Website: https://www.espuk.com/

Certificate No: 331k-(cl-1) to EN 54-18:2005

<table>
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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>MAGDUOIOR</td>
<td>331k/01</td>
</tr>
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</table>

Eurotech Fire Systems Limited
19/20 Stratfield Park, Elettra Avenue, Waterloo, Hampshire PO7 7XN, United Kingdom
Tel: +44 (0) 203 141 0999 • Fax: +44 (0) 239 225 2554
E-mail: MICHELLE.AGIUS@eurotechfire.com • Website: www.eurotechfire.com

Certificate No: 1213f to EN 54-17: 2005
Certificate No: 1213g to EN 54-18: 2005
Certificate No: 1213h to EN 54-17: 2005 and EN 54-18: 2005

<table>
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<tr>
<th>Line Units</th>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>200-113</td>
<td>Odyssey Short Circuit Isolating Base</td>
<td>1213f/01</td>
</tr>
<tr>
<td>200-504</td>
<td>Odyssey 2D Negative Short Circuit Isolator (200-112 Base)</td>
<td>1213f/02</td>
</tr>
<tr>
<td>200-307</td>
<td>Odyssey Enhanced Deep Isolating Base (Red)</td>
<td>1213f/03</td>
</tr>
<tr>
<td>200-303</td>
<td>Odyssey Conventional Standard Relay Base</td>
<td>1213g/01</td>
</tr>
<tr>
<td>200-203</td>
<td>Odyssey Analogue Addressable Zone Monitor Unit with Isolator</td>
<td>1213h/03</td>
</tr>
<tr>
<td>200-204</td>
<td>Odyssey Analogue Addressable Input/Output Unit with Isolator</td>
<td>1213h/04</td>
</tr>
<tr>
<td>200-206</td>
<td>Odyssey Analogue Addressable Sounder Controller with Isolator</td>
<td>1213h/06</td>
</tr>
<tr>
<td>200-201</td>
<td>Odyssey Analogue Addressable Mini Switch Monitor with Isolator</td>
<td>1213h/07</td>
</tr>
<tr>
<td>200-207</td>
<td>Odyssey Analogue Addressable Locally Powered Zone Monitor Unit with Isolator</td>
<td>1213h/08</td>
</tr>
<tr>
<td>EUW-W2W-01</td>
<td>Euro-Fi Wireless Translator Module</td>
<td>1213u/01</td>
</tr>
<tr>
<td>EUW-CEM-02</td>
<td>Wireless to Conventional Expander Module</td>
<td>1213v/01</td>
</tr>
<tr>
<td>EUW-EM-01</td>
<td>Euro-Fi Wireless Expander Module</td>
<td>1213v/02</td>
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<tr>
<td>EUW-IM-01</td>
<td>Wireless Single Channel Input Module</td>
<td>1213v/03</td>
</tr>
</tbody>
</table>

Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - Main Battery
   - CR2032A (3Vdc) - Secondary Battery
Certificated Products

EUW-BOM-01 Wireless Single Channel Battery Powered Output Module
Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - Main Battery
   - CR123A (3Vdc) - Secondary Battery

200-202SA Odyssey Intelligent Switch Monitor (45681-400 Backbox)
200-204SA Odyssey Intelligent Input/Output Unit (45681-400 Backbox)
200-208SA Odyssey Intelligent Mains Switching Input/Output Unit (45681-400 Backbox)
200-209SA Odyssey Intelligent Twin Input/Output Unit (45681-400 Backbox)
200-210SA Odyssey Intelligent Twin Switch Monitor (45681-400 Backbox)

Bases:
200-112 Odyssey isolator base
45681-400 Backbox

Everday Technology Co. Limited
No.,95., Sec. 2., Ligong 1 St. Road., Letzer Industrial Park, Yilan County 26841, Taiwan ROC
Tel: +886 3 990 6099 • Fax: +862 3 990 6029
E-mail: alex.hsieh@everday.com • Website: www.everday.com

Certificate No: 512p to EN 54-18:2005
Certificate No: 512q to EN 54-17:2005

Certificated Products

EI518 Addressable Single Input/Output Module
EL628 Analogue Addressable Short Circuit Isolator Module

Fike Safety Technology Ltd
Unit 31, Springvale Industrial Estate, Cwmbran, Gwent NP44 5BD, United Kingdom
Tel: +44 (0)1633 865558 • Fax: +44 (0)1633 866656
E-mail: fstinfo@fike.com • Website: www.fikesafetytechnology.co.uk

Certificate No: 331m to EN 54-17: 2005 & EN 54-18: 2005
Certificate No: 331k to EN 54-18: 2005

Certificated Products

803-0006 Sita Input/Output Module
802-0006 Twinflex I/O Module
803-0010 Sita Conventional Zone Module

Finder Elektronik A.S.
Liman Mah., 6. Sok., No: 10 07070, Konyaalti, Antalya, Turkey
Tel: +90 242 259 04 20 • Fax: +90 242 259 28 88
E-mail: finder@finder.com.tr • Website: www.finder.com.tr


Certificated Products

FF VW2W100 Wire to wireless translator module
PART 1: SECTION 6
LINE UNITS

Finder Yangın Güvenlik Elektronik Sistemler A.Ş
Kepez Mh, 5071 Sk. No: 10, Kepez, Antalya 07090, Turkey
Tel: +90 242 221 40 07 • Fax: +90 242 259 28 88
E-mail: info@finder.com.tr • Website: www.finder.com.tr

Certificate No: 1450b-(cl-1) to EN 54-18: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FF MIC500</th>
<th>Intelligent Addressable Single Input/Output Module</th>
</tr>
</thead>
</table>

Fire Fighter CO Security and Safety Equipment Trading LLC
Al Qusais Industry Area 4, P O Box 84926, Dubai, United Arab Emirates
Tel: 00971-4-2554494
E-mail: mutasem@firefighterco1.ae

Certificate No: 1174h-(cl-4) to EN 54-18: 2005
Certificate No: 1174g-(cl-4) to EN 54-17:2005

Line Units
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FST-6717</th>
<th>Addressable Monitor Interface (1 Input) (FST-6618 Base) (branded as FST)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FST-6727</td>
<td>Addressable Control Interface (1 Input &amp; 1 Output) (FST-6618 Base) (branded as FST)</td>
</tr>
<tr>
<td></td>
<td>FST-6777</td>
<td>Addressable Isolator Interface (FST-6618 base) (branded as FST)</td>
</tr>
</tbody>
</table>

Bases
FST-6618 Installation base

Firesafe
10 Sanderson Way, Marton, Blackpool, Lancashire FY4 4NB, United Kingdom
Tel: 01253 699500 • Fax: 01253 699550
E-mail: info@firesafe.co.uk • Website: www.firesafe.co.uk


Line Units
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FSRT2</th>
<th>Wireless Translator Module</th>
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<tbody>
<tr>
<td></td>
<td>FSRCIM2</td>
<td>Wireless to Conventional Interface Module</td>
</tr>
<tr>
<td></td>
<td>FSREM2</td>
<td>Wireless Expander Module</td>
</tr>
<tr>
<td></td>
<td>FSRPOM2</td>
<td>Wireless Single Channel Powered Output Module</td>
</tr>
<tr>
<td></td>
<td>FSRIM2</td>
<td>Wireless Single Channel Input Module</td>
</tr>
</tbody>
</table>

Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - Main Battery
   - CR123A (3Vdc) - Secondary Battery

FSRT2
928n/01
FSRCIM2
928n/01
FSREM2
928r/02
FSRPOM2
928r/03
FSRIM2
928r/04

Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - Main Battery
   - CR2032A (3Vdc) - Secondary Battery
### FIREX Protection System Technology Ltd
28-38 Desborough St, High Wycombe, Buckinghamshire, United Kingdom
Tel: 00971 653 40300 • Fax: 00971 653 40090
E-mail: QC@firexuae.com • Website: www.firexuae.com

Certificate No: 548m-(cl-3) to EN54-18: 2005  
Certificate No: 548n-(cl-3) to EN54-17: 2005

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>FX9300I Analogue Addressable Input Module</td>
<td>548m/01</td>
</tr>
<tr>
<td>FX9301I Analogue Addressable Single Output Module</td>
<td>548m/02</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. 4 Wire Mode, 24v active output (Default).</td>
<td></td>
</tr>
<tr>
<td>2. 2 Wire Mode, volt free changeover contact output.</td>
<td></td>
</tr>
<tr>
<td>FX9503E Loop Isolator (B-9310 Back Box)</td>
<td>548n/04</td>
</tr>
<tr>
<td>FX9504E1 Base Mount Isolator</td>
<td>548n/03</td>
</tr>
<tr>
<td>FX9300E Addressable Digital Single Input Module</td>
<td>548m/04</td>
</tr>
<tr>
<td>FX9301E Addressable Digital Single Input and Output Module</td>
<td>548m/05</td>
</tr>
<tr>
<td>FX9305E Addressable Digital Single Riser Output Module</td>
<td>548m/06</td>
</tr>
<tr>
<td>FX9319E Addressable Digital Zone Monitor Unit</td>
<td>548m/07</td>
</tr>
<tr>
<td>FX9503E1 Addressable Loop Isolator</td>
<td>548n/06</td>
</tr>
</tbody>
</table>

B-9310 Back Box

### Frontier Safety Ltd UK
85 Great Portland Street, London, England W1W 7, United Kingdom
Tel: 00447708000050  
E-mail: mikefrontiersafety@gmail.com • Website: www.frontierpumps.com

Certificate No: 1426e-(cl-5) to EN 54-18: 2005  
Certificate No: 1426f-(cl-5) to EN 54-17: 2005

<table>
<thead>
<tr>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>FRN 56 Intelligent Addressable Fire Alarm I/O Module (DZ-9056 Base)</td>
<td>1426e/01</td>
</tr>
<tr>
<td>FRN 57 Intelligent Addressable Fire Alarm Isolator Module (DZ-9057 Base)</td>
<td>1426f/01</td>
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Base  
DZ-9056
DZ-9057

### Gent By Honeywell (Novar Systems Ltd)
140 Waterside Road, Hamilton Industrial Park, Leicester LE5 1TN, United Kingdom
Tel: +44 (0)116 246 2000 • Fax: +44 (0)116 246 2300  
E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk

Middle East Sales Enquiries  
E-mail: gent.export@honeywell.com

Certificate No: 042cd to EN 54-17:2005
PART 1: SECTION 6
LINE UNITS

**Line Units**

Certificated Products

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<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
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<tbody>
<tr>
<td>042cd</td>
<td>S3-ST-RR-BC Backwards Compatible (MK1) Type A Red Strobe / Red Body with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)</td>
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Ancillaries

<p>| | |</p>
<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>S3-DB-R</td>
<td>S Cubed Deep Base - Red</td>
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<tr>
<td>S3-SB-R</td>
<td>S Cubed Shallow Base - Red</td>
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Certificate No: 042ba to EN 54-17: 2005 & EN 54-18: 2005

Certificated Products

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<th>Product Description</th>
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<tbody>
<tr>
<td>042ba/01</td>
<td>S4-34410 Analogue addressable 1 input interface module with short circuit isolator, low voltage. (S4-34490 and S4-34492 boxes)</td>
</tr>
<tr>
<td>042ba/02</td>
<td>S4-34411 Analogue addressable 1 output DIN rail mounting interface module with short circuit isolator, medium voltage.</td>
</tr>
<tr>
<td>042ba/03</td>
<td>S4-34415 Analogue addressable 1 output surface mounting interface module with short circuit isolator, medium voltage.</td>
</tr>
<tr>
<td>042ba/04</td>
<td>S4-34420 Analogue addressable 1 input and 1 output interface module with short circuit isolator, low voltage. (S4-34490 and S4-34492 boxes)</td>
</tr>
<tr>
<td>042ba/05</td>
<td>S4-34450 Analogue addressable 4 input / output interface module with short circuit isolator, low voltage. (S4-34490 and S4-34492 boxes)</td>
</tr>
<tr>
<td>042bp/01</td>
<td>S4-34440-02 Mains powered Interface Unit (2Ah)</td>
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<tr>
<td>042bp/02</td>
<td>S4-34440-12 Mains powered Interface Unit (12Ah)</td>
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Accessories:

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<tr>
<td>S4-34490</td>
<td>Plastic Box</td>
</tr>
<tr>
<td>S4-34492</td>
<td>Metal Box</td>
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Approved Products

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<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>042bp/03</td>
<td>S4-34440-ASD S4 ASD Mains Powered Interface Unit with Short Circuit Isolator</td>
</tr>
</tbody>
</table>

GEZE GmbH

Reinhold-Vöster-Str. 21-29, D-71229 Leonberg, Germany

Tel: +49 (0)7152-203-0 • Fax: +49 (0)7152-203-310

E-mail: c.lieske@geze.com • Website: www.geze.com

Certificate No: 928s-(cl-1) to EN 54-18: 2005

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>928s/01</td>
<td>GC150B Non-latching relay base</td>
</tr>
</tbody>
</table>
**Gulf Security Technology Co., Ltd.**
No 80 Changjiang East Road, QETDZ, Qinhuangdao, Hebei Province 066004, China
Tel: +86 0335 8502434 • Fax: +86 0335 8502532
E-mail: sales@carrier.com • Website: www.gst.com.cn

Certificate No: 548n to EN 54-17: 2005
Certificate No: 548m to EN 54-18: 2005

<table>
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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>I-9300 Analogue Addressable Input Module</td>
<td>548m/01</td>
</tr>
<tr>
<td>I-9301 Analogue Addressable Single Output Module</td>
<td>548m/02</td>
</tr>
<tr>
<td>Note: 1. 4 Wire Mode, 24v active output (Default). 2. 2 Wire Mode, volt free changeover contact output.</td>
<td></td>
</tr>
<tr>
<td>I-9319 Addressable Zone Monitor Unit</td>
<td>548m/03</td>
</tr>
<tr>
<td>C-9504 Base mount short circuit isolator</td>
<td>548n/02</td>
</tr>
<tr>
<td>DC-9504E Base Mount Isolator</td>
<td>548n/03</td>
</tr>
<tr>
<td>C-9503E Loop Isolator (B-9310 Back Box)</td>
<td>548n/04</td>
</tr>
<tr>
<td>DC-9503E Addressable Loop Isolator</td>
<td>548n/05</td>
</tr>
<tr>
<td>DI-9300E Addressable Digital Single Input Module</td>
<td>548m/04</td>
</tr>
<tr>
<td>DI-9301E Addressable Digital Single Input and Output Module</td>
<td>548m/05</td>
</tr>
<tr>
<td>DI-9305E Addressable Digital Single Riser Output Module</td>
<td>548m/06</td>
</tr>
<tr>
<td>DI-9319E Addressable Digital Zone Monitor Unit</td>
<td>548m/07</td>
</tr>
<tr>
<td>DI-9302E Addressable Digital High Voltage Relay Module</td>
<td>548m/08</td>
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</table>

Accessories: B-9310 Back Box

**Haes Technologies Limited**
Unit 3, Horton Industrial Park, West Drayton, Middlesex UB7 8JD, United Kingdom
Tel: +44 (0)1895 546205 • Fax: +44 (0)1895 420603
E-mail: sales@haes.demon.co.uk • Website: www.haes--tech.com

Certificate No: 810e to EN 54-18: 2005 and EN 54-17: 2005
Certificate No: 810h to EN 54-17: 2005

<table>
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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>55000-845HSL XP95 Analogue Addressable Zone Monitor Unit with Isolator</td>
<td>810e/02</td>
</tr>
<tr>
<td>55000-847HSL XP95 Analogue Addressable Input/Output Unit with Isolator</td>
<td>810e/03</td>
</tr>
<tr>
<td>55000-852HSL XP95 Analogue Addressable Sounder Controller with Isolator</td>
<td>810e/04</td>
</tr>
<tr>
<td>55000-760HSL XP95/Discovery Analogue Addressable Mini Switch Monitor with Isolator</td>
<td>810e/05</td>
</tr>
<tr>
<td>45681-284HSL XP95/Discovery Short Circuit Isolating Base</td>
<td>810h/01</td>
</tr>
<tr>
<td>45681-518HSL Enhanced Deep Isolating Base (Red)</td>
<td>810h/02</td>
</tr>
</tbody>
</table>

**Hochiki Europe (UK) Limited**
Grosvenor Road, Gillingham Business Park, Gillingham, Kent ME8 0SA, United Kingdom
Tel: +44 (0)1634 260133 • Fax: +44 (0)1634 260132
E-mail: info@hochikieurope.com • Website: www.hochikieurope.com

Certificate No: 164p to EN-54-18: 2005
Certificate No: 164q to EN 54-17:2005 & EN 54-18:2005
Certificate No: 164n to EN 54-17: 2005
<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHQ-SZM/OEM(SCI) Intelligent Analogue Addressable Single Zone monitor with Short Circuit Isolator</td>
<td>164q/01</td>
</tr>
<tr>
<td>CHQ-SZM/DIN(SCI) Intelligent Analogue Addressable Single Zone monitor with Short Circuit Isolator (DIN rail version)</td>
<td>164q/02</td>
</tr>
<tr>
<td>CHQ-DIM/OEM(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator</td>
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<td>CHQ-DIM/DIN(SCI) Intelligent Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN rail version)</td>
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<td>CHQ-DSC/OEM(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator</td>
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<td>CHQ-DRC/OEM(SCI) Intelligent Analogue Addressable Dual Relay Controller with Short Circuit Isolator</td>
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<td>CHQ-SZM/OEM(HFP)-SCI Intelligent Analogue Addressable Single Zone monitor with short circuit isolator</td>
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<td>CHQ-DIM/OEM(HFP)-SCI Intelligent Analogue Addressable Dual Input Module with short circuit isolator</td>
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<tr>
<td>YBO-R(SCI) Short Circuit Isolating Base (RED)</td>
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<td>YBO-R/6R Conventional latching relay base</td>
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<td>YBO-R/6R(WHT) Conventional latching relay base - White</td>
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<td>YBO-R/6RS Conventional latching relay base with integral Schottky diode</td>
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<td>YBO-R/6RS(WHT) Conventional latching relay base with integral Schottky diode - White</td>
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<td>YBO-R/6RN Conventional non-latching relay base</td>
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<td>YBO-R/6RN(WHT) Conventional non-latching relay base - White</td>
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<td>CHQ-POM Intelligent Analogue addressable powered output module</td>
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<td>CHQ-POM(HFP) Intelligent Analogue addressable powered output module</td>
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<td>CHQ-SZM(M/SCI) Intelligent Analogue addressable single zone monitor with short circuit isolator</td>
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<td>CHQ-DIM(M/SCI) Intelligent Analogue addressable dual input module with short circuit isolator</td>
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<td>CHQ-DSC(M/SCI) Intelligent Analogue addressable dual sounder controller with short circuit isolator</td>
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<td>CHQ-DRC(M/SCI) Intelligent Analogue addressable dual relay controller with short circuit isolator</td>
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<td>CHQ-DZM(SCI) Intelligent Analogue Addressable Dual Zone Monitor with short circuit isolator</td>
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<td>CHQ-DZM(SCI)-IS Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with short circuit isolator</td>
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<td>CHQ-DZM(DIN/SCI)-IS Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with short circuit isolator (DIN rail version)</td>
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<td>CHQ-PCM(DIN/SCI) Analogue Addressable 4 Input, 4 output Plant Control Module with short circuit isolator</td>
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<td>CHQ-PCM(SCI) Analogue Addressable 4 Input, 4 output Plant Control Module with short circuit isolator</td>
<td>164q/13</td>
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<tr>
<td>CHQ-PCM(HFP) Analogue Addressable 4 Input, 4 output Device with short circuit isolator</td>
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<td>RSM-EXP Wireless Expander module</td>
<td>928r/02</td>
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<tr>
<td>YBN-R(3)(HFP)-SCI Short Circuit Isolating Base</td>
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<td>YBN-R(3)(SCI) Short Circuit Isolating Base</td>
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<td>YBN-R(3)(WHT)-SCI Short Circuit Isolating Base (white)</td>
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<td>RSM-WTM ESP Wire to Wireless translator module</td>
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<td>CHQ-SOM Intelligent analogue addressable single output module</td>
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<tr>
<td>CHQ-SOM(HFP) Intelligent analogue addressable single output module</td>
<td>164q/12</td>
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<tr>
<td>CHQ-MRC2/DIN(SCI) Intelligent Analogue Addressable Mains Relay Controller with Short Circuit isolator</td>
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<td>CHQ-MRC2(SCI) Intelligent Analogue Addressable Mains Relay Controller with Short Circuit isolator</td>
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<td>CHQ-MRC2(HFP)-SCI Intelligent Analogue Addressable Mains Relay Controller with Short Circuit isolator</td>
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<tr>
<td>CHQ-ISM Intrinsically Safe Sounder Interface Module</td>
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<td>CHQ-ISM(DIN) Intrinsically Safe Sounder Interface Module (DIN Rail Version)</td>
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<td>CHQ-ISM(HFP) Intrinsically Safe Sounder Interface Module</td>
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</table>
Note: 1. Should always be used with an I.S Barrier; further details can be found in the manufacturers installation instructions.
2. The CHQ-ISM(HFP) is not itself intrinsically safe.

RSM-CIM Wireless Conventional System Expander Module 928r/01
RSM-POM Wireless Battery Powered Output Module 928r/03
Note: 1. The device must be used with the following batteries only:
- CR123A (3Vdc) - Main Battery
- CR123A (3Vdc) - Secondary Battery
RSM-IP Wireless Battery Powered Input Module 928r/04
Note: 1. The device must be used with the following batteries only:
- CR123A (3Vdc) - Main Battery
- CR2032A (3Vdc) - Secondary Battery

CHQ-DIM2(SCI) Analogue Addressable Dual Input Module with Short Circuit Isolator 164q/19
CHQ-DIM2/DIN(SCI) Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN Rail Version) 164q/20
CHQ-DRC2(SCI) Analogue Addressable Dual Relay Controller with Short Circuit Isolator 164q/21
CHQ-DRC2/DIN(SCI) Analogue Addressable Dual Relay Controller with Short Circuit Isolator (DIN Rail Version) 164q/22
CHQ-DIM2(HFP)-SCI Analogue Addressable Dual Input Module with Short Circuit Isolator 164q/19
CHQ-DRC2(HFP)-SCI Analogue Addressable Dual Relay Controller with Short Circuit Isolator 164q/21
CHQ-SZM2(SCI) Intelligent Analogue Addressable Single Zone Monitor with Short Circuit Isolator 164q/23
CHQ-SZM2/DIN(SCI) Intelligent Analogue Addressable Single Zone Monitor with Short Circuit Isolator (DIN Rail Version) 164q/24
CHQ-SZM2(HFP)-SCI Intelligent Analogue Addressable Single Zone Monitor with Short Circuit Isolator 164q/23
CHQ-DSC2(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator 164q/25
CHQ-DSC2/DIN(SCI) Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator (DIN Rail Version) 164q/26
CHQ-DSC2(HFP)-SCI Intelligent Analogue Addressable Dual Sounder Controller with Short Circuit Isolator 164q/25
CHQ-FTM Intelligent Analogue Addressable 4-20mA Input/Output Module 164q/15
CHQ-FTM/DIN Intelligent Analogue Addressable 4-20mA Input/Output Module (DIN rail version) 164q/16
CHQ-FTM(HFP) Intelligent Analogue Addressable 4-20mA Input/Output Module 164q/15
Note: 1. Device to be installed within a TK-PC 1811(SMB-3) enclosure.

CHQ-MRC2/FS(SCI) Intelligent Analogue Addressable Mains Relay Controller with Short Circuit Isolator - Fail Safe 164q/27
Note: The device must be in an enclosure as defined in the manufacturers installation manual.

CHQ-MRC2/FSDIN(SCI) Intelligent Analogue Addressable Mains Relay Controller with Short Circuit Isolator (DIN Rail Version) - Fail Safe 164q/28
Note: The device must be in an enclosure as defined in the manufacturers installation manual.

CHQ-MRC2/FS(HFP)-SCI Intelligent Analogue Addressable Mains Relay Controller with Short Circuit Isolator - Fail Safe 164q/27
Note: The device must be in an enclosure as defined in the manufacturers installation manual.

Honeywell Control Systems Limited
Honeywell House, Arlington Business Park, Bracknell, Berkshire RG12 1EB, United Kingdom
Tel: +44 (0)1344 655609 • Fax: +44 (0)1344 655474
Website: www.honeywell.com

Certificate No: 199v to EN 54-17: 2005 & EN 54-18: 2005

Certificated Products

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<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>TC841E1019EIS</td>
<td>Conventional zone monitor module with resistive end of line 199v/08</td>
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<tr>
<td>TC809E1043</td>
<td>Analogue addressable single channel input module with short circuit isolator 199v/01</td>
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<tr>
<td>TC809E1050</td>
<td>Analogue addressable dual channel input module with short circuit isolator 199v/02</td>
</tr>
<tr>
<td>TC809E1068</td>
<td>Analogue addressable dual channel input and single channel output module with short circuit isolator 199v/03</td>
</tr>
<tr>
<td>TC810E1032</td>
<td>Single channel output module with short circuit isolator 199v/04</td>
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<tr>
<td>TC810E1040</td>
<td>Single channel 240V output module with short circuit isolator 199v/05</td>
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<tr>
<td>TC810E1057</td>
<td>Single channel 240V output module, DIN rail mount with short circuit isolator 199v/06</td>
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<tr>
<td>TC841E1019</td>
<td>Conventional Zone Interface Module 199v/07</td>
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20 Oct 2020
### Part 1: Section 6

**Line Units**

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<th>Certificated Products</th>
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<td>MI-DMMI</td>
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<tr>
<td>MI-DMM2I</td>
<td>550k/02</td>
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<tr>
<td>MI-DDICMO</td>
<td>550k/03</td>
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<tr>
<td>MI-DCMO</td>
<td>550k/04</td>
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<tr>
<td>MI-D240CMO</td>
<td>550k/05</td>
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<tr>
<td>MI-D240CMO-DIN</td>
<td>550k/06</td>
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<tr>
<td>MI-DCZRM</td>
<td>550k/07</td>
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**Certificated Products**

TC810E1040-KO  Single Channel 240V Output Module  199v/09

TC84RME  Wire to Wireless Translator Interface Module with Short Circuit Isolator (Honeywell Protocol)  928aa/02

Ancillaries:

- SIGI-MP1  Mounting Plate
- SIGA-MP2  Mounting Plate
- SIGA-MP2L Mounting Plate

**Honeywell Control Systems Ltd**

Honeywell House, Arlington Business Park, Bracknell, Berkshire RG12 1EB, United Kingdom

Tel: 01344 655609 • Fax: 01344 655474

Website: www.honeywell.com


**Honeywell Morley-IAS by Honeywell International (I) Pvt. Ltd**

Sector 36, Pace City - II, Gurgaon, Haryana 122004, India

Tel: +91 124 4752700 • Fax: +91 124 4752750

E-mail: amit.puri@honeywell.com • Website: www.honeywell.com

Certificate No: 550j-(cl-1) to EN 54-17:2005

Certificate No: 550k-(cl-1) to EN 54-17:2005 & EN 54-18:2005

**Line Units**

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<tr>
<td>MI-D2ICMO</td>
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<td>MI-DCZRM</td>
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Honeywell Products & Solutions Sàrl (Trading as System Sensor Europe)
Zone d’activités La Pièce 16, CH-1180, Rolle, Switzerland
Tel: +41 44 943 4424 • Fax: +41 44 943 4399
E-mail: sse.marketing@systemsensor.com • Website: www.systemsensor.com

European Sales:
System Sensor Europe, Life Safety Distribution AG, Wilstrasse 11 (Building U31), CH-8610 Uster, Switzerland
Tel: +41 44 943 4424 • Fax: +41 44 943 4399
E-mail: sse.marketing@systemsensor.com • Website: www.systemsensor.com

Certificate No: 199r to CEA GEI 1-052 Draft 2.0 (11-06-97) and prEN 54-17 Draft (July 2002)
Certificate No: 199x to EN 54-17: 2005
Certificate No: 199v to EN 54-17: 2005 & EN 54-18: 2005
Certificate No: 166u-(cl-1) to EN 54-17:2005

**Line Units**

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<td>B5241EFT-1</td>
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<td>ISO524-1</td>
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<td>M210E</td>
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<td>BST-xx-Iyy</td>
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<td>WST-xx-Iyy</td>
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**Notes:**

1. Not approved to EN 54-23:2010
2. xx indicates colour of body and lens
3. First x indicates body colour. D=Detector White, P=Pure White
4. Second x indicates lens colour. C=Clear, A=Amber, R=Red
5. yy indicates customer and associated communication protocol.

**Bases:**
B501AP Mounting base
## INIM Electronics S.R.L

Via Dei Lavoratori 10, Frazione Centobuchi, Monteprandone (AP) 63076, Italy  
Tel: +39 0735 705007 • Fax: +39 0735 704912  
E-mail: info@inim.biz • Website: www.inim.biz

Certificate No: 991g to EN 54-17:2005, EN 54-18:2005

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<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Description</th>
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<tr>
<td>991g/01</td>
<td>EM312SR</td>
<td>Intelligent Analogue Addressable Mini Input / Output Module with Short Circuit Isolator</td>
</tr>
<tr>
<td>991g/02</td>
<td>EU311</td>
<td>Intelligent Analogue Addressable Micro Input / Output Module with Short Circuit Isolator</td>
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<tr>
<td>991g/03</td>
<td>EM344S</td>
<td>Intelligent Analogue Addressable 4 Input / 4 Supervised Output Module with Short Circuit Isolator</td>
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<td>991g/04</td>
<td>EM344R</td>
<td>Intelligent Analogue Addressable 4 Input / 4 Relay Output Module with Short Circuit Isolator</td>
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<td>991g/05</td>
<td>EM340</td>
<td>Intelligent Analogue Addressable 4 Input Module with Short Circuit Isolator</td>
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<tr>
<td>991g/06</td>
<td>EM304S</td>
<td>Intelligent Analogue Addressable 4 Supervised Output Module with Short Circuit Isolator</td>
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<td>991g/07</td>
<td>EM304R</td>
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## Kidde Products Ltd

Thame Park Road, Thame, Oxfordshire OX9 3RT, United Kingdom  
Tel: +44 (0)1844 265003 • Fax: +44 (0)1844 265156  
E-mail: general.enquiries@kiddeuk.co.uk • Website: www.kfp.co.uk

Certificate No: 010ah-(cl-4) to EN 54-18: 2005 and EN 54 -17: 2005

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<td>010ah/03</td>
<td>23900-K135</td>
<td>XP95 analogue addressable switch monitor plus with isolator</td>
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<tr>
<td>010ah/05</td>
<td>23900-K136</td>
<td>XP95 analogue addressable zone monitor unit with isolator</td>
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<tr>
<td>010ah/06</td>
<td>23900-K132</td>
<td>XP95 analogue addressable input/output unit with isolator</td>
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<tr>
<td>010ah/08</td>
<td>23900-K137</td>
<td>XP95 analogue addressable sounder controller with isolator</td>
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## KMW Systems S.R.L.

Str. Sambetei, Nr. 6 Iasi, , Romania  
Tel: 0040232247288  
E-mail: marius.gavriluta@kmw.ro

Certificate No: 1174g-(cl-5) to EN 54-17:2005  
Certificate No: 1174h-(cl-5) to EN 54-18:2005

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<td>1174g/01</td>
<td>KM-FA6420</td>
<td>Addressable Isolator Interface (KM-FA6401 base)</td>
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<td>1174h/01</td>
<td>KM-FA6440</td>
<td>Addressable Monitor Interface (1 Input) (KM-FA6401 Base)</td>
</tr>
<tr>
<td>1174h/02</td>
<td>KM-FA6410</td>
<td>Addressable Control Interface (1 Input &amp; 1 Output) (KM-FA6401 Base)</td>
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### Line Units

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Approved Products</th>
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<tr>
<td>1174g/01</td>
<td>KM-FA6420</td>
<td>Addressable Isolator Interface (KM-FA6401 base)</td>
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<tr>
<td>1174h/01</td>
<td>KM-FA6440</td>
<td>Addressable Monitor Interface (1 Input) (KM-FA6401 Base)</td>
</tr>
<tr>
<td>1174h/02</td>
<td>KM-FA6410</td>
<td>Addressable Control Interface (1 Input &amp; 1 Output) (KM-FA6401 Base)</td>
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</table>
**PART 1: SECTION 6**

**LINE UNITS**

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### Labor Strauss Sicherungsanlagenbau GmbH

Wiegelestrasse 36, A-1231 Vienna, Austria  
Tel: +43 1 52114-44 • Fax: +43 1 52114-27  
E-mail: andreas.schumacher@lst.at • Website: www.laborstrauss.com


<table>
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<th>LPCCB Ref. No.</th>
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<td>928r/02</td>
<td>FI720/RF/WE Wireless Expander Module</td>
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<td>928r/01</td>
<td>FI720/RF/CWE Wireless Conventional System Expander Module</td>
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<td>928n/01</td>
<td>FI720/RF/W2W Wire to Wireless Translator Module</td>
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---

### Mavili Elektronik Ticaret Ve Sanayi A.S.

Serifali Mah, Kutup Sok, No: 27:, 1-2-4 Umranıye, Istanbul TR 34775, Turkey  
Tel: +90 216 4664 505 • Fax: +90 216 4664 510  
E-mail: mavili@mavili.com.tr • Website: www.mavili.com.tr

Certificate No: 926f to EN 54-17:2005 & EN 54-18:2005  
Certificate No: 926g to EN 54-17:2005  
Certificate No: 926e to EN 54-18:2005

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<td>ML-1362.SCI Maxlogic Intelligent Addressable System Switch Monitor Module</td>
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<td>ML-1363.SCI Maxlogic Intelligent Addressable System 2 Input / 1 Output Module</td>
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<td>ML-1373.SCI Maxlogic Intelligent Addressable 2 Input / 1 Output Module</td>
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<td>926g/01</td>
<td>ML-1380 Maxlogic Intelligent Addressable System Short Circuit Isolator</td>
</tr>
<tr>
<td>926e/01</td>
<td>ML-1361 Maxlogic Intelligent Addressable System Relay Control Module</td>
</tr>
<tr>
<td>926e/02</td>
<td>ML-1362 Maxlogic Intelligent Addressable System Switch Monitor Module</td>
</tr>
<tr>
<td>926e/03</td>
<td>ML-1363 Maxlogic Intelligent Addressable System 2 Input / 1 Output Module</td>
</tr>
<tr>
<td>926e/04</td>
<td>ML-1366 Maxlogic Intelligent Addressable System 4 Input / 2 Output Module</td>
</tr>
<tr>
<td>926e/05</td>
<td>ML-1371 Maxlogic Intelligent Addressable Sounder Control Module</td>
</tr>
<tr>
<td>926e/06</td>
<td>ML-1372 Maxlogic Intelligent Addressable Zone Control Module</td>
</tr>
<tr>
<td>926e/07</td>
<td>ML-1373 Maxlogic Intelligent Addressable 2 Input / 1 Output Module</td>
</tr>
</tbody>
</table>

**Ancillaries**

ML-0320 Plastic Box

---

### Morley IAS by Honeywell

Caburn House, 2B Brooks Road, Lewes BN7 2BY, United Kingdom  
Tel: +44(0)1273 897000 • Fax: +44(0) 1273 376894  
E-mail: sales@morleysias.co.uk • Website: http://www.morley-ias.co.uk


<table>
<thead>
<tr>
<th>LPCCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>928aa/03</td>
<td>MIW-INT Wire to Wireless Translator Interface Module with Short Circuit Isolator (Morley Protocol)</td>
</tr>
</tbody>
</table>

---
# PART 1: SECTION 6
## LINE UNITS

**Morley-IAS Fire Systems by Honeywell (Pittway Systems Technology Group (Europe) Ltd)**
Caburn House, 2B Brooks Road, Lewes, East Sussex BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@morleyias.co.uk • Website: www.morley-ias.co.uk

Certificate No: 199v to EN 54-17: 2005 & EN 54-18: 2005
Certificate No: 199r to CEA GEI 1-052 Draft 2.0: 11.06.97 & prEN 54-17 Draft: July 2002
Certificate No: 166u-(cl-3) to EN 54-17:2005

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI-DMMI</td>
<td>Analogue addressable single channel input module with short circuit isolator 199v/01</td>
</tr>
<tr>
<td>MI-DMM2I</td>
<td>Analogue addressable dual channel input module with short circuit isolator 199v/02</td>
</tr>
<tr>
<td>MI-D2ICMO</td>
<td>Analogue addressable dual channel input and single channel output module with short circuit isolator 199v/03</td>
</tr>
<tr>
<td>MI-DCMO</td>
<td>Single channel output module with short circuit isolator 199v/04</td>
</tr>
<tr>
<td>MI-D240CMO</td>
<td>Single channel 240V output module with short circuit isolator 199v/05</td>
</tr>
<tr>
<td>MI-240CMO-DIN</td>
<td>Single channel 240V output module, DIN rail mount with short circuit isolator 199v/06</td>
</tr>
<tr>
<td>MI-D240CMO-KO</td>
<td>Single Channel 240V Output Module 199v/09</td>
</tr>
<tr>
<td>MI-DCZM</td>
<td>Conventional zone interface module 199v/07</td>
</tr>
<tr>
<td>MI-DISO</td>
<td>Short circuit isolator module 199r/01</td>
</tr>
<tr>
<td>MI-D240CMO-KO</td>
<td>Conventional zone monitor module with resistive end of line 199v/08</td>
</tr>
<tr>
<td>MI-WST-PR-I</td>
<td>Analogue Addressable Wall Mounted LED Strobes with Short Circuit Isolator (B501AP) 166u/02</td>
</tr>
</tbody>
</table>

**Note:**
1. Not approved to EN 54-23:2010

**Bases**
B501AP Mounting base

---

**Multron Systems Pte Ltd**
217 Kallang Bahru, Multron Building, Singapore 339 347, Singapore
Tel: +65 6743 2555 / 6395 6868 • Fax: +65 6743 2777 / 6395 6869
E-mail: info@multron.com • Website: www.multron.com

Certificate No: 1330e-(cl-3) to EN 54-18:2005
Certificate No: 1330f-(cl-3) to EN 54-17:2005

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>MX210</td>
<td>Addressable Single Input/Output Module 1330e/01</td>
</tr>
<tr>
<td>MX230</td>
<td>Analogue Addressable Isolator Module 1330f/01</td>
</tr>
</tbody>
</table>

---

**Notifier by Honeywell**
Caburn House, 2B Brooks Road, Lewes BN7 2BY, United Kingdom
Tel: +44 (0)1444 230300 • Fax: +44 (0)1444 230888
E-mail: sales@notifiersystems.co.uk • Website: www.notifierfiresystems.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDP-RM1</td>
<td>Wire to Wireless Translator Interface Module with Short Circuit Isolator (Notifier Protocol) 928aa/01</td>
</tr>
</tbody>
</table>
### Line Units

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>199r/01</td>
<td>M700X Short circuit isolator module</td>
</tr>
<tr>
<td>199v/01</td>
<td>M710 Analogue addressable single channel input module with short circuit isolator</td>
</tr>
<tr>
<td>199v/02</td>
<td>M720 Analogue addressable dual channel input module with short circuit isolator</td>
</tr>
<tr>
<td>199v/03</td>
<td>M721 Analogue addressable dual channel input and single channel output module with short circuit isolator</td>
</tr>
<tr>
<td>199v/04</td>
<td>M701 Single channel output module with short circuit isolator</td>
</tr>
<tr>
<td>199v/05</td>
<td>M701-240 Single channel 240V output module with short circuit isolator</td>
</tr>
<tr>
<td>199v/06</td>
<td>M701-240-DIN Single channel 240V output module, DIN rail mount with short circuit isolator</td>
</tr>
<tr>
<td>199v/07</td>
<td>M710-CZR Conventional zone monitor module with resistive end of line</td>
</tr>
<tr>
<td>199v/08</td>
<td>NFXI-BF-WC Analogue Addressable Base LED Strobes with Short Circuit Isolator (B501AP)</td>
</tr>
<tr>
<td>166u/01</td>
<td>Note: 1. Not approved to EN 54-23:2010</td>
</tr>
<tr>
<td>166u/02</td>
<td>Note: 1. Not approved to EN 54-23:2010</td>
</tr>
<tr>
<td>010ah/11</td>
<td>B02947-64 Intelligent Switch Monitor (45681-400 Backbox)</td>
</tr>
<tr>
<td>010ah/13</td>
<td>B02940-64 Intelligent Input/Output Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z</td>
</tr>
<tr>
<td>010ah/19</td>
<td>B02944-64 Intelligent Mains Switching Input/Output Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td>010ah/21</td>
<td>B02942-64 Intelligent Twin Input/Output Unit (45681-400 Backbox)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z</td>
</tr>
<tr>
<td>010ah/22</td>
<td>B02949-64 Intelligent Twin Switch Monitor (45681-400 Backbox)</td>
</tr>
<tr>
<td></td>
<td>Ancillaries 45681-400 Intelligent Interface Backbox</td>
</tr>
</tbody>
</table>
## PART 1: SECTION 6

### LINE UNITS

#### Protec Fire Detection plc
Protec House, Churchill Way, Nelson, Lancashire BB9 6RT, United Kingdom  
Tel: +44 (0)1282 717171 • Fax: +44 (0)1282 717273  
E-mail: sales@protec.co.uk • Website: www.protec.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>3000/WLS/EXP</td>
<td>928r01</td>
</tr>
<tr>
<td>WLS/EXP</td>
<td>928r02</td>
</tr>
<tr>
<td>WLS/BOP</td>
<td>928r03</td>
</tr>
<tr>
<td>WLS/MIP</td>
<td>928r04</td>
</tr>
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</table>

Note:
1. The device must be used with the following batteries only:
   - CR123A (3Vdc) - Main Battery
   - CR123A (3Vdc) - Secondary Battery

#### PT.Servvo Fire Indonesia
Pusat Niaga Roxy Mas Blok D5/17,, Jl.K.H. Hasyim Ashari Blok 125, Cideng, Gambir, Jakarta Pusat, DKI Jakarta Raya 10150, Indonesia  
Tel: +62216330330  
E-mail: info@servvo.com Info@servvo.co.id • Website: www.servvo.com or www.servvo.co.id

Certificate No: 1426e-(cl-4) to EN 54-18: 2005  
Certificate No: 1426f-(cl-4) to EN 54-17: 2005

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>SDM 767</td>
<td>1426e/01</td>
</tr>
<tr>
<td>SIM 718</td>
<td>1426f/01</td>
</tr>
</tbody>
</table>

Base

DZ-9056

DZ-9057

#### Realty Automation & Security Systems Pvt Ltd.
Survey No. 11/11, Karanjakar Estate, Nanded Gaon, Pune MH- 411041, India  
Tel: +91-9011033259  
E-mail: sales@vighnaharta.in • Website: www.vighnaharta.in

Certificate No: 010aa-(cl-6) to EN 54-17:2005

<table>
<thead>
<tr>
<th>Line Units</th>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>BASE-284TSF</td>
<td>TrueSafe Isolating Base</td>
<td>010aa/01</td>
</tr>
</tbody>
</table>
### Schneider Electric Fire & Security Oy
Sokerilinnantie 11C, 02600, Espoo, Finland
Tel: +358 10 446 511 • Fax: +358 10 446 5103
E-mail: FI-FireSecurity-Info@schneider-electric.com • Website: www.schneider-electric.com

Certificate No: 199x to EN 54-17: 2005
Certificate No: 199v to EN 54-17: 2005 and EN 54-18: 2005
Certificate No: 010ag-(cl-1) to EN 54-18: 2005
Certificate No: 010aa-(cl-2) to EN 54-17: 2005
Certificate No: 010ah-(cl-1) to EN 54-18: 2005 and EN 54-17: 2005

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>199x/02</td>
<td>EMISO524 Short circuit isolator</td>
</tr>
<tr>
<td>199v/07</td>
<td>EM210ECZ Conventional zone interface module</td>
</tr>
<tr>
<td>199v/08</td>
<td>EM210E-CZR Conventional zone monitor module with resistive end of line</td>
</tr>
<tr>
<td>010ag/08</td>
<td>EMI-401/S Intellia DIN-rail sounder control module</td>
</tr>
<tr>
<td>010aa/01</td>
<td>EBI-11 Intellia isolating base</td>
</tr>
<tr>
<td>010aa/06</td>
<td>EMI-400 Intellia DIN-rail dual isolator</td>
</tr>
<tr>
<td>010ah/02</td>
<td>EMI-410/CZ Intellia DIN-rail conventional zone module with isolator</td>
</tr>
<tr>
<td>010ah/05</td>
<td>EMI-310/CZ Intellia conventional zone monitor module with isolator</td>
</tr>
<tr>
<td>010ah/08</td>
<td>EMI-301/S Intellia sounder control module with isolator</td>
</tr>
<tr>
<td>010ah/01</td>
<td>EBI-20 ESMI Intellia Relay Base</td>
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<tr>
<td>010ah/11</td>
<td>EME210-I ESMI Essentia Switch Monitor EME210-I (FFS06720330 Backbox)</td>
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<tr>
<td>010ah/12</td>
<td>EME214-I ESMI Essentia DIN-Rail Switch Monitor EME214-I (FFS06720331 DIN Tub)</td>
</tr>
<tr>
<td>010ah/13</td>
<td>EME212-I ESMI Essentia Input/Output Unit EME212-I (FFS06720330 Backbox)</td>
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Note:
1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>010ah/14</td>
<td>EME213-I ESMI Essentia DIN-Rail Input/Output Unit EME213-I (FFS06720331 DIN Tub)</td>
</tr>
</tbody>
</table>

Note:
1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>010ah/19</td>
<td>EME215-I ESMI Essentia Mains Switching Input/Output Unit EME215-I (FFS06720330 Backbox)</td>
</tr>
<tr>
<td>010ah/21</td>
<td>EME216-I ESMI Essentia Twin Input/Output Unit EME216-I (FFS06720330 Backbox)</td>
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</tbody>
</table>

Note:
1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z

<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
<td>010ah/22</td>
<td>EME211-I ESMI Essentia Twin Switch Monitor EME211-I (FFS06720330 Backbox)</td>
</tr>
</tbody>
</table>

### Shenzhen Fanhai Sanjiang Electronics CO., Ltd
3/F., Guangcai Xintiandi Mansion, Nanshan Road, Nanshan District, Shenzhen, Guangdong 518054, China
Tel: +86 755 26521071
E-mail: shuxian.wei@fhsjdz.com

Certificate No: 1426e-(cl-2) to EN 54-18:2005
Certificate No: 1426f-(cl-2) to EN 54-17: 2005

<table>
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<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426e/01</td>
<td>A9056T Addressable I/O Module (DZ-9056 Base)</td>
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<tr>
<td>1426f/01</td>
<td>A9057T Loop Isolator</td>
</tr>
</tbody>
</table>

Base
DZ-9057
**Line Units**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>548n/04</td>
<td>AI-520E Loop Isolator (B-9310 Back Box)</td>
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<tr>
<td>010aa/01</td>
<td>SEN-A4002 Short Circuit Isolating Base</td>
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<tr>
<td>010aa/05</td>
<td>SEN-A4003 Negative Short Circuit Isolator (SEN-A4004 Base)</td>
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<tr>
<td>010aa/08</td>
<td>SEN-A4025 Enhanced Deep Isolating Base (Red)</td>
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<tr>
<td>010aa/05</td>
<td>SEN-A4044 Analogue Addressable Zone Monitor Unit with Isolator</td>
<td></td>
</tr>
<tr>
<td>010aa/06</td>
<td>SEN-A4045 Analogue Addressable Input/Output Unit with Isolator</td>
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<tr>
<td>010aa/08</td>
<td>SEN-A4047 Analogue Addressable Sounder Controller with Isolator</td>
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<tr>
<td>010aa/09</td>
<td>SEN-A4048 Analogue Addressable Locally Powered Zone Monitor Unit with Isolator</td>
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<tr>
<td>010ah/10</td>
<td>TEN-A6061 Intelligent Switch Monitor (TEN-A9099 Backbox)</td>
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</tr>
<tr>
<td>010ah/11</td>
<td>TEN-A6065 Intelligent DIN-Rail Switch Monitor (TEN-A9098 DIN Tub)</td>
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<tr>
<td>010ah/12</td>
<td>TEN-A6066 Intelligent DIN-Rail Input / Output Unit (TEN-A9098 DIN Tub)</td>
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</tr>
<tr>
<td>010ah/13</td>
<td>TEN-A6067 Intelligent DIN-Rail Input / Output Unit (TEN-A9099 Backbox)</td>
<td></td>
</tr>
<tr>
<td>010ah/14</td>
<td>TEN-A6068 Intelligent Mains Switching Input / Output Unit (TEN-A9099 Backbox)</td>
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</tr>
<tr>
<td>010ah/19</td>
<td>TEN-A6069 Intelligent Twin Switch Monitor (TEN-A9099 Backbox)</td>
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</tr>
<tr>
<td>010ah/21</td>
<td>TEN-A6070 Intelligent Twin Input / Output Unit (TEN-A9099 Backbox)</td>
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<tr>
<td>010ah/22</td>
<td>TEN-A6071 Intelligent Twin Switch Monitor (TEN-A9099 Backbox)</td>
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<tr>
<td>010ah/06</td>
<td>SIL-A6061 SIL Input/Output Unit with Isolator</td>
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</tr>
<tr>
<td>928n/01</td>
<td>SW-2210 Wire to Wireless Translator Module</td>
<td></td>
</tr>
<tr>
<td>928r/01</td>
<td>SW-2220 Wireless Conventional System Expander Module</td>
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</tr>
<tr>
<td>928r/02</td>
<td>SW-2220 Wireless Expander Module</td>
<td></td>
</tr>
</tbody>
</table>
| 928r/02       | SW-6310 Wireless Battery Powered Output Module | 1. The device must be used with the following batteries only:  
- CR123A (3Vdc) - Main Battery  
- CR123A (3Vdc) - Secondary Battery  
- CR2032A (3Vdc) - Secondary Battery |
| 928r/04       | SW-6210 Wireless Battery Powered Input Module | |

**Accessories:**
- B-9310 Back Box  
- TEN-A9099Backbox  
- TEN-A9098DIN Tub  

**Base:**
- SEN-A4004 Addressable base
SHIELD FIRE, SAFETY AND SECURITY LTD
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 207 712 1610 • Fax: +44 207 712 1578
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com

Certificate No: 548m-(cl-4) to EN54-18: 2005
Certificate No: 548n-(cl-4) to EN54-17: 2005
Certificate No: 010ag-(cl-4) to EN 54-18: 2005

**Line Units**

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Line Units</th>
<th>Certificated Products</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>548m01</td>
<td>AI-500</td>
<td>Analogue Addressable Input Module</td>
<td></td>
</tr>
<tr>
<td>548m02</td>
<td>AI-510</td>
<td>Analogue Addressable Single Output Module</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. 4 Wire Mode, 24v active output (Default).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. 2 Wire Mode, volt free changeover contact output.</td>
<td></td>
</tr>
<tr>
<td>548m03</td>
<td>AI-515</td>
<td>Addressable Zone Monitor Unit</td>
<td></td>
</tr>
<tr>
<td>010ag14</td>
<td>SIL-A9099</td>
<td>SIL I.S. Protocol Translator (Single)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. To ensure compliance is maintained, all connecting cables to the protocol translator shall be less than 3m.</td>
<td></td>
</tr>
</tbody>
</table>

**Siemens Switzerland Ltd**

Theilerstrasse 1a, , CH-6300 Zug, Switzerland
Website: www.siemens.com

Certificate No: 126bm to EN 54-17:2005, EN 54-18:2005
Certificate No: 126bp to EN 54-17:2005, EN 54-18:2005
Certificate No: 531h-(cl-1) to EN 54-17:2005, EN 54-18:2005
Certificate No: 531m-(cl-1) to EN 54-17:2005, EN 54-18:2005
Certificate No: 531n-(cl-1) to EN 54-17:2005
Certificate No: 531r-(cl-1) to EN 54-18:2005

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>DC1192</th>
<th>Input/Output Module with Short Circuit Isolator</th>
</tr>
</thead>
<tbody>
<tr>
<td>126bm02</td>
<td>FT2001-A1</td>
<td>Digital Addressable Mimic Display Driver(F50F410, 520379)</td>
</tr>
<tr>
<td>126bp01</td>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Approved when used with a metal enclosure at least complying with protection class IP30 and weighing at least 4.5kg.</td>
</tr>
<tr>
<td>126bp02</td>
<td>FT2010-A1</td>
<td>Floor Repeater Terminal</td>
</tr>
<tr>
<td>126bp03</td>
<td>FT2011-A1</td>
<td>Floor Repeater Display</td>
</tr>
<tr>
<td>531h01</td>
<td>FDCI221</td>
<td>Analogue Addressable Input Module with Short Circuit Isolator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Approved when used with the FDCI221</td>
</tr>
<tr>
<td>531h02</td>
<td>FDCIO221</td>
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<td>2. Approved with FDMC291 mounting foot and TS35 standard top hat rail</td>
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<tr>
<td>531m03</td>
<td>FDCIO223</td>
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<td>531n01</td>
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### PART 1: SECTION 6

**LINE UNITS**

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<td>Multi Line Separator Module</td>
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<td>1. Approved when used with FDCH221 housing</td>
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<td>FCA1209-Z1</td>
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<td>FDCI361</td>
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<td>1) Approved when used with FDCH221</td>
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<td>1) Approved when used with the FDCH221</td>
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**Accessories:**
- F50F410 LED flat cable
- 520379 AC/AC Transformer
- FDCH221 Enclosure
- FDCM291 Mounting foot
- TS35 Standard top hat rail
- FDCH221 Housing

---

**Silver-Tec Limited**

Unit 1-2, Building 53B, Pensnett Trading Estate, Kingswinford, West Midlands DY6 7XQ, United Kingdom

Tel: +44 (0)1384 671611
E-mail: info@silver-tec.co.uk • Website: www.silver-tec.co.uk

Certificate No: 164n-(cl-1) to EN 54-17:2005
Certificate No: 164q-(cl-1) to EN 54-17:2005, EN 54-18:2005
Certificate No: 164p-(cl-1) to EN 54-18:2005

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<td>ST-ABI-SCR</td>
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<td>Short Circuit Isolating Base (RED)</td>
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<tr>
<td>ST-ABI-SCW</td>
<td>164n/05</td>
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<td>Short Circuit Isolating Base (WHITE)</td>
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<tr>
<td>ST-ZM2B-SC</td>
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<tr>
<td>ST-ZM2D-SC</td>
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<tr>
<td>Intelligent Analogue Addressable Dual Zone Monitor with Short Circuit Isolator (DIN Rail Version)</td>
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<tr>
<td>ST-ZM2B-IS</td>
<td>164q/11</td>
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<td>Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator</td>
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<tr>
<td>ST-ZM2D-SCIS</td>
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<td>Intelligent Analogue Addressable Intrinsically Safe Dual Zone Monitor with Short Circuit Isolator (DIN Rail Version)</td>
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<tr>
<td>ST-PC4B-SC</td>
<td>164q/13</td>
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<td>Analogue Addressable 4 Input, 4 Output Plant Control Module with Short Circuit Isolator</td>
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<td>ST-PC4D-SC</td>
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<td>Analogue Addressable 4 Input, 4 Output Plant Control Module with Short Circuit Isolator (DIN Rail Version)</td>
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<td>ST-RC1D-SC</td>
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<td>Intelligent Analogue Addressable Mains Relay Controller with Short Circuit Isolator</td>
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<td>ST-RC2B-SC</td>
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<td>Analogue Addressable Dual Input Module with Short Circuit Isolator</td>
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<td>ST-RC2D-SC</td>
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<td>Analogue Addressable Dual Input Module with Short Circuit Isolator (DIN Rail Version)</td>
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<td>ST-ZM2B-SC</td>
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<td>Intelligent Analogue Addressable Single Zone Monitor with Short Circuit Isolator</td>
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<tr>
<td>ST-ZM2D-SC</td>
<td>164q/23</td>
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<td>164q/24</td>
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<td>ST-SC2D-SC</td>
<td>164q/25</td>
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<td>ST-POC</td>
<td>164q/26</td>
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<td>ST-H1B</td>
<td>164q/10</td>
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<td>Intelligent Analogue Addressable Single Input Module</td>
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<td>ST-O1B</td>
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<td>Intelligent Analogue Addressable Single Output Module</td>
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<td>ST-I1B</td>
<td>164q/12</td>
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<tr>
<td>Intrinsically Safe Sounder Interface Module (DIN Rail Version)</td>
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<tr>
<td>Note:</td>
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</tr>
<tr>
<td>1. Should always be used with as I.S Barrier; further details can be found in the manufacturers installation instructions.</td>
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### Certificated Products

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>SEN-INT-INPUT</td>
<td>042ba/01</td>
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<tr>
<td>SEN-INT-ACDIN</td>
<td>042ba/02</td>
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<td>SEN-INT-AC</td>
<td>042ba/03</td>
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<tr>
<td>SEN-INT-OUTPUT</td>
<td>042ba/04</td>
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<tr>
<td>SEN-INT-4I0</td>
<td>042ba/05</td>
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**Accessories:**
- SEN-490  Plastic Box
- SEN-492  Metal Box

### Approved Products

<table>
<thead>
<tr>
<th>Description</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>78302-02NM S4 ASD Mains Powered Interface Unit with Short Circuit Isolator</td>
<td>042bp/01</td>
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### Line Units

#### Certificated Products

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<thead>
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<th>Description</th>
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<tr>
<td>SEA-9300 Analogue Addressable Input Module</td>
<td>548m/01</td>
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<tr>
<td>SEA-9301 Analogue Addressable Single Output Module</td>
<td>548m/02</td>
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<tr>
<td>SEA-9319 Addressable Zone Monitor Unit</td>
<td>548m/03</td>
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<tr>
<td>SEC-9504E Base Mount Isolator</td>
<td>548n/03</td>
</tr>
<tr>
<td>SEC-9503E Loop Isolator (B-9310 Back Box)</td>
<td>548n/04</td>
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**Accessories:**
- B-9310  Back Box
# PART 1: SECTION 6

## LINE UNITS

### Sterling Safety Systems

Unit B12a, Holly Farm Business Park, Honiley, Warwickshire CV8 1NP, United Kingdom  
Tel: +44(0)1926485282 • Fax: +44(0)1926485090  
E-mail: info@sterlingsafety.co.uk • Website: www.sterlingsafety.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>HFW-W2W-01 Wire to wireless translator module</td>
<td>928n/01</td>
</tr>
<tr>
<td>HFW-CEM-02 Wireless conventional system Expander module</td>
<td>928r/01</td>
</tr>
<tr>
<td>HFW-EM-01 Wireless Expander module</td>
<td>928r/02</td>
</tr>
<tr>
<td>HFW-BOM-03 Wireless Battery Powered Output Module</td>
<td>928r/03</td>
</tr>
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| Note: 1. The device must be used with the following batteries only:  
- CR123A (3Vdc) - Main Battery  
- CR123A (3Vdc) - Secondary Battery |
| HFW-IM-03 Wireless Battery Powered Input Module | 928r/04 |
| Note: 1. The device must be used with the following batteries only:  
- CR123A (3Vdc) - Main Battery  
- CR2032A (3Vdc) - Secondary Battery |
| HFW-W2W-E-01 Wire to Wireless Dynamic Translator Module | 928r/05 |

### Syncolin Ltd

3rd Floor, 14 Hanover Street, Mayfair, London W1S 1YH, United Kingdom  
Tel: +44 (0)207 514 5813  
E-mail: sales@syncolin.com • Website: www.syncolin.com

Certificate No: 010aa-(cl-5) to EN 54-17:2005  
Certificate No: 010ah-(cl-8) to EN 54-17:2005 & EN 54-18:2005

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<td>5000-500</td>
<td>Syncolin Isolating Base</td>
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<td>5000-600</td>
<td>Syncolin Addressable Isolator (5000-601 Base)</td>
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<tr>
<td>45681-518SHA</td>
<td>Deep Isolating Base</td>
<td>010aa/08</td>
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<tr>
<td>5000-802</td>
<td>Syncolin Addressable Zone Monitor with Isolator</td>
<td>010ah/05</td>
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<tr>
<td>5000-803</td>
<td>Syncolin Addressable Input/Output Unit with Isolator</td>
<td>010ah/06</td>
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<tr>
<td>5000-806</td>
<td>Syncolin Addressable Sounder Control Unit with Isolator</td>
<td>010ah/08</td>
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<tr>
<td>SH1200-110SYN</td>
<td>Intelligent Switch Monitor Unit (45681-400 Backbox)</td>
<td>010ah/11</td>
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<tr>
<td>SH1200-112SYN</td>
<td>Intelligent DIN-Rail Switch Monitor Unit (38532-092 DIN Tub)</td>
<td>010ah/12</td>
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<tr>
<td>SH1200-107SYN</td>
<td>Intelligent Input / Output Unit (45681-400 Backbox)</td>
<td>010ah/13</td>
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<td>Note: 1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z</td>
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<td>SH1200-113SYN</td>
<td>Intelligent DIN-Rail Input / Output Unit (38532-092 DIN Tub)</td>
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<td>SH1200-109SYN</td>
<td>Intelligent Mains Switching Input / Output Unit (45681-400 Backbox)</td>
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<tr>
<td>SH1200-108SYN</td>
<td>Intelligent Twin Input / Output Unit (45681-400 Backbox)</td>
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<td>Note: 1. Approved for use with Omron relay part number: G6KU2FYTR12DC and Fujitsu part number: FTR-B3GB012Z</td>
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<tr>
<td>SH1200-111SYN</td>
<td>Intelligent Twin Switch Monitor Unit (45681-400 Backbox)</td>
<td>010ah/22</td>
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| 5000-601 Syncolin Isolator Base | 45681-400 Backbox | 38532-092 DIN Tub |
Tanda (UK) Limited
Fourth Floor, 30-31 Furnival Street, London EC4A 1JQ, United Kingdom
Tel: +44 8451162945
E-mail: info@tandauk.com • Website: www.tandauk.com

Certificate No: 1330e-(cl-1) to EN 54-18:2005
Certificate No: 1330f-(cl-1) to EN 54-17:2005

Certificated Products

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<td>1330e/01</td>
<td>TX7210 Addressable Single Input/Output Module</td>
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<tr>
<td>1330f/01</td>
<td>TX7230 Analogue Addressable Isolator Module</td>
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<tr>
<td>1330f/02</td>
<td>TX7232 Base Mount Short Circuit Isolator</td>
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Tanda Development Pte Ltd
21 Bukit Batok Crescent, #15-75 Wegea Tower, Singapore 658065, Singapore
Tel: +6013223307015
E-mail: Wanyuemin@tandatech.com • Website: www.tnafirealarm.com

Certificate No: 1330e-(cl-4) to EN 54-18:2005
Certificate No: 1330f-(cl-4) to EN 54-17:2005

Certificated Products

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<td>TX7210 Addressable Single Input/Output Module</td>
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<tr>
<td>1330f/01</td>
<td>TX7230 Analogue Addressable Isolator Module</td>
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Teledata S.r.l.
Via Giulietti 8, Milan 20132, Italy
Tel: +39 02-27201352 • Fax: +39 02-2593704
E-mail: R.Pennati@teledata-i.com • Website: www.teledate-i.com

Certificate No: 1154j-(cl-1) to EN 54-17: 2005 & EN 54-18: 2005

Line Units
Certificated Products

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<td>1154j/01</td>
<td>FDXXM10 Addressable Single Supervised Input Module</td>
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<tr>
<td>1154j/02</td>
<td>FDXXM01S Addressable Single Supervised Output Module</td>
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<tr>
<td>1154j/03</td>
<td>FDXXM02 Addressable Dual Form C Relay Output Module</td>
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<tr>
<td>1154j/04</td>
<td>FDXXM11S Addressable Single Supervised Input &amp; Output Module</td>
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<tr>
<td>1154j/05</td>
<td>FDXXM12 Addressable Supervised Input &amp; Relay Output Module</td>
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</table>

Teletek Electronics JSC
14A Srebarna Street, Sofia 1407, Bulgaria
Tel: +359 2 9694 700 • Fax: +359 2 9625 213
E-mail: info@teletek-electronics.bg • Website: www.teletek-electronics.com

Certificate No: 1139g to EN 54-18: 2005 & EN 54-17: 2005
**Line Units**

Certificated Products | LPCB Ref. No.
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SensoIRIS MIO22 | 1139g/01

**Ancillaries**

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<td>TTE.133.01.00</td>
<td>IP21C Small Box</td>
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<tr>
<td>Z74JH PS</td>
<td>IP55 Big Box</td>
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**Thorn Security Limited, trading as Tyco Safety Products**

Dunhams Lane, Letchworth SG6 1BD, United Kingdom

Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777

E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com

Certificate No: 681t-(cl-1) to EN 54-18: 2005

Certificated Products | LPCB Ref. No.
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LAV800 | 681t/07

**Accessories**

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<td>M520</td>
<td>Standard indoor enclosure</td>
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<tr>
<td>D800</td>
<td>Outdoor weatherproof enclosure</td>
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**Tyco Fire & Security GmbH**

Victor Von Bruns-Strasse 21, Neuhausen am Rheinfall, Schaffhausen 8212, Switzerland

Tel: +44 (0)1462 667700 • Fax: +44 (0)1462 667777

E-mail: mashbury@tycoint.com • Website: www.tycosafetyproducts-europe.com

Certificate No: 681t-(cl-1) to EN 54-18: 2005

Certificate No: 681u-(cl-1) to EN 54-18: 2005

Certificate No: 681v-(cl-1) to EN 54-18: 2005 & EN54-17: 2005

Certificate No: 681aa-(cl-1) to EN 54-17:2005

Certificated Products | LPCB Ref. No.
--- | ---
FC410CIM | 681t/02
FC410DIM | 681t/03
FC410RIM | 681t/04
FC410MIM | 681t/05
FC410SNM | 681t/06
FC410MIO | 681t/08
FC410BDM | 681u/01

Note:
1. Approved when used in conjunction with the FIRERAY 2000/50R/100R beam detector and BTM800 terminal module

FC410DDM | 681v/01

Note:
1. Approved for use with enclosure models M520 and D800
2. The unit is approved when powered from an EN 54-4 approved power source

DDM800 | 681v/01

Note:
1. Approved for use with enclosure models M520 and D800
2. The unit is approved when powered from an EN 54-4 approved power source

QMO850 | 681v/02

FC410QMO | 681v/02

Quad Monitored Output Module with Short Circuit Isolator
## Certificated Products

<table>
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<tr>
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<tr>
<td>QIO850 Quad Input/Output Module with Short Circuit Isolator</td>
<td>681v/03</td>
</tr>
<tr>
<td>FC410QIO Quad Input/Output Module with Short Circuit Isolator (FireClass)</td>
<td>681v/03</td>
</tr>
<tr>
<td>QRM850 Quad Relay Module with Short Circuit Isolator</td>
<td>681v/04</td>
</tr>
<tr>
<td>FC410QRM Quad Relay Module with Short Circuit Isolator (FireClass)</td>
<td>681v/04</td>
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<tr>
<td>HVR800 High Voltage Relay Module</td>
<td>681v/01</td>
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**Note:**
1. For use only with RIM800 relay interface module

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<thead>
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<tbody>
<tr>
<td>CIM800 Contact Input Module</td>
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<td>DIM800 Detector Input Module</td>
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<tr>
<td>RIM800 Relay Interface Module</td>
<td>681v/04</td>
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<tr>
<td>MIM800 Mini Input Module</td>
<td>681v/05</td>
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<tr>
<td>SNM800 Sounder Notification Module</td>
<td>681v/06</td>
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<tr>
<td>MIO800 Small Addressable Multi Input/Output Module</td>
<td>681v/08</td>
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<tr>
<td>BDM800 Loop Powered Beam Detector Interface Module</td>
<td>681v/01</td>
</tr>
</tbody>
</table>

**Note:**
1. Approved when used in conjunction with the FIRERAY 2000/50R/100R beam detector and BTM800 terminal module

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4B-I Short Circuit Isolator Base</td>
<td>681aa/01</td>
</tr>
<tr>
<td>FC410LI Line Isolator Module</td>
<td>681aa/02</td>
</tr>
<tr>
<td>4090-5210 Contact Input Module (Simplex)</td>
<td>681v/02</td>
</tr>
<tr>
<td>4090-5211 Relay Interface Module (Simplex)</td>
<td>681v/04</td>
</tr>
</tbody>
</table>

### Ancillaries

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M520</td>
<td>Standard indoor enclosure</td>
</tr>
<tr>
<td>D800</td>
<td>Outdoor weatherproof enclosure</td>
</tr>
</tbody>
</table>

---

**UTC Fire & Security Inc. Trading as Edwards Systems Technology**

8985 Town Center Parkway, Bradenton, Florida 34202, USA

Tel: 941-739-4214 • Fax:

E-mail: sean.hawes@carrier.com • Website: www.ccs.utc.com

Joseph Vidulich

Tel: 941-309-8616

E-mail: joseph.vidulich@fs.utc.com • Website: www.ccs.utc.com

Certificate No: 904g-(cl-1) to EN 54-17:2005
Certificate No: 902b-(cl-1) to EN 54-17: 2005
Certificate No: 1255a-(cl-1) to EN 54-18: 2005
Certificate No: 1255b-(cl-1) to EN 54-17: 2005

### Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-IB Analogue addressable short circuit isolator base</td>
<td>902b/01</td>
</tr>
</tbody>
</table>

**Note:**
1. Certified for use with fire detector models - SIGA-IPHSI, SIGA-PHSI, SIGA-PSI, SIGA-ISI and SIGA-HRSI.

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-IB4 Analogue addressable short circuit isolator base (with 4 inch mounting adaptors)</td>
<td>902b/02</td>
</tr>
</tbody>
</table>

**Note:**
1. Certified for use with fire detector models - SIGA-IPHSI, SIGA-PHSI, SIGA-PSI, SIGA-ISI and SIGA-HRSI.

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-CC1I Single Input Signal Module</td>
<td>1255a/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. Approved with the following ancillaries - SIGA-MP1, SIGA-MP2 and SIGA-MP2L

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-CC1SI Auto-Sync Output Module</td>
<td>1255a/02</td>
</tr>
</tbody>
</table>

**Notes:**
1. Approved with the following ancillaries - SIGA-MP1, SIGA-MP2 and SIGA-MP2L
2. Approved with personality code 5

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-CC2I Dual Input Signal Module</td>
<td>1255a/03</td>
</tr>
</tbody>
</table>

**Notes:**
1. Approved with the following ancillaries - SIGA-MP1, SIGA-MP2 and SIGA-MP2L
## PART 1: SECTION 6
### LINE UNITS

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGA-CRI Control Relay Module 1255a/04</td>
<td></td>
</tr>
<tr>
<td>SIGA-CT1I Single Input Module 1255a/05</td>
<td></td>
</tr>
<tr>
<td>SIGA-CT2I Dual Input Module 1255a/06</td>
<td></td>
</tr>
<tr>
<td>SIGA-MM1I Monitor Module 1255a/07</td>
<td></td>
</tr>
<tr>
<td>SIGA-UML Universal Class A/B Module 1255a/08</td>
<td></td>
</tr>
<tr>
<td>SIGA-IB Analogue Addressable Short Circuit Isolator Base 904g/01</td>
<td></td>
</tr>
<tr>
<td>SIGA-IB4 Analogue Addressable Short Circuit Isolator Base with trim 904g/02</td>
<td></td>
</tr>
<tr>
<td>SIGA-IOI Input Output Control Module 1255a/09</td>
<td></td>
</tr>
</tbody>
</table>

### Ancillaries
- SIGA-MP1 Mounting Plate
- SIGA-MP2 Mounting Plate
- SIGA-MP2L Mounting Plate

---

**V-GREAT GLOBAL CORPORATION**
Second Floor, Capital City, Independence Avenue, P O Box 1008, Victoria, Mahe, Seychelles
Tel: 008613581542023
E-mail: vgreatech@hotmail.com

Certificate No: 1174h-(cl-2) to EN 54-18: 2005
Certificate No: 1174g-(cl-2) to EN 54-17: 2005

### Line Units

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VG-6717 Addressable Monitor Interface (1 Input) (VG-6618 Base) 1174h/01</td>
<td></td>
</tr>
<tr>
<td>VG-6727 Addressable Control Interface (1 Input &amp; 1 Output) (VG-6618 Base) 1174h/02</td>
<td></td>
</tr>
<tr>
<td>VG-6777 Addressable Isolator Interface (VG-6618 base) 1174g/01</td>
<td></td>
</tr>
</tbody>
</table>

### Bases
- VG-6618 Installation base
### Vimpex Limited

Star Lane, Great Wakering, Essex SS3 0PJ, United Kingdom
Tel: +44 (0) 1702 216999 • Fax: +44 (0) 1702 216699
E-mail: sales@vimpex.co.uk • Website: www.vimpex.co.uk

Certificate No: 456b to EN 54-17:2005
Certificate No: 456c to EN 54-17:2005 and EN 54-18:2005

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>456b/01</td>
<td>Isolating sounder base (shallow)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Key for certification; x indicates body colour: 3 = White, 4 = Red.</td>
</tr>
<tr>
<td></td>
<td>2. The device is approved when used with the DINT1 Interface (refer to LPCB Cert. Ref. 456c).</td>
</tr>
<tr>
<td></td>
<td>3. The device is approved when used with the Hosiden Besson Sounder Banshee MT and Sounder/Strobe LED Flashtone Banshee MT. (refer to LPCB Cert. Ref. 715a).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>456b/02</td>
<td>Isolating sounder base (deep)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Key for certification; x indicates body colour: 3 = White, 4 = Red.</td>
</tr>
<tr>
<td></td>
<td>2. The device is approved when used with the DINT1 Interface (refer to LPCB Cert. Ref. 456c).</td>
</tr>
<tr>
<td></td>
<td>3. The device is approved when used with the Hosiden Besson Sounder Banshee MT and Sounder/Strobe LED Flashtone Banshee MT. (refer to LPCB Cert. Ref. 715a).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>456c/01</td>
<td>Isolating Sounder Interface Card</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. The device is approved for use with the BA873xx/MT/SCI series Isolating Sounder Bases (refer to LPCB Cert. Ref. 456b)</td>
</tr>
</tbody>
</table>

### VIVA ELEKTRONIK SISTEMLER

Rasimpasa Mah. Muhendis Sari Ali, Sok. Birlik Han No:3/1, Kadikoy, ISTANBUL 34716, Turkey
Tel: 0090 549 797 70 80
E-mail: info@vivafire.com • Website: www.vivafire.com

Certificate No: 1426f-(cl-1) to EN 54-17:2005

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426f/01</td>
<td>Loop Isolator Module (DZ-9057 Base)</td>
</tr>
</tbody>
</table>

Base

DZ-9057

Certificate No: 1426e(cl-1) to EN 54-18:2005

#### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426e/01</td>
<td>Intelligent Addressable Input/Output Module (DZ-9056 Base)</td>
</tr>
</tbody>
</table>

Base

DZ-9056
Yingkou Tiancheng Fire Protection Equipment Co., Ltd  
No. 11-2, Kechechang Xili, Xishi District, Yingkou, Pilot Free Trade Zone, Liaoning 115004, China  
Tel: 0417-2607119 • Fax: 0417-2867119  
E-mail: wayne@tcfiretech.com • Website: www.tcfiretech.com

**PART 1: SECTION 6**  
LINE UNITS

<table>
<thead>
<tr>
<th>Certificate No: 1450b to EN 54-18: 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificated Products</td>
</tr>
<tr>
<td>TCMK5263 Addressable Single Input/Output Module</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certificate No: 1450f to EN 54-17: 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificated Products</td>
</tr>
<tr>
<td>TCMK5260 Loop isolator</td>
</tr>
</tbody>
</table>
The purpose of a fire alarm warning device is to warn person(s) within, or in the vicinity of, a building of the occurrence of a fire emergency situation in order to enable such person(s) to take appropriate measures. Fire alarm warning devices could be sounders, visual alarm e.g. beacons, or even loudspeakers. These devices can be of different construction and may have different parameters for example sounders are defined in terms of frequency ranges, temporal patterns and output levels, beacons are defined in terms of light temporal pattern and frequency of flashing.

Guidance on the type, frequency, temporal pattern, and output levels should be sought from the applicable installation rule or code of practice - for example BS 5839-1 recommends sounders with continuous output and frequency range between 500 Hz to 1000 Hz.

Fire alarm devices may be used for other type of risk or non-fire emergency alarm. In this case it is always recommended that a different message, colour, temporal pattern, or frequency signal from the fire signal is selected to avoid confusion.

This section lists alarm device approved for use indoors and outdoors in fire detection and fire alarm systems.

Products listed in this section have been approved to:

- EN 54-3: 2001 Sounders
- EN 54-23: 2010 Visual alarms
- EN 54-24: 2008 Loudspeakers
- EN 54-25: 2008 Components using radio links

The initial approval and continued approval processes for audible, visual and loudspeaker warning devices are outlined in scheme documents SD115, SD113, and SD039.

**Audit:**
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

**Notes:**
1. EN 54-3: 2001 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 30 June 2005. It is therefore recommended that sounders are certificated to EN 54-3: 2001.

2. EN 54-23: 2010 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 30 March 2013. It is therefore recommended that sounders are certificated to EN 54-23: 2010.

3. EN 54-24: 2008 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 30 April 2011. It is therefore recommended that sounders are certificated to EN 54-24: 2008.

4. EN 54-25: 2008 is now a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market since 1 March 2011. It is therefore recommended that radio link components are certificated to EN 54-25: 2008.

5. Since the LPCB uses national and international standards for the listing of products, in some instances the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.
Audible Warning Devices

Certificated Products

**20-VBLS100/32-ADV**
Vega Addressable Type A Sounder Base

*Note:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Dual Tone 800Hz and 960Hz, 250ms-250ms
   - **Tone 2** - Continuous Tone, 1000Hz, Steady
   - **Tone 4** - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
   - **Tone 5** - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)

**LPCB Ref. No.** 928w/03

**20-VBLS100-AV/32-ADV**
Vega Addressable Type A Sounder Beacon Base

*Notes:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Dual Tone 800Hz and 960Hz, 250ms-250ms
   - **Tone 2** - Continuous Tone, 1000Hz, Steady
   - **Tone 4** - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
   - **Tone 5** - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)

**LPCB Ref. No.** 928w/04

**AXIS-SMB**
Axis Addressable Type A Sounder Base

*Notes:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Dual Tone 800Hz and 960Hz, 250ms-250ms
   - **Tone 2** - Continuous Tone, 1000Hz, Steady
   - **Tone 4** - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
   - **Tone 5** - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)
   - The beacon function is not included within the scope of this approval

**LPCB Ref. No.** 928w/05

**AXIS-SVMB**
Axis Addressable Type A Sounder Beacon Base

*Notes:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Dual Tone 800Hz and 960Hz, 250ms-250ms
   - **Tone 2** - Continuous Tone, 1000Hz, Steady
   - **Tone 4** - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
   - **Tone 5** - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)
   - Cover plate (LID100-AL/W or AL/R)

**LPCB Ref. No.** 928w/06

**Axis-CWS**
Conventional Type A/B (indoor/outdoor) Wall Sounder (Red Body)

*Notes:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - **Tone 2** - Continuous Tone, 970Hz
   - **Tone 3** - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - **Tone 4** - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

**LPCB Ref. No.** 928w/07

**Axis-CWS/WH**
Conventional Type A/B (indoor/outdoor) Wall Sounder (White Body)

*Notes:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - **Tone 2** - Continuous Tone, 970Hz
   - **Tone 3** - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - **Tone 4** - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

**LPCB Ref. No.** 928w/07

**Axis-CWS + Axis-WSM**
Altair Addressable Type A/B (indoor/Outdoor) Wall Sounder with Short Circuit Isolator (Red Body)

*Notes:*
1. Meets the requirements of EN 54-3 at the following tone settings:
   - **Tone 1** - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - **Tone 2** - Continuous Tone, 970Hz
   - **Tone 3** - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - **Tone 4** - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

**LPCB Ref. No.** 928ah/01

**Axis-CWS/WH + Axis-WSM**
Altair Addressable Type A/B (indoor/Outdoor) Wall Sounder with Short Circuit Isolator (White Body)

*Notes:*
2. Device is only addressable when used in conjunction with Axis-WSM

**LPCB Ref. No.** 928ah/01
### Certified Products

<table>
<thead>
<tr>
<th>LPBC Ref. No.</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tone settings:</td>
<td>928y-(cl-1) to EN 54-3:2001 + A1:2002 + A2:2006; EN 54-23:2010</td>
</tr>
<tr>
<td>Tone 2 - Continuous Tone, 970Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms</td>
<td></td>
</tr>
<tr>
<td>Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)</td>
<td></td>
</tr>
<tr>
<td>2. The wall mounted VAD meets the requirements of EN 54-23 for the following:</td>
<td></td>
</tr>
<tr>
<td>Category W-2.5-7</td>
<td></td>
</tr>
<tr>
<td>Flash rate - 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>Synchronization</td>
<td></td>
</tr>
<tr>
<td>3. Device is only addressable when used in conjunction with Axis-WSM</td>
<td></td>
</tr>
<tr>
<td>Axis-CWSV</td>
<td>Axis-CWSV/WH</td>
</tr>
</tbody>
</table>
## Audible Warning Devices

### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Device Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174c/01</td>
<td>SC-6734 Conventional Type A Sounder Strobe (SB-6711 Base) (branded as SECURE)</td>
</tr>
<tr>
<td>1174c/02</td>
<td>SI-6737 Addressable Type A Indoor Digital Sounder Beacon (SB-6619 Base) (branded as SECURE)</td>
</tr>
</tbody>
</table>

**Base**

- SB-6711 Base
- SB-6619 Mounting Base

### Notes:

1. Meets the requirements of EN 54-3 and approved at the following tones:
   - 1) Tone 01, 2400Hz - 2900Hz @ 3 Hz
   - 2) Tone 10, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off
2. The strobe function is not included within the scope of this approval

### Al Rayan Security & Safety Trading

Warehouse No, 12, Al Qusais Industrial Area 4, P O Box 233949, Dubai, United Arab Emirates

Tel: +971 42630396 • Fax: +971 42630397

E-mail: rayandxb@eim.ae • Website: www.rayandxb.ae


### Audible Warning Devices

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Device Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>506e/01</td>
<td>OM-0218 Conventional Fire Alarm Bell</td>
</tr>
<tr>
<td>506e/03</td>
<td>OM-03127-BS Conventional Type B Electronic Sounder Beacon</td>
</tr>
</tbody>
</table>

**Notes:**

1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - 1) Alternating Tones 800/970Hz at 2Hz
   - 2) Sweeping 800/970Hz at 7Hz
2. The beacon functionality is not included within the scope of approval.
PART 1: SECTION 7
ALARM WARNING DEVICES

Ampac Pty Ltd
7 Ledgar Road, Balcatta 6021, Australia
Tel: +618 (9242) 3333 • Fax: +618 (9242) 3334
E-mail: askellham@ampac.net • Website: www.ampac.net


Audible Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-001AMP</td>
<td>XP95 Type B Intelligent Open Area Sounder (Red) (45681-518AMP enhanced deep isolating bases)</td>
</tr>
<tr>
<td>58000-005AMP</td>
<td>Discovery Type B Intelligent Open Area Sounder Beacon (Red) (45681-518AMP enhanced deep isolating bases)</td>
</tr>
</tbody>
</table>

Note:
1. Meets the requirements of EN 54-3:2001 at the following tones:
   - Apollo standard-840Hz,0.5s/558Hz,0.5s
   - Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off
   - German DIN-1200-500Hz over 1s

Bases:
- 45681-517AMP Enhanced deep isolating base (White)
- 45681-518AMP Enhanced deep isolating base (Red)

Apollo Fire Detectors Limited
36 Brookside Road, Havant, Hampshire PO9 1JR, United Kingdom
Tel: +44 (0)2392 492412 • Fax: +44 (0)2392 492754
E-mail: enquiries@apollo-fire.co.uk


Sounders
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-001</td>
<td>Intelligent Sounder Open-Area (Red) (45681-517 and 45681-518 enhanced deep isolating bases)</td>
</tr>
<tr>
<td>55000-002</td>
<td>Intelligent Sounder Open-Area (White) (45681-517 and 45681-518 enhanced deep isolating bases)</td>
</tr>
<tr>
<td>55000-005</td>
<td>Intelligent Sounder Visual Indicator Open-Area (Red) (45681-517 and 45681-518 enhanced deep isolating bases)</td>
</tr>
</tbody>
</table>

Note:
1. Meets the requirements of EN 54-3:2001 at the following tones:
   - Apollo standard-840Hz,0.5s/558Hz,0.5s
   - Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off
   - German DIN-1200-500Hz over 1s

2. The Beacon function is not approved to EN 54-23
**PART 1: SECTION 7**

**ALARM WARNING DEVICES**

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-006</td>
<td>010ak/04</td>
</tr>
<tr>
<td>58000-005</td>
<td>010ak/05</td>
</tr>
<tr>
<td>58000-007</td>
<td>010ak/06</td>
</tr>
<tr>
<td>45681-7020</td>
<td>010ax/01</td>
</tr>
<tr>
<td>55000-017</td>
<td>010ak/07</td>
</tr>
<tr>
<td>55000-018</td>
<td>010ak/08</td>
</tr>
<tr>
<td>SA5300-300</td>
<td>010ax/08</td>
</tr>
<tr>
<td>SA5300-350</td>
<td>010ax/09</td>
</tr>
</tbody>
</table>

**55000-006 Intelligent Sounder Visual Indicator Open-Area (White)**
(45681-517 and 45681-518 enhanced deep isolating bases)
Note:
1. Meets the requirements of EN 54-3:2001 at the following tones:
   - Apollo standard - 840Hz, 0.5s / 558Hz, 0.5s
   - Dutch (slow whoop) - 500-1200Hz in 3.5s, 0.5s off
   - German DIN1200-500Hz over 1s
2. The Beacon function is not approved to EN 54-23

**58000-005 Discovery Type B intelligent open area sounder beacon (Red)**
(45681-517 and 45681-518 enhanced deep isolating bases)
Note:
1. Meets the requirements of EN 54-3:2001 at the following tones:
   - T1 - Apollo Evacuation - 558Hz, 0.5s / 840Hz, 0.5s
   - T3- Dutch Slow Whoop - 500-1200Hz in 3.5s, 0.5s off
   - T4 - German DIN1200-500Hz over 1s
2. The Beacon function is not approved to EN 54-23

**58000-007 Discovery Type B intelligent open area sounder beacon (White)**
(45681-517 and 45681-518 enhanced deep isolating bases)
Note:
1. Meets the requirements of EN 54-3:2001 at the following tones:
   - T1 - Apollo Evacuation - 558Hz, 0.5s / 840Hz, 0.5s
   - T3- Dutch Slow Whoop - 500-1200Hz in 3.5s, 0.5s off
   - T4 - German DIN1200-500Hz over 1s

**45681-7020 Discovery Sounder Base (White) with Isolator (45681-292 and 45681-293 Caps)**
Note:
1. Meets the requirements of EN 54-3:2001 at the following tone settings:
   - Tone 1 Apollo Evacuation Tone - 567Hz for 0.5s, 850Hz for 0.5s
   - Tone 12 Alternating (Hochiki & Fulleon) - 925Hz for 0.25s, 626Hz for 0.25s
   - Tone 14 Medium Sweep - 800Hz to 970Hz at 1Hz
   - Tone 3 Dutch Slow Whoop (sweep) - 500Hz - 1200Hz for 3.5s/0Hz, 0.5s off
   - Tone 4 DIN Tone (sweep) - 1200Hz - 500Hz for 1s
   - Tone 18 Swedish Fire Tone - 660 Hz, 150ms on, 150ms off
   - Tone 0 Apollo Alert Tone - 1s off, 1s 850Hz
   - Tone 11 Continuous (Hochiki & Fulleon) - 925Hz
   - Tone 13 Continuous - 970Hz
   - Tone 2 Continuous - 850Hz
   - Tone 17 Swedish all clear signal - Continuous - 660Hz
2. Type A and approved for sounder volumes 2-7 only.

**Accessories:**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
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<td>010ak/07</td>
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<tr>
<td>55000-018</td>
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<tr>
<td>SA5300-300</td>
<td>010ax/08</td>
</tr>
<tr>
<td>SA5300-350</td>
<td>010ax/09</td>
</tr>
</tbody>
</table>

**55000-017 AlarmSense Open-Area Sounder Visual Indicator (45681-523 Base)**
Note:
1. Meets the requirements of EN 54-3:2001 at the following tone:
   - Evacuate tone - 840 Hz for 0.5sec, 558 Hz for 0.5sec

**55000-018 AlarmSense Open-Area Sounder (45681-523 Base)**
Note:
1. Meets the requirements of EN 54-3:2001 at the following tone:
   - Evacuate tone - 840 Hz for 0.5sec, 558 Hz for 0.5sec

**SA5300-300 Type A Base Sounder with Short Circuit Isolator (SA5000-200 Base)**
Note:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 1 Apollo Evacuate Tone - 550Hz, 0.5sec / 825Hz, 0.5sec
   - Tone 12 Alternating (Hochiki & Fulleon) - 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14 Medium Sweep - 800Hz to 970Hz at 1Hz
   - Tone 3 Dutch Slow Whoop (sweep) - 500Hz - 1200Hz for 3.5s/0Hz, 0.5s off
   - Tone 4 German DIN Tone - 1200Hz-500Hz over 1sec
   - Tone 18 Swedish Fire Tone - 660Hz, 150ms on, 150ms off
   - Tone 0 Apollo Alert Tone - 1s off, 1s 825Hz
   - Tone 11 Continuous (Hochiki & Fulleon) - 925Hz
   - Tone 13 Continuous - 970Hz
   - Tone 2 Continuous - 825Hz
   - Tone 17 Swedish All Clear Continuous - 660Hz

**SA5300-350 Type A Base Sounder Visual Indicator (White Flash) with Short Circuit Isolator (SA5000-200 Base)**
Note:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 1 Apollo Evacuate Tone - 550Hz, 0.5sec / 825Hz, 0.5sec
   - Tone 12 Alternating (Hochiki & Fulleon) - 925Hz for 0.25sec / 626Hz for 0.25sec
Certificated Products

SA5300-351
Type A Base Sounder Visual Indicator (Red Flash) with Short Circuit Isolator (SA5000-200 Base)
Note:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 1 Apollo Evacuate Tone - 550Hz, 0.5sec / 825Hz, 0.5sec
   - Tone 14 Medium Sweep - 800Hz to 970Hz at 1Hz
   - Tone 3 Dutch Slow Whoop - 500Hz-1200Hz in 3.5s, 0.5s off
   - Tone 4 German DIN Tone - 1200Hz-500Hz over 1sec
   - Tone 18 Swedish Fire Tone - 660Hz, 150ms on, 150ms off
   - Tone 0 Apollo Alert Tone - 1s off, 825Hz for 1s
   - Tone 11 Continuous (Hochiki & Fulleon) - 925Hz
   - Tone 13 Continuous - 970Hz
   - Tone 2 Continuous - 825Hz
   - Tone 17 Swedish All Clear Continuous - 660Hz

SA5500-300
Intelligent Open Area Sounder (Red Body) with Short Circuit Isolator (SA5000-200, SA5000-202 and 45681-210)
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 21 - Apollo Evacuation Tone 522Hz, 0.5sec / 707 Hz, 0.5sec
   - Tone 12 - Alternating (Hochiki & Fulleon) 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14 - Medium Sweep 800Hz to 970Hz at 1Hz
   - Tone 3 - Dutch Slow Whoop 500Hz 1200Hz in 3.5s, 0.5s off
   - Tone 4 - German DIN Tone (sweep) 1200Hz 500Hz over 1sec
   - Tone 18 - Swedish Fire Tone 660Hz, 150ms on, 150ms off
   - Tone 22 - Apollo Alert Tone 1s off, 707Hz for 1s
   - Tone 11 - Continuous (Hochiki & Fulleon) 925Hz
   - Tone 13 - Continuous - 970Hz
   - Tone 2 - Continuous 825Hz
   - Tone 17 - Swedish All Clear Continuous 660Hz
   2. Type A

SA5501-300
Intelligent Open Area Sounder (White Body) with Short Circuit Isolator (SA5000-200, SA5000-202 and 45681-210)
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 21 - Apollo Evacuation Tone 522Hz, 0.5sec / 707 Hz, 0.5sec
   - Tone 12 - Alternating (Hochiki & Fulleon) 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14 - Medium Sweep 800Hz to 970Hz at 1Hz
   - Tone 3 - Dutch Slow Whoop 500Hz 1200Hz in 3.5s, 0.5s off
   - Tone 4 - German DIN Tone (sweep) 1200Hz 500Hz over 1sec
   - Tone 18 - Swedish Fire Tone 660Hz, 150ms on, 150ms off
   - Tone 22 - Apollo Alert Tone 1s off, 707Hz for 1s
   - Tone 11 - Continuous (Hochiki & Fulleon) 925Hz
   - Tone 13 - Continuous - 970Hz
   - Tone 2 - Continuous 825Hz
   - Tone 17 - Swedish All Clear Continuous 660Hz
   2. Type A

SA5500-350
Intelligent Open Area Sounder Visual Indicator (White Flash, Red Body) with Short Circuit Isolator (SA5000-200, SA5000-202 and 45681-210)
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 21 - Apollo Evacuation Tone 522Hz, 0.5sec / 707 Hz, 0.5sec
   - Tone 12 - Alternating (Hochiki & Fulleon) 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14 - Medium Sweep 800Hz to 970Hz at 1Hz
   - Tone 3 - Dutch Slow Whoop 500Hz 1200Hz in 3.5s, 0.5s off
   - Tone 4 - German DIN Tone (sweep) 1200Hz 500Hz over 1sec
   - Tone 18 - Swedish Fire Tone 660Hz, 150ms on, 150ms off
   - Tone 22 - Apollo Alert Tone 1s off, 707Hz for 1s
   - Tone 11 - Continuous (Hochiki & Fulleon) 925Hz
   - Tone 13 - Continuous - 970Hz
   - Tone 2 - Continuous 825Hz
   - Tone 17 - Swedish All Clear Continuous 660Hz
   2. Type A
CERTIFICATED PRODUCTS

SA5501-350: Intelligent Open Area Sounder Visual Indicator (White Flash, White Body) with Short Circuit Isolator (SA5000-200, SA5000-202 and 45681-210)

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 21: Apollo Evacuation Tone 522Hz, 0.5sec / 707 Hz, 0.5sec
   - Tone 12: Alternating (Hochiki & Fulleon) 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14: Medium Sweep 800Hz to 970Hz at 1Hz
   - Tone 3: Dutch Slow Whoop 500Hz 1200Hz in 3.5s, 0.5s off
   - Tone 4: German DIN Tone (sweep) 1200Hz 500Hz over 1sec
   - Tone 18: Swedish Fire Tone 660Hz, 150ms on, 150ms off
   - Tone 22: Apollo Alert Tone 1s off, 707Hz for 1s
   - Tone 11: Continuous (Hochiki & Fulleon) 925Hz
   - Tone 13: Continuous 970Hz
   - Tone 2: Continuous 825Hz
   - Tone 17: Swedish All Clear Continuous 660Hz
2. Type A

SA5500-351: Intelligent Open Area Sounder Visual Indicator (Red Flash, Red Body) with Short Circuit Isolator (SA5000-200, SA5000-202 and 45681-210)

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 21: Apollo Evacuation Tone 522Hz, 0.5sec / 707 Hz, 0.5sec
   - Tone 12: Alternating (Hochiki & Fulleon) 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14: Medium Sweep 800Hz to 970Hz at 1Hz
   - Tone 3: Dutch Slow Whoop 500Hz 1200Hz in 3.5s, 0.5s off
   - Tone 4: German DIN Tone (sweep) 1200Hz 500Hz over 1sec
   - Tone 18: Swedish Fire Tone 660Hz, 150ms on, 150ms off
   - Tone 22: Apollo Alert Tone 1s off, 707Hz for 1s
   - Tone 11: Continuous (Hochiki & Fulleon) 925Hz
   - Tone 13: Continuous 970Hz
   - Tone 2: Continuous 825Hz
   - Tone 17: Swedish All Clear Continuous 660Hz
2. Type A

SA5501-351: Intelligent Open Area Sounder Visual Indicator (Red Flash, White Body) with Short Circuit Isolator (SA5000-200, SA5000-202 and 45681-210)

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 21: Apollo Evacuation Tone 522Hz, 0.5sec / 707 Hz, 0.5sec
   - Tone 12: Alternating (Hochiki & Fulleon) 925Hz for 0.25sec / 626Hz for 0.25sec
   - Tone 14: Medium Sweep 800Hz to 970Hz at 1Hz
   - Tone 3: Dutch Slow Whoop 500Hz 1200Hz in 3.5s, 0.5s off
   - Tone 4: German DIN Tone (sweep) 1200Hz 500Hz over 1sec
   - Tone 18: Swedish Fire Tone 660Hz, 150ms on, 150ms off
   - Tone 22: Apollo Alert Tone 1s off, 707Hz for 1s
   - Tone 11: Continuous (Hochiki & Fulleon) 925Hz
   - Tone 13: Continuous 970Hz
   - Tone 2: Continuous 825Hz
   - Tone 17: Swedish All Clear Continuous 660Hz
2. Type A

BASES:
- 45681-517 Enhanced deep isolating base (White)
- 45681-518 Enhanced deep isolating base (Red)
- 45681-523 AlarmSense Open Area Base
- SA5000-200 XPERT8 (White) Intelligent Base
- SA5000-202 XPERT8 (Red) Intelligent Base
- 45681-210 Intelligent Mounting Base


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45681-700: Discovery Sounder Visual Alarm Device Base (White) with Isolator (45681-292 and 45681-293 Caps)

Notes:
1. The VAD is rated as open class: (Refer to installation guide).
2. The VAD operating voltage range 17-28V DC (24V nominal).
3. The VAD Light mode (light pattern details): 0.5Hz mode only.
4. The VAD includes a short circuit isolator.
5. The VAD is a Type A device and includes synchronisation.
6. Meets the requirements of EN 54-3: 2001 at the following tone settings:
   - Tone 1 Apollo Evacuation Tone - 567Hz for 0.5s, 850Hz for 0.5s
   - Tone 12 Alternating - (Hochiki & Fulleon) - 925Hz for 0.25s, 626Hz for 0.25s
   - Tone 14 Medium Sweep - 800Hz to 970Hz at 1 Hz
   - Tone 3 Dutch Slow Whoop (sweep) - 500Hz - 1200Hz for 3.5s, off for 0.5s
   - Tone 4 DIN Tone (sweep) - 1200Hz - 500Hz for 1s
   - Tone 18 Swedish Fire Tone - 660 Hz, 150ms on, 150ms off
   - Tone 0 Apollo Alert Tone - 1s off, 1s 850Hz
   - Tone 11 Continuous (Hochiki & Fulleon) - 925Hz
   - Tone 13 Continuous - 970Hz
   - Tone 2 Continuous - 850Hz
   - Tone 17 Swedish all clear signal - Continuous - 660Hz

7. Approved for sounder volumes 2-7 only

Accessories:

45681-292 White Cap (Lockable)
45681-293 Red Cap (Lockable)

45681-701 Discovery Marine Sounder Visual Alarm Device Base (White) with Isolator (45681-292 and 45681-293 Caps)

Notes:
1. The VAD is rated as open class: (Refer to installation guide).
2. The VAD operating voltage range 17-28V DC (24V nominal).
3. The VAD Light mode (light pattern details): 0.5Hz mode only.
4. The VAD includes a short circuit isolator.

5. The VAD is a Type A device and includes synchronisation.
6. Meets the requirements of EN 54-3: 2001 at the following tone settings:
   - Tone 1 Apollo Evacuation Tone - 567Hz for 0.5s, 850Hz for 0.5s
   - Tone 12 Alternating - (Hochiki & Fulleon) - 925Hz for 0.25s, 626Hz for 0.25s
   - Tone 14 Medium Sweep - 800Hz to 970Hz at 1 Hz
   - Tone 3 Dutch Slow Whoop (sweep) - 500Hz - 1200Hz for 3.5s, off for 0.5s
   - Tone 4 DIN Tone (sweep) - 1200Hz - 500Hz for 1s
   - Tone 18 Swedish Fire Tone - 660 Hz, 150ms on, 150ms off
   - Tone 0 Apollo Alert Tone - 1s off, 1s 850Hz
   - Tone 11 Continuous (Hochiki & Fulleon) - 925Hz
   - Tone 13 Continuous - 970Hz
   - Tone 2 Continuous - 850Hz
   - Tone 17 Swedish all clear signal - Continuous - 660Hz

7. Approved for sounder volumes 2-7 only

Accessories:

45681-292 White Cap (Lockable)
45681-293 Red Cap (Lockable)

45681-705 XP95 Sounder Visual Alarm Device Base (white) with Isolator (45681-292 and 45681-293 Caps)

Notes:
1. The VAD is rated as open class: (Refer to installation guide).
2. The VAD operating voltage range 17-28V DC (24V nominal).
3. The VAD Light mode (light pattern details): 0.5Hz mode only.
4. The VAD includes a short circuit isolator.

5. The VAD is a Type A device and includes synchronisation.
6. Meets the requirements of EN 54-3: 2001 at the following tone settings:
   - Tone 1 Apollo Evacuation Tone - 567Hz for 0.5s, 850Hz off for 0.5s
   - Tone 0 Apollo Alert Tone - 1s off, 1s 850Hz

7. Approved for sounder volumes 2-7 only

Accessories:

45681-292 White Cap (Lockable)
45681-293 Red Cap (Lockable)

45681-706 XP95 Sounder Visual Alarm Device Base (white) Slow Whoop with Isolator (45681-292 and 45681-293 Caps)

Notes:
1. The VAD is rated as open class: (Refer to installation guide).
2. The VAD operating voltage range 17-28V DC (24V nominal).
3. The VAD Light mode (light pattern details): 0.5Hz mode only.
4. The VAD includes a short circuit isolator.

5. The VAD is a Type A device and includes synchronisation.
6. Meets the requirements of EN 54-3: 2001 at the following tone settings:
   - Tone 2 Continuous - 850Hz
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**ALARM WARNING DEVICES**

Certificated Products

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<tr>
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<th>45681-293 Red Cap (Lockable)</th>
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<tr>
<td>570</td>
<td>Tone 3 Dutch Slow Whoop (sweep) - 500 Hz - 1200Hz for 3.5s/0Hz, off for 0.5s</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Approved for sounder volumes 2-7 only.</td>
<td></td>
</tr>
</tbody>
</table>

**Accessories:**

- 45681-292 White Cap (Lockable)
- 45681-293 Red Cap (Lockable)
- 45681-707 XP95 Sounder Visual Alarm Device Base (white) DIN with Isolator (45681-292 and 45681-293 Caps)

**Notes:**

1. The VAD is rated as open class: (Refer to installation guide).
2. The VAD operating voltage range 17-28V DC (24V nominal).
3. The VAD Light mode (light pattern details): 0.5Hz mode only.
4. The VAD includes a short circuit isolator function
5. The VAD is a Type A device and includes synchronisation.
6. Meets the requirements of EN 54-3: 2001 at the following tone settings:
   - Tone 4 DIN Tone (sweep) - 1200Hz - 500Hz for 1s
   - Tone 2 Continuous - 850Hz

7. Approved for sounder volumes 2-7 only.

**Accessories:**

- 45681-292 White Cap (Lockable)
- 45681-293 Red Cap (Lockable)

Certificate No: 010ay to EN 54-17: 2005 and EN 54-23: 2010
Certificate No: 010ba to EN 54-23:2010

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**Alarm Warning Devices**

Certificated Products

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<th>LPCB Ref. No.</th>
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<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>The VAD is rated as open class: (Refer to installation guide).</td>
</tr>
<tr>
<td>2</td>
<td>The VAD operating voltage range 17-28V DC (24V nominal).</td>
</tr>
<tr>
<td>3</td>
<td>The VAD Light mode (light pattern details): 0.5Hz mode only.</td>
</tr>
<tr>
<td>4</td>
<td>The VAD includes a short circuit isolator.</td>
</tr>
<tr>
<td>5</td>
<td>The VAD is a Type A device and includes synchronisation.</td>
</tr>
</tbody>
</table>

**Accessories:**

- 45681-292 White Cap (Lockable)
- 45681-293 Red Cap (Lockable)
- 55000-740 Loop-Powered Type A VAD 15m (Red)
  1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
    - Category rating C-3-15
    - Synchronization
    - Flash rate 0.5 Hz
    - White LED
    - Clear lens
  2. Approved with XP95/Discovery 45681-210 mounting base and 45681-284 short circuit isolating base

**Notes:**

1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating W-2.4-6
   - Synchronization
   - Flash rate 0.5 Hz
   - White LED
   - Clear lens
2. Approved with XP95/Discovery 45681-210 mounting base and 45681-284 short circuit isolating base

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>55000-741 Loop-Powered Type A VAD 6m (Red)</th>
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<td>570</td>
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<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
</tr>
</tbody>
</table>
   - Category rating C-3-8.5 |
   - Synchronization |

**Accessories:**

- 45681-292 White Cap (Lockable)
- 45681-293 Red Cap (Lockable)
- 55000-742 Loop-Powered Type A VAD 8.5m (Red)
  1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
    - Category rating C-3-8.5
    - Synchronization
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>010ba/04</td>
<td>Loop-Powered Type A VAD 15m (White)</td>
<td>1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following: - Category rating C-3-15 - Synchronization - Flash rate 0.5 Hz - White LED - Clear lens</td>
</tr>
<tr>
<td>010ba/05</td>
<td>Loop-Powered Type A VAD 6m (White)</td>
<td>Notes: 1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following: - Category rating W-2.4-6 - Synchronization - Flash rate 0.5 Hz - White LED - Clear lens</td>
</tr>
<tr>
<td>010ba/06</td>
<td>Loop-Powered Type A VAD 8.5m (White)</td>
<td>1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following: - Category rating C-3-8.5 - Synchronization - Flash rate 0.5 Hz - White LED - Clear lens</td>
</tr>
<tr>
<td>010ba/07</td>
<td>XP95 VAD C-3-15 (White Flash) (45681-518 base)</td>
<td>Notes: 1. Approved for Type B Outdoor use 2. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following: - Synchronization - Flash rate 0.5 Hz, 1 Hz - Category setting: C-3-15</td>
</tr>
<tr>
<td>010ba/08</td>
<td>XP95 VAD C-3-9 (Red Flash) (45681-518 base)</td>
<td>Notes: 1. Approved for Type B Outdoor use 2. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following: - Synchronization - Flash rate 0.5 Hz, 1 Hz - Category setting: C-3-9</td>
</tr>
<tr>
<td>010ba/09</td>
<td>XP95 VAD W-3.1-11.3 (White Flash) (45681-518 base)</td>
<td>Notes: 1. Approved for Type B Outdoor use 2. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following: - Synchronization - Flash rate 0.5 Hz, 1 Hz - Category setting: W-3.1-11.3</td>
</tr>
<tr>
<td>010ba/10</td>
<td>XP95 VAD W-2.4-7.49 (Red Flash) (45681-518 base)</td>
<td>Notes: 1. Approved for Type B Outdoor use 2. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following: - Synchronization - Flash rate 0.5 Hz, 1 Hz - Category setting: W-2.4-7.49</td>
</tr>
<tr>
<td>010bl/01</td>
<td>XP95 Sounder VAD C-3-15 (White Flash) (45681-518 base)</td>
<td>Notes: 1. Approved for Type A Indoor use only 2. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following: - Synchronization</td>
</tr>
</tbody>
</table>
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- Flash rate 0.5 Hz, 1 Hz
- Category setting: C-3-15
3. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 1, Apollo Standard Tone, 848Hz, 0.5s / 569Hz, 0.5s
   - Tone 2, Dutch Slow Whoop, 500 - 1200Hz in 3.5s, 0.5s off
   - Tone 3, German DIN Tone, 1200Hz - 500Hz over 1s
   - Tone 4, Alert Tone (Pulsed), 848Hz, 1s on, 1s off
   - Tone 5: Alert Tone (Continuous), 848Hz, continuous

55000-075
XP95 Sounder VAD C-3-9 (Red Flash) (45681-518 base)

Notes:
1. Approved for Type A Indoor use only
2. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Synchronization
   - Flash rate 0.5 Hz, 1 Hz
   - Category setting: C-3-9
3. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 1, Apollo Standard Tone, 848Hz, 0.5s / 569Hz, 0.5s
   - Tone 2, Dutch Slow Whoop, 500 - 1200Hz in 3.5s, 0.5s off
   - Tone 3, German DIN Tone, 1200Hz - 500Hz over 1s
   - Tone 4, Alert Tone (Pulsed), 848Hz, 1s on, 1s off
   - Tone 5: Alert Tone (Continuous), 848Hz, continuous

55000-076
XP95 Sounder VAD W-3.1-11.3 (White Flash) (45681-518 base)

Notes:
1. Approved for Type A Indoor use only
2. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Synchronization
   - Flash rate 0.5 Hz, 1 Hz
   - Category setting: W-3.1-11.3
3. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 1, Apollo Standard Tone, 848Hz, 0.5s / 569Hz, 0.5s
   - Tone 2, Dutch Slow Whoop, 500 - 1200Hz in 3.5s, 0.5s off
   - Tone 3, German DIN Tone, 1200Hz - 500Hz over 1s
   - Tone 4, Alert Tone (Pulsed), 848Hz, 1s on, 1s off
   - Tone 5: Alert Tone (Continuous), 848Hz, continuous

55000-077
XP95 Sounder VAD W-2.4-7.49 (Red Flash) (45681-518 base)

Notes:
1. Approved for Type A Indoor use only
2. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Synchronization
   - Flash rate 0.5 Hz, 1 Hz
   - Category setting: W-2.4-7.49
3. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 1, Apollo Standard Tone, 848Hz, 0.5s / 569Hz, 0.5s
   - Tone 2, Dutch Slow Whoop, 500 - 1200Hz in 3.5s, 0.5s off
   - Tone 3, German DIN Tone, 1200Hz - 500Hz over 1s
   - Tone 4, Alert Tone (Pulsed), 848Hz, 1s on, 1s off
   - Tone 5: Alert Tone (Continuous), 848Hz, continuous

Bases:
45681-210 XP95/Discovery mounting base
45681-284 XP95/Discovery short circuit isolating base
45681-518 Enhanced Deep Isolating Base (Red)

Argus Security S.r.l.
Via del Canneto 14, Valle delle Noghere, 34015 Muggia, Trieste, Italy
Tel: +39 (0) 402822110 • Fax: +39 (0) 402823483
E-mail: dcresseri@argussecurity.it • Website: www.argussecurity.it

Certificate No: 928x to EN 54-23: 2010

572 20 Oct 2020
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Sounders
Certificated Products

VBS100/32 Conventional Indoor Type A Sounder Base
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:  
   Tone 1 - Warble Tone (800-1000Hz @ 0.5 Sec)  
   Tone 3 - Slow Whoop (Dutch) (500-1200Hz for 3.5s on, 0.5s off)  
   Tone 4 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)  
   Tone 12 - French Tone AFNOR (554Hz 100ms and 440Hz for 400ms)  
   Tone 23 - LF Sweep (800-1000Hz @ 0.5 Sec)
   Cover Plate (white) - Part no. 116-125

ALBS100/32 Conventional Indoor Type A Sounder Base
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:  
   Tone 1 - Warble Tone (800-1000Hz @ 0.5 Sec)  
   Tone 3 - Slow Whoop (Dutch) (500-1200Hz for 3.5s on, 0.5s off)  
   Tone 4 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)  
   Tone 12 - French Tone AFNOR (554Hz 100ms and 440Hz for 400ms)  
   Tone 23 - LF Sweep (800-1000Hz @ 0.5 Sec)
   Cover Plate (white) - Part no. 116-125

VBLS100-32 Vega Addressable Type A Sounder Base
Note: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms  
   Tone 2 - Continuous Tone, 1000Hz, Steady Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF  
   Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s Sweep (1Hz)

VBLS100-32/AV Vega Addressable Type A Sounder Beacon Base
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms  
   Tone 2 - Continuous Tone, 1000Hz, Steady Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF  
   Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s Sweep (1Hz2. The beacon function is not included within the scope of this approval

ALBLS100-32 Altair Addressable Type A Sounder Base
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms  
   Tone 2 - Continuous Tone, 1000Hz, Steady Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF  
   Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s Sweep (1Hz)
   Cover plate (LID100 - AL/W or AL/R)

ALBLS100-32/AV Altair Addressable Type A Sounder Beacon Base
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms  
   Tone 2 - Continuous Tone, 1000Hz, Steady Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF  
   Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s Sweep (1Hz2. The beacon function is not included within the scope of this approval3. Cover plate (LID100 - AL/W or AL/R)

CBE1001 Conventional Type A Beacon (1 Flash Every Second)
Notes: 1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:  
   - Category rating C-3-7.5  
   - Synchronization  
   - Flash rate 1Hz  
   - White LED  
   - Clear lens2. Approved with LAB1000 base

CBE1002 Conventional Type A Beacon (1 Flash Every 2 Seconds)
Notes: 1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:  
   - Category rating C-3-7.5  
   - Synchronization  
   - Flash rate 0.5Hz  
   - White LED  
   - Clear lens2. Approved with LAB1000 base

CWS100 Conventional Type A/B (Indoor/Outdoor) Wall Sounder (Red Body)
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   - Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms  
   - Tone 2 - Continuous Tone, 970Hz  
   - Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms  
   - Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

CWS100+ALWS-MOD Altair Addressable Type A/B (Indoor/Outdoor) Wall Sounder with Short Circuit Isolator (Red Body)
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   - Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms  
   - Tone 2 - Continuous Tone, 970Hz  
   - Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms  
   - Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
   2. Device is only addressable when used in conjunction with ALWS-MOD

CWS100(W) Conventional Type A/B (Indoor/Outdoor) Wall Sounder (White Body)
Notes: 1. Meets the requirements of EN 54-3 at the following tone settings:  
   - Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
CWS100 (W) + ALWS-MOD
Altair Addressable Type A/B (Indoor/Outdoor) Wall Sounder with Short Circuit Isolator (White Body)

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. Device is only addressable when used in conjunction with ALWS-MOD

Detectors:
- SG100  Wireless optical smoke detector
- SG200  Wireless multi-criteria detector
- SG350  Wireless heat detector
- ALWS-MOD Addressable module with short circuit isolator

CWS100-AV
Conventional Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device (Red Body)

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

CWS100-AV + ALWS-MOD
Altair Addressable Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (Red Body)

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

CWS100-AV (W)
Conventional Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device (White Body)

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

CWS100-AV (W) + ALWS-MOD
Altair Addressable Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (White Body)

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
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ALARM WARNING DEVICES

Certificated Products

LPCB Ref. No.

Tone 2  Continuous Tone, 970Hz
Tone 3  Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
Tone 4  German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate 0.5Hz
   - Synchronization

3. Device is only addressable when used in conjunction with ALWS-MOD

ALWS-MOD  Addressable module with short circuit isolator

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Tel: +7 812 7037500 • Fax: +7 812 7037501
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com


Audible Warning Devices

Certificated Products

LPCB Ref. No.

ARG-WL8-SND  Wireless Type A Indoor Sounder
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Pulse tone, 990Hz (500ms On / 500ms Off)
   - Dual tone, 990Hz & 650Hz (250ms ~ 250ms)
   - Continuous tone, 990Hz
   - Pulsed tone (synchronized), 990Hz (1s On / 1s Off)
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)

ARG-WL8-OS  Wireless Optical Smoke Detector with Type A Built-in Sounder
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - One tone Steady, 3500Hz (On)
   - One tone Meander, 3500Hz (1s On / 1s Off)
   - One tone Meander, 3500Hz (2s On / 2s Off)
   - Two tone, 3500Hz & 2150Hz (1s / 1s)
   - Two tone, 3500Hz & 2150Hz (0.4s / 0.4s)
   - One tone intermittent, 3500Hz (0.2s On / 1.3s Off)
2. Approved to EN 54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
3. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)

ARG-WL8-HS  Wireless Class A1R Heat Detector with Type A Built-in Sounder
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - One tone Steady, 3500Hz (On)
   - One tone Meander, 3500Hz (1s On / 1s Off)
   - One tone Meander, 3500Hz (2s On / 2s Off)
   - Two tone, 3500Hz & 2150Hz (1s / 1s)
   - Two tone, 3500Hz & 2150Hz (0.4s / 0.4s)
   - One tone intermittent, 3500Hz (0.2s On / 1.3s Off)
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)
### Part 1: Section 7

**Alarm Warning Devices**

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**Armor Safety & Security Ltd**

120 Baker Street, London W1U 6TU, United Kingdom  
Tel: +971506531199  
Website: www.armorsafety.org


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARM-CWSV</td>
<td>928y/01</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tone settings:</td>
<td></td>
</tr>
<tr>
<td>Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms</td>
<td></td>
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<tr>
<td>Tone 2 - Continuous Tone, 970Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms</td>
<td></td>
</tr>
<tr>
<td>Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)</td>
<td></td>
</tr>
<tr>
<td>The wall mounted VAD meets the requirements of EN 54-23 for the following:</td>
<td></td>
</tr>
<tr>
<td>- Category W-2.5-7</td>
<td></td>
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<tr>
<td>- Flash rate - 0.5Hz</td>
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</tr>
<tr>
<td>- Synchronization</td>
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<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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<tbody>
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<td>ARM-CWS + ARM-WSM</td>
<td>928ah/01</td>
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<tr>
<td><strong>Notes:</strong></td>
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</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tone settings:</td>
<td></td>
</tr>
<tr>
<td>Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms</td>
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<tr>
<td>Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms</td>
<td></td>
</tr>
<tr>
<td>Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)</td>
<td></td>
</tr>
<tr>
<td>2. Device is only addressable when used in conjunction with ARM-WSM</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>ARM-CWS</td>
<td>928w/07</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tone settings:</td>
<td></td>
</tr>
<tr>
<td>Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms</td>
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<tr>
<td>Tone 2 - Continuous Tone, 970Hz</td>
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<tr>
<td>Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms</td>
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</tr>
<tr>
<td>Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)</td>
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**Ancillaries**

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<tr>
<th>Ancillaries</th>
<th>Details</th>
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<tbody>
<tr>
<td>ARM-WSM</td>
<td>Addressable module with short circuit isolator</td>
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</tbody>
</table>


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<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARM-CWSV + ARM-WSM</td>
<td>928z/01</td>
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<tr>
<td><strong>Notes:</strong></td>
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</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tone settings:</td>
<td></td>
</tr>
<tr>
<td>Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms</td>
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</tr>
<tr>
<td>Tone 2 - Continuous Tone, 970Hz</td>
<td></td>
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<tr>
<td>Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms</td>
<td></td>
</tr>
<tr>
<td>Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)</td>
<td></td>
</tr>
<tr>
<td>2. The wall mounted VAD meets the requirements of EN 54-23 for the following:</td>
<td></td>
</tr>
<tr>
<td>- Category W-2.5-7</td>
<td></td>
</tr>
<tr>
<td>- Flash rate 0.5Hz</td>
<td></td>
</tr>
</tbody>
</table>
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ALARM WARNING DEVICES

Certificated Products

- Synchronization
3. Device is only addressable when used in conjunction with ARM-WSM

Ancillaries

ARM-WSM Addressable module with short circuit isolator

ASENWARE LTD
6 Prospect Way, Royal Oak Industrial Estate, Daventry, Northamptonshire NN11 8PL, United Kingdom
Tel: +8613828765759
E-mail: info@asenware.com


Certificated Products

AW-D316 Conventional Sounder Beacon
Notes:
1) Meets the requirements of EN 54-23 at the following:
   - Category C-3-8 + W-2.4-6
   - Flash rate 0.5Hz
   - One Mode (Light output synchronization)
   - Flash Colour White
   - For wall and ceiling mounting
2) Meets the requirements of EN 54-3 at the following:
   - Tone 1: 667Hz - 2000Hz@0.22Hz

AW-D306 Addressable Sounder Beacon (DZ-9091 Base)
Notes:
1) Meets the requirement of EN 54-23 at the following:
   - Category C-3-8 + W-2.4-6
   - Flash Rate 0.5Hz
   - One Mode (Light output synchronization)
   - Flash Colour White
   - For wall and ceiling mounting
2) Meets the requirements of EN 54-3 at the following:
   - Tone 1: 667Hz - 2000Hz@0.22Hz

Base
DZ-9091K
DZ-9091

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Tel: +358 20 730 8550
E-mail: mail@argusspectrum.com • Website: https://argusspectrum.com/


Audible Warning Devices

Certificated Products

ARF-WL8-SND Wireless Type A Indoor Sounder
Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Pulse tone, 990Hz (500ms On / 500ms Off)
   - Dual tone, 990Hz & 650Hz (250ms – 250ms)
   - Continuous tone, 990Hz
   - Pulsed tone (synchronized), 990Hz (1s On / 1s Off)
2. The device must be used with the following batteries only:
### Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARF-WL8-OS</td>
<td>1571g/01</td>
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<tr>
<td>EK-WL8-SND</td>
<td>1571f/01</td>
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<tr>
<td>ARF-WL8-HS</td>
<td>1571h/01</td>
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<tr>
<td>EK-WL8-HS</td>
<td>1571h/01</td>
</tr>
</tbody>
</table>

#### ARF-WL8-OS
- **Wireless Optical Smoke Detector with Type A Built-in Sounder**

**Notes:**
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - One tone Steady, 3500Hz (On)
   - One tone Meander, 3500Hz (1s On / 1s Off)
   - One tone Meander, 3500Hz (2s On / 2s Off)
   - Two tone, 3500Hz & 2150Hz (1s / 1s)
   - Two tone, 3500Hz & 2150Hz (0.4s / 0.4s)
   - One tone intermittent, 3500Hz (0.2s On / 1.3s Off)
2. Approved to EN54-7 at the following sensitivity settings:
   - High
   - Normal
   - Low
3. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)

#### EK-WL8-SND
- **EKHO Brand Wireless Type A Indoor Sounder**

**Notes:**
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Pulse tone, 990Hz (500ms On / 500ms Off)
   - Dual tone, 990Hz & 650Hz (250ms ~ 250ms)
   - Continuous tone, 990Hz
   - Pulsed tone (synchronized), 990Hz (1s On / 1s Off)
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)

#### ARF-WL8-HS
- **Wireless Class A1R Heat Detector with Type A Built-in Sounder**

**Notes:**
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - One tone Steady, 3500Hz (On)
   - One tone Meander, 3500Hz (1s On / 1s Off)
   - One tone Meander, 3500Hz (2s On / 2s Off)
   - Two tone, 3500Hz & 2150Hz (1s / 1s)
   - Two tone, 3500Hz & 2150Hz (0.4s / 0.4s)
   - One tone intermittent, 3500Hz (0.2s On / 1.3s Off)
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)

#### EK-WL8-HS
- **EKHO Brand Wireless Class A1R Heat Detector with Type A Built-in Sounder**

**Notes:**
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - One tone Steady, 3500Hz (On)
   - One tone Meander, 3500Hz (1s On / 1s Off)
   - One tone Meander, 3500Hz (2s On / 2s Off)
   - Two tone, 3500Hz & 2150Hz (1s / 1s)
   - Two tone, 3500Hz & 2150Hz (0.4s / 0.4s)
   - One tone intermittent, 3500Hz (0.2s On / 1.3s Off)
2. The device must be used with the following batteries only:
   - Primary CR123A (3V)
   - Secondary CR123A (3V)
### Certified Products

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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1154g/01</td>
<td>VELOX 40300 Analogue Addressable Type A Sounder</td>
<td>Meets the requirements of EN 54-3 at the following tone settings:</td>
</tr>
<tr>
<td></td>
<td>with Short Circuit Isolator</td>
<td>- Dual Tone: 990Hz and 650Hz, 2Hz (250ms-250ms) Pulsed Tone:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 990Hz, 1Hz (500ms ON - 500ms OFF) Continuous Tone: 990Hz, steady</td>
</tr>
<tr>
<td>1154g/02</td>
<td>VELOX 40300-H Analogical Addressable Type A Sounder</td>
<td>Meets the requirements of EN 54-3 at the following tone settings:</td>
</tr>
<tr>
<td></td>
<td>with Short Circuit Isolator</td>
<td>- Slow Whoop Tone 500Hz to 1200Hz, 3s sweep, 0.5s silence Sweep (DIN)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tone 1200Hz to 500Hz, 1Hz Continuous Tone 990Hz, steady</td>
</tr>
<tr>
<td>1154g/01</td>
<td>VLS100 Analogical Addressable Type A Sounder</td>
<td>Meets the requirements of EN 54-3 at the following tone settings:</td>
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<td>with Short Circuit Isolator</td>
<td>- Dual Tone: 990Hz and 650Hz, 2Hz (250ms-250ms) Pulsed Tone:</td>
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<tr>
<td></td>
<td></td>
<td>- 990Hz, 1Hz (500ms ON - 500ms OFF) Continuous Tone: 990Hz, steady</td>
</tr>
<tr>
<td>1154g/02</td>
<td>VLS100-H Analogical Addressable Type A Sounder</td>
<td>Meets the requirements of EN 54-3 at the following tone settings:</td>
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<tr>
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<td>with Short Circuit Isolator</td>
<td>- Slow Whoop Tone 500Hz to 1200Hz, 3s sweep, 0.5s silence Sweep (DIN)</td>
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<td></td>
<td></td>
<td>- Tone 1200Hz to 500Hz, 1Hz Continuous Tone 990Hz, steady</td>
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<td>Wireless optical smoke detector</td>
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<tr>
<td></td>
<td>VELOX WL200 Wireless multi-criteria detector</td>
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<tr>
<td></td>
<td>VELOX WL350 Wireless heat detector</td>
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</tbody>
</table>

**Detectors:**

- VELOX WL100 Wireless optical smoke detector
- VELOX WL200 Wireless multi-criteria detector
- VELOX WL350 Wireless heat detector

---

**Autronica Fire & Security AS**

Postboks 5620 NO-7483, Trondheim, Norway
Tel: +47 73582500 • Fax: +47 73582501
E-mail: info@autronicafire.no • Website: www.autronicafire.no

**Certification No:** 378h-(cl-1) to EN 54-3: 2001 + A1: 2002 + A2: 2006 and EN 54-17: 2005

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>378h/03</td>
<td>116-BBR-230 Addressable indoor sounder with isolator</td>
<td>1) meets the requirements of EN 54-3: 2001 for the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- General Alarm (880Hz, 7<em>0.5 sec pulse &amp; 1</em>5.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Evacuate (880Hz, 1 sec on / 1 sec off, forever)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Alert (880Hz On, forever)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bell Test (0.5 sec on every 8 sec)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Slow Whoop (3.5 sec on / 0.5 sec off, 500-1200 Hz)</td>
</tr>
<tr>
<td>378h/04</td>
<td>116-BBR-230/IP Addressable outdoor sounder with isolator</td>
<td>1) meets the requirements of EN 54-3: 2001 for the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- General Alarm (880Hz, 7<em>0.5 sec pulse &amp; 1</em>5.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Evacuate (880Hz, 1 sec on / 1 sec off, forever)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Alert (880Hz On, forever)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bell Test (0.5 sec on every 8 sec)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Slow Whoop (3.5 sec on / 0.5 sec off, 500-1200 Hz)</td>
</tr>
<tr>
<td>378h/05</td>
<td>116-BBR-130 Addressable indoor base sounder with isolator</td>
<td>1) meets the requirements of EN 54-3: 2001 for the following tones:</td>
</tr>
<tr>
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<td></td>
<td>- General Alarm (880Hz, 7<em>0.5 sec pulse &amp; 1</em>5.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Evacuate (880Hz, 1 sec on / 1 sec off, forever)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Alert (880Hz On, forever)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bell Test (0.5 sec on every 8 sec)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Slow Whoop (3.5 sec on / 0.5 sec off, 500-1200 Hz)</td>
</tr>
</tbody>
</table>
Certificated Products

- General Alarm (880Hz, 7*0.5 sec pulse & 1*5.5)
- Evacuate (880Hz, 1 sec on / 1 sec off, forever)
- Alert (880Hz On, forever)
- Bell Test (0.5 sec on every 8 sec)
- Slow Whoop (3.5 sec on / 0.5 sec off, 500-1200 Hz)

Addressable indoor base sounder and beacon with isolator

Notes:
1. General Alarm (880Hz, 7*0.5 sec pulse & 1*5.5)
2. Evacuate (880Hz, 1 sec on / 1 sec off, forever)
3. Alert (880Hz On, forever)
4. Bell Test (0.5 sec on every 8 sec)
5. Slow Whoop (3.5 sec on / 0.5 sec off, 500-1200 Hz)

116-BBB-130

Addressable indoor base sounder and beacon with isolator

Notes:
1. Meets the requirements of EN 54-3: 2001 for the following tones:
   - General Alarm (880Hz, 7*0.5 sec pulse & 1*5.5)
   - Evacuate (880Hz, 1 sec on / 1 sec off, forever)
   - Alert (880Hz On, forever)
   - Bell Test (0.5 sec on every 8 sec)
   - Slow Whoop (3.5 sec on / 0.5 sec off, 500-1200 Hz)
2. The beacon functionality is not included within the scope of this approval.

Beijing Leader Huaxin Electronics Co. Ltd
No. 17 Rongjing Eastern Road, Economy & Technology Developed Area, Beijing 100176, China
Tel: +86 10 67876681 • Fax: +86 10 67863972
E-mail: hy.chen@beijingleader.com.cn • Website: www.beijingleader.com.cn


Certificated Products

LD10001EN
Analogue Addressable Sounder Strobe (LD11EN Base)

Notes:
1. Meets the requirements of EN 54-3: 2001 for all output levels at voltage range 18-26Vdc and tones:
   1. 1.3 kHz - 2.3kHz

Certificate excludes strobe function.

Base
LD11EN Mounting base

Beijing VSAIL Fire Protection Equipment Co Ltd
No. 401, Unit A, Building 32, No. 99 14th Kechuang Street, BDA, Beijing 100176, China
Tel: +86 10-56691196 • Fax: +86 10-56691100
E-mail: erichenx@vsail.com.cn • Website: www.vsail.com.cn


Visual Warning Devices

Certificated Products

VC-6734
Conventional Type A Sounder Strobe (VB-6711 base)

Notes:
1. Meets the requirements of EN 54-3 and approved at the following tones:
   1) Tone 01, 2400Hz - 2900Hz @ 3Hz
   2) Tone 10, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off
2. The strobe function is not included within the scope of this approval.

VI-6737
Addressable Type A Indoor Digital Sounder Beacon (VB-6619 Base)

Notes:
1. Meets the requirements of EN 54-3 and approved at the following tones:
   1) Tone 00, 2400Hz - 2900Hz @ 3Hz
   2) Tone 01, 2400Hz - 2900Hz @ 9Hz
   3) Tone 08, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off
   4) Tone 14, 1500Hz - 2700Hz @ 3Hz
2. The beacon function is not included within the scope of this approval.
Brilliant Lighting Limited
Brilliant Lighting Limited, Flat 2, 18/F, Block E, Wah Lok Industrial Centre, Shan Mei Street, Fotan, Shatin, Hong Kong
Tel: +852 26903037
E-mail: leo@brillianthk.com.hk

Certificate No: 1592a-(cl-1) to EN 54-3:2014 + A1:2019

Audible Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1592a/01</td>
<td>ABA-6-24 a&amp;B 6 Fire Alarm Bell with Aluminium Gong</td>
<td>1. Type A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Meets the requirements of EN 54-3 for the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(i) one tone (bell)</td>
</tr>
<tr>
<td>1592a/02</td>
<td>ABA-8-24 a&amp;B 8 Fire Alarm Bell with Aluminium Gong</td>
<td>1. Type A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Meets the requirements of EN 54-3 for the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(i) one tone (bell)</td>
</tr>
<tr>
<td>1592a/03</td>
<td>ABA-10-24 a&amp;B 10 Fire Alarm Bell with Aluminium Gong</td>
<td>1. Type A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Meets the requirements of EN 54-3 for the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(i) one tone (bell)</td>
</tr>
</tbody>
</table>

Bristol Fire Engineering LLC
Al Quoz Industrial Area 3, P.O.Box 74582, Dubai, United Arab Emirates
Tel: +971 4 347 2426 • Fax: +971 4 347 2363
E-mail: sami@bristol-fire.com • Website: www.bristol-fire.com


Alarm Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1174c/01</td>
<td>B61-6301 Conventional Type A Sounder Strobe (B61-4101 base)</td>
<td>1. Meets the requirements of EN 54-3 and approved at the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) Tone 01, 2400Hz - 2900Hz @ 3 Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Tone 10, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. The strobe function is not included within the scope of this approval</td>
</tr>
<tr>
<td>506e/01</td>
<td>BF-AB-0418 Conventional Fire Alarm Bell</td>
<td>1. Approved to Type A Indoor use only.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Meets the requirements of EN 54-3:2001 at the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tone 14, 2400 Hz - 2900 Hz @ 3Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tone 16, 500Hz - 1200Hz, 3.5s on/0.25s off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tone 17, 800Hz, 1s off/1s on</td>
</tr>
<tr>
<td>1330d/01</td>
<td>AVI-6401 Addressable Sounder Strobe (AVI-6500)</td>
<td>3. The strobe function is not approved to EN 54-23</td>
</tr>
</tbody>
</table>

Bases
B61-4101 Base
Ceasefire Industries Private Ltd
E6, Upsidc Industrial Area., Selaqui, Dehradun, Uttarakhand 24001, India
Tel: +911204223473
E-mail: amit@ceasefire.in


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>928w/05</td>
<td>Addressable Type A Sounder Base</td>
</tr>
<tr>
<td>928w/06</td>
<td>Addressable Type A Sounder Beacon Base</td>
</tr>
<tr>
<td>928w/07</td>
<td>Conventional Type A/B (Indoor/Outdoor) Wall Sounder (Red Body)</td>
</tr>
<tr>
<td>928ah/01</td>
<td>Addressable Type A/B (Indoor/Outdoor) Wall Sounder with Short Circuit Isolator (Red Body)</td>
</tr>
<tr>
<td>928y/01</td>
<td>Conventional Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device (Red Body)</td>
</tr>
<tr>
<td>928z/01</td>
<td>Addressable Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (Red Body)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2 - Continuous Tone, 970Hz
   - Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

Device is only addressable when used in conjunction with Ti-002260.
### PART 1: SECTION 7

#### ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tone 1</strong> - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms</td>
<td></td>
</tr>
<tr>
<td><strong>Tone 2</strong> - Continuous Tone, 970Hz</td>
<td></td>
</tr>
<tr>
<td><strong>Tone 3</strong> - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms</td>
<td></td>
</tr>
<tr>
<td><strong>Tone 4</strong> - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)</td>
<td></td>
</tr>
</tbody>
</table>

2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate 0.5Hz
   - Synchronization
   - Device is only addressable when used in conjunction with TI-002260

Certificate No: 928x-(cl-2) to EN 54-23: 2010

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI-002271 Conventional Type A Beacon (1 Flash Every 2 Seconds)</td>
<td>928x/02</td>
</tr>
</tbody>
</table>

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating C-3-7.5
   - Synchronization
   - Flash rate 0.5 Hz
   - White LED
   - Clear lens
2. Approved with TI-002231 Base

**Bases:**
- TI-002231 Base Adaptor

---

**Computationics Limited (Trading as C-Tec)**

Challenge Way, Martland Park, Wigan, Lancashire WD5 0LD, United Kingdom
Tel: +44 (0)1942 322744/42444 • Fax: +44 (0)1942 829867
E-mail: sales@C-tec.co.uk • Website: www.c-tec.co.uk


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BF430A/CX/DR</strong> Hi-Output Addressable Type B (outdoor) Wall Sounder with Short Circuit Isolator, Deep Base (Red) (Apollo Discovery) Note:</td>
<td>176e/02</td>
</tr>
</tbody>
</table>

1. Meets the requirements of EN 54-3 at the following tones:
   - Evacuate, 572Hz for 0.5s, 720Hz for 0.5s
   - Alternating, 962Hz for 0.25s, 572Hz for 0.25s
   - Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off

| **BF431A/CX/W** Addressable Type A (indoor) Ceiling Sounder Base with Short Circuit Isolator (Apollo Discovery) Notes: | 176e/03 |

1. Meets the requirements of EN 54-3 at the following tones:
   - Evacuate, 550Hz for 0.5s, 825Hz for 0.5s
   - Alternating, 925Hz for 0.25s, 626Hz for 0.25s
   - Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off
   2. Can be used as either:
      - a stand-alone device with locking white cap (BF330CTLIDW), or red cap (BF330CTLIDR), or
      - a stacked sounder base combination with detectors from the Apollo Discovery range

| **CA450A/SW** Addressable CAST Protocol Type A Compact Sounder with Short Circuit Isolator, Shallow Base, White Body, IP21C (BFIPPLATE/R, BFIPPLATE/W) Note: | 176e/07 |

20 Oct 2020
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

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<tr>
<th>LPCB Ref.</th>
<th>Meets the requirements of EN 54-3 at the following tones:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA450A/SR</td>
<td>- Evacuate, 535Hz for 0.5s, 800Hz for 0.5s</td>
</tr>
<tr>
<td></td>
<td>- Fast Warble, 800Hz for 0.25s, 645Hz for 0.25s</td>
</tr>
<tr>
<td></td>
<td>- Dutch Slow Whoop, 500Hz to 1200Hz for 3.5s on, 0.5s off</td>
</tr>
<tr>
<td></td>
<td>- German DIN Tone, 1200Hz to 500Hz for 1s</td>
</tr>
<tr>
<td></td>
<td>- French Fire Tone, 554Hz for 100ms/440Hz for 400ms</td>
</tr>
<tr>
<td></td>
<td>- Operating voltage range 24-40VDC</td>
</tr>
</tbody>
</table>

Note:
- Meets the requirements of EN 54-3 at the following tones:
  - Evacuate, 535Hz for 0.5s, 800Hz for 0.5s
  - Fast Warble, 800Hz for 0.25s, 645Hz for 0.25s
  - Dutch Slow Whoop, 500Hz to 1200Hz for 3.5s on, 0.5s off
  - German DIN Tone, 1200Hz to 500Hz for 1s
  - French Fire Tone, 554Hz for 100ms/440Hz for 400ms
  - Operating voltage range 24-40VDC

CA431A/W
Addressable CAST Protocol Type A Ceiling Base Sounder with Short Circuit Isolator, White, IP21C (BF431QCP)

Note:
- Meets the requirements of EN 54-3 for the following tones:
  - Evacuate, 610 Hz for 0.5 sec, 810 Hz for 0.5 sec
  - Fast Warble, 810 Hz for 0.25 sec, 610 Hz for 0.25 sec
  - Dutch Slow Whoop (sweep), 500 Hz to 1200 Hz for 3.5 sec on, 0.5 sec off
  - German DIN Tone, 1200Hz-500Hz for 1s
  - French Fire Tone, 554Hz for 100ms/440Hz for 440ms
  - Operating voltage range 24-40V d.c

CA430A/SR
Addressable CAST Protocol Type A High Output Wall Sounder with Short Circuit Isolator, Shallow Base, Red, IP21 (BFIPPLATE/R)

Note:
- Meets the requirements of EN 54-3 at the following tones:
  - Evacuate, 675Hz for 0.5s, 925Hz for 0.5s
  - Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s
  - Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off
  - German DIN Tone, 1200Hz to 500Hz for 1s
  - French Fire Tone, 554Hz for 100ms/440Hz for 440ms
  - US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off
  - Operating voltage range 24-40V d.c

CA430A/DR
Addressable CAST Protocol Type B High Output Wall Sounder with Short Circuit Isolator, Deep Base, Red, IP33 (BFIPPLATE/R)

Note:
- Meets the requirements of EN 54-3 at the following tones:
  - Evacuate, 675Hz for 0.5s, 925Hz for 0.5s
  - Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s
  - Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off
  - German DIN Tone, 1200Hz to 500Hz for 1s
  - French Fire Tone, 554Hz for 100ms/440Hz for 400ms
  - US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off
  - Operating voltage range 24-40V d.c

BF430C/CC/SR
Conventional Type A Indoor Hi Op Wall Sounder (Red Enclosure), Shallow Base, IP21C

Note:
- Approved to EN 54-3 at the following tones:
  - 1 - CTEC Evacuation Tone (675Hz for 0.5s, 925Hz for 0.5s)
  - 3 - CTEC Fast Warble (920Hz for 0.25s, 975Hz for 0.25s)
  - 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)
  - 6 - DIN Tone (1200Hz-500Hz for 1s)
  - 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)

BF430C/CC/DR
Conventional Type B Outdoor Hi Op Wall Sounder (Red Enclosure), Deep Base, IP33C

Note:
- Approved to EN 54-3 at the following tones:
  - 1 - CTEC Evacuation Tone (675Hz for 0.5s, 925Hz for 0.5s)
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 3 - CTEC Fast Warble (920Hz for 0.25s, 975Hz for 0.25s)</td>
<td>- BF430C/CC/DR/65 Conventional Type B Outdoor Hi Op Wall Sounder (Red Enclosure), Deep Base, IP55C</td>
</tr>
<tr>
<td>- 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)</td>
<td>Note: 1) Approved to EN 54-3 at the following tones:</td>
</tr>
<tr>
<td>- 6 - DIN Tone (1200Hz-500Hz for 1s)</td>
<td>- 1 - CTEC Evacuation Tone (675Hz for 0.5s, 925Hz for 0.5s)</td>
</tr>
<tr>
<td>- 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)</td>
<td>- 3 - CTEC Fast Warble (920Hz for 0.25s, 975Hz for 0.25s)</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BF431C/CC/W Conventional Type A Indoor Base Sounder (White Enclosure) IP21C</td>
<td>Note: 1) Approved to EN 54-3 (High volume only) at the following tones:</td>
</tr>
<tr>
<td></td>
<td>- 1 - CTEC Evacuation Tone (610Hz for 0.5s, 810Hz for 0.5s)</td>
</tr>
<tr>
<td></td>
<td>- 3 - CTEC Fast Warble (810Hz for 0.25s, 610Hz for 0.25s)</td>
</tr>
<tr>
<td></td>
<td>- 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)</td>
</tr>
<tr>
<td></td>
<td>- 6 - DIN Tone (1200Hz-500Hz for 1s)</td>
</tr>
<tr>
<td></td>
<td>- 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)</td>
</tr>
<tr>
<td></td>
<td>- Operating Voltage 18-30 VDC</td>
</tr>
</tbody>
</table>

### Notes:

2) The device must be used with Quick Connect Plate (BF431/QCP)

- A stand-alone device with locking white cap (BF330CTLIDW) or red cap (BF330CTLIDR), or,
- A stacked sounder/VAD combination with detectors from C-TECs range of Activ conventional detectors

| - HP430A/DR/65 HP Addressable Protocol Type B High Output Wall Sounder with Short Circuit Isolator, Deep Base, Red, IP55 (BFIPPLATE/R and IP55 Deep Base) | 176e/06 |
| Note: Meets the requirements of EN 54-3 at the following tones: |
| - Evacuate, 675Hz for 0.5s, 925Hz for 0.5s |
| - Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s |
| - Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off |
| - German DIN Tone, 1200Hz to 500Hz for 1s |
| - French Fire Tone, 554Hz for 100ms / 440Hz for 400ms |
| - US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off |
| - Operating voltage range 24-40V DC |

| - HP450A/SW HP Type A Compact Sounder with Short Circuit Isolator, Shallow Base, White Body, IP21C | 176e/07 |
| Note: Meets the requirements of EN 54-3 at the following tones: |
| - Evacuate, 535Hz for 0.5s, 800Hz for 0.5s |
| - Fast Warble, 800Hz for 0.25s, 645Hz for 0.25s |
| - Dutch Slow Whoop, 500Hz to 1200Hz for 3.5s on, 0.5s off |
| - German DIN Tone, 1200Hz to 500Hz for 1s |
| - French Fire Tone, 554Hz for 100ms / 440Hz for 400ms |
| - Operating voltage range 24-40VDC |

<p>| - HP431A/W HP Type A Base Sounder with Short Circuit Isolator, White, IP21C | 176e/08 |
| Note: 1. Meets the requirements of EN 54-3:2001 for the following tones: |
| - Evacuate, 610 Hz for 0.5 sec, 810 Hz for 0.5 sec |
| - Fast Warble, 810 Hz for 0.25 sec, 610 Hz for 0.25 sec |
| - Dutch Slow Whoop (sweep), 500 Hz to 1200 Hz for 3.5 sec on, 0.5 sec off |
| - German DIN Tone, 1200Hz-500Hz for 1s |
| - French Fire Tone, 554Hz for 100ms / 440Hz for 440ms |
| - Operating voltage range 24-40V d.c. |</p>
<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 176f/01      | BF433A/CX/SR Hi-Output Addressable Type A (indoor) Wall Sounder VAD with Short Circuit Isolator, Shallow Base (Red) (Apollo Discovery) | 1. Meets the requirements of EN 54-23 for the following:  
- Category W-2.4-8.2  
- Flash rate 0.5Hz  
- Synchronization  
- Operating voltage range 21-28 VDC  
2. Meets the requirements of EN 54-3 for the following:  
- Evacuate, 572Hz for 0.5s, 720Hz for 0.5s  
- Alternating, 962Hz for 0.25s, 572Hz for 0.25s  
- Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off  
- Operating voltage range 17-28 VDC |
| 176f/02      | BF433A/CX/DR Hi-Output Addressable Type B (outdoor) Wall Sounder VAD with Short Circuit Isolator, Deep Base (Red) (Apollo Discovery) | 1. Meets the requirements of EN 54-23 for the following:  
- Category W-2.4-8.2  
- Flash rate 0.5Hz  
- Synchronization  
- Operating voltage range 21-28 VDC  
2. Meets the requirements of EN 54-3 for the following:  
- Evacuate, 572Hz for 0.5s, 720Hz for 0.5s  
- Alternating, 962Hz for 0.25s, 572Hz for 0.25s  
- Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off  
- Operating voltage range 17-28 VDC |
| 176f/03      | BF456A/CX/W Addressable Type A (indoor) Ceiling Sounder VAD Base with Short Circuit Isolator (Apollo Discovery) | 1. Meets the requirements of EN 54-23 for the following:  
- Category C-3-8  
- Flash rate 0.5Hz  
- Synchronisation  
- Operating voltage range 21-28 VDC  
2. Meets the requirements of EN 54-3 for the following:  
- Evacuate, 550Hz for 0.5s, 825Hz for 0.5s  
- Alternating, 925Hz for 0.25s, 626Hz for 0.25s  
- Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off  
- Operating voltage range 17-28 VDC  
3. Can be used as either:  
- a stand-alone device with locking white cap (BF330CTLIDW), or red cap (BF330CTLDLR), or  
- a stacked sounder/VAD base combination with detectors from the Apollo Discovery range |
| 176f/07      | CA451A/SW Addressable CAST Protocol Type A Compact Sounder VAD with Short Circuit Isolator, Shallow Base, White Body, IP21C (BFIPPLATE/R, BFIPPLATE/W) | 1. Meets the requirements of EN 54-23 for the following:  
- Category C-3-8, W-3-3.125  
- Flash rate 0.5Hz  
- Synchronisation  
- White LED  
- Operating voltage range 27-40 VDC  
2. Meets the requirements of EN 54-3 for the following:  
- Evacuate, 535Hz for 0.5s, 800Hz for 0.5s  
- Fast Warble, 800Hz for 0.25s, 645Hz for 0.25s  
- Dutch Slow Whoop, 500Hz to 1200Hz for 3.5s on, 0.5s off  
- German DIN Tone, 1200Hz to 500Hz for 1s  
- French Fire Tone, 554Hz for 100ms/440Hz for 400ms  
- Operating voltage range 24-40 VDC |
| 176f/07      | CA451A/SR Addressable CAST Protocol Type A Compact Sounder VAD with Short Circuit Isolator, Shallow Base, Red Body, IP21C (BFIPPLATE/R, BFIPPLATE/W) | 1. Meets the requirements of EN 54-23 for the following:  
- Category C-3-8, W-3-3.125  
- Flash rate 0.5Hz  
- Synchronisation |
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ALARM WARNING DEVICES

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<tr>
<th>LPCB Ref. No.</th>
<th>CA432A/W Addressable CAST Protocol Type A Ceiling Base Sounder VAD with Short Circuit Isolator, White, IP21C, Open Class (BF431QCP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>176f/08</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-3:2001 for the following tones:</td>
</tr>
<tr>
<td></td>
<td>- Evacuate, 610 Hz for 0.5 sec, 810 Hz for 0.5 sec</td>
</tr>
<tr>
<td></td>
<td>- Fast Warble, 810 Hz for 0.25 sec, 610 Hz for 0.25 sec</td>
</tr>
<tr>
<td></td>
<td>- Dutch Slow Whoop (sweep), 500 Hz to 1200 Hz for 3.5 sec on, 0.5 sec off</td>
</tr>
<tr>
<td></td>
<td>- German DIN Tone, 1200Hz-500Hz for 1s</td>
</tr>
<tr>
<td></td>
<td>- French Fire Tone, 554Hz for 100ms/440Hz for 440ms</td>
</tr>
<tr>
<td></td>
<td>- Operating voltage range 24-40V d.c.</td>
</tr>
<tr>
<td></td>
<td>2. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
</tr>
<tr>
<td></td>
<td>- Category rating O-R-3-2.5-18</td>
</tr>
<tr>
<td></td>
<td>- Synchronization</td>
</tr>
<tr>
<td></td>
<td>- Flash rate 0.5Hz</td>
</tr>
<tr>
<td></td>
<td>- White LED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CA456A/W Addressable CAST Protocol Type A Ceiling Base Sounder VAD with Short Circuit Isolator, White, IP21C, Ceiling Class (BF431QCP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>176f/09</td>
</tr>
<tr>
<td>Notes:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3:2001 for the following tones:</td>
</tr>
<tr>
<td>- Evacuate, 610 Hz for 0.5 sec, 810 Hz for 0.5 sec</td>
</tr>
<tr>
<td>- Fast Warble, 810 Hz for 0.25 sec, 610 Hz for 0.25 sec</td>
</tr>
<tr>
<td>- Dutch Slow Whoop (sweep), 500 Hz to 1200 Hz for 3.5 sec on, 0.5 sec off</td>
</tr>
<tr>
<td>- German DIN Tone, 1200Hz-500Hz for 1s</td>
</tr>
<tr>
<td>- French Fire Tone, 554Hz for 100ms/440Hz for 440ms</td>
</tr>
<tr>
<td>- Operating voltage range 24-40V d.c.</td>
</tr>
<tr>
<td>2. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
</tr>
<tr>
<td>- Category rating C-3-8.5</td>
</tr>
<tr>
<td>- Synchronization</td>
</tr>
<tr>
<td>- Flash rate 0.5Hz</td>
</tr>
<tr>
<td>- White LED</td>
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</tbody>
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<table>
<thead>
<tr>
<th>CA433A/SR Addressable CAST Protocol Type A High Output Wall Sounder VAD with Short Circuit Isolator, Shallow Base, Red, IP21 (BFIPPLATE/R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>176f/04</td>
</tr>
<tr>
<td>Notes:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td>- Evacuate, 675Hz for 0.5s, 925Hz for 0.5s</td>
</tr>
<tr>
<td>- Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s</td>
</tr>
<tr>
<td>- Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off</td>
</tr>
<tr>
<td>- German DIN Tone, 1200Hz to 500Hz for 1s</td>
</tr>
<tr>
<td>- French Fire Tone, 554Hz for 100ms/440Hz for 440ms</td>
</tr>
<tr>
<td>- US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off</td>
</tr>
<tr>
<td>- Operating voltage range 24-40V d.c.</td>
</tr>
<tr>
<td>2. The Wall Mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
</tr>
<tr>
<td>- Category rating W-2.75-9 or W-4-4</td>
</tr>
<tr>
<td>- Synchronization</td>
</tr>
<tr>
<td>- Flash rate 0.5Hz</td>
</tr>
<tr>
<td>- Red LED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CA433A/DR Addressable CAST Protocol Type B High Output Wall Sounder VAD with Short Circuit Isolator, Deep Base, Red, IP33 (BFIPPLATE/R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>176f/05</td>
</tr>
<tr>
<td>Notes:</td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td>- Evacuate, 675Hz for 0.5s, 925Hz for 0.5s</td>
</tr>
<tr>
<td>- Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s</td>
</tr>
<tr>
<td>- Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off</td>
</tr>
<tr>
<td>- German DIN Tone, 1200Hz to 500Hz for 1s</td>
</tr>
<tr>
<td>- French Fire Tone, 554Hz for 100ms/440Hz for 440ms</td>
</tr>
<tr>
<td>- US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off</td>
</tr>
<tr>
<td>- Operating voltage range 24-40V d.c.</td>
</tr>
<tr>
<td>2. The Wall Mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
</tr>
<tr>
<td>- Category rating W-2.75-9 or W-4-4</td>
</tr>
<tr>
<td>- Synchronization</td>
</tr>
<tr>
<td>- Flash rate 0.5Hz</td>
</tr>
<tr>
<td>- Red LED</td>
</tr>
</tbody>
</table>
### Certificated Products

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>LPCB Ref. No</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA433A/DR/65</td>
<td>Addressable CAST Protocol Type B High Output Wall Sounder VAD with Short Circuit Isolator, Red, IP55 (BFIPPLATE/R and IP55 Deep Base)</td>
<td>176f/06</td>
</tr>
<tr>
<td>BF433C/CC/SR</td>
<td>Conventional Type A Indoor Hi Op Wall Sounder VAD (Red Enclosure), Shallow Base, IP21C</td>
<td>176r/03</td>
</tr>
<tr>
<td>BF433C/CC/DR</td>
<td>Conventional Type B Outdoor Hi Op Wall Sounder VAD (Red Enclosure), Deep Base, IP33C</td>
<td>176r/04</td>
</tr>
<tr>
<td>BF433C/CC/DR/65</td>
<td>Conventional Type B Outdoor Hi Op Wall Sounder VAD (Red Enclosure), Deep Base, IP55C</td>
<td>176r/05</td>
</tr>
<tr>
<td>BF432C/CC/W</td>
<td>Conventional Type A Indoor O Class Base Sounder VAD, White LED (White Enclosure)</td>
<td>176r/01</td>
</tr>
</tbody>
</table>

### Notes
1. **CA433A/DR/65**
   - Meets the requirements of EN 54-3 at the following tones:
     - Evacuate, 675Hz for 0.5s, 925Hz for 0.5s
     - Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s
     - Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off
     - German DIN Tone, 1200Hz to 500Hz for 1s
     - French Fire Tone, 554Hz for 100ms/440Hz for 400ms
     - US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off
   - Operating voltage range 24-40V d.c
   - The Wall Mounted VAD meets the requirements of EN 54-23:2010 for the following:
     - Category rating W-2.75-9 or W-4-4
     - Synchronization
     - Flash rate 0.5Hz
     - Red LED

2. **BF433C/CC/SR**
   - Approved to EN 54-3 at the following tones:
     - 1 - CTEC Evacuation Tone (675Hz for 0.5s, 925Hz for 0.5s)
     - 3 - CTEC Fast Warble (920Hz for 0.25s, 975Hz for 0.25s)
     - 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)
     - 6 - DIN Tone (1200Hz-500Hz for 1s)
     - 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)
   - Meets the requirements of EN 54-23 for the following:
     - Category W-2.75-9 / W-4-4
     - Flash rate 0.5Hz synchronised
     - Operating voltage range 18-30 VDC

3. **BF433C/CC/DR**
   - Approved to EN 54-3 at the following tones:
     - 1 - CTEC Evacuation Tone (675Hz for 0.5s, 925Hz for 0.5s)
     - 3 - CTEC Fast Warble (920Hz for 0.25s, 975Hz for 0.25s)
     - 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)
     - 6 - DIN Tone (1200Hz-500Hz for 1s)
     - 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)
   - Meets the requirements of EN 54-23 for the following:
     - Category W-2.75-9 / W-4-4
     - Flash rate 0.5Hz synchronised
     - Operating voltage range 18-30 VDC

4. **BF433C/CC/DR/65**
   - Approved to EN 54-3 at the following tones:
     - 1 - CTEC Evacuation Tone (675Hz for 0.5s, 925Hz for 0.5s)
     - 3 - CTEC Fast Warble (920Hz for 0.25s, 975Hz for 0.25s)
     - 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)
     - 6 - DIN Tone (1200Hz-500Hz for 1s)
     - 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)
   - Meets the requirements of EN 54-23 for the following:
     - Category W-2.75-9 / W-4-4
     - Flash rate 0.5Hz synchronised
     - Operating voltage range 18-30 VDC

5. **BF432C/CC/W**
   - Approved to EN 54-3 (High volume only) at the following tones:
     - 1 - CTEC Evacuation Tone (610Hz for 0.5s, 810Hz for 0.5s)
     - 3 - CTEC Fast Warble (810Hz for 0.25s, 610Hz for 0.25s)
     - 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)
     - 6 - DIN Tone (1200Hz-500Hz for 1s)
     - 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)
   - Operating Voltage 18-30 VDC
   - Meets the requirements of EN 54-23 for the following:
     - Category O-R-3-2.5-17
     - Flash rate 0.5Hz synchronised
     - Operating voltage range 18-30 VDC
   - The device must be used with Quick Connect Plate (BF431/QCP)
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

Can be used as either:
- A stand-alone device with locking white cap (BF330CTLIDW) or red cap (BF330CTLIDR), or,
- A stacked sounder/VAD combination with detectors from C-TECs range of Activ conventional detectors

- C4408 Activ basic base, shall be used when detector is fitted.

Conventional Type A Indoor C Class Base Sounder VAD, White LED (White Enclosure) IP21C

Notes:
1) Approved to EN 54-3 (High volume only) at the following tones:
   - 1 - CTEC Evacuation Tone (610Hz for 0.5s, 810Hz for 0.5s)
   - 3 - CTEC Fast Warble (810Hz for 0.25s, 610Hz for 0.25s)
   - 5 - Dutch Slow Whoop (sweep) (500-1200Hz for 3.5s, 0.5s off)
   - 6 - DIN Tone (1200Hz-500Hz for 1s)
   - 15 - French Fire Tone (554Hz for 100ms / 440Hz for 380ms to 420ms)
   - Operating Voltage 18-30 VDC
2) Meets the requirements of EN 54-23 for the following:
   - Category C-3-8.5
   - Flash rate 0.5Hz synchronised
   - Operating voltage range 18-30 VDC
3) The device must be used with Quick Connect Plate (BF431/QCP)

Can be used as either:
- A stand-alone device with locking white cap (BF330CTLIDW) or red cap (BF330CTLIDR), or,
- A stacked sounder/VAD combination with detectors from C-TECs range of Activ conventional detectors

HP433A/DR/65
HP Addressable Protocol Type B High Output Wall Sounder VAD with Short Circuit Isolator, IP55

Notes:
1. Meets the requirements of EN 54-3 at the following tones:
   - Evacuate, 675Hz for 0.5s, 925Hz for 0.5s
   - Fast Warble, 920Hz for 0.25s, 975Hz for 0.25s
   - Dutch Slow Whoop (sweep), 500Hz to 1200Hz for 3.5s on, 0.5s off
   - German DIN Tone, 1200Hz to 500Hz for 1s
   - French Fire Tone, 554Hz for 100ms/440Hz for 400ms
   - US Temporal LF (ISO 8201), 3x(970Hz, 0.5s on, 0.5s off), 1s off
   - Operating voltage range 24-40V d.c
2. The Wall Mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating W-2.75-9 or W-4-4
   - Synchronisation
   - Flash rate 0.5Hz
   - Red LED

HP451A/SW
HP Type A Compact Sounder VAD with Short Circuit Isolator, Shallow Base, White Body, IP21C

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-8, W-3-3.125
   - Flash rate 0.5Hz
   - Synchronisation
   - White LED
   - Operating voltage range 27-40 VDC
2. Meets the requirements of EN 54-3 for the following:
   - Evacuate, 535Hz for 0.5s, 800Hz for 0.5s
   - Fast Warble, 800Hz for 0.25s, 645Hz for 0.25s
   - Dutch Slow Whoop, 500Hz to 1200Hz for 3.5s on, 0.5s off
   - German DIN Tone, 1200Hz to 500Hz for 1s
   - French Fire Tone, 554Hz for 100ms/440Hz for 400ms
   - Operating voltage range 24-40 VDC

HP456A/W
HP Ceiling Class Type A Base Sounder VAD with Short Circuit Isolator, White, IP21C

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Evacuate, 610 Hz for 0.5 sec, 810 Hz for 0.5 sec
   - Fast Warble, 810 Hz for 0.25 sec, 610 Hz for 0.25 sec
   - Dutch Slow Whoop (sweep), 500 Hz to 1200 Hz for 3.5 sec on, 0.5 sec off
   - German DIN Tone, 1200Hz-500Hz for 1s
   - French Fire Tone, 554Hz for 100ms/440Hz for 440ms

LPCB Ref. No.

BF456C/CC/W
176r02

HP451A/SW
176l07

HP456A/W
176l09
PART 1: SECTION 7
ALARMWARNING DEVICES

Certificated Products

- Operating voltage range 24-40V d.c.
2. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating C-3-8.5
   - Synchronization
   - Flash rate 0.5Hz
   - White LED

Deep Base - IP33C
Shallow Base - IP21C
Deep Base - IP55
BFIPPLATE/R IP Protection Plate for Compact / Hi OP / Sounder VAD - Red
BFIPPLATE/W IP Protection Plate for Compact / Hi OP / Sounder VAD - White
BF431QCP Quick Connect Plate
CC408 Activ Base
BF330CTLIDW White Cap
BF330CTLIDR Red Cap

Certificate No: 176g to EN 54-17:2005, EN 54-23:2010

Certificated Products

BF460A/CXW Addressable Type A (indoor) Ceiling VAD Base with Short Circuit Isolator (Apollo Discovery)
Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-8
   - Flash Rate 0.5Hz
   - Synchronization
   - Operating voltage 21-28 VDC
2. Can be used as either:
   - a stand-alone device with locking white cap (BF330CTLIDW), or red cap (BF330CTLIDR), or
   - a stacked VAD base combination with detectors from the Apollo Discovery range

CA458A/SW Addressable CAST Protocol Type A Compact VAD with Short Circuit Isolator, Shallow Base, White Body, IP21C (BFIPPLATE/R, BFIPPLATE/W)
Note:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-8, W-3-3.125
   - Flash Rate 0.5Hz
   - Synchronization
   - White LED
   - Operating voltage 27-40 VDC

Note:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-8, W-3-3.125
   - Flash Rate 0.5Hz
   - Synchronization
   - White LED
   - Operating voltage 27-40 VDC

CA459A/W Addressable CAST Protocol Type A Ceiling Base VAD with Short Circuit Isolator, White, IP21C, Open Class (BF431QCP)
Note:
1. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating O-R-3-2.5-18
   - Synchronization
   - Flash rate 0.5Hz
   - White LED

CA460A/W Addressable CAST Protocol Type A Ceiling Base VAD with Short Circuit Isolator, White, IP21C, Ceiling Class (BF431QCP)
Note:
1. The Ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category rating C-3-8.5
   - Synchronization
   - Flash rate 0.5Hz
   - White LED

HP458A/SW HP Type A Compact VAD with Short Circuit Isolator, Shallow Base, White Body, IP21C
Note:
1. Meets the requirements of EN 54-23 for the following:
**Certificated Products**

- Category C-3-8, W-3-3.125
- Flash Rate 0.5Hz
- Synchronisation
- White LED
- Operating voltage 27-40 VDC

**Shallow Base**  
**BFIPPLATE/R**  
IP Protection Plate for Compact / Hi OP / Sounder VAD - Red

**BFIPPLATE/W**  
IP Protection Plate for Compact / Hi OP / Sounder VAD - White

**BF431QCP**  
Quick Connect Plate

**Context Plus Ltd**  
Export House, 175 Mauldeth Road, Fallowfield, Manchester M14 6SG, United Kingdom  
Tel: +44 (0)161 257 2541 • Fax: +44 (0)161 225 8817  
E-mail: xportsales@xportsales.com • Website: www.xportsales.com

**Certificate No:** 717a-(cl-1) to EN 54-3: 2001 + A1: 2002 + A2: 2006  

### Audible Warning Devices

**Certificated Products**

#### CP-500IMC
Conventional Sounder with LED Strobe (Red Head / Red Base)  
(SB-400IMC & DB-450IMC bases)

**Notes:**
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13
3. Certification excludes the strobe function

**LPCB Ref. No.** 717a/01

#### CP-400IMC
Conventional Sounder (Red)  
(SB-400IMC & DB-450IMC bases)

**Notes:**
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13

**LPCB Ref. No.** 717a/05

#### CP-600IMC
Conventional Sounder with LED Strobe Common Operation (Red Head / Red Base)  
(SB-400IMC & DB-450IMC bases)

**Notes:**
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13
3. Certification excludes the strobe function

**LPCB Ref. No.** 717a/10

#### CP550SB
Conventional Indoor Type A Sounder

**Notes:**
1. The sounder is approved in red and white colours (-R and -W suffixes)
2. Certified to EN 54-3: 2001 with the following selectable tones:
   1. LF Sweep frequency (800-1000Hz in 0.5sec)
   25 - German DIN tone Sweep (1200-500Hz @ 1Hz)
   27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)
   2nd Stage tone for all above (800Hz continuous tone)
   11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off)

**LPCB Ref. No.** 546a/01

#### CP550DB
Conventional Outdoor Type B Sounder

**Notes:**
1. The sounder is approved in red and white colours (-R and -W suffixes)
2. Certified to EN 54-3: 2001 with the following selectable tones:
   1. LF Sweep frequency (800-1000Hz in 0.5sec)
   25 - German DIN tone Sweep (1200-500Hz @ 1Hz)
   27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)
   2nd Stage tone for all above (800Hz continuous tone)
   11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off)

**LPCB Ref. No.** 546a/01

#### CP850BSW
Conventional Indoor Type A Sounder Base

**Notes:**
1. Also approved in Off-white, Ivory and Alternative white (-O, -I, and -A suffixes)
2. Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:
   1. LF Sweep (800-1000Hz @ 0.5 Sec)
PART 1: SECTION 7
ALARM WARNING DEVICES

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<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>CON430A/CX/DR</th>
<th>Hi-Output Addressable Type B (outdoor) Wall Sounder with Short Circuit Isolator, Deep Base (Red) (Apollo Discovery)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 - Warble Tone BS (800-1000Hz @ 0.5 Sec)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 1&quot; Stage, Dutch Sweep Tone (970Hz Cont)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 2&quot; Stage, Dutch Sweep Tone (500-1200Hz for 3.5s on, 0.5s off)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 - German DIN Tone (Sweep 1200-500Hz @ 1 Hz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 - French Tone AFNOR (554 Hz 100ms and 440Hz for 400ms)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Cover Plate (white) - Part no. 116-099</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cover Plate (ivory) - Part no. 116-119</td>
<td></td>
</tr>
</tbody>
</table>

CON431A/CX/W
Addressable Type A (indoor) Ceiling Sounder Base with Short Circuit Isolator (Apollo Discovery)

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>CON431A/CX/W</th>
<th>Addressable Type A (indoor) Ceiling Sounder Base with Short Circuit Isolator (Apollo Discovery)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evacuate, 572Hz for 0.5s, 720Hz for 0.5s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Alternating, 962Hz for 0.25s, 572Hz for 0.25s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Can be used as:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A stacked sounder base combination with detectors from the Apollo Discovery range</td>
<td></td>
</tr>
</tbody>
</table>

CON433A/CX/DR
Hi-Output Addressable Type B (outdoor) Wall Sounder VAD with Short Circuit Isolator, Deep Base (Red) (Apollo Discovery)

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>CON433A/CX/DR</th>
<th>Hi-Output Addressable Type B (outdoor) Wall Sounder VAD with Short Circuit Isolator, Deep Base (Red) (Apollo Discovery)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-23 for the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Category W-2.4-8.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Flash rate 0.5Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Synchronization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Operating voltage range 21-28 VDC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-3 for the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Evacuate, 572Hz for 0.5s, 720Hz for 0.5s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Alternating, 962Hz for 0.25s, 572Hz for 0.25s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Dutch slow sweep, 500Hz to 1200Hz for 3.5s on, 0.5s off- Operating voltage range 17-28 VDC</td>
<td></td>
</tr>
</tbody>
</table>

---

Cooper Lighting and Safety Ltd
Wheatley Hall Road, Doncaster, South Yorkshire DN2 4NB, United Kingdom
Tel: +44 (0)1302 303397 • Fax: +44 (0)1302 303251
Website: www.cooper-is.com

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Cranford Controls Limited
Unit 2, Waterbrook Estate, Waterbrook Road, Alton, Hampshire GU34 2UD, United Kingdom
Tel: +44 (0)1420 592444 • Fax: +44 (0)1420 592445
E-mail: r.young@cranfordcontrols.com • Website: www.cranfordcontrols.com

PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VTG-32E-SB</td>
<td>Conventional indoor Type A sounder</td>
<td>546a/01</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) The sounder is approved in red and white colours (-R and -W suffixes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Certified to EN54-3: 2001 with the following selectable tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - LF Sweep frequency (800-1000Hz in 0.5sec)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 - German DIN tone Sweep (1200-500Hz @ 1Hz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Stage tone for all above (800Hz continuous tone)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off)</td>
<td></td>
</tr>
<tr>
<td>VTG-32E-DB</td>
<td>Conventional outdoor Type B sounder</td>
<td>546a/01</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) The sounder is approved in red and white colours (-R and -W suffixes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Certified to EN54-3: 2001 with the following selectable tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - LF Sweep frequency (800-1000Hz in 0.5sec)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 - German DIN tone Sweep (1200-500Hz @ 1Hz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Stage tone for all above (800Hz continuous tone)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off)</td>
<td></td>
</tr>
<tr>
<td>VPR-DT</td>
<td>Conventional outdoor Type B sounder</td>
<td>546a/02</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Certified to EN54-3: 2001 with the following selectable tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - Evacuate Tone (500-1200Hz Rising Sweep over 3.5 Sec 0.5 Sec off)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 - Alert Tone (970Hz Continuous Tone)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Certified at Maximum Volume only.</td>
<td></td>
</tr>
<tr>
<td>VSO-32E</td>
<td>Conventional indoor Type A sounder base</td>
<td>546a/04</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Also approved in Off-white, Ivory and Alternative white (-O, -I, and -A suffixes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - LF Sweep (Cranford sweep) (800-1000Hz @ 0.5 Sec)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 - Warble Tone BS (800-1000Hz @ 0.5 Sec)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 1st Stage, Dutch Sweep Tone (970Hz Cont)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 2nd Stage, Dutch Sweep Tone (500-1200Hz for 3.5s on, 0.5s off)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 - French Tone AFNOR (554Hz 100ms and 440Hz for 400 ms)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Cover plate (Part No. 116-099) must be used.</td>
<td></td>
</tr>
<tr>
<td>VPR-SA4E</td>
<td>Conventional Outdoor Type B Wall Sounder (116-100 Mounting Base)</td>
<td>546a/06</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. The Sounder is approved in Red (Part No.: 505-047) and White (Part No.: 505-048)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colours (-R and -W suffixes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Certified to EN 54-3: 2001 with the following selectable tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Continuous Tone, 800Hz continuous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sweep Tone, 800Hz - 1000Hz swept every 500ms (2Hz)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pips Tone, 800Hz for 800ms, then off for 500ms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warble Tone, 800Hz for 800ms, then 1000Hz for 500ms</td>
<td></td>
</tr>
</tbody>
</table>

Base:
116-100 Viper Mounting Base

DEF
7, rue du Saule Trapu, MASSY 91300, France
Tel: +33 (0) 160136772
E-mail: frederic.chateau@coflec.com


Certificated Products

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEPHYR-DSAF</td>
<td>Conventional Type A Sounder (S3000M base)</td>
<td>1451c/01</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configuration 1:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- NFS-32001, Alternating, 554Hz &amp; 440Hz, 100ms-400ms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configuration 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- NFS-32001, Alternating, 554Hz &amp; 440Hz, 100ms-400ms</td>
<td></td>
</tr>
</tbody>
</table>

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### Certificated Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEPHYR-SDSAF Conventional Type A Base Sounder</td>
<td>1451c/02</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1) Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>- NFS-32001, Alternating, 554Hz &amp; 440Hz, 100ms-400ms</td>
<td></td>
</tr>
<tr>
<td>- DIN 33404, Sweep, 1200Hz to 500Hz, 1Hz</td>
<td></td>
</tr>
<tr>
<td>- GB tone 1, Sweep, 800Hz to 970Hz, 1Hz</td>
<td></td>
</tr>
<tr>
<td>2) Operating Voltage Range 16Vdc to 60Vdc</td>
<td></td>
</tr>
</tbody>
</table>

| ZEPHYRA-DSAF Addressable Type A Sounder with Short Circuit Isolator (S3000M base) | 1451d/01 |
| Notes:                                                   |          |
| 1) Meets the requirements of EN 54-3 at the following tones: |          |
| - NFS-32001, Alternating, 554Hz & 440Hz, 100ms-400ms    |          |
| - DIN 33404, Sweep, 1200Hz to 500Hz, 1Hz                |          |
| - GB tone 1, Sweep, 800Hz to 970Hz, 1Hz                 |          |
| 2) Operating Voltage Range 16Vdc to 60Vdc                |          |
| 3) a) A detector (LYNX & ORION range) can be fitted to this base. |          |
| b) When a cover plate is fitted it is a stand-alone base sounder. |          |

| ZEPHYRA-SDSAF Addressable Type A Base Sounder with Short Circuit Isolator | 1451d/02 |
| Notes:                                                   |          |
| 1) Meets the requirements of EN 54-3 at the following tones: |          |
| - NFS-32001, Alternating, 554Hz & 440Hz, 100ms-400ms    |          |
| - DIN 33404, Sweep, 1200Hz to 500Hz, 1Hz                |          |
| - GB tone 1, Sweep, 800Hz to 970Hz, 1Hz                 |          |
| 2) Operating Voltage Range 30Vdc to 41Vdc                |          |
| 3) a) A detector (LYNX & ORION range) can be fitted to this base. |          |
| b) When a cover plate is fitted it is a stand-alone base sounder. |          |

### Accessories:
- S3000M Base
- Cover Plate

### Detect Fire LLC
1050 Temple Ave, Colonial Heights, Virginia 23834, USA
Tel: 804-417-2244
E-mail: marketing@detectfire.info • Website: http://detectfire.info/


### Audible Warning Devices

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF-700-AB Conventional Fire Alarm Bell</td>
<td>506e/01</td>
</tr>
<tr>
<td>DF-550-HS Conventional Type B Electronic Sounder Beacon</td>
<td>506e/03</td>
</tr>
</tbody>
</table>

Note:
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

1. Meets the requirements of EN 54-3: 2001 at the following tones:
   1) Alternating Tones 800/970Hz at 2Hz
   2) Sweeping 800/970Hz at 7Hz
2. The beacon functionality is not included within the scope of approval.

Detectomat Systems GmbH
An der Strusbek 3, 22926 Ahrensburg, Hamburg, Germany
Tel: +49 41 02 21 14 60 • Fax: +49 4102 2114 670
E-mail: zulassung@detectomat.com


Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVS3000</td>
<td>1451a/01</td>
</tr>
<tr>
<td>AS3000</td>
<td>1451a/02</td>
</tr>
<tr>
<td>AVS3000A</td>
<td>1451b/01</td>
</tr>
<tr>
<td>AS3000A</td>
<td>1451b/02</td>
</tr>
</tbody>
</table>

Accessories:
S3000M Base
Cover Plate
## PART 1: SECTION 7
ALARMS WARNING DEVICES

### Eaton Electrical Systems Limited
Wheatley Hall Road, Doncaster, South Yorkshire DN2 4NB, United Kingdom
Tel: +44 (0)1302 303397 • Fax: +44 (0)1302 303397

Certificate No: 714s to EN 54-17:2005, EN 54-23:2010

<table>
<thead>
<tr>
<th>Certificate No.</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
</table>
| CASB383 | 714j/01 | Addressable Type A Wall Sounder/Beacon with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 984Hz  
- Pulsed 984 / 0Hz pulse 1Hz  
- Two Tone 644 / 984Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| MASB860 | 714j/01 | Addressable Type A Wall Sounder/Beacon with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 984Hz  
- Pulsed 984 / 0Hz pulse 1Hz  
- Two Tone 644 / 984Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| FXN539LPS | 714j/01 | Addressable Type A Wall Sounder/Beacon with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 984Hz  
- Pulsed 984 / 0Hz pulse 1Hz  
- Two Tone 644 / 984Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| CASB383WP | 714j/02 | Addressable Type B Wall Sounder/Beacon with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 984Hz  
- Pulsed 984 / 0Hz pulse 1Hz  
- Two Tone 644 / 984Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| MASB860WP | 714j/02 | Addressable Type B Wall Sounder/Beacon with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 984Hz  
- Pulsed 984 / 0Hz pulse 1Hz  
- Two Tone 644 / 984Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| FXN539LPSWP | 714j/02 | Addressable Type B Wall Sounder/Beacon with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 984Hz  
- Pulsed 984 / 0Hz pulse 1Hz  
- Two Tone 644 / 984Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| CASBB384 | 714j/03 | Addressable Type A Sounder/Beacon Base with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 910Hz  
- Pulsed 910 / 0Hz pulse 1Hz  
- Two Tone 610 / 910Hz @ 1 Hz cycle  
- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap  
2. The beacon functionality is not included within the scope of this approval |
| MASB870 | 714j/03 | Addressable Type A Sounder/Beacon Base with short circuit isolator | 1. Meets the requirements of EN54-3: 2001 for the following tones:  
- Continuous 910Hz  

---

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<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FXN537 Addressable Type A Sounder/Beacon Base with short circuit isolator</td>
<td>714/03</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
<td></td>
</tr>
<tr>
<td>- Continuous 910Hz</td>
<td></td>
</tr>
<tr>
<td>- Pulsed 910 / 0Hz pulse 1Hz</td>
<td></td>
</tr>
<tr>
<td>- Two Tone 610 / 910Hz @ 1 Hz cycle</td>
<td></td>
</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
<td></td>
</tr>
<tr>
<td>2. The beacon functionality is not included within the scope of this approval</td>
<td></td>
</tr>
<tr>
<td>CAS380 Addressable Type A Sounder Base with short circuit isolator</td>
<td>714/04</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
<td></td>
</tr>
<tr>
<td>- Continuous 910Hz</td>
<td></td>
</tr>
<tr>
<td>- Pulsed 910 / 0Hz pulse 1Hz</td>
<td></td>
</tr>
<tr>
<td>- Two Tone 610 / 910Hz @ 1 Hz cycle</td>
<td></td>
</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
<td></td>
</tr>
<tr>
<td>MAS850 Addressable Type A Sounder Base with short circuit isolator</td>
<td>714/04</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
<td></td>
</tr>
<tr>
<td>- Continuous 910Hz</td>
<td></td>
</tr>
<tr>
<td>- Pulsed 910 / 0Hz pulse 1Hz</td>
<td></td>
</tr>
<tr>
<td>- Two Tone 610 / 910Hz @ 1 Hz cycle</td>
<td></td>
</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
<td></td>
</tr>
<tr>
<td>FXN538 Addressable Type A Sounder Base with short circuit isolator</td>
<td>714/04</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
<td></td>
</tr>
<tr>
<td>- Continuous 910Hz</td>
<td></td>
</tr>
<tr>
<td>- Pulsed 910 / 0Hz pulse 1Hz</td>
<td></td>
</tr>
<tr>
<td>- Two Tone 610 / 910Hz @ 1 Hz cycle</td>
<td></td>
</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
<td></td>
</tr>
<tr>
<td>CAS381 Addressable Type A Wall Sounder with short circuit isolator</td>
<td>714/05</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
<td></td>
</tr>
<tr>
<td>- Continuous 984Hz</td>
<td></td>
</tr>
<tr>
<td>- Pulsed 984 / 0Hz pulse 1Hz</td>
<td></td>
</tr>
<tr>
<td>- Two Tone 644 / 984Hz @ 1 Hz cycle</td>
<td></td>
</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
<td></td>
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<tr>
<td>MAS850LPS Addressable Type A Wall Sounder with short circuit isolator</td>
<td>714/05</td>
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<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
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<tr>
<td>- Continuous 984Hz</td>
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<tr>
<td>- Pulsed 984 / 0Hz pulse 1Hz</td>
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<tr>
<td>- Two Tone 644 / 984Hz @ 1 Hz cycle</td>
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<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
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<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
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<td>- Two Tone 644 / 984Hz @ 1 Hz cycle</td>
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<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
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<td>CAS381WP Addressable Type B Wall Sounder with short circuit isolator</td>
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<tr>
<td>- Two Tone 644 / 984Hz @ 1 Hz cycle</td>
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</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap</td>
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<td>FXN538LPSWP Addressable Type B Wall Sounder with short circuit isolator</td>
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<td>1. Meets the requirements of EN54-3: 2001 for the following tones:</td>
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<tr>
<td>- Continuous 984Hz</td>
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Casb383-B Addressable Type A Wall Sounder/Beacon with Short Circuit Isolator
Notes:
1. Meets the requirements of EN54-3: 2001 for the following tones:
   - Continuous 984Hz
   - Pulsed 984 / 0Hz pulse 1Hz
   - Two Tone 644 / 984Hz @ 1 Hz cycle
   - Bell Tone (This tone is not EN 54-3 approved)
2. The beacon functionality is not included within the scope of this approval

Casb383WP-B Addressable Type A/B Wall Sounder/Beacon with Short Circuit Isolator
Notes:
1. Meets the requirements of EN54-3: 2001 for the following tones:
   - Continuous 984Hz
   - Pulsed 984 / 0Hz pulse 1Hz
   - Two Tone 644 / 984Hz @ 1 Hz cycle
   - Bell Tone (This tone is not EN 54-3 approved)
2. The beacon functionality is not included within the scope of this approval

Casbb384-B Addressable Type A Sounder/Beacon Base with Short Circuit Isolator
Notes:
1. Meets the requirements of EN54-3: 2001 for the following tones:
   - Continuous 910Hz
   - Pulsed 910 / 0Hz pulse 1Hz
   - Two Tone 610 / 910Hz @ 1 Hz cycle
   - Bell Tone (This tone is not EN 54-3 approved)
2. The beacon functionality is not included within the scope of this approval

CAB482WS Addressable Type A Red Light Flash Wall VAD with Isolator (Red Body) (Shallow Base)
Notes: 1. Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.5 + W-2.4-2.5 - Flash rate 0.5Hz or 1Hz- Synchronisation
   - Red LED
   - Clear Lens

CAB482WD Addressable Type A/B Red Light Flash Wall VAD with Isolator (Red Body) (Shallow Base/Deep Base)
Notes: 1. Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.5 + W-2.4-2.48- Flash rate 0.5Hz or 1Hz- Synchronisation
   - Red LED
   - Clear Lens

CAB492WS Addressable Type A White Light Flash Wall VAD with Isolator (Red Body) (Shallow Base)
Notes: 1. Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.5 + W-2.4-2.5- Flash rate 0.5Hz or 1Hz- Synchronisation
   - White LED
   - Clear Lens

CAB492WD Addressable Type A/B White Light Flash Wall VAD with Isolator (Red Body) (Shallow Base/Deep Base)
Notes: 1. Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.5 + W-2.4-2.5- Flash rate 0.5Hz or 1Hz- Synchronisation
   - White LED
   - Clear Lens

CAB482CS Addressable Type A Red Light Flash Ceiling VAD with Isolator (Red Body) (Shallow Base)
Notes: 1. Meets the requirements of EN 54-23 at the following:
   - Category C-3.0-7.5 + C-3.0-2.5 - Flash rate 0.5Hz or 1Hz- Synchronisation
   - Red LED
   - Clear Lens

CAB492CS Addressable Type A White Light Flash Ceiling VAD with Isolator (Red Body)(Shallow Base)
Notes: 1. Meets the requirements of EN 54-23 at the following:
   - Category C-3.0-7.5 + C-3.0-2.5- Flash rate 0.5Hz or 1Hz- Synchronisation
   - White LED
   - Clear Lens

Shallow Base (Type A)
Deep Base (Type B)
<table>
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<tr>
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<td>1) Meets the requirements of EN 54-23 at the following:</td>
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<tr>
<td>- Category rating Open Class</td>
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<tr>
<td>- Synchronization</td>
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<tr>
<td>- Flash rate 0.5Hz</td>
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<tr>
<td>- White LED</td>
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<tr>
<td>- Clear Lens</td>
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<tr>
<td>2) Meets the requirements of EN 54-3 at the following tones:</td>
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<td>- Two Tone 644 / 984Hz @ 1Hz cycle</td>
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</tr>
<tr>
<td>- Slow whoop 500-1200Hz in 3.5s / 0.5s gap</td>
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<tr>
<td><strong>MASB880</strong></td>
<td>714q/01</td>
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<tr>
<td>1) Meets the requirements of EN 54-23 at the following:</td>
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<td>2) Meets the requirements of EN 54-3 at the following tones:</td>
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<tr>
<td><strong>CASB393WP</strong></td>
<td>714q/02</td>
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<tr>
<td>Addressable Type B Wall Sounder Beacon with Short Circuit Isolator (Red Housing)</td>
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<td>Notes:</td>
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<tr>
<td>1) Meets the requirements of EN 54-23 at the following:</td>
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<tr>
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<tr>
<td>2) Meets the requirements of EN 54-3 at the following tones:</td>
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<td><strong>FXN559LPSWP</strong></td>
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<td>1) Meets the requirements of EN 54-23 at the following:</td>
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<td>- Category rating Open Class</td>
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<tr>
<td>- Synchronization</td>
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<td>- Flash rate 0.5Hz</td>
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<td>- White LED</td>
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<td>- Clear Lens</td>
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<tr>
<td>2) Meets the requirements of EN 54-3 at the following tones:</td>
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<td><strong>MASB880WP</strong></td>
<td>714q/02</td>
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</tr>
<tr>
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</table>
**PART 1: SECTION 7**
**ALARM WARNING DEVICES**

### Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>CASBB394</td>
<td>Addressable Type A Base Sounder Beacon (Open Class VAD) with Short Circuit Isolator (White Housing)</td>
<td>714q/03</td>
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<tr>
<td>FXN557</td>
<td>Addressable Type A Base Sounder Beacon (Open Class VAD) with Short Circuit Isolator (White Housing) (JSB)</td>
<td>714q/03</td>
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<tr>
<td>MASB890</td>
<td>Addressable Type A Base Sounder Beacon (Open Class VAD) with Short Circuit Isolator (White Housing) (Menvier)</td>
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<td>CASBB394-O</td>
<td>Addressable Type A Base Sounder Beacon (Open Class VAD) with Short Circuit Isolator (White Housing)</td>
<td>714q/04</td>
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<tr>
<td>CASB483</td>
<td>Addressable Type A Red Flash Wall Sounder VAD with Short Circuit Isolator (Red Housing)</td>
<td>714q/05</td>
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</tbody>
</table>

### CASB483 Description
- Slow whoop 500-1200Hz in 3.5s / 0.5s gap

### Notes
1) Meets the requirements of EN 54-23 at the following:
   - Category rating Open Class
   - Synchronization
   - Flash rate 0.5Hz
   - White LED
   - Clear Lens
2) Meets the requirements of EN 54-3 at the following tones:
   - Continuous 910Hz
   - Two tone 610 / 910Hz at 1Hz cycle
   - Slow whoop 500 1200Hz in 3.5 seconds / 0.5second gap
3) If detector heads are to be mounted on the addressable base sounder beacons the approved detector heads shall comply with the following physical attributes:
   - Maximum Outer diameter 101mm
   - Maximum height 43mm
4) CASC cover for sounder base

### CASB394 Description
- Slow whoop 500-1200Hz in 3.5s / 0.5s gap

### Notes
1) Meets the requirements of EN 54-23 at the following:
   - Category rating Open Class
   - Synchronization
   - Flash rate 0.5Hz
   - White LED
   - Clear Lens
2) Meets the requirements of EN 54-3 at the following tones:
   - Continuous 910Hz
   - Two tone 610 / 910Hz at 1Hz cycle
   - Slow whoop 500 1200Hz in 3.5 seconds / 0.5second gap
3) If detector heads are to be mounted on the addressable base sounder beacons the approved detector heads shall comply with the following physical attributes:
   - Maximum Outer diameter 101mm
   - Maximum height 43mm
4) CASC cover for sounder base
1) Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.5 (High Power) + W-2.4-2.5 (Low Power)
   - Flash rate 0.5Hz or 1Hz
   - Synchronisation
   - Red LED
   - Clear Lens
2) Meets the requirements of EN 54-3 at the following tones:
   - Continuous 984Hz
   - Two tone 644/984Hz at 1Hz cycle.
   - Slow whoop 500-1200Hz in 3.5 seconds / 0.5 second gap

CASB483WP
Addressable Type A/B Red Flash Wall Sounder VAD with Short Circuit Isolator (Red Housing)

Notes:
1) Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.5 (High Power) + W-2.4-2.5 (Low Power)
   - Flash rate 0.5Hz or 1Hz
   - Synchronisation
   - Red LED
   - Clear Lens
2) Meets the requirements of EN 54-3 at the following tones:
   - Continuous 984Hz
   - Two tone 644/984Hz at 1Hz cycle.
   - Slow whoop 500-1200Hz in 3.5 seconds / 0.5 second gap

CASB493
Addressable Type A White Flash Wall Sounder VAD with Short Circuit Isolator (Red Housing)

Notes:
1) Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.27 (High Power) + W-2.4-2.18 (Low Power)
   - Flash rate 0.5Hz or 1Hz
   - Synchronisation
   - White LED
   - Clear Lens
2) Meets the requirements of EN 54-3 at the following tones:
   - Continuous 984Hz
   - Two tone 644/984Hz at 1Hz cycle.
   - Slow whoop 500-1200Hz in 3.5 seconds / 0.5 second gap

CASB493WP
Addressable Type A/B White Flash Wall Sounder VAD with Short Circuit Isolator (Red Housing)

Notes:
1) Meets the requirements of EN 54-23 at the following:
   - Category W-2.4-7.25 (High Power) + W-2.4-1.24 (Low Power)
   - Flash rate 0.5Hz or 1Hz
   - Synchronisation
   - White LED
   - Clear Lens
2) Meets the requirements of EN 54-3 at the following tones:
   - Continuous 984Hz
   - Two tone 644/984Hz at 1Hz cycle.
   - Slow whoop 500-1200Hz in 3.5 seconds / 0.5 second gap

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Eaton MEDC Ltd
Unit B, Sutton Parkway, Oddicorf Lane, Sutton-in-Ashfield NG17 5FB, United Kingdom
Tel: +44 (0)1623 444400 • Fax: +44 (0)1623 444531
E-mail: MEDCSales@eaton.com

Certificate No: 1120b to EN54-23: 2010

**Visual Warning Devices**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB15 (White)</td>
<td>1120b/01</td>
</tr>
</tbody>
</table>

1) The VAD does not contain a function for synchronicity between devices.
2) The VAD is rated as C-3-32, C-6-31, C-9-12 and W-8-13.
3) The VAD must only be used with the clear lens and is only approved for the 24V d.c. version, at 1Hz flash rate and must not be used with a lens guard.
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

4) When used as a wall mounted VAD the device must be installed in accordance with the guidance given in TM250.

XB15 (Red)
Conventional Visual Alarm Device Type B (red light) 1120b/02

1) The VAD does not contain a function for synchronicity between devices.
2) The VAD is rated as C-3-16, C-6-6 and W-3-5.
3) The VAD must only be used with the red lens and is only approved for the 24V d.c. version, at 1Hz flash rate and must not be used with a lens guard.
4) When used as a wall mounted VAD the device must be installed in accordance with the guidance given in TM250.


Audible Warning Devices
Certificated Products

DB3
Conventional Sounder Type B 1120a/01
Notes:
1. Meets the requirements of EN54-3: 2001 for the following tones:
   - Tone 3 - Sweeping 800 / 1000Hz at 1Hz
   - Tone 7 - Slow whoop 500-1200Hz in 3.5 seconds / 0.5 secs gap
   - Tone 8 - Sweep 1200-500Hz at 1Hz
   - Tone 15 - 554Hz for 100ms / 440Hz for 400ms
   - Tone 19 - Continuous at 660Hz
   - Tone 20 - Alt 554 / 440Hz at 1Hz

DB3B 54W
Conventional Sounder Type B 1120a/02
Note:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 3  Sweeping 800/1000Hz at 1Hz
   - Tone 7  Slow whoop 500-1200Hz in 3.5 seconds / 0.5 secs gap
   - Tone 8  Sweep 1200-500Hz at 1Hz
   - Tone 15  554Hz for 100ms / 440Hz for 400ms
   - Tone 19  Continuous at 660Hz
   - Tone 20  Alt 554 / 440Hz at 1Hz

DB3B 54D
Conventional Sounder Type B (ATEX) 1120a/02
Note:
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 3  Sweeping 800/1000Hz at 1Hz
   - Tone 7  Slow whoop 500-1200Hz in 3.5 seconds / 0.5 secs gap
   - Tone 8  Sweep 1200-500Hz at 1Hz
   - Tone 15  554Hz for 100ms / 440Hz for 400ms
   - Tone 19  Continuous at 660Hz
   - Tone 20  Alt 554 / 440Hz at 1Hz

Elite Security Products (ESP)
Unit 7, Target Park, Shawbank Road, Redditch, Birmingham B98 8YN, United Kingdom
Tel: +44 (0)1527 515150
E-mail: info@espuk.com • Website: https://www.espuk.com/


Certificated Products

MAGDUOSR
MAGDUO Conventional Type A Sounder (Red) 331h/01
Notes:
1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s.

MAGDUOSW
MAGDUO Conventional Type A Sounder (White) 331h/01
Notes:
1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s.

MAGDUOSSL
MAGDUO Conventional Type A Sounder Strobe 331h/02
Notes:
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s
   Slow Whoop 500-1200Hz over 3s, 0.5s off
   Dual French 550Hz 0.1s, 440Hz 400ms.

2) The strobe functionality is not included within the scope of this approval.

MAGDUOSS
MAGDUO Conventional Type A Sounder Strobe (domed)

Note:
1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s
   Slow Whoop 500-1200Hz over 3s, 0.5s off
   Dual French 550Hz 0.1s, 440Hz 400ms

MAGDUOSRIP55
MAGDUO Conventional Type B Sounder IP55 Rated

Note:
1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s
   Slow Whoop 500-1200Hz over 3s, 0.5s off
   Dual French 550Hz 0.1s, 440Hz 400ms.

MAGDUOSRSQ
MAGDUO Conventional Type A Wall Sounder (Red)

Notes:
1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s
   Slow Whoop 500-1200Hz over 3s, 0.5s off
   Dual French 550Hz 0.1s, 440Hz 400ms.

MAGDUOSWSQ
MAGDUO Conventional Type A Wall Sounder (White)

Notes:
1) Meets the requirements of EN 54-3 at the following tones: -
   Dual Tone 970Hz 0.25s, 800Hz 0.25s
   Slow Whoop 500-1200Hz over 3s, 0.5s off
   Dual French 550Hz 0.1s, 440Hz 400ms

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Tel: +971 6 5340300 • Fax: +971 6 5340090
E-mail: firex@emirates.net.ae • Website: www.firexuae.com

Certificate No: 506e to EN 54-3: 2001

Certificated Products

FX-0218 Conventional fire alarm bell 506e/01

Eurofyre Limited
Unit C1 Knowle Village Business Park, Mayles Lane, Wickham, Fareham PO17 5DY, United Kingdom
Tel: 01329 830 462
E-mail: jon@eurofyre.com


Alarm Warning Devices
Certificated Products

16-140 ProFyre Xtratone Addressable Type A Indoor Sounder (Red)
Notes:
1. Meets the requirements of EN54-3 for the following tones:
   1) Alternating 800Hz/970Hz, 1Hz (500ms-500ms)
   2) Slow whoop 500Hz - 1200Hz, 3.5s sweep 0.5s silence, then repeat

16-010 ProFyre Sandwich Type A Indoor Sounder Base (16-050, 16-051, 16-052,16-053 detectors and 12-030 base)
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-025</td>
<td>ProFyre Addressable optical smoke detector</td>
</tr>
<tr>
<td>16-051</td>
<td>ProFyre Addressable A1R heat detector</td>
</tr>
<tr>
<td>16-052</td>
<td>ProFyre Addressable A2S heat detector</td>
</tr>
<tr>
<td>16-053</td>
<td>ProFyre Addressable optical and heat detector</td>
</tr>
</tbody>
</table>

Eurotech Fire Systems Limited
19/20 Stratfield Park, Elettra Avenue, Waterlooville, Hampshire PO7 7XN, United Kingdom
Tel: +44 (0)203 141 0999 • Fax: +44 (0)239 225 2554
E-mail: MICHELLE.AGIUS@eurotechfire.com • Website: www.eurotechfire.com


Audible Warning Devices

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>546a/01</td>
<td>EVTG-32E-SB Conventional indoor Type A sounder</td>
</tr>
<tr>
<td>546a/01</td>
<td>EVTG-32E-DB Conventional outdoor Type B sounder</td>
</tr>
<tr>
<td>546a/04</td>
<td>EVS0-32E Conventional indoor Type A sounder base</td>
</tr>
<tr>
<td>1213j/01</td>
<td>200-103 Odyssey Type B Intelligent Open Area Sounder (Red) (200-307 enhanced deep isolating bases)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN54-3 for the following tones:
   1) Alternating 800Hz/970Hz, 1Hz (500ms-500ms)
   2) Slow whoop 500Hz - 1200Hz, 3.5s sweep 0.5s silence, then repeat

16-141        ProFyre Xtratone Addressable Type A Indoor Sounder (White)
Notes:
1. Meets the requirements of EN54-3 for the following tones:
   1) Alternating 800Hz/970Hz, 1Hz (500ms-500ms)
   2) Slow whoop 500Hz - 1200Hz, 3.5s sweep 0.5s silence, then repeat

12-080        6 (150mm) Type A 24 Vdc Fire Alarm Bell with Aluminium Gong (Indoor)
12-081        8 (200mm) Type A 24 Vdc Fire Alarm Bell with Aluminium Gong (Indoor)

12-030        Shallow base
16-050        ProFyre Addressable optical smoke detector
16-051        ProFyre Addressable A1R heat detector
16-052        ProFyre Addressable A2S heat detector
16-053        ProFyre Addressable optical and heat detector

Notes:
1) Approved in red and white colours (-R and -W suffixes)
2) Meets the requirements of EN 54-3 at the following tone settings:
   1 - LF Sweep frequency (800-1000Hz in 0.5sec)
   25 - German DIN tone Sweep (1200-500Hz @ 1Hz)
   27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)

   2nd Stage tone for all above (800Hz continuous tone)
11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off)

Notes:
1) Approved in red and white colours (-R and -W suffixes)
2) Meets the requirements of EN 54-3 at the following tone settings:
   1 - LF Sweep frequency (800-1000Hz in 0.5sec)
   25 - German DIN tone Sweep (1200-500Hz @ 1Hz)
   27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)
   11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off)

Notes:
1) Approved in standard white and Eurotech white colours (-W and -EW suffixes).
2) Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:
   1 - LF Sweep (Eurotech sweep) (800-1000Hz @ 0.5 Sec)
   3 - Alternative Warble (800-1000Hz @ 0.5 Sec)
   11 - Dutch Sweep Tone (970Hz Cont)
   25 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)
   27 - French Tone AFNOR (554Hz 100ms and 440Hz for 400 ms)
   3) Cover plate (Part No. 116-099) must be used.

Note:
1. Meets the requirements of EN 54-3:2001 at the following tones:
### PART 1: SECTION 7
ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>200-104</strong></td>
<td>Odyssey Type B Intelligent Open Area Sounder Beacon (Red) (200-307 enhanced deep isolating bases)</td>
</tr>
<tr>
<td><strong>100-2010V</strong></td>
<td>EURV-ABS Intelligent Platform Sounder Base</td>
</tr>
<tr>
<td><strong>100-5011V</strong></td>
<td>EURV-ABSB Intelligent Platform Sounder Beacon Base</td>
</tr>
<tr>
<td><strong>100-3801V</strong></td>
<td>EURVC-SB Conventional Type A/B (indoor/outdoor) Wall Sounder (Red Body)</td>
</tr>
<tr>
<td><strong>100-3801VW + 100-2050V</strong></td>
<td>EURV-MOD Intelligent Altair Addressable Type A/B (indoor/outdoor) Wall Sounder with Short Circuit Isolator (White Body)</td>
</tr>
<tr>
<td><strong>100-3801VW + 100-2050V</strong></td>
<td>EURVC-SB Conventional Type A/B (indoor/outdoor) Wall Sounder (White Body)</td>
</tr>
</tbody>
</table>

#### Notes:
- **1.** Meets the requirements of EN 54-3 at the following tone settings:
  - Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms
  - Tone 2 - Continuous Tone, 1000Hz, Steady
  - Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
  - Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)
- **2.** The Beacon function is not approved to EN 54-23
- **3.** Cover plate (LID100-AL/W or AL/R)

#### Bases:
- 200-307 Enhanced deep isolating base (Red)

### Ancillaries
- 100-2050V Addressable module with short circuit isolator
PART 1: SECTION 7
ALARM WARNING DEVICES

Audible Warning Devices


Visual & Audible Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1213ab/01</td>
<td>100-3800V EURVC-SB Conventional Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device (Red Body)</td>
</tr>
<tr>
<td>1213ad/01</td>
<td>100-3800V + 100-2050V EURV-MOD Intelligent Altair Addressable Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (Red Body)</td>
</tr>
<tr>
<td>1213ab/01</td>
<td>100-3800VW EURVC-SB Conventional Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device (White Body)</td>
</tr>
<tr>
<td>1213ad/01</td>
<td>100-3800VW + 100-2050V EURV-MOD Intelligent Altair Addressable Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (White Body)</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate: 0.5Hz
   - Synchronization

Ancillaries
100-2050V Addressable module with short circuit isolator
**Everday Technology Co. Limited**

No.,95., Sec. 2., Ligong 1 St. Road., Letzer Industrial Park, Yilan County 26841, Taiwan ROC  
Tel: +886 3 990 6099 • Fax: +862 3 990 6029  
E-mail: alex.hsieh@everday.com • Website: www.everday.com


<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ES815 Addressable Sounder Strobe (EB7801 Base)</td>
<td>512n/01</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Approved to Type A Indoor use only.</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3:2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>• Tone 14, 2400 Hz – 2900 Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td>• Tone 16, 500Hz – 1200Hz, 3.5s on/0.25s off</td>
<td></td>
</tr>
<tr>
<td>• Tone 17, 800Hz, 1s off/1s on</td>
<td></td>
</tr>
<tr>
<td>3. The strobe function is not approved to EN 54-23</td>
<td></td>
</tr>
</tbody>
</table>

Bases  
EB7801

---

**Fike Safety Technology Ltd**

Unit 31, Springvale Industrial Estate, Cwmbran, Gwent NP44 5BD, United Kingdom  
Tel: +44 (0)1633 865558 • Fax: +44 (0)1633 866656  
E-mail: fstinfo@fike.com • Website: www.fikesafetytechnology.co.uk


<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>302-000x Twinflex Hatari Conventional Type A sounder</td>
<td>331h/01</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Key:</td>
<td></td>
</tr>
<tr>
<td>• $x = 1$ Colour Red</td>
<td></td>
</tr>
<tr>
<td>• $x = 2$ Colour White.</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>• Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
<td></td>
</tr>
<tr>
<td>302-0012 Twinflex Flashpoint Conventional Type A sounder/strobe</td>
<td>331h/02</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>• Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
<td></td>
</tr>
<tr>
<td>• Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>• Dual French 550Hz 0.1s, 440Hz 400ms.</td>
<td></td>
</tr>
<tr>
<td>2. The strobe functionality is not included within the scope of this approval.</td>
<td></td>
</tr>
<tr>
<td>302-0022 Twinflex Flashpoint Conventional Type A sounder/strobe (domed)</td>
<td>331h/03</td>
</tr>
<tr>
<td>Notes:</td>
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<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
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</tr>
<tr>
<td>• Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
<td></td>
</tr>
<tr>
<td>• Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>• Dual French 550Hz 0.1s, 440Hz 400ms.</td>
<td></td>
</tr>
<tr>
<td>2. The strobe functionality is not included within the scope of this approval.</td>
<td></td>
</tr>
<tr>
<td>302-0004 Twinflex Hipoint Conventional Type B sounder</td>
<td>331h/04</td>
</tr>
<tr>
<td>Note:</td>
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<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
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</tr>
<tr>
<td>• Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
<td></td>
</tr>
<tr>
<td>• Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>• Dual French 550Hz 0.1s, 440Hz 400ms.</td>
<td></td>
</tr>
<tr>
<td>313-002x Twinflex Soundpoint Conventional Type A sounder</td>
<td>331h/05</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Key:</td>
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<tr>
<td>• $x = 1$ Colour Red</td>
<td></td>
</tr>
<tr>
<td>• $x = 2$ Colour White.</td>
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</tr>
<tr>
<td>2. Meets the requirements of EN 54-3 at the following tones:</td>
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<tr>
<td>Certificated Products</td>
<td>LPCB Ref. No.</td>
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<tr>
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<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
<td>331j/01</td>
</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
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</tr>
<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms</td>
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<tr>
<td>326-0001</td>
<td>Sita Analogue Addressable Type A sounder with low profile base and short circuit isolator.</td>
</tr>
<tr>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones: -</td>
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</tr>
<tr>
<td>Continuous 970Hz</td>
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<tr>
<td>Pulsed 970Hz 1s on, 1s off</td>
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<tr>
<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
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<tr>
<td>Sweep Up 800-970Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
<td></td>
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<tr>
<td>Sweep Down 1200-500Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms.</td>
<td></td>
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<tr>
<td>326-0003</td>
<td>Sita Analogue Addressable Type A sounder with deep base and short circuit isolator.</td>
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<tr>
<td>Note:</td>
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<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones: -</td>
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</tr>
<tr>
<td>Continuous 970Hz</td>
<td></td>
</tr>
<tr>
<td>Pulsed 970Hz 1s on, 1s off</td>
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</tr>
<tr>
<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
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</tr>
<tr>
<td>Sweep Up 800-970Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>Sweep Down 1200-500Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms.</td>
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<tr>
<td>326-0021-R</td>
<td>Sita Analogue Addressable Type A sounder/strobe with low profile base and short circuit isolator.</td>
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<tr>
<td>Note:</td>
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<td>1. Meets the requirements of EN 54-3 at the following tones: -</td>
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</tr>
<tr>
<td>Continuous 970Hz</td>
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</tr>
<tr>
<td>Pulsed 970Hz 1s on, 1s off</td>
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<tr>
<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
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<tr>
<td>Sweep Up 800-970Hz over 1s</td>
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</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
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</tr>
<tr>
<td>Sweep Down 1200-500Hz over 1s</td>
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<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms.</td>
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<tr>
<td>326-0023-R</td>
<td>Sita Analogue Addressable Type A sounder/strobe with deep base and short circuit isolator.</td>
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<td>Note:</td>
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<td>1. Meets the requirements of EN 54-3 at the following tones: -</td>
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<tr>
<td>Continuous 970Hz</td>
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<tr>
<td>Pulsed 970Hz 1s on, 1s off</td>
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</tr>
<tr>
<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
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</tr>
<tr>
<td>Sweep Up 800-970Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>Sweep Down 1200-500Hz over 1s</td>
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</tr>
<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms.</td>
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<tr>
<td>323-0001</td>
<td>Sita Hipoint Analogue Addressable Type B sounder with short circuit isolator.</td>
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<tr>
<td>Note:</td>
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<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones: -</td>
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<tr>
<td>Continuous 970Hz</td>
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<tr>
<td>Pulsed 970Hz 1s on, 1s off</td>
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<tr>
<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
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</tr>
<tr>
<td>Sweep Up 800-970Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
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</tr>
<tr>
<td>Sweep Down 1200-500Hz over 1s</td>
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</tr>
<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms.</td>
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</tr>
<tr>
<td>313-000x</td>
<td>Sita Soundpoint Analogue Addressable Type A sounder with short circuit isolator.</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Key:</td>
<td></td>
</tr>
<tr>
<td>x = 1 Colour Red</td>
<td></td>
</tr>
<tr>
<td>x = 2 Colour White.</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3 at the following tones: -</td>
<td></td>
</tr>
<tr>
<td>Continuous 970Hz</td>
<td></td>
</tr>
<tr>
<td>Pulsed 970Hz 1s on, 1s off</td>
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<tr>
<td>Dual Tone 970Hz 0.25s, 800Hz 0.25s</td>
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<tr>
<td>Sweep Up 800-970Hz over 1s</td>
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</tr>
<tr>
<td>Slow Whoop 500-1200Hz over 3s, 0.5s off</td>
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<tr>
<td>Sweep Down 1200-500Hz over 1s</td>
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<tr>
<td>Dual French 550Hz 0.1s, 440Hz 400ms.</td>
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</tbody>
</table>
## Audible Warning Devices

### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FF ES150-VTG-SB</th>
<th>Notes:</th>
<th>FF ES150-VTG-DB</th>
<th>Notes:</th>
<th>FF SB100</th>
<th>Notes:</th>
</tr>
</thead>
</table>
| 546a/01      | Conventional indoor Type A sounder (SB base) | 1. The sounder is approved in red and white colours (-R and -W suffixes)  
2. Certified to EN54-3: 2001 with the following selectable tones:  
1 - LF Sweep frequency (800-1000Hz in 0.5sec)  
25 - German DIN tone Sweep (1200-500Hz @ 1Hz)  
27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)  
11 - 2nd Stage tone for all above (800Hz continuous tone) | Conventional outdoor Type B sounder (DB base) | 1. The sounder is approved in red and white colours (-R and -W suffixes)  
2. Certified to EN54-3: 2001 with the following selectable tones:  
1 - LF Sweep frequency (800-1000Hz in 0.5sec)  
25 - German DIN tone Sweep (1200-500Hz @ 1Hz)  
27 - French tone AFNOR (554Hz for 100ms and 440Hz for 400ms)  
11 - 2nd Stage, Dutch sweep tone (500-1200Hz for 3.5s on, 0.5s off) | Conventional Sounder Beacon (DZ-9091K Base) | 1) Meets the requirements of EN 54-23 at the following:  
- Category C-3-8 + W-2.4-6  
- Flash rate 0.5Hz  
- One Mode (Light output synchronization)  
- Flash Colour White  
- For wall and ceiling mounting  
2) Meets the requirements of EN 54-3 at the following tone:  
- Tone 1: 667Hz - 2000Hz@0.22Hz |

### Bases:

- SB : Shallow base (type A)  
- DB : Deep base (type B)  

### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FF LSB550</th>
<th>Notes:</th>
</tr>
</thead>
</table>
| 1450a/01     | Intelligent Addressable Sounder Strobe Type A (Base with 86H50 Embedded Box) | Meets the requirements of EN 54-3: 2001 for the following tones:  
1) One Default Tone 3.5s ~ 4.5s |
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

FF ESF100+FF LX200
Altair Addressable Type A/B (Indoor/Outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (Red Body)

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization
3. Device is only addressable when used in conjunction with FF LX200

Ancillaries

FF LX200
Addressable module with Short Circuit Isolator

---

Fire Fighter CO Security and Safety Equipment Trading LLC
Al Qusais Industry Area 4, P O Box 84926, Dubai, United Arab Emirates
Tel: 00971-4-2554494
E-mail: mutasem@firefighterco1.ae


Audible Warning Devices

Certificated Products

FST-6737
Addressable Type A Indoor Digital Sounder Beacon (FST-6619 Base) (branded as FST)

Notes:
1. Meets the requirements of EN 54-3 and approved at the following tones:
   1) Tone 00, 2400Hz - 2900Hz @ 3Hz
   2) Tone 01, 2400Hz - 2900Hz @ 9Hz
   3) Tone 08, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off
   4) Tone 14, 1500Hz - 2700Hz @ 3Hz
2. The beacon function is not included within the scope of this approval

Bases

FST-6619 Mounting Base

---

Fireguard Global Ltd.
Unit 11 Chancel Industrial Estate, Newhall Street, Willenhall, West Midlands WV13 1NX, United Kingdom
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E-mail: info@fireguard-uk.com • Website: www.fireguard-uk.com


Certificated Products

FG-0218
Conventional Fire Alarm Bell

FG-03127S
Conventional Type B Electronic Sounder (FG-03127MB)

Note:
Meets the requirements of EN 54-3:2001 at the following tones:
   1 - Alternating Tones 800/970Hz at 2Hz
   2 - Sweeping 800/970Hz at 7Hz

FG-03127BS
Conventional Type B Electronic Sounder Beacon (FG-03127MB)

Notes:
1. Meets the requirements of EN54-3: 2001 at the following tones:
   1-Alternating Tones 800/970Hz at 2Hz
2-Sweeping 800/970Hz at 7Hz.

2. The beacon functionality is not included within the scope of approval.

Certificated Products

FSCWS + FSIMSB

G2 Addressable Type A (indoor) Wall Sounder with Short Circuit Isolator

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

2. Device is only addressable when used in conjunction with FSIMSB

FSIMSB

G2 Addressable Type A (indoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

3. Device is only addressable when used in conjunction with FSIMSB

FSIWLS

G2 Addressable Type A Sounder Base

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms
   Tone 2 - Continuous Tone, 1000Hz, Steady
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz, 3500ms Sweep, 500ms OFF
   Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)

FSIWLSB

G2 Addressable Type A Sounder Beacon Base

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms
   Tone 2 - Continuous Tone, 1000Hz, Steady
   Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
   Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)

2. The beacon functionality is not included within the scope of this approval
3. Cover plate (LID100-AL/W or AL/R)

FSCWSB  G2 Conventional Type A (indoor) Wall Sounder and Visual Alarm Device
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

FSIPS  G2 Conventional Slave 32 Tone Platform Sounder Base
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:
   - LF Sweep (Cranford sweep) (800-1000Hz @ 0.5s)
   - Warble Tone BS (800-1000Hz @ 0.5s)
   - Slow Whoop (Dutch) Sweep Tone (500-1200Hz for 3.5s on, 0.5s off)
   - German DIN Tone (1200-500Hz @ 1Hz)
   - French Tone AFNOR (554Hz for 100ms and 440Hz for 400ms)

Detectors:
FSROD2  Wireless Intelligent Optical Smoke Detector
FSRMS2  Wireless Intelligent Multi-Criteria Detector
FSRHD2  Wireless Intelligent Heat Detector

Ancillaries
FSIMSB  Addressable module with short circuit isolator

FIREX Protection System Technology Ltd
28-38 Desborough St, High Wycombe, Buckinghamshire, United Kingdom
Tel: 00971 653 40300 • Fax: 00971 653 40090
E-mail: QC@firexuae.com • Website: www.firexuae.com


Audible Warning Devices
Certificated Products

FX9403  Conventional sounder strobe (Shallow Base and FX94DB Base)
Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 01: 2800Hz 0.34s off/0.4s on
   - Tone 02: 2400Hz - 2900Hz @ 3Hz
2. The strobe function is not in the scope of this approval.

FX9403I  Intelligent sounder strobe (Shallow Base and FX94DB Base)
Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 16: 500HZ - 1200Hz, 3.75s on / 0.25s off
   - Pre Alarm: 800Hz, 1s on / 1s off
2. Approved in both normal and power saving mode
3. The visual alarm function is not in the scope of this approval
4. Approved with single address and dual address (pre-alarm and main alarm).

FX9406I  Analogue Addressable Indoor Sounder Beacon Base (FX9103I & FX9102I detectors and DZ-03 Base)
Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 14: 2400Hz - 2900Hz @ 3Hz
   - Tone 16: 500HZ - 1200Hz, 3.75s on / 0.25s off
2. Approved with FX9103I heat detector and FX9102I smoke detector
3. The beacon function is not in the scope of this approval
4. Approved with single address and dual address (pre-alarm and main alarm).

FX9404  Conventional Type A Sounder (Shallow base, FX94DB Deep Base)
Note:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 01: 2800Hz 0.34s off/0.4s on
   - Tone 02: 2400Hz - 2900Hz @ 3Hz
## PART 1: SECTION 7
### ALARM WARNING DEVICES

**Certificated Products**

**FX9404I**
Intelligent Type A Sounder (Shallow base, FX94DB Deep base)

*Note:* 1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 14: 2400Hz - 2900Hz @ 3Hz
   - Tone 16: 500Hz - 1200Hz, 3.75s on / 0.25s off
   - Pre-Alarm: 800Hz 1s on / 1s off

**FX9405E**
Analogue Addressable Type A Sounder Base (FX-01 Base)

*Notes:*
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 14: 2400Hz - 2900Hz @ 3Hz
   - Tone 16: 500Hz - 1200Hz, 3.75s on / 0.25s off
2. Approved with FX9103E heat detector and FX9102E smoke detector

**FX9406E**
Analogue Addressable Type A Flashing Sounder Beacon Base (FX-01 Base)

*Notes:*
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 14: 2400Hz - 2900Hz @ 3Hz
   - Tone 16: 500Hz - 1200Hz, 3.75s on / 0.25s off
2. Approved with FX9103E heat detector and FX9102E smoke detector
3. The visual alarm function is not in the scope of this approval

**Bases:**
- Shallow Base
- FX94DB Deep Base
- DZ-03 Standard Base
- FX-01 Standard Base

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**Frontier Safety Ltd UK**
85 Great Portland Street, London, England W1W 7, United Kingdom
Tel: 00447708000050
E-mail: mikefrontiersafety@gmail.com • Website: www.frontierpumps.com


**Certificated Products**

**FRN 91C**
Conventional Sounder Beacon (DZ-9091K Base)

*Notes:*
1) Meets the requirements of EN 54-23 at the following:
   - Category C-3-8 + W-2.4-6
   - Flash rate 0.5Hz
   - One Mode (Light output synchronization)
   - Flash Colour White
   - For wall and ceiling mounting
2) Meets the requirements of EN 54-3 at the following tone:
   - Tone 1: 667Hz - 2000Hz @ 0.22Hz

**FRN 91**
Addressable Sounder Beacon (DZ-9091 Base)

*Notes:*
1) Meets the requirement of EN 54-23 at the following:
   - Category C-3-8 + W-2.4-6
   - Flash Rate 0.5Hz
   - One Mode (Light output synchronization)
   - Flash Colour White
   - For wall and ceiling mounting
2) Meets the requirements of EN 54-3 at the following tone:
   - Tone 1: 667Hz - 2000Hz @ 0.22Hz

**Base**
- DZ-9091K
- DZ-9091


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### Certificated Products

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<tr>
<th>FRN 92</th>
<th>Red Loop Sounder with Visual Indicator (DZ-9091K Base)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>Meets the requirements of EN 54-3 at the following tone:</td>
</tr>
<tr>
<td></td>
<td>Sweep tone 667Hz-2kHz @0.21Hz</td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>1426h/01</td>
</tr>
</tbody>
</table>


### Certificated Products

<table>
<thead>
<tr>
<th>FRN 97</th>
<th>Addressable Type A (Indoor) Sounder Beacon Base (Standard Mounting Bracket)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>Meets the requirements of EN 54-3: 2014 at the following tones</td>
</tr>
<tr>
<td></td>
<td>Sweep Tone 667Hz - <a href="mailto:2KHz@0.21Hz">2KHz@0.21Hz</a></td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>1426j/01</td>
</tr>
</tbody>
</table>

### Accessories

- Standard Mounting Bracket

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**Gent By Honeywell (Novar Systems Ltd)**

140 Waterside Road, Hamilton Industrial Park, Leicester LE5 1TN, United Kingdom

Tel: +44 (0)116 246 2000 • Fax: +44 (0)116 246 2300

E-mail: gent_enquiry@gent.co.uk • Website: www.gent.co.uk


Certificate No: 042bt to EN54-17:2005, EN54-23:2010


### Certificated Products

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<thead>
<tr>
<th>S3EP-VAD-HPW-R</th>
<th>S-Cubed Type A White High Performance VAD Red Body with Short Circuit Isolator (Back Box)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-23 at the following power settings:</td>
</tr>
<tr>
<td></td>
<td>• Low white output</td>
</tr>
<tr>
<td></td>
<td>• Medium white output</td>
</tr>
<tr>
<td></td>
<td>• High white output</td>
</tr>
<tr>
<td></td>
<td>2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:</td>
</tr>
<tr>
<td></td>
<td>• High Performance setting - (Category W: W-5-12.5)</td>
</tr>
<tr>
<td></td>
<td>• Medium Performance setting - (Category W: W-4.5-11.3)</td>
</tr>
<tr>
<td></td>
<td>• Low Performance setting - (Category W: W-3-8.5)</td>
</tr>
<tr>
<td></td>
<td>• Synchronization</td>
</tr>
<tr>
<td></td>
<td>• Flash rate 2 seconds (0.5Hz)</td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>042bt/03</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S3EP-VAD-HPR-R</th>
<th>S-Cubed Type A Red High Performance VAD Red Body with Short Circuit Isolator (Back Box)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>1. Meets the requirements of EN 54-23 at the following power settings:</td>
</tr>
<tr>
<td></td>
<td>• Low red output</td>
</tr>
<tr>
<td></td>
<td>• Medium red output</td>
</tr>
<tr>
<td></td>
<td>• High red output</td>
</tr>
<tr>
<td></td>
<td>2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:</td>
</tr>
<tr>
<td></td>
<td>• High Performance setting - (Category W: W-6.7-14)</td>
</tr>
<tr>
<td></td>
<td>• Medium Performance setting - (Category W: W-6.5-12.5)</td>
</tr>
<tr>
<td></td>
<td>• Low Performance setting - (Category W: W-5-9.5)</td>
</tr>
<tr>
<td></td>
<td>• Synchronization</td>
</tr>
<tr>
<td></td>
<td>• Flash rate 2 seconds (0.5Hz)</td>
</tr>
<tr>
<td>LPCB Ref. No.</td>
<td>042bt/04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S3EP-V-HPW-R</th>
<th>S-Cubed Type A White High Performance VAD Red Body Voice Sounder with Short</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPCB Ref. No.</td>
<td>042bs/07</td>
</tr>
</tbody>
</table>
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**ALARM WARNING DEVICES**

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<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Circuit Isolator (Back Box)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following sounder tone and speech settings:</td>
<td></td>
</tr>
<tr>
<td>1. Intermittent tone 970Hz @ 1Hz (Speech Message 3)</td>
<td></td>
</tr>
<tr>
<td>2. Alternating tone 730/970Hz @ 2Hz (Speech Message 5)</td>
<td></td>
</tr>
<tr>
<td>3. Continuous tone 970Hz</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-23 at the following power settings:</td>
<td></td>
</tr>
<tr>
<td>- Low white output</td>
<td></td>
</tr>
<tr>
<td>- Medium white output</td>
<td></td>
</tr>
<tr>
<td>- High white output</td>
<td></td>
</tr>
<tr>
<td>3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:</td>
<td></td>
</tr>
<tr>
<td>- High Performance setting - (Category W: W-5.12.5)</td>
<td></td>
</tr>
<tr>
<td>- Medium Performance setting - (Category W: W-4.5-11.3)</td>
<td></td>
</tr>
<tr>
<td>- Low Performance setting - (Category W: W-3-8.5)</td>
<td></td>
</tr>
<tr>
<td>- Synchronization</td>
<td></td>
</tr>
<tr>
<td>- Flash rate 2 seconds (0.5Hz)</td>
<td></td>
</tr>
</tbody>
</table>

S3EP-V-VAD-HPR-R S-Cubed Type A Red High Performance VAD Red Body Voice Sounder with Short Circuit Isolator (Back Box) 042bs/10

Notes:

1. Meets the requirements of EN 54-3 at the following sounder tone and speech settings:
   1. Intermittent tone 970Hz @ 1Hz (Speech Message 3)
   2. Alternating tone 730/970Hz @ 2Hz (Speech Message 5)
   3. Continuous tone 970Hz

2. Meets the requirements of EN 54-23 at the following power settings:
   - Low red output
   - Medium red output
   - High red output

3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-6.7-14)
   - Medium Performance setting - (Category W: W-6.5-12.5)
   - Low Performance setting - (Category W: W-5-9.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

S3EP-S-R S-Cubed Type A Red Body Sounder with Short Circuit Isolator (Back Box) 042bj/25

Notes:

1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

S3-S-VAD-HPR-R S-Cubed Type A Red High Performance VAD Red Body Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases) 042bs/01

Notes:

1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

2. Meets the requirements of EN 54-23 at the following power settings:
   - Low red output
   - Medium red output
   - High red output

3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-6.7-14)
   - Medium Performance setting - (Category W: W-6.5-12.5)
   - Low Performance setting - (Category W: W-5-9.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

S3-S-VAD-HPR-W S-Cubed Type A Red High Performance VAD White Body Sounder with Short Circuit Isolator (S3-DB-W and S3-SB-W Bases) 042bs/02

Notes:

1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

2. Meets the requirements of EN 54-23 at the following power settings:
   - Low red output
   - Medium red output
   - High red output
3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-6.7-14)
   - Medium Performance setting - (Category W: W-6.5-12.5)
   - Low Performance setting - (Category W: W-5-9.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

S3-S-VAD-HPW-W S-Cubed Type A White High Performance VAD White Body Sounder with Short Circuit Isolator (S3-DB-W and S3-SB-W Bases) 042bs/06
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz
   2. Meets the requirements of EN 54-23 at the following power settings:
      - Low white output
      - Medium white output
      - High white output

3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-5-12.5)
   - Medium Performance setting - (Category W: W-4.5-11.3)
   - Low Performance setting - (Category W: W-3-8.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

S3-V-VAD-HPR-R S-Cubed Type A Red High Performance VAD Red Body Voice Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases) 042bs/05
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone and speech settings:
   1. Intermittent tone 970Hz @ 1Hz (Speech Message 3)
   2. Alternating tone 730/970Hz @ 2Hz (Speech Message 5)
   3. Continuous tone 970Hz
   2. Meets the requirements of EN 54-23 at the following power settings:
      - Low red output
      - Medium red output
      - High red output

3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-6.7-14)
   - Medium Performance setting - (Category W: W-6.5-12.5)
   - Low Performance setting - (Category W: W-5-9.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)
The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
- High Performance setting - (Category W: W-5.12.5)
- Medium Performance setting - (Category W: W-4.5-11.3)
- Low Performance setting - (Category W: W-3-8.5)
- Synchronization
- Flash rate 2 seconds (0.5Hz)

S3-S-VAD-LPR-R
S-Cubed Type A Red Standard Performance VAD Red Body Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
042bs/11
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

S3-S-VAD-LPW-R
S-Cubed Type A White Standard Performance VAD Red Body Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
042bs/12
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

S3-S-R
S-Cubed Type A Red Body Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
042bj/21
Note:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

S3-V-R
S-Cubed Type A Red Body Voice Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
042bj/22
Note:
1. Meets the requirements of EN 54-3 at the following sounder tone and speech settings:
   1. Intermittent tone 970Hz @ 1Hz (Speech Message 3)
   2. Alternating tone 730/970Hz @ 2Hz (Speech Message 5)

S3-S-W
S-Cubed Type A White Body Sounder with Short Circuit Isolator (S3-DB-W and S3-SB-W Bases)
042bj/23
Note:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz

S3-V-W
S-Cubed Type A White Body Voice Sounder with Short Circuit Isolator (S3-DB-W and S3-SB-W Bases)
042bj/24
Note:
1. Meets the requirements of EN 54-3 at the following sounder tone and speech settings:
   1. Intermittent tone 970Hz @ 1Hz (Speech Message 3)
   2. Alternating tone 730/970Hz @ 2Hz (Speech Message 5)
   3. Continuous tone 970Hz

S3-VDAD-HPR-R
S-Cubed Type A Red High Performance VAD Red Body with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
042bl/01
Notes:
1. Meets the requirements of EN 54-23 at the following power settings:
   - Low red output
   - Medium red output
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products | LPCB Ref. No.
----------------------|---------------------
- High red output

2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
- High Performance setting - (Category W: W-6.7-14)
- Medium Performance setting - (Category W: W-6.5-12.5)
- Low Performance setting - (Category W: W-5.9.5)
- Synchronization
- Flash rate 2 seconds (0.5Hz)

S3-VAD-HPW-R
S-Cubed Type A White High Performance VAD Red Body with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)

042bt/02

Notes:
1. Meets the requirements of EN 54-23 at the following power settings:
- Low white output
- Medium white output
- High white output

2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
- High Performance setting - (Category W: W-5-12.5)
- Medium Performance setting - (Category W: W-4.5-11.3)
- Low Performance setting - (Category W: W-3-8.5)
- Synchronization
- Flash rate 2 seconds (0.5Hz)

S3-SN-R-BC
Backwards Compatible (MK1) Type A Sounder / Red Body (S3-DB-R and S3-SB-R Bases)

042bj/26

Note:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
- Intermittent tone 970Hz @ 1Hz
- Alternating tone 730/970Hz @ 2Hz
- Continuous tone 970Hz

2. Approved in both normal and power saving mode

S3-SN-ST-RR-BC
Backwards Compatible (MK1) Type A Sounder - Strobe / Red Body (S3-DB-R and S3-SB-R Bases)

042bj/27

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
- Intermittent tone 970Hz @ 1Hz
- Alternating tone 730/970Hz @ 2Hz
- Continuous tone 970Hz

Bases:
- Shallow Base
- Deep Base
- Black Box

Note - All products may be used with either base

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Audible Warning Devices
Certificated Products | LPCB Ref. No.
---------------------|---------------------
C-9403
Conventional sounder strobe (Shallow Base and C-94DB Base)
Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   Tone 01 2800Hz 0.34s off/0.4s on   Tone 02 2400Hz -2900Hz @3Hz
2. The strobe function is not in the scope of this approval.

I-9403
Intelligent sounder strobe (Shallow Base and C-94DB Base)
Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   Tone 14 2400Hz - 2900Hz @ 3Hz
   Tone 16 5000Hz - 1200Hz, 3.75s on / 0.25s off
   Pre Alarm 800Hz, 1s on / 1s off
2. Approved in both normal and power saving mode

548e/01
548e/02
## PART 1: SECTION 7
### ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. The visual alarm function is not in the scope of this approval</td>
<td>548e/03</td>
</tr>
<tr>
<td>4. Approved with single address and dual address (pre-alarm and main alarm).</td>
<td>548e/04</td>
</tr>
<tr>
<td>I-9406 Analogue Addressable Indoor sounder Beacon Base (I-9102, I-9103 detectors and DZ-03 base)</td>
<td>548e/05</td>
</tr>
<tr>
<td>Notes: 1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Tone 14 2400Hz - 2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 16 500Hz - 1200Hz, 3.75s on / 0.25s off</td>
<td></td>
</tr>
<tr>
<td>2. The beacon functionality is not approved to EN54-23</td>
<td></td>
</tr>
<tr>
<td>3. Approved with P-9907 cover plate</td>
<td></td>
</tr>
<tr>
<td>4. Approved with I-9103 heat detector and I-9102 smoke detector</td>
<td></td>
</tr>
<tr>
<td>C-9404 Conventional Type A Sounder (Shallow base, C-94DB Deep Base)</td>
<td>548e/06</td>
</tr>
<tr>
<td>Note: 1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<tr>
<td>Tone 01 2800Hz 0.34s off/0.4s on</td>
<td></td>
</tr>
<tr>
<td>Tone 02 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td>I-9404 Intelligent Type A Sounder (Shallow base, C-94DB Deep base)</td>
<td>548e/07</td>
</tr>
<tr>
<td>Notes: 1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 16 500Hz-1200Hz, 3.75s/0.25s off</td>
<td></td>
</tr>
<tr>
<td>Pre-Alarm 800Hz 1s off / 1s on</td>
<td></td>
</tr>
<tr>
<td>DI-9405 Analogue Addressable Type A Sounder Base (DB-01 base)</td>
<td>810g/01</td>
</tr>
<tr>
<td>Notes: 1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 16 500Hz-1200Hz, 3.75s on/0.25s off</td>
<td></td>
</tr>
<tr>
<td>2. Approved with DI-9103 heat detector and DI-9102 smoke detector</td>
<td></td>
</tr>
<tr>
<td>DI-9406 Analogue Addressable Type A Flashing Sounder Beacon Base (DB-01 base)</td>
<td>810g/02</td>
</tr>
<tr>
<td>Notes: 1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 16 500Hz-1200Hz, 3.75s on/0.25s off</td>
<td></td>
</tr>
<tr>
<td>2. Approved with DI-9103 heat detector and DI-9102 smoke detector</td>
<td></td>
</tr>
<tr>
<td>3. The visual alarm function is not in the scope of this approval</td>
<td></td>
</tr>
</tbody>
</table>

### Bases
- Shallow Base
- C-94DB Deep base
- DZ-03 Standard base

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**Audible Warning Devices**

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>55000-001HSL XP95 Type B intelligent open area sounder (Red)</td>
<td>810g/01</td>
</tr>
<tr>
<td>(45681-518HSL enhanced deep isolating base)</td>
<td></td>
</tr>
<tr>
<td>Note: 1. Meets the requirements of EN 54-3:2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Apollo standard-840Hz,0.5s/558Hz,0.5s</td>
<td></td>
</tr>
<tr>
<td>Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>German DIN-1200-500Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>55000-005HSL Intelligent Open-Area Sounder Visual Indicator Red</td>
<td>810g/02</td>
</tr>
<tr>
<td>(45681-518HSL enhanced deep isolating base)</td>
<td></td>
</tr>
<tr>
<td>Notes: 1. Meets the requirements of EN 54-3:2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Apollo standard-840Hz,0.5s/558Hz,0.5s</td>
<td></td>
</tr>
<tr>
<td>Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>German DIN-1200-500Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>2. The Beacon function is not approved to EN 54-23</td>
<td></td>
</tr>
</tbody>
</table>
### PART 1: SECTION 7
ALARM WARNING DEVICES

**Bases:**
45681-518HSL

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E-mail: info@hochikieurope.com • Website: www.hochikieurope.com


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>YBO-BS(HFP)</td>
<td>164h/01</td>
</tr>
<tr>
<td>CHQ-WS2(WHT)</td>
<td>164h/02</td>
</tr>
<tr>
<td>CHQ-WS2/W</td>
<td>164h/02</td>
</tr>
<tr>
<td>YBO-BS</td>
<td>164h/01</td>
</tr>
<tr>
<td>CHQ-WS2</td>
<td>164h/02</td>
</tr>
</tbody>
</table>

- **YBO-BS(HFP)**: Intelligent Analogue Addressable Type A Base Sounder - White Version
  - (YBN-R/3, YBN-R/3(WHT), YBO-R/SCI(RED))
  - **Note:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

- **YBO-BS(WHT)**: Intelligent Analogue Addressable Type A Base Sounder - White Version
  - (YBN-R/3, YBN-R/3(WHT), YBO-R/SCI(RED))
  - **Note:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

- **CHQ-WS2(HFP)**: Intelligent Analogue Addressable Type A Wall Sounder
  - (YBN-R/3(WHT)-SCI, YBO-R/3(RED), YBO-R/3(WHT), YBO-R/SCI(RED))
  - **Note:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

- **CHQ-WS2(WHT)**: Intelligent Analogue Addressable Type A Wall Sounder
  - (YBN-R/3(WHT)-SCI, YBO-R/3(RED), YBO-R/3(WHT), YBO-R/SCI(RED))
  - **Note:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

- **CHQ-WS2/W**: Intelligent Analogue Addressable Type B Wall Sounder- Weatherproof Version
  - (YBN-R/3(WHT)-SCI, YBO-R/3(RED), YBO-R/3(WHT), YBO-R/SCI(RED))
  - **Notes:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.
    2. Includes a WS2-WPK Weatherproofing Kit

- **YBO-BS**: Intelligent Analogue Addressable Type A Base Sounder
  - (YBN-R/3, YBN-R/3(WHT), YBO-R/SCI(RED))
  - **Note:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

- **CHQ-WS2**: Intelligent Analogue Addressable Type A Wall Sounder
  - (YBN-R/3(WHT)-SCI, YBO-R/3(RED), YBO-R/3(WHT), YBO-R/SCI(RED))
  - **Note:**
    1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

**Bases:**
- YBN-R/3 Standard Base
- YBN-R/3(WHT) Standard Base
- YBN-R/3(WHT)-SCI Short Circuit Isolator Base
- YBO-R/SCI(RED) Short Circuit Isolator Base
- YBO-R/3(RED) Standard Base
- YBO-R/3(WHT) Standard Base

**Accessories:**
- WS2-WPK Weatherproofing Kit

**Approved Tones:**
1. 925 Hz : 250 ms / 628 Hz : 250 ms
2. 925 Hz Continuous
3. 628 Hz Continuous
4. (French) 554 Hz : 100 ms / 440 Hz : 400 ms
5. (Swedish) 660 Hz : 150 ms / Off : 150 ms
6. 925 Hz : 150 ms / Off : 600 ms
7. 670 Hz : 250 ms / 845 Hz : 370 ms
8. Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms
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ALARM WARNING DEVICES

9 - 1200 Hz : 500 ms / 500 Hz : 500 ms
10 - 970 Hz : 500 ms / Off : 500 ms
11 - Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)
12 - Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
13 - Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
14 - Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
15 - Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
16 - Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
17 - ISO8201: 970 Hz : 500 ms / Off : 500 ms
18 - ISO8201: 2850 Hz : 500 ms / Off : 500 ms
19 - 800 Hz : 250 ms / 970 Hz : 250 ms
20 - 2850 Hz Continuous
21 - 2400 Hz : 250 ms / 2850 Hz : 250 ms
22 - 800 Hz : 500 ms / 970 Hz : 500 ms
23 - 2850 Hz : 500 ms / Off : 500 ms
24 - 925 Hz : 250 ms / Off : 1000 ms
25 - 970 Hz Continuous
26 - 660 Hz : 1800 ms / Off: 1800 ms
27 - 660 Hz : 6500 ms / Off : 13000 ms
28 - 660 Hz Continuous
29 - 554 Hz : 500 ms / 440 Hz : 500 ms
30 - 660 Hz : 500 ms / Off : 500 ms
31 - 2850 Hz : 150 ms / Off : 100 ms
32 - Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
33 - Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
34 - 988 Hz : 250 ms / 645 Hz : 250 ms
35 - 510 Hz : 250 ms / 610 Hz : 250 ms
36 - Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
37 - Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
38 - 845 Hz Continuous
39 - 970 Hz : 1000 ms / Off : 1000 ms
40 - 800 Hz : 150 ms / 970 Hz : 150 ms
41 - Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)
42 - Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)
43 - 2850 Hz : 1000 ms / Off : 1000 ms
44 - 2400 Hz : 150 ms / 2850 Hz : 150 ms
45 - (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms
46 - 440 Hz : 600 ms / Off : 600 ms
47 - Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms
48 - ISO8201: 925 Hz, 628 Hz : 250 ms / Off 500 ms
49 - ISO8201: Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms
50 - ISO8201: Sweep 1200 Hz - 300 Hz / Off : 500 ms
51 - Whoop 500-1200 3500 ms / Off 500 ms

Certificate No: 164s to EN 54-23: 2010

Certificated Products

<table>
<thead>
<tr>
<th>CHQ-CB(RED)/WL-15</th>
<th>Addressable Ceiling VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-SB2(RL&amp;WL) &amp; YBO-BSB Bases)</th>
</tr>
</thead>
</table>

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - LOL 0: Flash rate 0.5Hz
   - Synchronization
2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - LOL 1: Flash rate 0.5Hz
   - Synchronization
3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - LOL 2: Flash rate 0.5Hz
   - Synchronization
4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - LOL 0: Flash rate 1Hz
   - Synchronization
5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - LOL 1: Flash rate 1Hz
   - Synchronization

LPCB Ref. No. 164s/01

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ALARM WARNING DEVICES

Certificated Products

CHQ-CB(WHT)/WL-15
Addressable Ceiling VAD (White LED)
(YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-SB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
   - LOL 1- Flash rate 1Hz
   - Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
   - LOL 2- Flash rate 1Hz
   - Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(RED)/WL
Addressable Ceiling VAD (White LED)
(YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-6.5, O-1.18-7.1, O-3.26-3.76
   - LOL 0- Flash rate 0.5Hz
   - Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-7.9, O-3.4-7.5, O-3.72-6.9
   - LOL 1- Flash rate 1Hz
   - Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
   - LOL 2- Flash rate 1Hz
   - Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
   - LOL 0- Flash rate 0.5Hz
   - Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
   - LOL 1- Flash rate 1Hz
   - Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
   - LOL 2- Flash rate 1Hz
   - Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(WHT)/WL
Addressable Ceiling VAD (White LED)
(YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-6.5, O-1.18-7.1, O-3.26-3.76
Certificated Products

- LOL 0: Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-7.9, O-3.4-7.5, O-3.72-6.9
- LOL 1: Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-10, O-4.3-10, O-4.6-5.42
- LOL 2: Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:- Light Coverage Distance O-2.2-5.2
- LOL 0: Flash rate 1Hz
- Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance O-2.4-5.9, O-2.75-5.1
- LOL 1: Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-7.5, O-3.2-7.5, O-3.5-6
- LOL 2: Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(RED)/RL
Addressable Ceiling VAD (Red LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-SB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-1.5, O-2.64-6.85, O-2.79-3.3
- LOL 0: Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-8.6, O-3.5-6.5, O-3.89-1.9
- LOL 1: Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-10, O-3.91-10, O-4.12-7.8, O-4.3-4.5
- LOL 2: Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:- Light Coverage Distance O-2.05-3.8
- LOL 0: Flash rate 1Hz
- Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance O-2.4-6.4, O-2.5-4.99, O-2.7-3
- LOL 1: Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-5.9, O-2.97-7.6, O-3.26-3.6
- LOL 2: Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(WHT)/RL
Addressable Ceiling VAD (Red LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-SB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-1.5, O-2.64-6.85, O-2.79-3.3
- LOL 0: Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-8.6, O-3.5-6.5, O-3.89-1.9
- LOL 1: Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-10, O-3.91-10, O-4.12-7.8, O-4.3-4.5
- LOL 2: Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:- Light Coverage Distance O-2.05-3.8
- LOL 0: Flash rate 1Hz
- Synchronization
## Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>CHQ-CB/WL-15 Addressable Ceiling VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&amp;WL) &amp; YBO-BSB Bases)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>164s/07</td>
<td>5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-2.4-6.4, O-2.5-4.99, O-2.7-3 - LOL 1: Flash rate 1Hz - Synchronization</td>
<td>1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-1.2-7.5, O-2.2-5, O-2.54-1.36 - LOL 0: Flash rate 0.5Hz - Synchronization</td>
</tr>
<tr>
<td></td>
<td>6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-11.4, O-3.6-11.17, O-3.88-4 - LOL 1: Flash rate 0.5Hz - Synchronization</td>
<td>2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-7.9, O-4.3-7.5, O-4.6-5.42 - LOL 2: Flash rate 0.5Hz - Synchronization</td>
</tr>
<tr>
<td></td>
<td>7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit</td>
<td>3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-10, O-4.3-10, O-4.6-5.42 - LOL 2: Flash rate 0.5Hz - Synchronization</td>
</tr>
</tbody>
</table>

### Notes:

1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-6.5, O-1.18-7.1, O-3.26-3.76 - LOL 0: Flash rate 0.5Hz - Synchronization
2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-7.9, O-3.4-7.5, O-3.72-6.9 - LOL 1: Flash rate 0.5Hz - Synchronization
3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-10, O-4.3-10, O-4.6-5.42 - LOL 2: Flash rate 0.5Hz - Synchronization

<table>
<thead>
<tr>
<th>CHQ-CB/WL Addressable Ceiling VAD (Red LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&amp;WL) &amp; YBO-BSB Bases)</th>
<th>Notes:</th>
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<tbody>
<tr>
<td>164s/08</td>
<td>4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-2.2-5.2 - LOL 0: Flash rate 1Hz - Synchronization</td>
</tr>
<tr>
<td>5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-2.4-5.9, O-2.75-5.1 - LOL 1: Flash rate 1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-7.5, O-3.2-7.5, O-3.5-6 - LOL 2: Flash rate 1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:

1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-3 -6.5, O-1.18-7.1, O-3.26-3.76 - LOL 0: Flash rate 0.5Hz - Synchronization
2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-7.9, O-3.4-7.5, O-3.72-6.9 - LOL 1: Flash rate 0.5Hz - Synchronization
3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-10, O-4.3-10, O-4.6-5.42 - LOL 2: Flash rate 0.5Hz - Synchronization

<table>
<thead>
<tr>
<th>CHQ-CB/RL Addressable Ceiling VAD (Red LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&amp;WL) &amp; YBO-BSB Bases)</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>164s/09</td>
<td>4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-2.2-5.2 - LOL 0: Flash rate 1Hz - Synchronization</td>
</tr>
<tr>
<td>5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-2.4-5.9, O-2.75-5.1 - LOL 1: Flash rate 1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance C-3-7.5, O-3.2-7.5, O-3.5-6 - LOL 2: Flash rate 1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit</td>
<td></td>
</tr>
</tbody>
</table>
categories: Light Coverage Distance C-3-1.5, O-2.6-6.85, O-2.79-3.3
- LOL 0- Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-8.6, O-3.5-6.5, O-3.89-1.9
- LOL 1- Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-10, O-3.91-10, O-4.12-7.8, O-4.3-4.5
- LOL 2- Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category: Light Coverage Distance O-2.05-3.8
- LOL 0- Flash rate 1Hz
- Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance O-2.4-6.4, O-2.5-4.99, O-2.7-3
- LOL 1- Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-5.9, O-2.97-7.6, O-3.26-3.6
- LOL 2- Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(RED)/WL-15-HFP
Addressable Ceiling VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)
Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance O-1.2-7.5, O-2.2-5, O-2.54-1.36
- LOL 0- Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-11.4, O-3.6-11.17, O-3.88-4
- LOL 1- Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-15.1, O-4.7-15, O-4.89-9.68, O-5-5.4
- LOL 2- Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance O-1.54-5.3, O-1.7-5
- LOL 0- Flash rate 1Hz
- Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-1.5, O-2.6-8
- LOL 1- Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
- LOL 2- Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(WHT)/WL-15-HFP
Addressable Ceiling VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)
Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance O-1.2-7.5, O-2.2-5, O-2.54-1.36
- LOL 0- Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-11.4, O-3.6-11.17, O-3.88-4
- LOL 1- Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance C-3-15.1, O-4.7-15, O-4.89-9.68, O-5-5.4
- LOL 2- Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: Light Coverage Distance O-1.54-5.3, O-1.7-5
- LOL 0- Flash rate 1Hz

164s/01
164s/02
5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-1.5, O-2.6-8
- LOL 1 - Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-10, O-3.6-11.3, O-3.7-4.27
- LOL 2 - Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(RED)/WL-HFP Addressable Ceiling VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases) 164s/03
Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-6.5, O-1.18-7.1, O-3.26-3.76
- LOL 0 - Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-7.9, O-3.4-7.5, O-3.72-6.9
- LOL 1 - Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-10, O-4.3-10, O-4.6-5.42
- LOL 2 - Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:- Light Coverage Distance O-2.2-5.2
- LOL 0 - Flash rate 1Hz
- Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance O-2.4-5.9, O-2.75-5.1
- LOL 1 - Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-7.5, O-3.2-7.5, O-3.5-6
- LOL 2 - Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(WHT)/WL-HFP Addressable Ceiling VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases) 164s/04
Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-6.5, O-1.18-7.1, O-3.26-3.76
- LOL 0 - Flash rate 0.5Hz
- Synchronization

2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-7.9, O-3.4-7.5, O-3.72-6.9
- LOL 1 - Flash rate 0.5Hz
- Synchronization

3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-10, O-4.3-10, O-4.6-5.42
- LOL 2 - Flash rate 0.5Hz
- Synchronization

4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:- Light Coverage Distance O-2.2-5.2
- LOL 0 - Flash rate 1Hz
- Synchronization

5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance O-2.4-5.9, O-2.75-5.1
- LOL 1 - Flash rate 1Hz
- Synchronization

6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:- Light Coverage Distance C-3-7.5, O-3.2-7.5, O-3.5-6
- LOL 2 - Flash rate 1Hz
- Synchronization

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(RED)/RL-HFP Addressable Ceiling VAD (Red LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases) 164s/05
Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-1.5, O-2.64-6.85, O-2.79-3.3
   - LOL 0: Flash rate 0.5Hz
   - Synchronization
2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-8.6, O-3.5-6.5, O-3.89-1.9
   - LOL 1: Flash rate 0.5Hz
   - Synchronization
3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.91-10, O-4.12-7.8, O-4.3-4.5
   - LOL 2: Flash rate 0.5Hz
   - Synchronization
4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:
   - Light Coverage Distance O-2.05-3.8
   - LOL 0: Flash rate 1Hz
   - Synchronization
5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2.4-6.4, O-2.5-4.99, O-2.7-3
   - LOL 1: Flash rate 1Hz
   - Synchronization
6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-5.9, O-2.97-7.6, O-3.26-3.6
   - LOL 2: Flash rate 1Hz
   - Synchronization
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-CB(WHT)/RL-HFP
Addressable Ceiling VAD (Red LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS,
YBO-BS2(RL&WL) & YBO-BSB Bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-1.5, O-2.64-6.85, O-2.79-3.3
   - LOL 0: Flash rate 0.5Hz
   - Synchronization
2. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-8.6, O-3.5-6.5, O-3.89-1.9
   - LOL 1: Flash rate 0.5Hz
   - Synchronization
3. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-10, O-3.91-10, O-4.12-7.8, O-4.3-4.5
   - LOL 2: Flash rate 0.5Hz
   - Synchronization
4. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following category:
   - Light Coverage Distance O-2.05-3.8
   - LOL 0: Flash rate 1Hz
   - Synchronization
5. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2.4-6.4, O-2.5-4.99, O-2.7-3
   - LOL 1: Flash rate 1Hz
   - Synchronization
6. The ceiling mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance C-3-5.9, O-2.97-7.6, O-3.26-3.6
   - LOL 2: Flash rate 1Hz
   - Synchronization
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit

CHQ-WSB2/WL
Addressable Type A/B Wall Sounder (White LED) Beacon (YBO-R/3(RED), YBO-R/SCI(RED) and YBN-R/3(WHT) bases)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with
   a WS2-WPK weatherproofing kit

Approved tones:
1. 925 Hz: 250 ms / 628 Hz: 250 ms
2. 925 Hz Continuous
3. 628 Hz Continuous
4. (French) 554 Hz: 100 ms / 440 Hz: 400 ms
5. (Swedish) 660 Hz: 150 ms / Off: 150 ms
6. 925 Hz: 150 ms / Off: 600 ms
7. 670 Hz: 250 ms / 845 Hz: 370 ms
### Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Whoop 500 Hz 1200 Hz : 3000 ms / Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 Hz : 500 ms</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz 970 Hz over 140 ms (7 Hz)</td>
</tr>
<tr>
<td>12</td>
<td>Sweep 800 Hz 970 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>13</td>
<td>Sweep 800 Hz 970 Hz over 20 ms (50 Hz)</td>
</tr>
<tr>
<td>14</td>
<td>Sweep 2400 Hz 2850 Hz over 140 ms (7 Hz)</td>
</tr>
<tr>
<td>15</td>
<td>Sweep 2400 Hz 2850 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>16</td>
<td>Sweep 300 Hz 1200 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>17</td>
<td>ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>18</td>
<td>ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>19</td>
<td>800 Hz : 250 ms / 970 Hz : 250 ms</td>
</tr>
<tr>
<td>20</td>
<td>2850 Hz Continuous</td>
</tr>
<tr>
<td>21</td>
<td>- 2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
</tr>
<tr>
<td>22</td>
<td>- 800 Hz : 500 ms / 970 Hz : 500 ms</td>
</tr>
<tr>
<td>23</td>
<td>- 2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>24</td>
<td>- 925 Hz : 250 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>25</td>
<td>- 970 Hz Continuous</td>
</tr>
<tr>
<td>26</td>
<td>- 660 Hz : 1800 ms / Off : 1800 ms</td>
</tr>
<tr>
<td>27</td>
<td>- 660 Hz : 6500 ms / Off : 13000 ms</td>
</tr>
<tr>
<td>28</td>
<td>- 660 Hz Continuous</td>
</tr>
<tr>
<td>29</td>
<td>- 554 Hz : 500 ms / 440 Hz : 500 ms</td>
</tr>
<tr>
<td>30</td>
<td>- 660 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>31</td>
<td>- 2850 Hz : 150 ms / Off : 100 ms</td>
</tr>
<tr>
<td>32</td>
<td>- Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
</tr>
<tr>
<td>33</td>
<td>- Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
</tr>
<tr>
<td>34</td>
<td>- 988 Hz : 250 ms / 645 Hz : 250 ms</td>
</tr>
<tr>
<td>35</td>
<td>- 510 Hz : 250 ms / 610 Hz : 250 ms</td>
</tr>
<tr>
<td>36</td>
<td>- Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
</tr>
<tr>
<td>37</td>
<td>- Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
</tr>
<tr>
<td>38</td>
<td>- 845 Hz Continuous</td>
</tr>
<tr>
<td>39</td>
<td>- 970 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>40</td>
<td>- 800 Hz : 150 ms / 970 Hz : 150 ms</td>
</tr>
<tr>
<td>41</td>
<td>- Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
</tr>
<tr>
<td>42</td>
<td>- Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
</tr>
<tr>
<td>43</td>
<td>- 2850 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>44</td>
<td>- 2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
</tr>
<tr>
<td>45</td>
<td>- (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
</tr>
<tr>
<td>46</td>
<td>- 440 Hz : 600 ms / Off : 600 ms</td>
</tr>
<tr>
<td>47</td>
<td>- Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
</tr>
<tr>
<td>48</td>
<td>- ISO8201 : 925 Hz, 628 Hz : 250 ms / Off 500 ms</td>
</tr>
<tr>
<td>49</td>
<td>- ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>50</td>
<td>- ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>51</td>
<td>- Whoop 500-1200 3500 ms / Off 500 ms</td>
</tr>
</tbody>
</table>

**CHQ-WSB2/RL**

Addressable Type A/B Wall Sounder (Red LED) Beacon

YBO-R/SCI(RED) and YBN-R/3(WHT) bases)

**Notes:**

1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit

**Approved tones:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>925 Hz Continuous</td>
</tr>
<tr>
<td>3</td>
<td>628 Hz Continuous</td>
</tr>
<tr>
<td>4</td>
<td>(French) 554 Hz : 100 ms / 440 Hz : 400 ms</td>
</tr>
<tr>
<td>5</td>
<td>(Swedish) 660 Hz : 150 ms / Off : 150 ms</td>
</tr>
<tr>
<td>6</td>
<td>925 Hz : 150 ms / Off : 600 ms</td>
</tr>
<tr>
<td>7</td>
<td>670 Hz : 250 ms / 845 Hz : 370 ms</td>
</tr>
<tr>
<td>8</td>
<td>Whoop 500 Hz 1200 Hz : 3000 ms / Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 Hz : 500 ms</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz 970 Hz over 140 ms (7 Hz)</td>
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<td>16</td>
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</tr>
<tr>
<td>17</td>
<td>ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>18</td>
<td>ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
</tbody>
</table>
### Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>LPCB Ref. No.</th>
<th>CHQ-WSB2(WHT)/WL Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>2080 Hz : 250 ms / 970 Hz : 250 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>20</td>
<td>2850 Hz Continuous</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>- 2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>- 800 Hz : 500 ms / 970 Hz : 500 ms</td>
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</tr>
<tr>
<td>23</td>
<td>- 2850 Hz : 500 ms / Off : 500 ms</td>
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<td>- 970 Hz Continuous</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>- 660 Hz : 1800 ms / Off : 1800 ms</td>
<td></td>
</tr>
<tr>
<td>27</td>
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<tr>
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<td>- 554 Hz : 500 ms / 440 Hz : 500 ms</td>
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<td>30</td>
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<td>31</td>
<td>- 2850 Hz : 150 ms / Off : 100 ms</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>- Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
<td></td>
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<tr>
<td>33</td>
<td>- Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
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<tr>
<td>34</td>
<td>- 988 Hz : 250 ms / 645 Hz : 250 ms</td>
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<td>35</td>
<td>- 510 Hz : 250 ms / 610 Hz : 250 ms</td>
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<tr>
<td>36</td>
<td>- Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
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<tr>
<td>37</td>
<td>- Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
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</tr>
<tr>
<td>38</td>
<td>- 845 Hz Continuous</td>
<td></td>
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<tr>
<td>39</td>
<td>- 970 Hz : 1000 ms / Off : 1000 ms</td>
<td></td>
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<td>40</td>
<td>- 800 Hz : 150 ms / 970 Hz : 150 ms</td>
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<tr>
<td>41</td>
<td>- Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
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<td>42</td>
<td>- Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
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</tr>
<tr>
<td>43</td>
<td>- 2850 Hz : 1000 ms / Off : 1000 ms</td>
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<tr>
<td>44</td>
<td>- 2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
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<tr>
<td>45</td>
<td>- (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
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<tr>
<td>46</td>
<td>- 440 Hz : 600 ms / Off : 600 ms</td>
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<tr>
<td>47</td>
<td>- Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
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</tr>
<tr>
<td>48</td>
<td>- ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
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<tr>
<td>49</td>
<td>- ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
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<tr>
<td>50</td>
<td>- ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
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</tr>
<tr>
<td>51</td>
<td>- Whoop 500-1200 3500 ms / Off 500 ms</td>
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### Notes:
1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit.

**Approved tones:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Tone Description</th>
<th>Duration</th>
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<tbody>
<tr>
<td>1</td>
<td>925 Hz : 250 ms / 628 Hz : 250 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<td>2</td>
<td>925 Hz Continuous</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>3</td>
<td>628 Hz Continuous</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>4</td>
<td>(French) 554 Hz : 100 ms / 440 Hz : 400 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>5</td>
<td>(Swedish) 660 Hz : 150 ms / Off : 150 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>6</td>
<td>925 Hz : 150 ms / Off : 600 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>7</td>
<td>670 Hz : 250 ms / 845 Hz : 370 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>8</td>
<td>Whoop 500 Hz 1200 Hz : 3000 ms / Off : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz 970 Hz over 140 ms (7 Hz)</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>12</td>
<td>Sweep 800 Hz 970 Hz over 1000 ms (1 Hz)</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>13</td>
<td>Sweep 800 Hz 970 Hz over 20 ms (50 Hz)</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>14</td>
<td>Sweep 2400 Hz 2850 Hz over 140 ms (7 Hz)</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>15</td>
<td>Sweep 2400 Hz 2850 Hz over 1000 ms (1 Hz)</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>16</td>
<td>Sweep 300 Hz 1200 Hz over 1000 ms (1 Hz)</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>17</td>
<td>ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>18</td>
<td>ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>19</td>
<td>800 Hz : 250 ms / 970 Hz : 250 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>20</td>
<td>2850 Hz Continuous</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>21</td>
<td>- 2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>22</td>
<td>- 800 Hz : 500 ms / 970 Hz : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>23</td>
<td>- 2850 Hz : 500 ms / Off : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>24</td>
<td>- 925 Hz : 250 ms / Off : 1000 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
</tr>
<tr>
<td>25</td>
<td>- 970 Hz Continuous</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>26</td>
<td>- 660 Hz : 1800 ms / Off : 1800 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>27</td>
<td>- 660 Hz : 6500 ms / Off : 13000 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>28</td>
<td>- 660 Hz Continuous</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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<tr>
<td>29</td>
<td>- 554 Hz : 500 ms / 440 Hz : 500 ms</td>
<td>Addressable Type A/B Wall Sounder (White LED) Beacon and YBN-R/3(WHT)-SCI bases)</td>
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PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>660 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>31</td>
<td>2850 Hz : 150 ms / Off : 100 ms</td>
</tr>
<tr>
<td>32</td>
<td>Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
</tr>
<tr>
<td>33</td>
<td>Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
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<tr>
<td>34</td>
<td>988 Hz : 250 ms / 645 Hz : 250 ms</td>
</tr>
<tr>
<td>35</td>
<td>510 Hz : 250 ms / 610 Hz : 250 ms</td>
</tr>
<tr>
<td>36</td>
<td>Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
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<tr>
<td>37</td>
<td>Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
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<td>845 Hz Continuous</td>
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<td>970 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>40</td>
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<td>42</td>
<td>Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
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<td>43</td>
<td>2850 Hz : 150 ms / 2850 Hz : 150 ms</td>
</tr>
<tr>
<td>44</td>
<td>2400 Hz : 150 ms / 2400 Hz : 150 ms</td>
</tr>
<tr>
<td>45</td>
<td>(German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
</tr>
<tr>
<td>46</td>
<td>440 Hz : 600 ms / Off : 600 ms</td>
</tr>
<tr>
<td>47</td>
<td>Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
</tr>
<tr>
<td>48</td>
<td>ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
</tr>
<tr>
<td>49</td>
<td>ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>50</td>
<td>ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>51</td>
<td>Whoop 500-1200 3500 ms / Off 500 ms</td>
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</table>

CHQ-WSB2(WHT)/RL Addressable Type A/B Wall Sounder (Red LED) Beacon (YBO-R/3(WHT) and YBN-R/3(WHT)-SCI bases)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit

Approved tones:
1. 925 Hz : 250 ms / 628 Hz : 250 ms
2. 925 Hz Continuous
3. 628 Hz Continuous
4. (French) 554 Hz : 100 ms / 440 Hz : 400 ms
5. (Swedish) 660 Hz : 150 ms / Off : 150 ms
6. 925 Hz : 150 ms / Off : 600 ms
7. 670 Hz : 250 ms / 845 Hz : 370 ms
8. Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms
9. 1200 Hz : 500 ms / 500 Hz : 500 ms
10. 970 Hz : 500 ms / Off : 500 ms
11. Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)
12. Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
13. Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
14. Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
15. Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
16. Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
17. ISO8201 : 970 Hz : 500 ms / Off : 500 ms
18. ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms
19. 800 Hz : 250 ms / 970 Hz : 250 ms
20. 2850 Hz Continuous
21. 2400 Hz : 250 ms / 2850 Hz : 250 ms
22. 800 Hz : 500 ms / 970 Hz : 500 ms
23. 2850 Hz : 500 ms / Off : 500 ms
24. 925 Hz : 250 ms / Off : 1000 ms
25. 970 Hz Continuous
26. 660 Hz : 1800 ms / Off: 1800 ms
27. 660 Hz : 6500 ms / Off : 13000 ms
28. 660 Hz Continuous
29. 554 Hz : 500 ms / 440 Hz : 500 ms
30. 660 Hz : 500 ms / Off : 500 ms
31. 2850 Hz : 150 ms / Off : 100 ms
32. Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
33. Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
34. 988 Hz : 250 ms / 645 Hz : 250 ms
35. 510 Hz : 250 ms / 610 Hz : 250 ms
36. Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
37. Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
38. 845 Hz Continuous
39. 970 Hz : 1000 ms / Off : 1000 ms
40. 800 Hz : 150 ms / 970 Hz : 150 ms

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Approved tones:                    1  925 Hz : 250 ms / 628 Hz : 250 ms
                                            2  925 Hz Continuous
                                            3  628 Hz Continuous
                                            4  (French) 554 Hz : 100 ms / 440 Hz : 400 ms
                                            5  (Swedish) 660 Hz : 150 ms / Off : 150 ms
                                            6  925 Hz : 150 ms / Off: 600 ms
                                            7  670 Hz : 250 ms / 845 Hz : 370 ms
                                            8  Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms
                                            9  1200 Hz : 500 ms / 500 Hz : 500 ms
                                           10  970 Hz : 500 ms / Off : 500 ms
                                           11  Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)
                                           12  Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
                                           13  Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
                                           14  Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
                                           15  Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
                                           16  Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
                                           17  ISO8201 : 970 Hz : 500 ms / Off : 500 ms
                                           18  ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms
                                           19  800 Hz : 250 ms / 970 Hz : 250 ms
                                           20  2850 Hz Continuous
                                           21  2400 Hz : 250 ms / 2850 Hz : 250 ms
                                           22  800 Hz : 500 ms / 970 Hz : 500 ms
                                           23  2850 Hz : 500 ms / Off : 500 ms
                                           24  925 Hz : 250 ms / Off : 1000 ms
                                           25  970 Hz Continuous
                                           26  660 Hz : 1800 ms / Off: 1800 ms
                                           27  660 Hz : 6500 ms / Off : 13000 ms
                                           28  660 Hz Continuous
                                           29  554 Hz : 500 ms / 440 Hz : 500 ms
                                           30  660 Hz : 500 ms / Off : 500 ms
                                           31  2850 Hz : 150 ms / Off : 100 ms
                                           32  Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
                                           33  Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
                                           34  988 Hz : 250 ms / 645 Hz : 250 ms
                                           35  510 Hz : 250 ms / 610 Hz : 250 ms
                                           36  Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
                                           37  Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
                                           38  845 Hz Continuous
                                           39  970 Hz : 1000 ms / Off : 1000 ms
                                           40  800 Hz : 150 ms / 970 Hz : 150 ms
### Certificated Products

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<thead>
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<th>Description</th>
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<tr>
<td>41</td>
<td>- Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
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<tr>
<td>42</td>
<td>- Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
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<tr>
<td>43</td>
<td>- 2850 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>44</td>
<td>- 2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
</tr>
<tr>
<td>45</td>
<td>- (German) Whoop 1200 Hz : 1000ms / Off : 10 ms</td>
</tr>
<tr>
<td>46</td>
<td>- 440 Hz : 600 ms / Off : 600 ms</td>
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<tr>
<td>47</td>
<td>- Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
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<tr>
<td>48</td>
<td>- ISO8201 : 925 Hz, 628 Hz : 250 ms / Off 500 ms</td>
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<td>49</td>
<td>- ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
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<td>50</td>
<td>- ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>51</td>
<td>- Whoop 500-1200 3500 ms / Off 500 ms</td>
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**YBO-BSB2/RL**

Analogue Addressable Type A Base Sounder (Red LED) Beacon

<table>
<thead>
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<th>No.</th>
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<tr>
<td>53</td>
<td>2850 Hz Continuous</td>
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<tr>
<td>54</td>
<td>800 Hz : 250 ms / 970 Hz : 250 ms</td>
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<td>55</td>
<td>2850 Hz : 500 ms / Off : 500 ms</td>
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<tr>
<td>56</td>
<td>970 Hz Continuous</td>
</tr>
<tr>
<td>57</td>
<td>660 Hz : 1800 ms / Off: 1800 ms</td>
</tr>
<tr>
<td>58</td>
<td>660 Hz : 6500 ms / Off : 13000 ms</td>
</tr>
<tr>
<td>59</td>
<td>660 Hz Continuous</td>
</tr>
<tr>
<td>60</td>
<td>554 Hz : 500 ms / 440 Hz : 500 ms</td>
</tr>
<tr>
<td>61</td>
<td>660 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>62</td>
<td>2850 Hz : 150 ms / Off : 100 ms</td>
</tr>
<tr>
<td>63</td>
<td>- Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
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<tr>
<td>64</td>
<td>- Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
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<td>65</td>
<td>- 988 Hz : 250 ms / 645 Hz : 250 ms</td>
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<tr>
<td>66</td>
<td>- 510 Hz : 250 ms / 610 Hz : 250 ms</td>
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<tr>
<td>67</td>
<td>- Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
</tr>
<tr>
<td>68</td>
<td>- Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
</tr>
</tbody>
</table>

Notes:

1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.

Approved tones:

1. 925 Hz : 250 ms / 628 Hz : 250 ms
ALARM WARNING DEVICES

Certificated Products
- YBO-R/SCI(RED) and YBN-R/3(WHT) bases

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization

2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones

Approved tones:
1. 925 Hz : 250 ms / 628 Hz : 250 ms
   2. 925 Hz Continuous
   3. 628 Hz Continuous
   4. (French) 554 Hz : 100 ms / 440 Hz : 400 ms
   5. (Swedish) 660 Hz : 150 ms / Off : 150 ms
   6. 925 Hz : 150 ms / Off : 600 ms
   7. 670 Hz : 250 ms / 845 Hz : 370 ms
   8. Whoop 500 Hz 1200 Hz : 3000 ms / Off : 500 ms
   9. 1200 Hz : 500 ms / 500 Hz : 500 ms
   10. 970 Hz : 500 ms / Off : 500 ms
   11. Sweep 800 Hz 970 Hz over 140 ms (7 Hz)
   12. Sweep 800 Hz 970 Hz over 1000 ms (1 Hz)
   13. Sweep 800 Hz 970 Hz over 20 ms (50 Hz)
   14. Sweep 2400 Hz 2850 Hz over 140 ms (7 Hz)
   15. Sweep 2400 Hz 2850 Hz over 1000 ms (1 Hz)
   16. Sweep 300 Hz 1200 Hz over 1000 ms (1 Hz)
   17. ISO8201 : 970 Hz : 500 ms / Off : 500 ms
   18. ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
   19. 800 Hz : 250 ms / 970 Hz : 250 ms
   20. 2850 Hz Continuous
   21. - 2400 Hz : 250 ms / 2850 Hz : 250 ms
   22. - 800 Hz : 500 ms / 970 Hz : 500 ms
   23. - 2850 Hz : 500 ms / Off : 500 ms
   24. - 925 Hz : 250 ms / Off : 1000 ms
   25. - 970 Hz Continuous
   26. - 660 Hz : 1800 ms / Off : 1800 ms
   27. - 660 Hz : 6500 ms / Off : 13000 ms
   28. - 660 Hz Continuous
   29. - 554 Hz : 500 ms / 440 Hz : 400 ms
   30. - 660 Hz : 500 ms / Off : 500 ms
   31. - 2850 Hz : 150 ms / Off : 100 ms
   32. - Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
   33. - Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
   34. - 988 Hz : 250 ms / 645 Hz : 250 ms
   35. - 510 Hz : 250 ms / 610 Hz : 250 ms
   36. - Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
   37. - Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
   38. - 845 Hz Continuous
   39. - 970 Hz : 1000 ms / Off : 1000 ms
   40. - 800 Hz : 150 ms / 970 Hz : 150 ms
   41. - Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)
   42. - Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)
   43. - 2850 Hz : 1000 ms / Off : 1000 ms
   44. - 2400 Hz : 150 ms / 2850 Hz : 150 ms
   45. - (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms
   46. - 440 Hz : 600 ms / Off : 600 ms
   47. - Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms
   48. - ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms
   49. - ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
   50. - ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
   51. - Whoop 500-1200 3500 ms / Off 500 ms

YBO-BSB2(WHT)/WL Analogue Addressable Type A Base Sounder (White LED) Beacon
- YBN-R/3(White LED)-SCI Bases

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization

2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones

Approved tones:
1. 925 Hz : 250 ms / 628 Hz : 250 ms
   2. 925 Hz Continuous
   3. 628 Hz Continuous
   4. (French) 554 Hz : 100 ms / 440 Hz : 400 ms
   5. (Swedish) 660 Hz : 150 ms / Off : 150 ms
   6. 925 Hz : 150 ms / Off : 600 ms
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Tones</th>
</tr>
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<tbody>
<tr>
<td>7</td>
<td>670 Hz : 250 ms / 845 Hz : 370 ms</td>
</tr>
<tr>
<td>8</td>
<td>Whoop 500 Hz 1200 Hz : 3000 ms / Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 Hz : 500 ms</td>
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<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz 970 Hz over 140 ms (7 Hz)</td>
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<tr>
<td>12</td>
<td>Sweep 800 Hz 970 Hz over 1000 ms (1 Hz)</td>
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<td>15</td>
<td>Sweep 2400 Hz 2850 Hz over 1000 ms (1 Hz)</td>
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<tr>
<td>16</td>
<td>Sweep 300 Hz 1200 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>17</td>
<td>ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>18</td>
<td>ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>19</td>
<td>800 Hz : 250 ms / 970 Hz : 250 ms</td>
</tr>
<tr>
<td>20</td>
<td>2850 Hz Continuous</td>
</tr>
<tr>
<td>21</td>
<td>2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
</tr>
<tr>
<td>22</td>
<td>800 Hz : 500 ms / 970 Hz : 500 ms</td>
</tr>
<tr>
<td>23</td>
<td>2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>24</td>
<td>925 Hz : 250 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>25</td>
<td>970 Hz Continuous</td>
</tr>
<tr>
<td>26</td>
<td>660 Hz : 1800 ms / Off: 1800 ms</td>
</tr>
<tr>
<td>27</td>
<td>660 Hz : 6500 ms / Off : 13000 ms</td>
</tr>
<tr>
<td>28</td>
<td>660 Hz Continuous</td>
</tr>
<tr>
<td>29</td>
<td>554 Hz : 500 ms / 440 Hz : 500 ms</td>
</tr>
<tr>
<td>30</td>
<td>660 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>31</td>
<td>2850 Hz : 150 ms / Off : 100 ms</td>
</tr>
<tr>
<td>32</td>
<td>Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
</tr>
<tr>
<td>33</td>
<td>Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
</tr>
<tr>
<td>34</td>
<td>988 Hz : 250 ms / 645 Hz : 250 ms</td>
</tr>
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<td>35</td>
<td>510 Hz : 250 ms / 610 Hz : 250 ms</td>
</tr>
<tr>
<td>36</td>
<td>Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
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<tr>
<td>37</td>
<td>Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
</tr>
<tr>
<td>38</td>
<td>845 Hz Continuous</td>
</tr>
<tr>
<td>39</td>
<td>970 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>40</td>
<td>800 Hz : 150 ms / 970 Hz : 150 ms</td>
</tr>
<tr>
<td>41</td>
<td>Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
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<tr>
<td>42</td>
<td>Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
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<td>43</td>
<td>2850 Hz : 1000 ms / Off : 1000 ms</td>
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<tr>
<td>44</td>
<td>2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
</tr>
<tr>
<td>45</td>
<td>(German) Whoop 1200 Hz - 500 Hz : 1000 ms / Off : 10 ms</td>
</tr>
<tr>
<td>46</td>
<td>440 Hz : 600 ms / Off : 600 ms</td>
</tr>
<tr>
<td>47</td>
<td>Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
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<tr>
<td>48</td>
<td>ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
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<tr>
<td>49</td>
<td>ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>50</td>
<td>ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>51</td>
<td>Whoop 500-1200 3500 ms / Off 500 ms</td>
</tr>
</tbody>
</table>

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization

2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones

Approved tones:
- 2 925 Hz Continuous
- 3 628 Hz Continuous
- 4 (French) 554 Hz : 100 ms / 440 Hz : 400 ms
- 5 (Swedish) 660 Hz : 150 ms / Off : 150 ms
- 6 925 Hz : 150 ms / Off : 600 ms
- 7 670 Hz : 250 ms / 845 Hz : 370 ms
- 8 Whoop 500 Hz 1200 Hz : 3000 ms / Off : 500 ms
- 9 1200 Hz : 500 ms / 500 Hz : 500 ms
- 10 970 Hz : 500 ms / Off : 500 ms
- 11 Sweep 800 Hz 970 Hz over 140 ms (7 Hz)
- 12 Sweep 800 Hz 970 Hz over 1000 ms (1 Hz)
- 13 Sweep 800 Hz 970 Hz over 20 ms (50 Hz)
- 14 Sweep 2400 Hz 2850 Hz over 140 ms (7 Hz)
- 15 Sweep 2400 Hz 2850 Hz over 1000 ms (1 Hz)
- 16 Sweep 300 Hz 1200 Hz over 1000 ms (1 Hz)
- 17 ISO8201 : 970 Hz : 500 ms / Off : 500 ms
- 18 ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
- 19 800 Hz : 250 ms / 970 Hz : 250 ms

YBO-BSB2(WHT)/RL Analogue Addressable Type A Base Sounder (Red LED) Beacon
YBO-R/3(WHT) & YBN-R/3(WHT)-SCI Bases
164/08
# PART 1: SECTION 7
## ALARM WARNING DEVICES

### Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
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<tr>
<td>20</td>
<td>164/01</td>
<td>CHQ-WSB2WL-HFP Addressable Type A/B Wall Sounder (White LED) Beacon</td>
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### Notes:

1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit.

### Approved tones:

<table>
<thead>
<tr>
<th>No.</th>
<th>Tone Description</th>
</tr>
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<tr>
<td>1 - 925 Hz : 250 ms / 628 Hz : 250 ms</td>
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<td></td>
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</tr>
<tr>
<td>6 - 925 Hz : 150 ms / Off : 600 ms</td>
<td></td>
</tr>
<tr>
<td>7 - 670 Hz : 250 ms / 845 Hz : 370 ms</td>
<td></td>
</tr>
<tr>
<td>8 - Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>9 - 1200 Hz : 500 ms / 500 Hz : 500 ms</td>
<td></td>
</tr>
<tr>
<td>10 - 970 Hz : 500 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>11 - Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)</td>
<td></td>
</tr>
<tr>
<td>12 - Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)</td>
<td></td>
</tr>
<tr>
<td>13 - Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)</td>
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</tr>
<tr>
<td>14 - Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)</td>
<td></td>
</tr>
<tr>
<td>15 - Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)</td>
<td></td>
</tr>
<tr>
<td>16 - Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)</td>
<td></td>
</tr>
<tr>
<td>17 - ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>18 - ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
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<tr>
<td>19 - 800 Hz : 250 ms / 970 Hz : 250 ms</td>
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<tr>
<td>20 - 2850 Hz Continuous</td>
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<tr>
<td>21 - 2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
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<tr>
<td>22 - 800 Hz : 500 ms / 970 Hz : 500 ms</td>
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</tr>
<tr>
<td>23 - 2850 Hz : 500 ms / Off : 500 ms</td>
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<td>24 - 925 Hz : 250 ms / Off : 1000 ms</td>
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<tr>
<td>25 - 970 Hz Continuous</td>
<td></td>
</tr>
<tr>
<td>26 - 660 Hz : 1800 ms / Off : 1800 ms</td>
<td></td>
</tr>
<tr>
<td>27 - 660 Hz : 6500 ms / Off : 13000 ms</td>
<td></td>
</tr>
<tr>
<td>28 - 660 Hz Continuous</td>
<td></td>
</tr>
<tr>
<td>29 - 554 Hz : 500 ms / 440 Hz : 500 ms</td>
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</tbody>
</table>
### PART 1: SECTION 7
ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 - 660 Hz : 500 ms / Off : 500 ms</td>
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<tr>
<td>31 - 2850 Hz : 150 ms / Off : 100 ms</td>
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<tr>
<td>32 - Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
<td></td>
</tr>
<tr>
<td>33 - Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
<td></td>
</tr>
<tr>
<td>34 - 988 Hz : 250 ms / 645 Hz : 250 ms</td>
<td></td>
</tr>
<tr>
<td>35 - 510 Hz : 250 ms / 610 Hz : 250 ms</td>
<td></td>
</tr>
<tr>
<td>36 - Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
<td></td>
</tr>
<tr>
<td>37 - Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
<td></td>
</tr>
<tr>
<td>38 - 845 Hz Continuous</td>
<td></td>
</tr>
<tr>
<td>39 - 970 Hz : 1000 ms / Off : 1000 ms</td>
<td></td>
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<tr>
<td>40 - 800 Hz : 150 ms / 970 Hz : 150 ms</td>
<td></td>
</tr>
<tr>
<td>41 - Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
<td></td>
</tr>
<tr>
<td>42 - Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
<td></td>
</tr>
<tr>
<td>43 - 2850 Hz : 1000 ms / Off : 1000 ms</td>
<td></td>
</tr>
<tr>
<td>44 - 2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
<td></td>
</tr>
<tr>
<td>45 - (German) Whoop 1200 Hz - 500 Hz : 1000 ms / Off : 10 ms</td>
<td></td>
</tr>
<tr>
<td>46 - 440 Hz : 600 ms / Off : 600 ms</td>
<td></td>
</tr>
<tr>
<td>47 - Whoop 500 Hz - 1200 Hz : 375 ms / Off : 250 ms</td>
<td></td>
</tr>
<tr>
<td>48 - ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>49 - ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>50 - ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>51 - Whoop 500-1200 3500 ms / Off 500 ms</td>
<td></td>
</tr>
<tr>
<td>CHQ-WSB2/RL-HFP Addressable Type A/B Wall Sounder (Red LED) Beacon and YBO-R/SCI(RED) bases</td>
<td></td>
</tr>
</tbody>
</table>

#### Notes:
1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit.

#### Approved tones:
1. 925 Hz : 250 ms / 628 Hz : 250 ms
2. 925 Hz Continuous
3. 628 Hz Continuous
4. (French) 554 Hz : 100 ms / 440 Hz : 400 ms
5. (Swedish) 660 Hz : 150 ms / Off : 150 ms
6. 925 Hz : 150 ms / Off : 600 ms
7. 670 Hz : 250 ms / 845 Hz : 370 ms
8. Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms
9. 1200 Hz : 500 ms / 500 Hz : 500 ms
10. 970 Hz : 500 ms / Off : 500 ms
11. Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)
12. Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
13. Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
14. Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
15. Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
16. Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
17. ISO8201 : 970 Hz : 500 ms / Off : 500 ms
18. ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
19. 800 Hz : 250 ms / 970 Hz : 250 ms
20. 2850 Hz Continuous
21. 2400 Hz : 250 ms / 2850 Hz : 250 ms
22. 800 Hz : 500 ms / 970 Hz : 500 ms
23. 2850 Hz : 500 ms / Off : 500 ms
24. 925 Hz : 250 ms / Off : 1000 ms
25. 970 Hz Continuous
26. 660 Hz : 1800 ms / Off : 1800 ms
27. 660 Hz : 6500 ms / Off : 1300 ms
28. 660 Hz Continuous
29. 554 Hz : 500 ms / 440 Hz : 500 ms
30. 660 Hz : 500 ms / Off : 500 ms
31. 2850 Hz : 150 ms / Off : 100 ms
32. Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
33. Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
34. 988 Hz : 250 ms / 645 Hz : 250 ms
35. 510 Hz : 250 ms / 610 Hz : 250 ms
36. Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
37. Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
38. 845 Hz Continuous
39. 970 Hz : 1000 ms / Off : 1000 ms
### Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>Tones and Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>800 Hz : 150 ms / 970 Hz : 150 ms</td>
</tr>
<tr>
<td>41</td>
<td>Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
</tr>
<tr>
<td>42</td>
<td>Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)</td>
</tr>
<tr>
<td>43</td>
<td>2850 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>44</td>
<td>2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
</tr>
<tr>
<td>45</td>
<td>(German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
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<td>46</td>
<td>440 Hz : 600 ms / Off : 600 ms</td>
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<td>47</td>
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<td>48</td>
<td>ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
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<td>49</td>
<td>ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
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<td>50</td>
<td>ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
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<tr>
<td>51</td>
<td>Whoop 500-1200 3500 ms / Off 500 ms</td>
</tr>
</tbody>
</table>

#### Notes:

1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit.

#### Approved tones:

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<th>No.</th>
<th>Tones and Descriptions</th>
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<tbody>
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<td>1</td>
<td>925 Hz : 250 ms / 628 Hz : 250 ms</td>
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<tr>
<td>2</td>
<td>925 Hz Continuous</td>
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<tr>
<td>3</td>
<td>628 Hz Continuous</td>
</tr>
<tr>
<td>4</td>
<td>(French) 554 Hz : 100 ms / 440 Hz : 400 ms</td>
</tr>
<tr>
<td>5</td>
<td>(Swedish) 660 Hz : 150 ms / Off : 150 ms</td>
</tr>
<tr>
<td>6</td>
<td>925 Hz : 150 ms / Off : 600 ms</td>
</tr>
<tr>
<td>7</td>
<td>670 Hz : 250 ms / 845 Hz : 370 ms</td>
</tr>
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<td>8</td>
<td>Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 Hz : 500 ms</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
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<td>11</td>
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<td>25</td>
<td>970 Hz Continuous</td>
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<td>26</td>
<td>660 Hz : 1800 ms / Off : 1800 ms</td>
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<tr>
<td>27</td>
<td>660 Hz : 6500 ms / Off : 13000 ms</td>
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<td>28</td>
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</tr>
<tr>
<td>45</td>
<td>(German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
</tr>
<tr>
<td>46</td>
<td>440 Hz : 600 ms / Off : 600 ms</td>
</tr>
<tr>
<td>47</td>
<td>Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
</tr>
<tr>
<td>48</td>
<td>ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
</tr>
<tr>
<td>49</td>
<td>ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
</tr>
</tbody>
</table>
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 - ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
<td></td>
</tr>
<tr>
<td>51 - Whoop 500-1200 3500 ms / Off 500 ms</td>
<td></td>
</tr>
</tbody>
</table>

CHQ-WSB2(WHT)/RL-HFP
Addressable Type A/B Wall Sounder (Red LED) Beacon
YBN-R3(WHT)-SCI Bases

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
3. The VAD is Type A when used with any of the above bases and Type B when used with a WS2-WPK weatherproofing kit.

Approved tones:
1. 925 Hz : 250 ms / 628 Hz : 250 ms
2. 925 Hz Continuous
3. 628 Hz Continuous
4. (French) 554 Hz : 100 ms / 440 Hz : 400 ms
5. (Swedish) 660 Hz : 150 ms / Off : 150 ms
6. 925 Hz : 150 ms / Off : 600 ms
7. 670 Hz : 250 ms / 845 Hz : 370 ms
8. Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms
9. 1200 Hz : 500 ms / 500 Hz : 500 ms
10. 970 Hz : 500 ms / Off : 500 ms
11. Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)
12. Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
13. Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
14. Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
15. Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
16. Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
17. ISO8201 : 970 Hz : 500 ms / Off : 500 ms
18. ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
19. 800 Hz : 250 ms / 970 Hz : 250 ms
20. 2850 Hz Continuous
21. 2400 Hz : 250 ms / 2850 Hz : 250 ms
22. 800 Hz : 500 ms / 970 Hz : 500 ms
23. 2850 Hz : 500 ms / Off : 500 ms
24. 925 Hz : 250 ms / Off : 1000 ms
25. 970 Hz Continuous
26. 660 Hz : 1800 ms / Off : 1800 ms
27. 660 Hz : 6500 ms / Off : 13000 ms
28. 660 Hz Continuous
29. 554 Hz : 500 ms / 440 Hz : 500 ms
30. 660 Hz : 500 ms / Off : 500 ms
31. 2850 Hz : 150 ms / Off : 100 ms
32. Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
33. Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
34. 988 Hz : 250 ms / 645 Hz : 250 ms
35. 510 Hz : 250 ms / 610 Hz : 250 ms
36. Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
37. Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
38. 845 Hz Continuous
39. 970 Hz : 1000 ms / Off : 1000 ms
40. 800 Hz : 150 ms / 970 Hz : 150 ms
41. Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)
42. Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)
43. 2850 Hz : 1000 ms / Off : 1000 ms
44. 2400 Hz : 150 ms / 2850 Hz : 150 ms
45. (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms
46. 440 Hz : 600 ms / Off : 600 ms
47. Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms
48. ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms
49. ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms
50. ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms
51. Whoop 500-1200 3500 ms / Off 500 ms

YBO-BSB2(WHT)/WL-HFP
Analogue Addressable Type A Base Sounder (White LED) Beacon
YBN-R3(WHT)-SCI Bases

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.
### Approved tones:

<table>
<thead>
<tr>
<th>Number</th>
<th>Tone Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>925 Hz : 250 ms / 628 Hz : 250 ms</td>
</tr>
<tr>
<td>2</td>
<td>925 Hz Continuous</td>
</tr>
<tr>
<td>3</td>
<td>628 Hz Continuous</td>
</tr>
<tr>
<td>4</td>
<td>(French) 554 Hz : 100 ms / 440 Hz : 400 ms</td>
</tr>
<tr>
<td>5</td>
<td>(Swedish) 650 Hz : 150 ms / Off : 150 ms</td>
</tr>
<tr>
<td>6</td>
<td>925 Hz : 150 ms / Off : 600 ms</td>
</tr>
<tr>
<td>7</td>
<td>670 Hz : 250 ms / 845 Hz : 370 ms</td>
</tr>
<tr>
<td>8</td>
<td>Whoop 500 Hz : 1200 Hz : 3000 ms / Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 Hz : 500 ms</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)</td>
</tr>
<tr>
<td>12</td>
<td>Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>13</td>
<td>Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)</td>
</tr>
<tr>
<td>14</td>
<td>Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)</td>
</tr>
<tr>
<td>15</td>
<td>Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>16</td>
<td>Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>17</td>
<td>ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>18</td>
<td>ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>19</td>
<td>800 Hz : 250 ms / 970 Hz : 250 ms</td>
</tr>
<tr>
<td>20</td>
<td>2850 Hz Continuous</td>
</tr>
<tr>
<td>21</td>
<td>2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
</tr>
<tr>
<td>22</td>
<td>800 Hz : 500 ms / 970 Hz : 500 ms</td>
</tr>
<tr>
<td>23</td>
<td>2850 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>24</td>
<td>925 Hz : 250 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>25</td>
<td>970 Hz Continuous</td>
</tr>
<tr>
<td>26</td>
<td>660 Hz : 1800 ms / Off : 1800 ms</td>
</tr>
<tr>
<td>27</td>
<td>660 Hz : 6500 ms / Off : 13000 ms</td>
</tr>
<tr>
<td>28</td>
<td>660 Hz Continuous</td>
</tr>
<tr>
<td>29</td>
<td>554 Hz : 500 ms / 440 Hz : 500 ms</td>
</tr>
<tr>
<td>30</td>
<td>660 Hz : 500 ms / Off : 500 ms</td>
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<td>31</td>
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<td>32</td>
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<tr>
<td>33</td>
<td>Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
</tr>
<tr>
<td>34</td>
<td>988 Hz : 250 ms / 645 Hz : 250 ms</td>
</tr>
<tr>
<td>35</td>
<td>510 Hz : 250 ms / 610 Hz : 250 ms</td>
</tr>
<tr>
<td>36</td>
<td>Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
</tr>
<tr>
<td>37</td>
<td>Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
</tr>
<tr>
<td>38</td>
<td>845 Hz Continuous</td>
</tr>
<tr>
<td>39</td>
<td>970 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>40</td>
<td>800 Hz : 150 ms / 970 Hz : 150 ms</td>
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<td>41</td>
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</tr>
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<td>43</td>
<td>2850 Hz : 1000 ms / Off : 1000 ms</td>
</tr>
<tr>
<td>44</td>
<td>2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
</tr>
<tr>
<td>45</td>
<td>(German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
</tr>
<tr>
<td>46</td>
<td>440 Hz : 600 ms / Off : 600 ms</td>
</tr>
<tr>
<td>47</td>
<td>Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
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<tr>
<td>48</td>
<td>ISO8201 : 925 Hz : 628 Hz : 250 ms / Off : 500 ms</td>
</tr>
<tr>
<td>49</td>
<td>ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>50</td>
<td>ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>51</td>
<td>Whoop 500-1200 3500 ms / Off : 500 ms</td>
</tr>
</tbody>
</table>

### Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones

### Approved tones:

<table>
<thead>
<tr>
<th>Number</th>
<th>Tone Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>925 Hz : 250 ms / 628 Hz : 250 ms</td>
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<tr>
<td>2</td>
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<td>3</td>
<td>628 Hz Continuous</td>
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<tr>
<td>4</td>
<td>(French) 554 Hz : 100 ms / 440 Hz : 400 ms</td>
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<td>(Swedish) 650 Hz : 150 ms / Off : 150 ms</td>
</tr>
<tr>
<td>6</td>
<td>925 Hz : 150 ms / Off : 600 ms</td>
</tr>
<tr>
<td>7</td>
<td>670 Hz : 250 ms / 845 Hz : 370 ms</td>
</tr>
<tr>
<td>8</td>
<td>Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz : 500 ms / 500 Hz : 300 ms</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz : 500 ms / Off : 500 ms</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)</td>
</tr>
</tbody>
</table>

YBO-BSB2(WHT)/RL-HFP Analogue Addressable Type A Base Sounder (Red LED) Beacon

YBN-R/3(WHT)-SCI Bases

LPCB Ref. No. 164/08
Certificated Products

12 - Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
13 - Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
14 - Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
15 - Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
16 - Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
17 - ISO8201 : 970 Hz : 500 ms / Off : 500 ms
18 - ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
19 - 800 Hz : 250 ms / 970 Hz : 250 ms
20 - 2850 Hz Continuous
21 - 2400 Hz : 250 ms / 2850 Hz : 250 ms
22 - 800 Hz : 500 ms / 970 Hz : 500 ms
23 - 2850 Hz : 500 ms / Off : 500 ms
24 - 925 Hz : 250 ms / Off : 1000 ms
25 - 970 Hz Continuous
26 - 660 Hz : 1800 ms / Off : 1800 ms
27 - 660 Hz : 6500 ms / Off : 13000 ms
28 - 660 Hz Continuous
29 - 554 Hz : 500 ms / 440 Hz : 500 ms
30 - 660 Hz : 500 ms / Off : 500 ms
31 - 2850 Hz : 150 ms / Off : 100 ms
32 - Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
33 - Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
34 - 988 Hz : 250 ms / 645 Hz : 250 ms
35 - 510 Hz : 250 ms / 610 Hz : 250 ms
36 - Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
37 - Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
38 - 845 Hz Continuous
39 - 970 Hz : 1000 ms / Off : 1000 ms
40 - 800 Hz : 150 ms / 970 Hz : 150 ms
41 - Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)
42 - Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)
43 - 2850 Hz : 1000 ms / Off : 1000 ms
44 - 2400 Hz : 150 ms / 2850 Hz : 150 ms
45 - (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms
46 - 440 Hz : 600 ms / Off : 600 ms
47 - Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms
48 - ISO8201 : 925 Hz, 628 Hz : 250 ms / Off 500 ms
49 - ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms
50 - ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms
51 - Whoop 500-1200 3500 ms / Off 500 ms

CHQ-WB/WL Intelligent Analogue Addressable Type A Wall VAD (White LED) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization

2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization

3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-7
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization

4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-1
   - LOL 1 - Flash rate 1Hz
   - Synchronization

5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 2 - Flash rate 1Hz
   - Synchronization

6. The Default factory setting is LOL 1, 0.5Hz

7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

CHQ-WB(WHT)/WL Intelligent Analogue Addressable Type A Wall VAD (White LED) (White Body) (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization
## PART 1: SECTION 7
### ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHQ-WB(RED)/WL</td>
<td>164s/12</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-5.5 - LOL 1 - Flash rate 0.5Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-7 - LOL 2 - Flash rate 0.5Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-1 - LOL 1 - Flash rate 1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-5.5 - LOL 2 - Flash rate 1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-7 - LOL 0 - Flash rate 0.5Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>6. The Default factory setting is LOL 1, 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.</td>
<td></td>
</tr>
</tbody>
</table>

| CHQ-WB/RL            | 164s/13       |
| Notes:               |               |
| 1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance O-2-3* Light coverage defined as per standard W-rating but with a maximum height of 2m(rectangular) - LOL 0 - Flash rate 0.5Hz - Synchronization |
| 2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-5.5 - LOL 2 - Flash rate 1Hz - Synchronization |
| 3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-7 - LOL 0 - Flash rate 0.5Hz - Synchronization |
| 4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-5.5 - LOL 2 - Flash rate 1Hz - Synchronization |
| 5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.7-1.07 - LOL 1 - Flash rate 1Hz - Synchronization |
| 6. The Default factory setting is LOL 1, 0.5Hz |
| 7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit. |

| CHQ-WB(WHT)/RL       | 164s/14       |
| Notes:               |               |
| 1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-5.5 - LOL 0 - Flash rate 0.5Hz - Synchronization |
| 2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-7 - LOL 1 - Flash rate 1Hz - Synchronization |
| 3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-1 - LOL 0 - Flash rate 0.5Hz - Synchronization |
| 4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-5.5 - LOL 2 - Flash rate 1Hz - Synchronization |
| 5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories: - Light Coverage Distance W-2.4-7 - LOL 1 - Flash rate 1Hz - Synchronization |
| 6. The Default factory setting is LOL 1, 0.5Hz |
| 7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit. |
Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2-3
     - LOL 0 - Flash rate 0.5Hz
     - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
     - LOL 1 - Flash rate 0.5Hz
     - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
     - LOL 2 - Flash rate 0.5Hz
     - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.7-1.07
     - LOL 1 - Flash rate 1Hz
     - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-4
     - LOL 2 - Flash rate 1Hz
     - Synchronization
6. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-7
     - LOL 2 - Flash rate 1Hz
     - Synchronization
7. The Default factory setting is LOL 1, 0.5Hz
8. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

CHQ-WB(RED)/RL
Intelligent Analogue Addressable Type A Wall VAD (Red LED)-Red Body (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2-3
     - LOL 0 - Flash rate 0.5Hz
     - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
     - LOL 1 - Flash rate 0.5Hz
     - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
     - LOL 2 - Flash rate 0.5Hz
     - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.7-1.07
     - LOL 1 - Flash rate 1Hz
     - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-4
     - LOL 2 - Flash rate 1Hz
     - Synchronization
6. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-7
     - LOL 2 - Flash rate 1Hz
     - Synchronization
7. The Default factory setting is LOL 1, 0.5Hz
8. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

CHQ-WB(WHT)/WL-HFP
Intelligent Analogue Addressable Type A Wall VAD (White LED) - White Body (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
     - LOL 0 - Flash rate 0.5Hz
     - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
     - LOL 1 - Flash rate 0.5Hz
     - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-7
     - LOL 2 - Flash rate 0.5Hz
     - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-1
     - LOL 1 - Flash rate 1Hz
     - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
Certificated Products

CHQ-WB(RED)/WL-HFP
Intelligent Analogue Addressable Type A Wall VAD (White LED)-Red Body (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

**LPCB Ref. No.** 164s/12

1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-7
   - LOL 2 - Flash rate 0.5Hz
   - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-1
   - LOL 2 - Flash rate 1Hz
   - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 2 - Flash rate 1Hz
   - Synchronization
6. The Default factory setting is LOL 1, 0.5Hz
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-7
   - LOL 2 - Flash rate 0.5Hz
   - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-1
   - LOL 2 - Flash rate 1Hz
   - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 2 - Flash rate 1Hz
   - Synchronization
6. The Default factory setting is LOL 1, 0.5Hz
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

CHQ-WB(WHT)/RL-HFP
Intelligent Analogue Addressable Type A Wall VAD (Red LED)-White Body (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

**LPCB Ref. No.** 164s/14

1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2.3* * Light coverage defined as per standard W-rating but with a maximum height of 2m(rectangular)
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.7-1.07
   - LOL 1 - Flash rate 1Hz
   - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-4
   - LOL 2 - Flash rate 1Hz
   - Synchronization
6. The Default factory setting is LOL 1, 0.5Hz
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

Notes:
1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2.3* * Light coverage defined as per standard W-rating but with a maximum height of 2m(rectangular)
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 2 - Flash rate 0.5Hz
   - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 2 - Flash rate 0.5Hz
   - Synchronization
6. The Default factory setting is LOL 1, 0.5Hz
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.

CHQ-WB(RED)/RL-HFP
Intelligent Analogue Addressable Type A Wall VAD (Red LED) - Red Body (YBO-R/SCI, YBN-R/3(SCI), YBN-R/3, YBO-BS, YBO-BSB2(RL&WL) & YBO-BSB Bases)

**LPCB Ref. No.** 164s/15

1. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance O-2.3* * Light coverage defined as per standard W-rating but with a maximum height of 2m(rectangular)
   - LOL 0 - Flash rate 0.5Hz
   - Synchronization
2. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
3. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 2 - Flash rate 0.5Hz
   - Synchronization
4. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5
   - LOL 1 - Flash rate 0.5Hz
   - Synchronization
5. The Wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories:
   - Light Coverage Distance W-2.4-5.5
   - LOL 2 - Flash rate 0.5Hz
   - Synchronization
6. The Default factory setting is LOL 1, 0.5Hz
7. Type B for outdoor use when used in conjunction with a WS2-WPK weatherproofing kit.
20 Oct 2020

### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>164/09</td>
<td>YBO-BSB2(BLK)/RL Addressable Type A Base Sounder Beacon (Black Housing, Red LED)</td>
</tr>
<tr>
<td>164/10</td>
<td>YBO-BSB2(BLK))/WL Addressable Type A Base Sounder Beacon (Black Housing, White LED)</td>
</tr>
</tbody>
</table>

### Bases:
- YBN-R/3 Analogue mounting base (ivory and white)
- YBO-R/SCI Isolator base
- YBO-R/3(RED) Standard Base
- YBO-R/SCI(RED) Short Circuit Isolator Base
- YBN-R/3(WHT) Standard Base
- YBO-R/3(WHT) Standard Base
- YBN-R/3(SCI) Short Circuit Isolator Base

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Certificate No: 166h-(cl-2) to EN 54-23: 2010
Certificate No: 166m-(cl-2) to EN 54-17: 2005 & EN 54-23:2010

### Audible Warning Devices

#### Certificated Products

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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>166h/01</td>
<td>WSO-xx-Nyy Analogue addressable Type A/B wall mounted sounder (B501AP-cc, Bcc, Wcc bases)</td>
</tr>
</tbody>
</table>

Notes:
1. xx indicates body colour. PR = Red, PP = Pure White
2. yy indicates customer and associated communication protocol.
   - 01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   - 00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   - 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>WSS-xx-Nyy Analogue addressable Type A/B wall mounted sounder/strobe (B501AP-cc, Bcc, Wcc bases)</td>
</tr>
<tr>
<td></td>
<td>BSO-xx-Nyy Analogue addressable Type A integrated detector base sounder (B501AP-cc, Bcc and Wcc bases)</td>
</tr>
</tbody>
</table>

4. Approved as Type B only when used with Wcc base.

Notes:
1. xx indicates body/lens colour. PR = Red/Red, PA = Amber/Amber, PC = Clear/Clear
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.
4. Certification excludes the strobe function.
5. Approved as Type B only when used with Wcc base.
# PART 1: SECTION 7

## ALARM WARNING DEVICES

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>BSS-xx-Nyy</th>
<th>Analogue addressable Type A integrated detector base sounder/strobe (B501AP-cc, Bcc and Wcc bases)</th>
<th>166h/04</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.</td>
<td>Notes: 1. xx indicates body/lens colour. <strong>PR</strong> = Pure White/Red, <strong>PA</strong> = Pure White/Amber, <strong>PC</strong> = Pure White/Clear, <strong>DR</strong> = Detector White/Red, <strong>DA</strong> = Detector White/Amber, <strong>DC</strong> = Detector White/Clear 2. yy indicates customer and associated communication protocol. 01 indicates Advanced Protocol (and Honeywell 500 series protocol) 00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol) 3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones: 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 - 500Hz, 0.9Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz; 24) 500 - 1200Hz, (0.5s off, 3.5s on); 25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz; 27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz. 4. Certification excludes the strobe function.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WSO-xx-lyy</td>
<td>Analogue addressableType A/B wall mounted sounder with short circuit isolator (B501AP-cc, Bcc bases, and Wcc bases)</td>
<td>166j/01</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. xx indicates body colour. <strong>PR</strong> = Red, <strong>PP</strong> = Pure White 2. yy indicates customer and associated communication protocol. 01 indicates Advanced Protocol (and Honeywell 500 series protocol) 00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol) 3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones: 1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 - 500Hz, 0.9Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz; 24) 500 - 1200Hz, (0.5s off, 3.5s on); 25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz; 27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz. 4. Approved as Type B only when used with Wcc base.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WSS-xx-lyy</td>
<td>Analogue addressable Type A/B wall mounted sounder/strobe with short circuit isolator (B501AP-cc, Bcc bases, and Wcc bases)</td>
<td>166/02</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. xx indicates body/lens colour. <strong>PR</strong> = Red/Red, <strong>PA</strong> = Amber/Amber, <strong>PC</strong> = Clear/Clear 2. yy indicates customer and associated communication protocol. 01 indicates Advanced Protocol (and Honeywell 500 series protocol) 00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:

1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
18) 970, 1Hz 500ms on, 500ms off;
19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s on;
22) 1200 - 500Hz, 0.39Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
24) 500 - 1200Hz, (0.5s off, 3.5s on);
25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.

3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC
and times:
1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
18) 970, 1Hz 500ms on, 500ms off;
19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s on;
22) 1200 - 500Hz, 0.39Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
24) 500 - 1200Hz, (0.5s off, 3.5s on);
25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.
### Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>166r/01</td>
<td>WSS-xC-Iyy Analogue Addressable Wall Mounted Sounder / LED Strobe with Short Circuit Isolator (B501AP base)</td>
</tr>
<tr>
<td>20</td>
<td>166m/01</td>
<td>WST-PC-I00 Analogue addressable wall mounted LED strobe with short circuit isolator (B501AP base)</td>
</tr>
<tr>
<td>21</td>
<td>166r/02</td>
<td>VAD-PC-N## Analogue Addressable High Output Beacon (B501AP base)</td>
</tr>
</tbody>
</table>

### Notes:

1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. x indicates body colour. D=Detector White, P=Pure White
3. yy indicates customer and associated communication protocol.
   - 01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   - 00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
4. Type A with Bcc deep back box. Type B with Wcc deep back box
5. Meets the requirements of EN54-3: 2001 at the following tones:
   1) Alternating 525/440, 2Hz (100ms/400ms); 2) Alternating 800/922, 1Hz; 3) Alternating 800/922, 2Hz; 4) Alternating 2400/2900, 3Hz; 5) Alternating 2500/3100, 2Hz; 6) Alternating 988/645, 2Hz; 7) Continuous 630Hz; 8) Continuous 922Hz; 9) Continuous 1200Hz; 10) Continuous 2810Hz; 11) Sweep 150-1000Hz, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) Intermittent 420Hz, 0.625s on, 0.625 sec off; 13) Sweep 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) Intermittent 630, 3.33Hz, 150ms on, 150ms off; 15) Intermittent 922, 0.8Hz 0.25s on, 1s off; 16) Intermittent 922, 0.5Hz 1s on, 1s off; 17) Intermittent 2810, 1Hz; 18) Intermittent 922, 1Hz 500ms on, 500ms off; 19) Intermittent 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) Continuous 600Hz; 21) Sweep 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) Sweep 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) Sweep 2400 - 2850, 7Hz; 24) Sweep 500 - 1200Hz, (0.5s on, 0.5s off); 25) Sweep 800 - 970, 50Hz; 26) Sweep 800 - 970, 7Hz; 27) Sweep 800 - 970, 1Hz; 28) Sweep 2400 - 2850, 50Hz; 29) Sweep 500 - 1000, 7Hz; 30) Sweep 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) Sweep 800 - 1000, 2Hz; 32) Sweep 2400 - 2850, 1Hz

### Notes:

1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O: O-2.4-2 - Flash rate 1Hz
   - Synchronization
2. Type A with Bcc deep back box, Type B with Wcc deep back box
Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category C: C-3-5.1, C-6-5.1, C-9-5.1
   - Category W: W-2.4-2.76
   - Flash rate 0.5Hz
   - Synchronization
2. Type A indoor use with B501AP only, Type B outdoor use with B501AP and WRR or WPW
3. ## indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)

VAD-PC-###
Analogue Addressable High Output Beacon with Short Circuit Isolator (B501AP base) 166m/02

Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category C: C-3-5.1, C-6-5.1, C-9-5.1
   - Category W: W-2.4-2.76
   - Flash rate 0.5Hz
   - Synchronization
2. Type A indoor use with B501AP only, Type B outdoor use with B501AP and WRR or WPW
3. ## indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)

DSS-xC-lyy
Analogue Addressable Type A Integrated Detector Base Sounder/Beacon with Short Circuit Isolator (B501AP base) 166n02

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. x indicates body colour. D=Detector White, P=Pure White
3. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
4. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:
   - 554/440, 2Hz (100ms/400ms);
   - 800/970, 1Hz;
   - 800/970, 2Hz;
   - 2400/2900, 3Hz;
   - 2500/3100, 2Hz;
   - 6) 988/645, 2Hz;
   - 660Hz;
   - 970Hz;
   - 1200Hz;
   - 2850Hz;
   - 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   - 420Hz, 0.625s on, 0.625 sec off;
   - 500-1200Hz, 0.25 sec off, 3.75 sec on;
   - 660, 3.33Hz, 150ms on, 150ms off;
   - 970, 0.8Hz 0.25s on, 1s off;
   - 970, 0.5Hz 1s on, 1s off;
   - 2850, 1Hz;
   - 970, 1Hz 500ms on, 500ms off;
   - 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   - 800Hz;
   - 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   - 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   - 2400 - 2850, 7Hz;
   - 500 - 1200Hz, (0.5s off, 3.5s on);
   - 800 - 970, 7Hz;
   - 800 - 970, 1Hz;
   - 2400 - 2850, 50Hz;
   - 500 - 1000, 7Hz;
   - 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
WSS-xC-Nyy
Analogue Addressable Wall Mounted Sounder / LED Strobe (B501AP base)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. x indicates body colour. D=Detector White, P=Pure White
3. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
4. Type A with Bcc deep back box, Type B with Wcc deep back box
5. Meets the requirements of EN54-3: 2001 at the following tones:
   - Alternating 525/440, 2Hz (100ms/400ms);
   - Alternating 800/922, 1Hz;
   - Alternating 800/922, 2Hz;
   - Alternating 2400/2850, 1Hz;
   - Alternating 2400/2850, 1Hz
   - Alternating 988/645, 2Hz;
   - Continuous 630Hz;
   - Continuous 922Hz;
   - Continuous 1200Hz;
   - Continuous 2810Hz;
   - Sweep 150-1000Hz, rise 10s, stable 40s, fall 10s, stable 20s, then
   - Intermittent 420Hz, 0.625s on, 0.625 sec off;
   - Sweep 500-1200Hz, 0.25 sec off, 3.75 sec on;
   - Intermittent 630, 3.33Hz, 150ms on, 150ms off;
   - Intermittent 922, 0.8Hz 0.25s on, 1s off;
   - Intermittent 922, 0.5Hz 1s on, 1s off;
   - Intermittent 2810, 1Hz;
   - Intermittent 922, 1Hz 500ms on, 500ms off;
   - Intermittent 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   - Continuous 800Hz;
   - Sweep 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   - Sweep 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   - Sweep 2400 - 2850, 7Hz;
   - Sweep 500 - 1200Hz, (0.5s off, 3.5s on);
   - Sweep 800 - 970, 50Hz;
   - Sweep 800 - 970, 7Hz;
   - Sweep 800 - 970, 1Hz;
   - Sweep 2400 - 2850, 50Hz;
   - Sweep 500 - 1000, 7Hz;
   - Sweep 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   - Sweep 800 - 1000, 2Hz;
   - Sweep 2400 - 2850, 1Hz

DSS-xC-Nyy
Analogue Addressable Type A Integrated Detector Base Sounder/Beacon (B501AP base)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. x indicates body colour. D=Detector White, P=Pure White
3. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
4. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
12) 420Hz, 0.625s on, 0.625 sec off;
13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) 660, 3.33Hz, 150ms on, 150ms off;
15) 970, 0.8Hz 0.25s on, 1s off;
16) 970, 0.5Hz 1s on, 1s off;
17) 2850, 1Hz;
18) 970, 1Hz 500ms on, 500ms off;
19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) 800Hz;
21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
23) 2400 - 2850, 7Hz;
24) 500 - 1200Hz, (0.5s off, 3.5s on);
25) 800 - 970, 50Hz;
26) 800 - 970, 7Hz;
27) 800 - 970, 1Hz;
28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz;
2400 - 2850, 1Hz

Bases / Ancillaries

B501AP-cc       Low profile base IP21C, cc indicates colour, Blank=Pure White, IV=Detector White
Bcc                  Deep base IP44, cc indicates colour, RR=Red, DD=Detector White, PW=Pure White
Wcc                 Waterproof base IP65, cc indicates colour, RR=Red, DD=Detector White, PW=Pure White
B501AP            Mounting base - Low profile base IP21C
Bcc                  Deep Back Box
Wcc                 Waterproof Deep Back Box IP33C

Horing LIH Industrial Co Ltd
No. 35, Er-Hu Road, Hu-Hsi Village, Yuan-Shan Hsiang, Yilan Hsien 264, Taiwan ROC
Tel: +886 2 22487599 • Fax: +886 2 22407752


Certificated Products

AH-0218  Conventional fire alarm bell
AH-03127S  Conventional Type B electronic sounder (AH-03127MB Base)

Note:
Meets the requirements of EN54-3: 2001 at the following tones:
1-Alternating Tones 800/970Hz at 2Hz
2-Sweeping 800/970Hz at 7Hz

AH-03127-BS  Conventional Type B electronic sounder beacon (AH-03127MB Base)

Notes:
1.  Meets the requirements of EN54-3: 2001 at the following tones:
1-Alternating Tones 800/970Hz at 2Hz
2-Sweeping 800/970Hz at 7Hz
2.  The beacon functionality is not included within the scope of approval.

Base:
AH-03127MB
Hosiden Besson Limited
12 St Joseph's Close Trading Estate, St Joseph's Close, Hove, East Sussex BN3 7EZ, United Kingdom
Tel: +44 (0)1273 860000 • Fax: +44 (0)1273 777501
E-mail: info@hbl.co.uk • Website: www.hbl.co.uk

Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Notes:</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banshee Excel</td>
<td>Banshee Excel Audible Warning Device Type A with Shallow Base, Type B with Deep Base</td>
<td>539c/01</td>
</tr>
<tr>
<td></td>
<td>Meets the requirements of EN 54-3:2001 with the following tones:</td>
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<tr>
<td></td>
<td>- Tone A, Banshee Fast Sweep LF, 800Hz to 950Hz @ 9Hz</td>
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<tr>
<td></td>
<td>- Tone B, Medium Sweep LF, 800Hz to 970Hz @ 1Hz</td>
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<tr>
<td></td>
<td>- Tone C, Slow Whoop, 500Hz rising to 1200Hz over 3.5s, silence 0.5s</td>
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<tr>
<td></td>
<td>- Tone D, DIN Tone (DK), 1200Hz falling to 500Hz over 1s, silence 10ms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Tone E, French Fire Sounder, 554Hz for 100ms and 440Hz for 400ms</td>
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<tr>
<td>Banshee Excel Bi-Polar</td>
<td>Banshee Excel Audible Warning Device Approved to Type A Indoor only with Shallow Base</td>
<td>539c/02</td>
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<td>Meets the requirements of EN 54-3:2001 with the following tones:</td>
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<td>- Tone E, French Fire Sounder, 554Hz for 100ms and 440Hz for 400ms</td>
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</tr>
<tr>
<td>Banshee Excel Lite</td>
<td>Banshee Excel Lite Xenon Audible Warning Device Type A with Shallow Base, Type B with Deep Base</td>
<td>539c/03</td>
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<td>Meets the requirements of EN 54-3:2001 with the following tones:</td>
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<td>- Tone C, Slow Whoop, 500Hz rising to 1200Hz over 3.5s, silence 0.5s</td>
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<td>- Tone E, French Fire Sounder, 554Hz for 100ms and 440Hz for 400ms</td>
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<tr>
<td>LED Banshee Excel Lite</td>
<td>Banshee Excel Lite LED Audible Warning Device Type A with Shallow Base, Type B with Deep Base</td>
<td>539c/04</td>
</tr>
<tr>
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<td>Meets the requirements of EN 54-3:2001 with the following tones:</td>
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<tr>
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<td>- Tone D, DIN Tone (DK), 1200Hz falling to 500Hz over 1s, silence 10ms</td>
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</tr>
<tr>
<td></td>
<td>- Tone E, French Fire Sounder, 554Hz for 100ms and 440Hz for 400ms</td>
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</tbody>
</table>

Bases:
Shallow base (various colour options)
Deep base (various colour options)

KAC Alarm Company Limited
KAC House, Thornhill Road, North Moons Moat, Redditch, Worcestershire B98 9ND, United Kingdom
Tel: +44 (0)1527 406655 • Fax: +44 (0)1527 406677
E-mail: sales@kac.co.uk OR marketing@kac.co.uk • Website: www.kac.co.uk
Certificate No: 166m to EN 54-17:2005 & EN 54-23:2010
Certificate No: 166n to EN 54-23:2010

Certificated Products

<table>
<thead>
<tr>
<th>Product</th>
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<th>LPCB Ref. No.</th>
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<tr>
<td>DBS1224B4W</td>
<td>Conventional Type A wall mounted sounder</td>
<td>166c/30</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN54-3 for all tones and output levels at</td>
<td></td>
</tr>
</tbody>
</table>
Certificated Products

VOLTAGE RANGES 10-14 VDC AND 21-27 VDC

DBS1224B4W-D 4 Tone Type A conventional ceiling mounting sounder, white 166c/40
Note:
Meets the requirements of EN 54-3 at all output levels, and voltage ranges of 10-14 VDC and 19.5-28 VDC for the following tones:
1. Falling 1200Hz-500Hz over 3.5s followed by 0.5s silence
2. 800Hz continuous
3. 500Hz-1200Hz slow whoop
4. Falling 1200Hz-500Hz over 3.5s followed by 0.5s silence

WST-xC-lyy Analogue addressable wall mounted LED strobe with short circuit isolator (B501AP base) 166m/01
Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O: O-2.4-2
   - Flash rate 1Hz
   - Synchronization
2. Type A with Bcc deep back box, Type B with Wcc deep back box
3. x indicates body colour. D = Detector White, P = Pure White
4. yy indicates customer and associated communication protocol.
   - 01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   - 00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)

CWST-WW-YY Conventional beacon 166n/02
Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-9
   - Category C: C-3-9.5, C-6-9.5, C-9-9.5
   - Flash rate 0.5Hz
   - Synchronization
2. Type A with CSW shallow back box, Type B with CWW deep back box
3. WW indicates white body / white LED
4. YY indicates mounting option.
   Where S5 = shallow back box (standard fix)
   Where W5 = deep back box (standard fix)
   Where W6 = deep back box (first fix)

CWST-RR-YY Conventional beacon 166n/03
Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-6.7
   - Category C: C-3-9.4, C-6-8.2
   - Flash rate 0.5Hz
   - Synchronization
2. Type A with CSR shallow back box, Type B with CWR deep back box
3. RR indicates red body / red LED
4. YY indicates mounting option.
   Where S5 = shallow back box (standard fix)
   Where W5 = deep back box (standard fix)
   Where W6 = deep back box (first fix)

CWST-WR-YY Conventional beacon 166n/04
Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-6.2
   - Category C: C-3-9.4, C-6-8.2
   - Flash rate 0.5Hz
   - Synchronization
2. Type A with CSW shallow back box, Type B with CWW deep back box
3. WR indicates white body / red LED
4. YY indicates mounting option.
   Where S5 = shallow back box (standard fix)
   Where W5 = deep back box (standard fix)
   Where W6 = deep back box (first fix)

CWST-RW-YY Conventional beacon 166n/05
Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-9
   - Category C: C-3-9.5, C-6-9.5, C-9-9.5
   - Flash rate 0.5Hz
   - Synchronization
2. Type A with CSR shallow back box, Type B with CWR deep back box
3. RW indicates red body / white LED
4. YY indicates mounting option.
   Where S5 = shallow back box (standard fix)
   Where W5 = deep back box (standard fix)
   Where W6 = deep back box (first fix)
Certificated Products

CWSS-WW-YY
Conventional sounder beacon

Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-8.9
   - Category C: C-3-10, C-6-10
   - Flash rate 0.5Hz
   - Synchronization
2. Type A with CSW shallow back box, Type B with CWW deep back box
3. WW indicates white body / white LED
4. YY indicates mounting option. Where S5 = shallow back box (standard fix)
   - Where W5 = deep back box (standard fix)
   - Where S6 = shallow back box (first fix)
   - Where W6 = deep back box (first fix)
5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, 0.5s off, 3.5s on;
   25) 800 - 970, 50Hz;
   26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz;
   32) 2400 - 2850, 1Hz

CWSS-RR-YY
Conventional sounder beacon

Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-8.9
   - Category C: C-3-8.9, C-6-8.2
   - Flash rate 0.5Hz
   - Synchronization
2. Type A with CSR shallow back box, Type B with CWR deep back box
3. RR indicates red body / red LED
4. YY indicates mounting option. Where S6 = shallow back box (standard fix)
   - Where W6 = deep back box (standard fix)
   - Where S6 = shallow back box (first fix)
   - Where W6 = deep back box (first fix)
5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>13) 500-1200Hz, 0.25 sec off, 3.75 sec on;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>14) 660, 3.33Hz, 150ms on, 150ms off;</td>
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<td>15) 970, 0.9Hz 0.25s on, 1s off;</td>
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<td>16) 970, 0.5Hz 1s on, 1s off;</td>
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<td>17) 2850, 1Hz;</td>
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<tr>
<td></td>
<td>18) 970, 1Hz 500ms on, 500ms off;</td>
</tr>
<tr>
<td></td>
<td>19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;</td>
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<td>20) 800Hz;</td>
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<td>21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;</td>
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<td></td>
<td>22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;</td>
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<td>23) 2400 - 2850, 7Hz;</td>
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<td>24) 500 - 1200Hz, (0.5s off, 3.5s on);</td>
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<td>25) 800 - 970, 50Hz;</td>
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<td>26) 800 - 970, 7Hz;</td>
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<td>31) 800 - 1000, 2Hz;</td>
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<tr>
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<td>32) 2400 - 2850, 1Hz;</td>
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</tbody>
</table>

### CWSS-WR-YY

**Conventional sounder beacon**

**Notes:**

1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-6
   - Category C: C-3-8.9, C-6-8.2
   - Flash rate 0.5Hz
   - Synchronization

2. Type A with CSW shallow back box, Type B with CWW deep back box

3. **WR** indicates white body / red LED

4. **YY** indicates mounting option. Where **S** = shallow back box (standard fix)
   - Where **S** = shallow back box (first fix)
   - Where **W** = deep back box (standard fix)
   - Where **W** = deep back box (first fix)

5. Meets the requirements of EN54-3: 2001 for the following tones:
   - 1) 554/440, 2Hz (100ms/400ms);
   - 2) 800/970, 1Hz;
   - 3) 800/970, 2Hz;
   - 4) 2400/2900, 3Hz;
   - 5) 2500/3100, 2Hz;
   - 6) 988/645, 2Hz;
   - 7) 660Hz;
   - 8) 970Hz;
   - 9) 1200Hz;
   - 10) 2850Hz;
   - 11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   - 12) 420Hz, 0.625s on, 0.625 sec off;
   - 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   - 14) 660, 3.33Hz, 150ms on, 150ms off;
   - 15) 970, 0.8Hz 0.25s on, 1s off;
   - 16) 970, 0.5Hz 1s on, 1s off;
   - 17) 2850, 1Hz;
   - 18) 970, 1Hz 500ms on, 500ms off;
   - 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   - 20) 800Hz;
   - 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   - 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   - 23) 2400 - 2850, 7Hz;
   - 24) 500 - 1200Hz, (0.5s off, 3.5s on);
   - 25) 800 - 970, 50Hz;
   - 26) 800 - 970, 7Hz;
   - 27) 800 - 970, 1Hz;
   - 28) 2400 - 2850, 50Hz;
   - 29) 500 - 1000, 7Hz;
   - 30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   - 31) 800 - 1000, 2Hz;
   - 32) 2400 - 2850, 1Hz

### CWSS-RW-YY

**Conventional sounder beacon**

**Notes:**

1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category W: W-2.4-8.9
   - Category C: C-3-10, C-6-10
   - Flash rate 0.5Hz
20 Oct 2020

2. **Type A** with CSR shallow back box, **Type B** with CWR deep back box

3. **RW** indicates red body / white LED

4. **YY** indicates mounting option. Where **S5** = shallow back box (standard fix) Where **W5** = deep back box (standard fix) Where **S6** = shallow back box (first fix) Where **W6** = deep back box (first fix)

5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz;
   26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz;
   32) 2400 - 2850, 1Hz

CWSS-WR-ZZ

Conventional sounder beacon

166p/06

Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details): - Category O: Open class only (Refer to installation manual) - Flash rate 0.5Hz
2. **Synchronization**
3. **Type A** with CSW shallow back box, **Type B** with CWW deep back box

4. **WR** indicates white body / red LED

5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz;
   26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz;
   32) 2400 - 2850, 1Hz
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

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<tr>
<th>Product Code</th>
<th>Description</th>
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<tr>
<td>CWSS-RR-ZZ</td>
<td>Conventional sounder beacon</td>
<td>166p/07</td>
</tr>
</tbody>
</table>

Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details): - Category O: Open class only (Refer to installation manual) - Flash rate 0.5Hz - Synchronization
2. Type A with CSR shallow back box, Type B with CWR deep back box
3. **RR** indicates red body / red LED
4. **ZZ** indicates mounting option. Where **S3** = shallow back box (standard fix) Where **S4** = shallow back box (first fix) Where **W3** = deep back box (standard fix) Where **W4** = deep back box (first fix)
5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.399Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz;
   26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz;
   32) 2400 - 2850, 1Hz

CWSO-RR-YY

Conventional sounder

Notes:
1. Type A with CSR shallow back box, Type B with CWR deep back box
2. **RR** indicates red body
3. **YY** indicates mounting option.
   Where **S1** = shallow base (standard fix)
   Where **S2** = shallow base (first fix)
   Where **W1** = deep back box (standard fix)
   Where **W2** = deep back box (first fix)
4. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
Certificated Products

5) 2500/3100, 2Hz;
6) 988/645, 2Hz;
7) 680Hz;
8) 970Hz;
9) 1200Hz;
10) 2850Hz;
11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
12) 420Hz, 0.625s on, 0.625 sec off;
13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) 660, 3.33Hz, 150ms on, 150ms off;
15) 970, 0.8Hz 0.25s on, 1s off;
16) 970, 0.5Hz 1s on, 1s off;
17) 2850, 1Hz;
18) 970, 1Hz 500ms on, 500ms off;
19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) 800Hz;
21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
23) 2400 - 2850, 7Hz;
24) 500 - 1200Hz, (0.5s off, 3.5s on);
25) 800 - 970, 50Hz;
26) 800 - 970, 7Hz;
27) 800 - 970, 1Hz;
28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz;
32) 2400 - 2850, 1Hz;

CWSO-WW-YY
Conventional Sounder
Notes:
1. Type A with CSW shallow back box, Type B with CWW deep back box
2. WW indicates white body
3. YY indicates mounting option.
   Where S1 = shallow base (standard fix)
   Where S2 = shallow base (first fix)
   Where W1 = deep back box (standard fix)
   Where W2 = deep back box (first fix)
4. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 680Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz;
   26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz;
   32) 2400 - 2850, 1Hz;

CWSS-RA-YY
Conventional Sounder Beacon
Notes:
166c/53

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1. Type A with CSR shallow back box, Type B with CWR deep back box
2. The beacon function is not included in the scope of the approval
3. RA indicates red body / amber lens + red LED
4. YY indicates mounting option.
   Where S7 = shallow base (standard fix)
   Where S8 = shallow base (first fix)
   Where W7 = deep back box (standard fix)
   Where W8 = deep back box (first fix)
5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
12) 420Hz, 0.625s on, 0.625 sec off;
13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) 660, 3.33Hz, 150ms on, 150ms off;
15) 970, 0.8Hz 0.25s on, 1s off;
16) 970, 0.5Hz 1s on, 1s off;
17) 2850, 1Hz;
18) 970, 1Hz 500ms on, 500ms off;
19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) 800Hz;
21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
23) 2400 - 2850, 7Hz;
24) 500 - 1200Hz, (0.5s off, 3.5s on);
25) 800 - 970, 50Hz;
26) 800 - 970, 7Hz;
27) 800 - 970, 1Hz;
28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz;
32) 2400 - 2850, 1Hz;

CWSS-WA-YY
Conventional Sounder Beacon

Notes:
1. Type A with CSW shallow back box, Type B with CWW deep back box
2. The beacon function is not included in the scope of the approval
3. WA indicates white body / amber lens + red LED
4. YY indicates mounting option.
   Where S7 = shallow base (standard fix)
   Where S8 = shallow base (first fix)
   Where W7 = deep back box (standard fix)
   Where W8 = deep back box (first fix)
5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
12) 420Hz, 0.625s on, 0.625 sec off;
13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) 660, 3.33Hz, 150ms on, 150ms off;
15) 970, 0.8Hz 0.25s on, 1s off;
16) 970, 0.5Hz 1s on, 1s off;
17) 2850, 1Hz;
18) 970, 1Hz 500ms on, 500ms off;
19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) 800Hz;
Certificated Products

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21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
23) 2400 - 2850, 7Hz;
24) 500 - 1200Hz, (0.5s off, 3.5s on);
25) 800 - 970, 50Hz;
26) 800 - 970, 7Hz;
27) 800 - 970, 1Hz;
28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz;
32) 2400 - 2850, 1Hz;

CWSS-RB-YY Conventional Sounder Beacon 166c/55

Notes:
1. Type A with CSR shallow back box, Type B with CWR deep back box
2. The beacon function is not included in the scope of the approval
3. RB indicates red body / red lens + red LED
4. YY indicates mounting option.
   Where S7 = shallow base (standard fix)
   Where S8 = shallow base (first fix)
   Where W7 = deep back box (standard fix)
   Where W8 = deep back box (first fix)

5. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz & 988Hz
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz;
   26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz;
   32) 2400 - 2850, 1Hz;

CWSS-WB-YY Conventional Sounder Beacon 166c/56

Notes:
1. Type A with CSW shallow back box, Type B with CWW deep back box
2. The beacon function is not included in the scope of the approval
3. WB indicates white body / red lens + red LED
4. YY indicates mounting option.
   Where S7 = shallow base (standard fix)
   Where S8 = shallow base (first fix)
   Where W7 = deep back box (standard fix)
   Where W8 = deep back box (first fix)

4. Meets the requirements of EN54-3: 2001 for the following tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
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<th>8) 970Hz;</th>
<th>9) 1200Hz;</th>
<th>10) 2850Hz;</th>
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<tr>
<td></td>
<td>11) 2400Hz, alternating between frequencies 2400Hz, 3100Hz &amp; 988Hz</td>
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<td>12) 420Hz, 0.625s on, 0.625 sec off;</td>
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<td>13) 500-1200Hz, 0.25 sec off, 3.75 sec on;</td>
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<td>14) 660, 3.33Hz, 150ms on, 150ms off;</td>
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<td>15) 970, 0.8Hz 0.25s on, 1s off;</td>
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<td>16) 970, 0.5Hz 1s on, 1s off;</td>
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<td>17) 2850, 1Hz;</td>
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<td>18) 970, 1Hz 500ms on, 500ms off;</td>
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<td>19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;</td>
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<td>20) 800Hz;</td>
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<td>21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;</td>
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<td>22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;</td>
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<td>23) 2400 - 2850, 7Hz;</td>
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<td>24) 500 - 1200Hz, (0.5s off, 3.5s on);</td>
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<td>25) 800 - 970, 50Hz;</td>
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<td>26) 800 - 970, 7Hz;</td>
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<td>27) 800 - 970, 1Hz;</td>
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<td>28) 2400 - 2850, 50Hz;</td>
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<td>29) 500 - 1000, 7Hz;</td>
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<td>30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;</td>
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<td>31) 800 - 1000, 2Hz;</td>
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<td>32) 2400 - 2850, 1Hz;</td>
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</table>

Bases:
- B501AP Mounting base - Low profile base IP21C
- Bcc Deep Back Box
- Wcc Waterproof Deep Back Box IP33C
- CSW 19mm shallow back box - white IP21C
- CSR 19mm shallow back box - red IP21C
- CWW 45mm deep back box - white IP33C
- CWR 45mm deep back box - red IP33C

KMW Systems S.R.L.
Str. Sambetei, Nr. 6 lasi, , Romania
Tel: 0040232247288
E-mail: marius.gavriluta@kmw.ro


Audible Warning Devices
Certificated Products

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<th>KM-FCS200 Conventional Type A Sounder Strobe (KM-FCS5101 Base)</th>
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</thead>
<tbody>
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<td>Notes:</td>
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<td>1. Meets the requirements of EN 54-3 and approved at the following tones:</td>
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<tr>
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<td>1) Tone 01, 2400Hz - 2900Hz @ 3 Hz</td>
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<tr>
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<td>2) Tone 10, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off</td>
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<tr>
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<td>2. The strobe function is not included within the scope of this approval</td>
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<td>Bases</td>
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<tr>
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<td>KM-FCS5201 Base</td>
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<td>KM-FA6201 Digital Sounder Base</td>
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<th>KM-FA6200 Addressable Type A Indoor Digital Sounder Beacon (KM-FA6101 Base)</th>
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<tbody>
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<td>1. Meets the requirements of EN 54-3 and approved at the following tones:</td>
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<tr>
<td></td>
<td>1) Tone 00, 2400Hz - 2900Hz @ 3Hz</td>
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<td>2) Tone 01, 2400Hz - 2900Hz @ 9Hz</td>
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<td>3) Tone 08, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off</td>
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<td>4) Tone 14, 1500Hz - 2700Hz @ 3Hz</td>
</tr>
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<td>2. The beacon function is not included within the scope of this approval</td>
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<td>Bases</td>
</tr>
<tr>
<td></td>
<td>KM-FCS2001 Base</td>
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</table>

660 20 Oct 2020
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Audible Warning Devices
Certificated Products

200/FBRI/SOUW  Conventional indoor Type A sounder base
Notes:
1. Also approved in Off-white, Ivory and Alternative white (-O, -I, and -A suffixes)
2. Meets the requirements of EN 54-3 at the following tone settings on low, medium and high volume settings:
   1 - LF Sweep (Cranford sweep) (800-1000Hz @ 0.5 Sec)
   3 - Alternative Warble (800-1000Hz @ 0.5 Sec)
   11 - Dutch Sweep Tone (970Hz Cont)
   25 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)
   27 - French Tone AFNOR (554Hz 100ms and 440Hz for 400 ms)
3. Cover plate (Part No. 116-099) must be used.

FI700/WBRI/MT/SOUW  Conventional Indoor Type A Sounder Base
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings on low, medium and high volume settings:
   1 - Warble Tone BS (800-1000Hz @ 0.5 Sec)
   3 - Slow Whoop (Dutch) (500-1200Hz for 3.5s on, 0.5s off)
   4 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)
   12 - French Tone AFNOR (554Hz 100ms and 440Hz for 400 ms)
   23 - LF Sweep (800-1000Hz @ 0.5 Sec)
2. Cover Plate (white) - Part no. 116-125

FI750/WBRI/MT/SOUW  Conventional Indoor Type A Sounder Base
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings on low, medium and high volume settings:
   1 - Warble Tone BS (800-1000Hz @ 0.5 Sec)
   3 - Slow Whoop (Dutch) (500-1200Hz for 3.5s on, 0.5s off)
   4 - German DIN Tone (Sweep 1200-500Hz @ 1Hz)
   12 - French Tone AFNOR (554Hz 100ms and 440Hz for 400 ms)
   23 - LF Sweep (800-1000Hz @ 0.5 Sec)
2. Cover Plate (white) - Part no. 116-125

CWS/SOUR  Conventional Type A (indoor) Wall Sounder
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

CWS/SOUR + FI750/M/SST  Altair Addressable Type A (indoor) Wall Sounder with Short Circuit Isolator
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. Device is only addressable when used in conjunction with FI750/M/SST

Ancillaries
FI750/M/SST  Addressable module with short circuit isolator
PART 1: SECTION 7
ALARM WARNING DEVICES


Visual & Audible Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Visual &amp; Audible Warning Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWS/SOUR/STRC + FI750/M/SST</td>
<td>Altair Addressable Type A (indoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator</td>
</tr>
<tr>
<td>928z/01</td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. Meets the requirements of EN 54-3 at the following tone settings:</td>
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<td></td>
<td>2. The wall mounted VAD meets the requirements of EN 54-23 for the following:</td>
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</tr>
<tr>
<td></td>
<td>3. Device is only addressable when used in conjunction with FI750/M/SST</td>
</tr>
<tr>
<td></td>
<td>Ancillaries</td>
</tr>
<tr>
<td></td>
<td>FI750/M/SST Addressable module with short circuit isolator</td>
</tr>
</tbody>
</table>

Ancillaries |

Lichfield Fire & Safety Equipment Co. Ltd (LIFECO)
Unit 8, Calibre Industrial Park, Laches Close, Four Ashes, Wolverhampton WV10 7DZ, United Kingdom
Tel: +44 (0) 1902 798 706 • Fax: +44 (0) 1902 798 679
E-mail: info@lifeco-uk.com • Website: www.lifeco-uk.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>717a/01</td>
<td>LF-SB-4228 Conventional Sounder with LED Strobe (Red Head / Red Base) (LF-SSBB &amp; LF-DSSBB bases)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
</tr>
<tr>
<td></td>
<td>3. Certification excludes the strobe function</td>
</tr>
<tr>
<td>717a/05</td>
<td>LF-SD-4229 Conventional Sounder (Red) (LF-SSBB &amp; LF-DSSBB bases)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
</tr>
</tbody>
</table>

Bases
LF-SSBB Sonos Red Shallow Base
LF-DSSBB Sonos Red Deep Base

Mavili Elektronik Ticaret Ve Sanayi A.S.
Serifali Mah, Kutup Sok, No: 27-1, 1-2-4 Umranliye, Istanbul TR 34775, Turkey
Tel: +90 216 4664 505 • Fax: +90 216 4664 510
E-mail: mavili@mavili.com.tr • Website: www.mavili.com.tr

Certificate No: 926r to EN 54-23:2010
Certificate No: 926u to EN 54-23:2010, EN 54-17:2005
### Certificated Products

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-2420</td>
<td>Maxlogic Type A Conventional Wall Beacon</td>
<td>926r01</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) Type A for Indoor Use only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Meets the requirements of EN 54-23 for the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Category W-2.8-8.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Flash Rate 1Hz</td>
<td></td>
</tr>
<tr>
<td>ML-1420</td>
<td>Maxlogic Type A Analogue Addressable System Wall Strobe</td>
<td>926r02</td>
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<td>Notes:</td>
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</tr>
<tr>
<td></td>
<td>1) Type A for Indoor Use only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Meets the requirements of EN 54-23 for the following:</td>
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</tr>
<tr>
<td></td>
<td>- Category Open Class O-1.4-2.0 (cuboid shape: 1.4-3.0.-2.0)</td>
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<tr>
<td></td>
<td>- Flash Rate 0.5Hz</td>
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<tr>
<td>ML-1420.SCI</td>
<td>Maxlogic Type A Analogue Addressable System Wall Strobe with Short Circuit Isolator</td>
<td>926u01</td>
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<td>Notes:</td>
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</tr>
<tr>
<td></td>
<td>1. Type A for Indoor Use only</td>
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</tr>
<tr>
<td></td>
<td>2) Meets the requirements of EN 54-23 for the following:</td>
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</tr>
<tr>
<td></td>
<td>- Category Open Class O-1.4-2.0 (cuboid shape: 1.4-3.0.-2.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Flash Rate 0.5Hz</td>
<td></td>
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### Certificated Products

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<th>Model</th>
<th>Description</th>
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<td>ML-2410</td>
<td>Maxlogic Type A Conventional Wall Sounder</td>
<td>926q01</td>
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<td>Notes:</td>
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<td>Meets the requirements of EN 54-3 at the following tones:</td>
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</tr>
<tr>
<td></td>
<td>1 - Alternating 800-970Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 - Continuous 970Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 - Sweep 800-970Hz, 1000ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 - Pulse 970 Hz, 1s On / 1s Off</td>
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<tr>
<td></td>
<td>5 - Sweep 800-970Hz, 140ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 - Pulse 660Hz, 150ms On / 150ms Off</td>
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<tr>
<td></td>
<td>7 - Intermittent Sweep 500-1200Hz, 3.5s On / 0.5s Off</td>
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<tr>
<td></td>
<td>8 - Sweep 1200-500Hz, 1000ms On</td>
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<td></td>
<td>9 - Pulse 970Hz, 450-500ms On / 450-550ms Off</td>
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<td></td>
<td>10 - Sweep 2400-2900Hz, 330ms On</td>
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<td></td>
<td>11 - Alternating 554-440Hz, 100ms On / 400ms On</td>
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<tr>
<td></td>
<td>12 - Alternating 800-1000Hz, 500ms On / 500ms On</td>
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<td></td>
<td>13 - Sweep 800-1000Hz, 500ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 - Alternating 990-650Hz, 250ms On / 250ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 - Pulse 2810Hz, 500ms On / 500ms On</td>
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</tr>
<tr>
<td></td>
<td>16 - Continuous 660Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17 - Pulse 420Hz, 625ms On / 625ms Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 - Sweep 800-970Hz, 20ms On</td>
<td></td>
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<td>19 - Sweep 2400-2850Hz, 20ms On</td>
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<td>20 - Sweep 2400-2850Hz, 140ms On</td>
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<tr>
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<td>21 - Sweep 2400-2850Hz, 1000ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 - Continuous 2850Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23 - Sweep 150-1000Hz, 10s On / 4s Off</td>
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</tr>
<tr>
<td></td>
<td>24 - Sweep 500-1000Hz, 143ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 - Sweep 500-1200Hz, 1000ms Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26 - Sweep 500-1200Hz, 100ms Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 - Alternating 1000Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>28 - Pulse 800Hz, 1s On / 1s Off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29 - Alternating 840-558Hz, 500ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 - Pulse 500Hz, 150ms On / 600ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>31 - Alternating 510-610Hz, 250ms On / 250ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32 - Sweep 800-950Hz, 333ms On</td>
<td></td>
</tr>
<tr>
<td>ML-1410</td>
<td>Maxlogic Type A Analogue Addressable System Sounder</td>
<td>926q02</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Type A for Indoor Use only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - Alternating 800-970Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Continuous 970Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Sweep 800-970Hz, 1000ms On</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Pulse 970 Hz, 1000ms On / 1000ms OFF</td>
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<tr>
<td></td>
<td>5. Sweep 800-970Hz, 180ms On</td>
<td></td>
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<tr>
<td></td>
<td>6 Pulse 660Hz, 160ms On / 160ms Off</td>
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<tr>
<td></td>
<td>7. Sweep 500-1200Hz, 2500ms On</td>
<td></td>
</tr>
</tbody>
</table>
### PART 1: SECTION 7
ALARM WARNING DEVICES

<table>
<thead>
<tr>
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<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-1410.SCI Maxlogic Type A Analogue Addressable System Sounder with Short Circuit Isolator</td>
<td>926l/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. Type A for Indoor Use only
2. Meets the requirements of EN 54-3 at the following tones:
   - 1 Alternating 800-970Hz, 250 - 250ms On
   - 2 Continuous 970Hz
   - 3 Sweep 800-970Hz, 1000ms On
   - 4 Pulse 970 Hz, 1000ms ON / 1000ms OFF
   - 5 Sweep 800-970Hz, 180ms On
   - 6 Pulse 970Hz, 160ms On / 160ms Off
   - 7 Sweep 500-1200Hz, 2500ms On / 500ms Off
   - 8 Sweep 1200-500Hz, 1000ms On
   - 9 Pulse 970Hz, 450-550ms Off
   - 10 Sweep 2400-2900Hz, 200ms On
   - 11 Alternating 554-440Hz, 100ms On - 400ms Off
   - 12 Alternating 800-1000Hz, 500ms On - 500ms On
   - 13 Sweep 800-1000Hz, 440ms On
   - 14 Alternating 990-650Hz, 250ms On - 250ms On
   - 15 Pulse 2810Hz, 500ms On / 500ms Off
   - 16 Continuous 660Hz
   - 17 Pulse 420Hz, 625ms On / 625ms Off
   - 18 Continuous 1200Hz
   - 19 Continuous 800Hz
   - 20 Sweep 2400-2850Hz, 200ms On
   - 21 Sweep 2400-2850Hz, 880ms On
   - 22 Continuous 2850Hz
   - 23 Sweep 150-1000Hz, 1100ms On / 4000ms Off
   - 24 Sweep 500-1000Hz, 190ms On
   - 25 Sweep 500-1200Hz, 1000ms On / 850ms Off
   - 26 Sweep 500-1200Hz, 450ms On
   - 27 Alternating 400-1200Hz, 486ms On / 480ms Off
   - 28 Pulse 800Hz, 938ms On / 996ms Off
   - 29 Alternating 840-550Hz, 480ms On - 490ms On
   - 30 Pulse 500Hz, 580ms On / 144ms Off
   - 31 Alternating 510-610Hz, 232ms On - 238ms On
   - 32 Sweep 800-950Hz, 344ms On


### Certificated Products

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-2430 Maxlogic Type A Conventional Wall Sounder and Beacon</td>
<td>926s/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. Type A for Indoor Use only
2. Meets the requirements of EN 54-3 at the following tones:
   1. Alternating 800-970Hz
   2. Continuous 970Hz
   3. Sweep 800-970Hz, 1000ms On
   4. Pulse 970 Hz, 1s On / 1s Off
   5. Sweep 800-970Hz, 140ms On
   6. Pulse 660Hz, 150ms On / 150ms Off
   7. Intermittent Sweep 500-1200Hz, 3.5s On / 0.5s Off
   8. Sweep 1200-500Hz, 1000ms On
   9. Pulse 970Hz, 450-500ms On / 450-550ms Off
   10. Sweep 2400-2900Hz, 330ms On
   11. Alternating 554-440Hz, 100ms On - 400ms On
   12. Alternating 800-1000Hz, 500ms On - 500ms On
   13. Sweep 800-1000Hz, 500ms On
   14. Alternating 990-650Hz, 250ms On - 250ms On
   15. Pulse 2810Hz, 500ms On / 500ms Off
   16. Continuous 660Hz
   17. Pulse 420Hz, 625ms On / 625ms Off
   18. Sweep 800-970Hz, 20ms On
   19. Sweep 2400-2850Hz, 20ms On
   20. Sweep 2400-2850Hz, 140ms On
   21. Sweep 2400-2850Hz, 1000ms On
   22. Continuous 2850Hz
   23. Sweep 150-1000Hz, 10s On / 4s Off
   24. Sweep 500-1000Hz, 143ms On
   25. Sweep 500-1200Hz, 1000ms Off
   26. Sweep 500-1200Hz, 100ms Off
   27. Alternating 400-1200Hz, 500ms On, 500ms Off
   28. Pulse 800Hz, 1s On / 1s Off
   29. Alternating 840-558Hz, 500ms On
   30. Pulse 500Hz, 150ms On / 600ms On
   31. Alternating 510-610Hz, 250ms On - 250ms On
   32. Sweep 800-950Hz, 333ms On

3. Meets the requirements of EN 54-23 for the following:
   - Category W-2.4-8.0
   - Flash Rate 1Hz

ML-1430 Maxlogic Type A Analogue Addressable System Wall Sounder & Strobe

Notes:
1. Type A for Indoor Use only
2. Meets the requirements of EN 54-3 at the following tones:
   1. Alternating 800-970Hz, 250 - 250ms On
   2. Continuous 970Hz
   3. Sweep 800-970Hz, 1000ms On
   4. Pulse 970 Hz, 1000ms ON / 1000ms OFF
   5. Sweep 800-970Hz, 180ms On
   6. Pulse 660HZ, 160ms On / 160ms Off
   7. Sweep 500-1200Hz, 2500ms On / 500ms Off
   8. Sweep 1200-500Hz, 1000ms On
   9. Pulse 970Hz, 450-550ms On, 450-550ms Off
   10. Sweep 2400-2900Hz, 250ms On
   11. Alternating 554-440Hz, 100ms On - 400ms On
   12. Alternating 800-1000Hz, 500ms On - 500ms On
   13. Sweep 800-1000Hz, 440ms On
   14. Alternating 990-650Hz, 250ms On - 250ms On
   15. Pulse 2810Hz, 500ms On / 500ms Off
   16. Continuous 660Hz
   17. Pulse 420Hz, 625ms On / 625ms Off
   18. Continuous 1200Hz
   19. Continuous 800Hz
   20. Sweep 2400-2850Hz, 200ms On
   21. Sweep 2400-2850Hz, 880ms On
   22. Continuous 2850Hz
   23. Sweep 150-1000Hz, 1100ms On / 4000ms Off
   24. Sweep 500-1000Hz, 190ms On
   25. Sweep 500-1200Hz, 1000ms On / 850ms Off
   26. Sweep 500-1200Hz, 450ms On
   27. Alternating 400-1200Hz, 486ms On / 480ms Off
   28. Pulse 800Hz, 938ms On / 996ms Off
   29. Alternating 840-558Hz, 480ms On - 490ms On
   30. Pulse 500Hz, 580ms On / 144ms Off
   31. Alternating 510-610Hz, 232ms On - 238ms On
## PART 1: SECTION 7
### ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML-1430.SCI Maxlogic Type A Analogue Addressable System Wall Sounder &amp; Strobe with Short Circuit Isolator</td>
<td>926v/01</td>
</tr>
</tbody>
</table>

**Notes:**
1. Type A for Indoor Use only
2. Meets the requirements of EN 54-3 at the following tones:
   1. Alternating 800-970Hz, 250 - 250ms On
   2. Continuous 970Hz
   3. Sweep 800-970Hz, 1000ms On
   4. Pulse 970 Hz, 1000ms ON / 1000ms OFF
   5. Sweep 800-970Hz, 180ms On
   6. Pulse 660Hz, 160ms On / 160ms Off
   7. Sweep 500-1200Hz, 2500ms On / 500ms Off
   8. Sweep 1200-500Hz, 1000ms On
   9. Pulse 970Hz, 450-550ms On, 450-550ms Off
   10. Sweep 2400-2900Hz, 250ms On
   11. Alternating 554-440Hz, 100ms On - 400ms Off
   12. Alternating 800-1000Hz, 500ms On - 500ms On
   13. Sweep 800-1000Hz, 440ms On
   14. Alternating 990-850Hz, 250ms On - 250ms On
   15. Pulse 2810Hz, 500ms On / 500ms Off
   16. Continuous 660Hz
   17. Pulse 420Hz, 625ms On / 625ms Off
   18. Continuous 1200Hz
   19. Continuous 800Hz
   20. Sweep 2400-2850Hz, 200ms On
   21. Sweep 2400-2850Hz, 880ms On
   22. Continuous 2850Hz
   23. Sweep 150-1000Hz, 1100ms On / 4000ms Off
   24. Sweep 500-1000Hz, 190ms On
   25. Sweep 500-1200Hz, 1000ms On / 850ms Off
   26. Sweep 500-1200Hz, 450ms On
   27. Alternating 400-1200Hz, 486ms On / 480ms Off
   28. Pulse 800Hz, 938ms On / 996ms Off
   29. Alternating 840-558Hz, 480ms On - 490ms On
   30. Pulse 500Hz, 580ms On / 144ms Off
   31. Alternating 510-610Hz, 232ms On - 238ms On
   32. Sweep 800-950Hz, 344ms On
3. Meets the requirements of EN 54-23 for the following:
   - Category Open Class O-1.4-2.0 (cuboid shape: 1.4-3.0.-2.0)
   - Flash Rate 0.5Hz

---

**Moflash Signalling Ltd.**

11 Upper Conybere Street, Highgate, Birmingham, West Midlands B12 0EB, United Kingdom

Tel: 01214405894 • Fax: 01923 664050

E-mail: engineering@moflash.co.uk • Website: https://www.moflash.co.uk/


### Audible Warning Devices

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS-S-02 Intrinsically Safe Fire Alarm Sounder Type B (Red) (HSG6890SA base)</td>
<td>1448a/01</td>
</tr>
</tbody>
</table>

**Note:**
1. Meets the requirements of EN 54-3:2001 for the following tones:
   - Tone 1 - 970Hz Continuous
   - Tone 2 - 800Hz/970Hz @ 2Hz
   - Tone 3 - 800Hz - 970Hz @ 1Hz
   - Tone 4 - 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
   - Tone 5 - 500 - 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
   - Tone 6 - 1200Hz - 500Hz @ 1Hz (DIN 33 404)

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IS-S-02WH Intrinsically Safe Fire Alarm Sounder Type B (White) (HSG6890SA base) | 1448a/01 |

**Note:**
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

1. Meets the requirements of EN 54-3:2001 for the following tones
   - Tone 1 - 970Hz Continuous
   - Tone 2 - 800Hz/970Hz @ 2Hz
   - Tone 3 - 800Hz - 970Hz @ 1Hz
   - Tone 4 - 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
   - Tone 7 - 500 - 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
   - Tone 13 - 1200Hz - 500Hz @ 1Hz (DIN 33 404)

IS-SB-02-XX
Intrinsically Safe Fire Alarm Sounder Beacon Type B (Red) (HSG6890SA base)
Notes:
- Tone 1 - 970Hz Continuous
- Tone 2 - 800Hz/970Hz @ 2Hz
- Tone 3 - 800Hz - 970Hz @ 1Hz
- Tone 4 - 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
- Tone 7 - 500 - 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
- Tone 13 - 1200Hz - 500Hz @ 1Hz (DIN 33 404)
- XX indicates Beacon colour:
  01 - Amber
  02 - Red
  03 - Blue
  04 - Green
  05 - White
- The beacon function is not included within the scope of this approval.

IS-SB-02-XXWH
Intrinsically Safe Fire Alarm Sounder Beacon Type B (White) (HSG6890SA base)
Notes:
- Tone 1 - 970Hz Continuous
- Tone 2 - 800Hz/970Hz @ 2Hz
- Tone 3 - 800Hz - 970Hz @ 1Hz
- Tone 4 - 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
- Tone 7 - 500 - 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
- Tone 13 - 1200Hz - 500Hz @ 1Hz (DIN 33 404)
- XX indicates Beacon colour:
  01 - Amber
  02 - Red
  03 - Blue
  04 - Green
  05 - White
- The beacon function is not included within the scope of this approval.

Bases:
HSG6890SA Time Saver Base

Morley IAS by Honeywell
Caburn House, 2B Brooks Road, Lewes BN7 2BY, United Kingdom
Tel: +44(0)1273 897000 • Fax: +44(0) 1273 376894
E-mail: sales@morleysias.co.uk • Website: http://www.morley-ias.co.uk

Certificate No: 166m-(cl-1) to EN 54-17: 2005 & EN 54-23: 2010

Certificated Products

MI-VAD-WC-I Analogue Addressable High Output Beacon with Short Circuit Isolator (B501AP base)
Notes:
- The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
  - Category C: C-3-5.1, C-6-5.1, C-9-5.1
  - Category W: W-2.4-2.76
  - Flash rate 0.5Hz
  - Synchronization
- Type A indoor use with B501AP only, Type B outdoor use with B501AP and WRR or WPW

Ancillaries
B501AP Mounting base - Low profile base IP21C
WPW Deep back box for outdoor (White)
WRR Deep back box for outdoor (Red)
PART 1: SECTION 7
ALARM WARNING DEVICES

Morley-IAS Fire Systems by Honeywell (Pittway Systems Technology Group (Europe) Ltd)
Charles Avenue, Burgess Hill, West Sussex RH15 9UF
Tel: +44 (0)1444 235556 • Fax: +44 (0)1444 254410
E-mail: sales@morleyias.co.uk • Website: www.morley-ias.co.uk

Certificate No: 166m-(cl-1) to EN 54-17:2005 & EN 54-23:2010
Certificate No: 166t-(cl-1) to EN 54-23:2010

Audible Warning Devices
Certificated Products

MI-WSO-xx-N
Analogue addressable Type A/B wall mounted sounder (B501AP-cc, Bcc bases, and Wcc bases)

Notes:
1. xx indicates body colour. PR =Red, PP =Pure White
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 800, 0.16Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.
4. Approved as Type B only when used with Wcc base.

MI-WSS-xx-N
Analogue addressable Type A/B wall mounted sounder/strobe (B501AP-cc, Bcc, and Wcc bases)

Notes:
1. xx indicates body/lens colour. PR =Red/Red, PA =Amber/Amber, PC =Clear/Clear
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 800, 0.16Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

MI-BSO-xx-N
Analogue addressable Type A integrated detector base sounder
(B501AP-cc, Bcc and Wcc bases)

Notes:
1. xx indicates body colour. PP = Pure White, DD = Detector White
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz: 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.
4. Certification excludes the strobe function.

MI-BSS-xx-N
Analogue addressable Type A integrated detector base sounder/strobe
(B501AP-cc, Bcc and Wcc bases)

Notes:
1. xx indicates body/lens colour. PR = Pure White/Red, PA = Pure White/Amber, PC = Pure White/Clear, DR = Detector White/Red, DA = Detector White/Amber, DC = Detector White/Clear
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz: 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz;
   27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz;
   29) 500 - 1000, 7Hz;
   30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.
4. Certification excludes the strobe function.

MI-WSO-xx-I
Analogue addressable Type A/B wall mounted sounder with short circuit isolator
PART 1: SECTION 7
ALARMA WRNNG DEVICES

Certificated Products
(B501AP-cc, Bcc bases, and Wcc bases)

Notes:
1. xx indicates body colour. PR = Red, PP = Pure White
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:

   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 970, 0.2Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz: 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz. 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz. 0.5Hz 1s on, 1s off;
   25) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   26) 800 - 1000, 2Hz; 27) 2400 - 2850, 1Hz.

4. Approved as Type B only when used with Wcc base.

MI-WSS-xx-I Analogue addressable Type A/B wall mounted sounder/strobe with short circuit isolator
(B501AP-cc, Bcc bases, and Wcc bases)

Notes:
1. xx indicates body/lens colour. PR = Red/Red, PA = Amber/Amber, PC = Clear/Clear
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:

   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 970, 0.2Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz: 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz. 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz. 0.5Hz 1s on, 1s off;
   25) 500 - 970, 0.8Hz 0.25s on, 1s off;
   26) 500 - 970, 0.5Hz 1s on, 1s off;
   27) 500 - 1000, 1Hz;
   28) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   29) 800 - 1000, 2Hz; 30) 2400 - 2850, 1Hz.

4. Certification excludes the strobe function.
5. Approved as Type B only when used with Wcc base.

MI-BSO-xx-I Analogue addressable Type A integrated detector base sounder with short circuit isolator
(B501AP-cc, Bcc bases, and Wcc bases)

Notes:
1. xx indicates body colour. PP = Pure White, DD = Detector White
2. yy indicates customer and associated communication protocol.
   01 indicates Advanced Protocol (and Honeywell 500 series protocol)
   00 and 02-99 indicates Advanced Protocol (and System Sensor 500 series protocol)
3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:

   1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz;
   4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz;
   7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
**Certificated Products**

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<td>MI-WST-PC-I Analogue addressable wall mounted LED strobe with short circuit isolator (B501AP base)</td>
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<td>MI-WST-PC-N Analogue addressable wall mounted LED strobe (B501AP base)</td>
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<td>MI-WSS-PC-I Analogue addressable wall mounted sounder / LED strobe with short circuit isolator (B501AP base)</td>
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</table>

**Notes:**

1. The wall mounted VAD meets the requirements of EN54-3: 2001 at the following tones:
   1) Alternating 525/440, 2Hz (100ms/400ms);

2. MI-BSS-xx-I
   - 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   - 14) 660, 3.33Hz, 150ms on, 150ms off;
   - 15) 970, 0.8Hz 0.25s on, 1s off;
   - 16) 970, 0.5Hz 1s on, 1s off;
   - 17) 2850, 1Hz;
   - 18) 970, 1Hz 500ms on, 500ms off;
   - 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   - 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   - 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   - 23) 2400 - 2850, 7Hz;
   - 24) 500 - 1200Hz, (0.5s off, 3.5s on);
   - 25) 800 - 970, 50Hz;
   - 26) 800 - 970, 7Hz;
   - 27) 800 - 970, 1Hz;
   - 28) 2400 - 2850, 50Hz;
   - 29) 500 - 1000, 7Hz;
   - 30) 800 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   - 31) 2400 - 2850, 1Hz.

3. MI-WST-PC-I
   - 1) 554/440, 2Hz (100ms/400ms);
   - 2) 800/970, 1Hz;
   - 3) 800/970, 2Hz;
   - 4) 2400/2900, 3Hz;
   - 5) 2500/3100, 2Hz;
   - 6) 988/645, 2Hz;
   - 7) 660Hz;
   - 8) 970Hz;
   - 9) 1200Hz;
   - 10) 2850Hz;
   - 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   - 12) 420Hz, 0.625s on, 0.625 sec off;
   - 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   - 14) 660, 3.33Hz, 150ms on, 150ms off;
   - 15) 970, 0.8Hz 0.25s on, 1s off;
   - 16) 970, 0.5Hz 1s on, 1s off;
   - 17) 2850, 1Hz;
   - 18) 970, 1Hz 500ms on, 500ms off;
   - 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   - 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   - 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   - 23) 2400 - 2850, 7Hz;
   - 24) 500 - 1200Hz, (0.5s off, 3.5s on);
   - 25) 800 - 970, 50Hz;
   - 26) 800 - 970, 7Hz;
   - 27) 800 - 970, 1Hz;
   - 28) 2400 - 2850, 50Hz;
   - 29) 500 - 1000, 7Hz;
   - 30) 800 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   - 31) 800 - 1000, 2Hz;

4. MI-WSS-PC-I
   - 1) 554/440, 2Hz (100ms/400ms);
   - 2) 800/970, 1Hz;
   - 3) 800/970, 2Hz;
   - 4) 2400/2900, 3Hz;
   - 5) 2500/3100, 2Hz;
   - 6) 988/645, 2Hz;
   - 7) 660Hz;
   - 8) 970Hz;
   - 9) 1200Hz;
   - 10) 2850Hz;
   - 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   - 12) 420Hz, 0.625s on, 0.625 sec off;
   - 13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   - 14) 660, 3.33Hz, 150ms on, 150ms off;
   - 15) 970, 0.8Hz 0.25s on, 1s off;
   - 16) 970, 0.5Hz 1s on, 1s off;
   - 17) 2850, 1Hz;
   - 18) 970, 1Hz 500ms on, 500ms off;
   - 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   - 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   - 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   - 23) 2400 - 2850, 7Hz;
   - 24) 500 - 1200Hz, (0.5s off, 3.5s on);
   - 25) 800 - 970, 50Hz;
   - 26) 800 - 970, 7Hz;
   - 27) 800 - 970, 1Hz;
   - 28) 2400 - 2850, 50Hz;
   - 29) 500 - 1000, 7Hz;
   - 30) 800 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
   - 31) 800 - 1000, 2Hz;
2) Alternating 800/922, 1Hz;
3) Alternating 800/922, 2Hz;
4) Alternating 2400/2900, 3Hz;
5) Alternating 2500/3100, 2Hz;
6) Alternating 988/645, 2Hz;
7) Continuous 630Hz;
8) Continuous 922Hz;
9) Continuous 1200Hz;
10) Continuous 2810Hz;
11) Sweep 150-1000Hz, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
12) Intermittent 420Hz, 0.625s on, 0.625 sec off;
13) Sweep 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) Intermittent 630, 3.33Hz, 150ms on, 150ms off;
15) Intermittent 922, 0.8Hz 0.25s on, 1s off;
16) Intermittent 922, 0.5Hz 1s on, 1s off;
17) Intermittent 2610, 1Hz;
18) Intermittent 922, 1Hz 500ms on, 500ms off;
19) Inertmittent 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) Continuous 800Hz;
21) Sweep 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
22) Sweep 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
23) Sweep 2400 - 2850, 7Hz;
24) Sweep 500 - 1200Hz, (0.5s off, 3.5s on);
25) Sweep 800 - 970, 50Hz;
26) Sweep 800 - 970, 1Hz;
27) Sweep 800 - 970, 0Hz;
28) Sweep 2400 - 2850, 50Hz;
29) Sweep 500 - 1000, 7Hz;
30) Sweep 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) Sweep 800 - 1000, 2Hz;
32) Sweep 2400 - 2850, 1Hz

MI-DSS-PC-I Analogue Addressable Type A Integrated Detector Base Sounder/Beacon with Short Circuit Isolator (B501AP base)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. PC=Pure White/Clear indicates body/lens colour.
3. Advanced Protocol (and Honeywell 500 series protocol)
4. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
   10) 2850Hz;
   11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
   12) 420Hz, 0.625s on, 0.625 sec off;
   13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
   14) 660, 3.33Hz, 150ms on, 150ms off;
   15) 970, 0.8Hz 0.25s on, 1s off;
   16) 970, 0.5Hz 1s on, 1s off;
   17) 2850, 1Hz;
   18) 970, 1Hz 500ms on, 500ms off;
   19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
   20) 800Hz;
   21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
   22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
   23) 2400 - 2850, 7Hz;
   24) 500 - 1200Hz, (0.5s off, 3.5s on);
   25) 800 - 970, 50Hz;
   26) 800 - 970, 1Hz;
   27) 800 - 970, 1Hz;
   28) 2400 - 2850, 50Hz;
29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz;
32) 2400 - 2850, 1Hz.

MI-WSS-PC-N Analogue Addressable Wall Mounted Sounder / LED Strobe (B501AP base)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. PC=Pure White/Clear indicates body/lens colour.
3. Type A with Bcc deep back box, Type B with Wcc deep back box
4. Meets the requirements of EN54-3: 2001 at the following tones:
   1) Alternating 525/440, 2Hz (100ms/400ms);
   2) Alternating 800/922, 1Hz;
   3) Alternating 800/922, 2Hz;
   4) Alternating 2400/2900, 3Hz;
   5) Alternating 2500/3100, 2Hz;
   6) Alternating 988/645, 2Hz;
   7) Continuous 630Hz;
   8) Continuous 922Hz;
   9) Continuous 1200Hz;
10) Continuous 2810Hz;
11) Sweep 150-1000Hz, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
12) Intermittent 420Hz, 0.625s on, 0.625 sec off;
13) Sweep 500-1200Hz, 0.25 sec off, 3.75 sec on;
14) Intermittent 630, 3.33Hz, 150ms on, 150ms off;
15) Intermittent 922, 0.8Hz, 0.25s on, 1s off;
16) Intermittent 922, 0.5Hz, 1s on, 1s off;
17) Intermittent 2810, 1Hz;
18) Intermittent 922, 1Hz, 500ms on, 500ms off;
19) Intermittent 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;
20) Continuous 800Hz;
21) Sweep 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;
22) Sweep 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;
23) Sweep 2400 - 2850, 7Hz;
24) Sweep 500 - 1200Hz, (0.5s off, 3.5s on);
25) Sweep 800 - 970, 50Hz;
26) Sweep 800 - 970, 7Hz;
27) Sweep 800 - 970, 1Hz;
28) Sweep 2400 - 2850, 50Hz;
29) Sweep 500 - 1200, 7Hz;
30) Sweep 500 - 1200, 0.166Hz rise 1s, stable 4s, fall 1s;
31) Sweep 800 - 1000, 2Hz;
32) Sweep 2400 - 2850, 1Hz

MI-DSS-PC-N Analogue Addressable Type A Integrated Detector Base Sounder/Beacon (B501AP base)

Notes:
1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):
   - Category O - Open Class
   - Flash rate 1Hz
   - Synchronization
2. PC=Pure White/Clear indicates body/lens colour.
3. Advanced Protocol (and Honeywell 500 series protocol)
4. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:
   1) 554/440, 2Hz (100ms/400ms);
   2) 800/970, 1Hz;
   3) 800/970, 2Hz;
   4) 2400/2900, 3Hz;
   5) 2500/3100, 2Hz;
   6) 988/645, 2Hz;
   7) 660Hz;
   8) 970Hz;
   9) 1200Hz;
10) 2850Hz;
11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;
12) 420Hz, 0.625s on, 0.625 sec off;
13) 500-1200Hz, 0.25 sec off, 3.75 sec on;
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>14) 660, 3.33Hz, 150ms on, 150ms off;</td>
</tr>
<tr>
<td>15) 970, 0.8Hz 0.25s on, 1s off;</td>
</tr>
<tr>
<td>16) 970, 0.5Hz 1s on, 1s off;</td>
</tr>
<tr>
<td>17) 2850, 1Hz;</td>
</tr>
<tr>
<td>18) 970, 1Hz 500ms on, 500ms off;</td>
</tr>
<tr>
<td>19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;</td>
</tr>
<tr>
<td>20) 800Hz;</td>
</tr>
<tr>
<td>21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;</td>
</tr>
<tr>
<td>22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;</td>
</tr>
<tr>
<td>23) 2400 - 2850, 7Hz;</td>
</tr>
<tr>
<td>24) 500 - 1200Hz, (0.5s off, 3.5s on);</td>
</tr>
<tr>
<td>25) 800 - 970, 50Hz;</td>
</tr>
<tr>
<td>26) 800 - 970, 1Hz;</td>
</tr>
<tr>
<td>27) 800 - 970, 1Hz;</td>
</tr>
<tr>
<td>28) 2400 - 2850, 50Hz;</td>
</tr>
<tr>
<td>29) 500 - 1000, 7Hz;</td>
</tr>
<tr>
<td>30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;</td>
</tr>
<tr>
<td>31) 800 - 1000, 2Hz;</td>
</tr>
<tr>
<td>32) 2400 - 2850, 1Hz.</td>
</tr>
</tbody>
</table>

MI-VAD-WC-N Analogue Addressable High Output Beacon (B501AP base)

Notes:
1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):
   - Category C: C-3-5.1, C-6-5.1, C-9-5.1
   - Category W: W-2.4-2.76
   - Flash rate 0.5Hz
   - Synchronization
2. Type A indoor use with B501AP only, Type B outdoor use with B501AP and WRR or WPW

Bases

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B501AP-cc Low profile base IP21C, cc indicates colour, Blank=Pure White, lV=Detector White</td>
</tr>
<tr>
<td>Bcc Deep base IP44, cc indicates colour, RR=Red, DD=Detector White, PW=Pure White</td>
</tr>
<tr>
<td>Wcc Waterproof base IP65, cc indicates colour, RR=Red, DD=Detector White, PW=Pure White</td>
</tr>
<tr>
<td>B501AP Mounting Base - Low Profile Base IP21C</td>
</tr>
<tr>
<td>Bcc Deep Back Box</td>
</tr>
<tr>
<td>Wcc Waterproof Deep Back Box IP33C</td>
</tr>
</tbody>
</table>

Multron Systems Pte Ltd
217 Kallang Bahru, Multron Building, Singapore 339 347, Singapore
Tel: +65 6743 2555 / 6395 6868 • Fax: +65 6743 2777 / 6395 6869
E-mail: info@multron.com • Website: www.multron.com


Audible Warning Devices

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MX300 Addressable Sounder Strobe (MX300 Base)</td>
</tr>
<tr>
<td>Bases</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MX300 Sounder Base</td>
</tr>
</tbody>
</table>

Notes:
1. Approved to Type A Indoor use only.
2. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 14, 2400 Hz – 2900 Hz @ 3Hz
   - Tone 16, 500Hz – 1200Hz, 3.5s on/0.25s off
   - Tone 17, 800Hz, 1s off/1s on
3. The strobe function is not approved to EN 54-23
Notifier by Honeywell (Pittway Systems Technology Group (Europe) Ltd)  
Charles Avenue, Burgess Hill, West Sussex RH15 9UF, United Kingdom  
Tel: +44 (0)1444 230230 • Fax: +44 (0)1444 230689  
E-mail: sales@notifierfiresystems.co.uk • Website: www.notifierfiresystems.co.uk

Certificate No: 166i-(cl-3) to EN54-23: 2010  
Certificate No: 166m-(cl-3) to EN 54-17:2005 & EN 54-23: 2010  

Audible Warning Devices

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>NBS3D</th>
<th>4 Tone Type A conventional ceiling mounting sounder, white</th>
</tr>
</thead>
<tbody>
<tr>
<td>166c/40</td>
<td>Note:</td>
<td>Meets the requirements of EN 54-3 at all output levels, and voltage ranges of 10-14 VDC and 19.5-28 VDC for the following tones:</td>
</tr>
<tr>
<td></td>
<td>1. - (Falling 1200Hz-500Hz over 3.5s followed by 0.5s silence)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. - (800Hz continuous)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. - (500Hz-1200Hz slow whoop)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. - (Falling 1200Hz-500Hz over 3.5s followed by 0.5s silence)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>NFXI-WS-z</th>
<th>Analogue addressable Type A/B wall mounted sounder with short circuit isolator</th>
</tr>
</thead>
<tbody>
<tr>
<td>166j/01</td>
<td>(B501AP-cc, Bcc bases, and Wcc bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. z indicates body colour. R = Red, W = Pure White</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Advanced Protocol (and System Sensor 500 series protocol)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz; 24) 500 - 1200Hz, (0.5s off, 3.5s on); 25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz; 27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.16Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 3Hz; 32) 2400 - 2850, 1Hz.</td>
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</tr>
<tr>
<td></td>
<td>4. Approved as Type B only when used with Wcc base.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>NFXI-WSF-zz</th>
<th>Analogue addressable Type A/B wall mounted sounder/strobe with short circuit isolator</th>
</tr>
</thead>
<tbody>
<tr>
<td>166j/02</td>
<td>(B501AP-cc, Bcc bases, and Wcc bases)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. zz indicates body/lens colour. RR = Red/Red, WC = Clear/Clear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Advanced Protocol (and System Sensor 500 series protocol)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off; 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz; 24) 500 - 1200Hz, (0.5s off, 3.5s on); 25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz; 27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.16Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 3Hz; 32) 2400 - 2850, 1Hz.</td>
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</tbody>
</table>
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Analogue addressable Type A integrated detector base sounder with short circuit isolator (B501AP-cc, Bcc and Wcc bases)</td>
</tr>
<tr>
<td>166j/03</td>
<td>NFXI-BS-zz</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. <strong>zz</strong> indicates body colour. <strong>W</strong> = Pure White, <strong>IV</strong> = Detector White</td>
<td></td>
</tr>
<tr>
<td>2. Advanced Protocol (and System Sensor 500 series protocol)</td>
<td></td>
</tr>
<tr>
<td>3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:</td>
<td></td>
</tr>
<tr>
<td>1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, 0.5s on, 0.5s off x 3, 1.5s off; 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz; 24) 500 - 1200Hz, (0.5s off, 3.5s on); 25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz; 27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.</td>
<td></td>
</tr>
<tr>
<td>4. Certification excludes the strobe function.</td>
<td></td>
</tr>
<tr>
<td>5. Approved as Type B only when used with Wcc base.</td>
<td></td>
</tr>
<tr>
<td>6. NFXI-BSF-zzz Analogue addressable Type A integrated detector base sounder/strobe with short circuit isolator (B501AP-cc, Bcc and Wcc bases)</td>
<td></td>
</tr>
<tr>
<td>166j/04</td>
<td>Notes:</td>
</tr>
<tr>
<td>1. <strong>zzz</strong> indicates body/lens colour. <strong>WC</strong> = Pure White/Clear, <strong>IVC</strong> = Detector White/Clear</td>
<td></td>
</tr>
<tr>
<td>2. Advanced Protocol (and System Sensor 500 series protocol)</td>
<td></td>
</tr>
<tr>
<td>3. Meets the requirements of EN54-3 for all output levels at voltage range 15-29VDC and tones:</td>
<td></td>
</tr>
<tr>
<td>1) 554/440, 2Hz (100ms/400ms); 2) 800/970, 1Hz; 3) 800/970, 2Hz; 4) 2400/2900, 3Hz; 5) 2500/3100, 2Hz; 6) 988/645, 2Hz; 7) 660Hz; 8) 970Hz; 9) 1200Hz; 10) 2850Hz; 11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating; 12) 420Hz, 0.625s on, 0.625 sec off; 13) 500-1200Hz, 0.25 sec off, 3.75 sec on; 14) 660, 3.33Hz, 150ms on, 150ms off; 15) 970, 0.8Hz 0.25s on, 1s off; 16) 970, 0.5Hz 1s on, 1s off; 17) 2850, 1Hz; 18) 970, 1Hz 500ms on, 500ms off; 19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off; 20) 800Hz; 21) 400-1200Hz, 0.5s on, 0.5s off x 3, 1.5s off; 22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off; 23) 2400 - 2850, 7Hz; 24) 500 - 1200Hz, (0.5s off, 3.5s on); 25) 800 - 970, 50Hz; 26) 800 - 970, 7Hz; 27) 800 - 970, 1Hz; 28) 2400 - 2850, 50Hz; 29) 500 - 1000, 7Hz; 30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s; 31) 800 - 1000, 2Hz; 32) 2400 - 2850, 1Hz.</td>
<td></td>
</tr>
<tr>
<td>4. Certification excludes the strobe function.</td>
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</tr>
<tr>
<td>5. NFXI-WF-WC addressable wall mounted LED strobe with short circuit isolator (B501AP base)</td>
<td></td>
</tr>
<tr>
<td>166m/01 Note:</td>
<td></td>
</tr>
<tr>
<td>1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details): Category O-2.4-2.1Hz - Synchronization</td>
<td></td>
</tr>
<tr>
<td>2. Type A with Bcc deep back box, Type B with Wcc deep back box</td>
<td></td>
</tr>
<tr>
<td>ANALOGUE ADDRESSABLE HIGH OUTPUT BEACON WITH SHORT CIRCUIT ISOLATOR</td>
<td></td>
</tr>
<tr>
<td>NFXI-WCF-WC Analogue Addressable High Output Beacon with Short Circuit Isolator (B501AP base)</td>
<td></td>
</tr>
<tr>
<td>166m/02 Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The ceiling / wall mounted VAD meets the requirements of EN 54-23: 2010 for the following categories (light pattern details):</td>
<td></td>
</tr>
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### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 166r/01       | NFXI-WSF-WC Analogue Addressable Wall Mounted Sounder / LED Strobe with Short Circuit Isolator (B501AP base) | 1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):  
- Category O - Open Class  
- Flash rate 1Hz  
- Synchronization  
2. WC=Pure White/Clear indicates body/lens colour.  
3. Type A with Bcc deep back box, Type B with Wcc deep back box  
4. Meets the requirements of EN54-3: 2001 at the following tones:  
1) Alternating 525/440, 2Hz (100ms/400ms);  
2) Alternating 800/922, 1Hz;  
3) Alternating 800/922, 2Hz;  
4) Alternating 2400/2900, 3Hz;  
5) Alternating 2500/3100, 2Hz;  
6) Alternating 988/645, 2Hz;  
7) Continuous 630Hz;  
8) Continuous 922Hz;  
9) Continuous 1200Hz;  
10) Continuous 2810Hz;  
11) Sweep 150-1000Hz, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;  
12) Intermittent 420Hz, 0.625s on, 0.625 sec off;  
13) Sweep 500-1200Hz, 0.25 sec off, 3.75 sec on;  
14) Intermittent 630, 3.33Hz, 150ms on, 150ms off;  
15) Intermittent 922, 0.9Hz 0.25s on, 1s off;  
16) Intermittent 922, 0.5Hz 1s on, 1s off;  
17) Intermittent 2810, 1Hz;  
18) Intermittent 922, 1Hz 500ms on, 500ms off;  
19) Intermittent 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;  
20) Continuous 800Hz;  
21) Sweep 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;  
22) Sweep 1200 - 500Hz, 0.99Hz 1s on, 0.09s off;  
23) Sweep 2400 - 2850, 7Hz;  
24) Sweep 500 - 1200Hz, (0.5s off, 3.5s on);  
25) Sweep 800 - 970, 50Hz;  
26) Sweep 800 - 970, 7Hz;  
27) Sweep 900 - 970, 1Hz;  
28) Sweep 2400 - 2850, 50Hz;  
29) Sweep 500 - 1000, 7Hz;  
30) Sweep 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;  
31) Sweep 800 - 1000, 2Hz;  
32) Sweep 2400 - 2850, 1Hz | |
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>166t/02</td>
<td>NFX-WCF-WC Analogue Addressable High Output Beacon (B501AP base)</td>
<td>2. Type A indoor use with B501AP only, Type B outdoor use with B501AP and WRR or WPW</td>
</tr>
</tbody>
</table>
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>NFX-DSF-WC Analogue Addressable Type A Integrated Detector Base Sounder/Beacon (B501AP base)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Notes:</td>
</tr>
<tr>
<td></td>
<td>1. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following category (light pattern details):</td>
</tr>
<tr>
<td></td>
<td>- Category O - Open Class</td>
</tr>
<tr>
<td></td>
<td>- Flash rate 1Hz</td>
</tr>
<tr>
<td></td>
<td>- Synchronization</td>
</tr>
<tr>
<td></td>
<td>2. PC=Pure White/Clear indicates body/lens colour.</td>
</tr>
<tr>
<td></td>
<td>3. Advanced Protocol (and System Sensor 500 series protocol)</td>
</tr>
<tr>
<td></td>
<td>4. Meets the requirements of EN54-3 for all output levels at voltage range 15-32VDC and tones:</td>
</tr>
<tr>
<td>1) 554/440, 2Hz (100ms/400ms);</td>
<td>2) 800/970, 1Hz;</td>
</tr>
<tr>
<td>2) 800/970, 2Hz;</td>
<td>3) 800/970, 2Hz;</td>
</tr>
<tr>
<td>3) 800/970, 2Hz;</td>
<td>4) 2400/2900, 3Hz;</td>
</tr>
<tr>
<td>4) 2400/2900, 3Hz;</td>
<td>5) 2500/3100, 2Hz;</td>
</tr>
<tr>
<td>5) 2500/3100, 2Hz;</td>
<td>6) 988/645, 2Hz;</td>
</tr>
<tr>
<td>6) 988/645, 2Hz;</td>
<td>7) 660Hz;</td>
</tr>
<tr>
<td>7) 660Hz;</td>
<td>8) 970Hz;</td>
</tr>
<tr>
<td>8) 970Hz;</td>
<td>9) 1200Hz;</td>
</tr>
<tr>
<td>9) 1200Hz;</td>
<td>10) 2850Hz;</td>
</tr>
<tr>
<td>10) 2850Hz;</td>
<td>11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;</td>
</tr>
<tr>
<td>11) 150-1000, rise 10s, stable 40s, fall 10s, stable 20s, then repeating;</td>
<td>12) 420Hz, 0.625s on, 0.625 sec off;</td>
</tr>
<tr>
<td>12) 420Hz, 0.625s on, 0.625 sec off;</td>
<td>13) 500-1200Hz, 0.25 sec off, 3.75 sec on;</td>
</tr>
<tr>
<td>13) 500-1200Hz, 0.25 sec off, 3.75 sec on;</td>
<td>14) 660, 3.33Hz, 150ms on, 150ms off;</td>
</tr>
<tr>
<td>14) 660, 3.33Hz, 150ms on, 150ms off;</td>
<td>15) 970, 0.8Hz 0.25s on, 1s off;</td>
</tr>
<tr>
<td>15) 970, 0.8Hz 0.25s on, 1s off;</td>
<td>16) 970, 0.5Hz 1s on, 1s off;</td>
</tr>
<tr>
<td>16) 970, 0.5Hz 1s on, 1s off;</td>
<td>17) 2850, 1Hz;</td>
</tr>
<tr>
<td>17) 2850, 1Hz;</td>
<td>18) 970, 1Hz 500ms on, 500ms off;</td>
</tr>
<tr>
<td>18) 970, 1Hz 500ms on, 500ms off;</td>
<td>19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;</td>
</tr>
<tr>
<td>19) 950, 0.22Hz (0.5s on, 0.5s off) x 3, 1.5s off;</td>
<td>20) 800Hz;</td>
</tr>
<tr>
<td>20) 800Hz;</td>
<td>21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;</td>
</tr>
<tr>
<td>21) 400-1200Hz, (0.5s on, 0.5s off) x 3, 1.5s off;</td>
<td>22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;</td>
</tr>
<tr>
<td>22) 1200 - 500Hz, 0.99Hz 1s on, 0.01s off;</td>
<td>23) 2400 - 2850, 7Hz;</td>
</tr>
<tr>
<td>23) 2400 - 2850, 7Hz;</td>
<td>24) 500 - 1200Hz, (0.5s off, 3.5s on);</td>
</tr>
<tr>
<td>24) 500 - 1200Hz, (0.5s off, 3.5s on);</td>
<td>25) 800 - 970, 50Hz;</td>
</tr>
<tr>
<td>25) 800 - 970, 50Hz;</td>
<td>26) 800 - 970, 7Hz;</td>
</tr>
<tr>
<td>26) 800 - 970, 7Hz;</td>
<td>27) 800 - 970, 1Hz;</td>
</tr>
<tr>
<td>27) 800 - 970, 1Hz;</td>
<td>28) 2400 - 2850, 1Hz;</td>
</tr>
<tr>
<td>28) 2400 - 2850, 1Hz;</td>
<td>29) 500 - 1000, 7Hz;</td>
</tr>
<tr>
<td>29) 500 - 1000, 7Hz;</td>
<td>30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;</td>
</tr>
<tr>
<td>30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;</td>
<td>31) 800 - 1000, 2Hz;</td>
</tr>
<tr>
<td>31) 800 - 1000, 2Hz;</td>
<td>32) 2400 - 2850;</td>
</tr>
<tr>
<td>32) 2400 - 2850;</td>
<td>24) 2400 - 2850, 7Hz;</td>
</tr>
<tr>
<td>24) 2400 - 2850, 7Hz;</td>
<td>25) 800 - 970, 50Hz;</td>
</tr>
<tr>
<td>25) 800 - 970, 50Hz;</td>
<td>26) 800 - 970, 7Hz;</td>
</tr>
<tr>
<td>26) 800 - 970, 7Hz;</td>
<td>27) 800 - 970, 1Hz;</td>
</tr>
<tr>
<td>27) 800 - 970, 1Hz;</td>
<td>28) 2400 - 2850, 50Hz;</td>
</tr>
</tbody>
</table>
Certificated Products

29) 500 - 1000, 7Hz;
30) 500 - 1200 - 500, 0.166Hz rise 1s, stable 4s, fall 1s;
31) 800 - 1000, 2Hz;
32) 2400 - 2850, 1Hz

Ancillaries
B501AP Mounting base - Low profile base IP21
WPW Deep back box for outdoor (White)
WRR Deep back box for outdoor (Red)

Orient Corporation Pte. Ltd.
Block 3018, Bedok North Street 5, #05-51, Eastlink Light Industrial Building 486132, Singapore
Tel: (+65) 6242 5489 • Fax: (+65) 6241 2291
E-mail: corporate@orientcorp.net


Audible Warning Devices
Certificated Products

OCI 60039 Conventional fire alarm bell
OCI 60040 Conventional Type B electronic sounder (OCI 60040-B base)
Note:
1. Meets the requirements of EN54-3:2001 at the following tones:
   1. Alternating tones 800/970Hz at 2Hz
   2. Sweeping 800/970Hz at 7Hz
OCI 60040-BS Conventional Type B electronic sounder beacon (OCI 60040-B base)
Note:1. Meets the requirements of EN54-3:2001 at the following:
   1. Alternating tones 800/970Hz at 2Hz
   2. Sweeping 800/970Hz at 7Hz
   2. The beacon functionality is not included within the scope of approval

Base
OCI 60040-B Base

PT Servvo Fire Indonesia
Pusat Niaga Roxy Mas Blok D5/17,, Jl.K.H. Hasyim Ashari Blok 125, Cideng, Gambir, Jakarta Pusat, DKI Jakarta Raya 10150, Indonesia
Tel: +62216330330
E-mail: info@servvo.com Info@servvo.co.id • Website: www.servvo.com or www.servvo.co.id


Certificated Products

SSS 337 Addressable Sounder Beacon (DZ-9091 Base)
Notes:
1) Meets the requirement of EN 54-23 at the following:
   - Category C-3-8 + W-2-4-6
   - Flash Rate 0.5Hz
   - One Mode (Light output synchronization)
   - Flash Colour White
   - For wall and ceiling mounting
2) Meets the requirements of EN 54-3 at the following tone:
   - Tone 1: 667Hz - 2000Hz@0.22Hz

Base
DZ-9091
PART 1: SECTION 7
ALARM WARNING DEVICES

Ravel Electronics Ltd
Unit 11, Chancel Industrial Estate, Newhall Street, Willenhall WV13 1NX, United Kingdom
Tel: 0845 835 8855
E-mail: exportsales@ravelfire.co.uk


**Alarm Warning Devices**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>506e/01</td>
<td>RE-736B Conventional fire alarm bell</td>
<td></td>
</tr>
<tr>
<td>506e/01</td>
<td>ZE-736B Conventional fire alarm bell</td>
<td></td>
</tr>
<tr>
<td>506e/02</td>
<td>RE-736S Conventional Type B electronic sounder (RE-736SB base)</td>
<td>1. Meets the requirements of EN54-3: 2001 at the following tones: 1. Alternating tones 800/970Hz at 2Hz 2. Sweeping 800/970Hz at 7Hz</td>
</tr>
<tr>
<td>506e/02</td>
<td>ZE-736S Conventional Type B electronic sounder (ZE-736SB base)</td>
<td>1. Meets the requirements of EN54-3: 2001 at the following tones: 1. Alternating tones 800/970Hz at 2Hz 2. Sweeping 800/970Hz at 7Hz</td>
</tr>
<tr>
<td>506e/03</td>
<td>RE-736SS Conventional Type B electronic sounder beacon (RE-736SB base)</td>
<td>1. Meets the requirements of EN54-3: 2001 at the following tones: 1. Alternating tones 800/970Hz at 2Hz 2. Sweeping 800/970Hz at 7Hz 2. The beacon functionality is not included within the scope of approval</td>
</tr>
<tr>
<td>506e/03</td>
<td>ZE-736SS Conventional Type B electronic sounder beacon (ZE-736SB base)</td>
<td>1. Meets the requirements of EN54-3: 2001 at the following tones: 1. Alternating tones 800/970Hz at 2Hz 2. Sweeping 800/970Hz at 7Hz 2. The beacon functionality is not included within the scope of approval</td>
</tr>
</tbody>
</table>

Shenzhen Fanhai Sanjiang Electronics CO., Ltd
3/F., Guangcai Xintiandi Mansion, Nanshan Road, Nanshan District, Shenzhen, Guangdong 518054, China
Tel: +86 755 26521071
E-mail: shuxian.wei@fhsjdz.com


<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426j/01</td>
<td>A9097B Addressable Type A (Indoor) Sounder Beacon Base (Standard Mounting Bracket)</td>
<td>Meets the requirements of EN 54-3: 2014 at the following tones: Sweep Tone 667Hz - 2KH20.21Hz</td>
</tr>
</tbody>
</table>

**Accessories**
Standard Mounting Bracket


<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1426a/01</td>
<td>C9091T Conventional Sounder Beacon</td>
<td>1) Meets the requirements of EN 54-23 at the following: - Category C-3-8 + W-2.4-6 - Flash rate 0.5Hz - One Mode (Light output synchronization) - Flash Colour White</td>
</tr>
</tbody>
</table>
### PART 1: SECTION 7
ALARM WARNING DEVICES

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A9091T</strong> Addressable Sounder Beacon (DZ-900DZ-909191 Base)</td>
<td>1426a/02</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1) Meets the requirement of EN 54-23 at the following:</td>
<td></td>
</tr>
<tr>
<td>Category C-3-8 + W-2.4-6</td>
<td></td>
</tr>
<tr>
<td>Flash Rate 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>Flash Colour White</td>
<td></td>
</tr>
<tr>
<td>For wall and ceiling mounting</td>
<td></td>
</tr>
<tr>
<td>2) Meets the requirements of EN 54-3 at the following tone:</td>
<td></td>
</tr>
<tr>
<td>Tone 1: 667Hz - 2000Hz @0.22Hz</td>
<td></td>
</tr>
</tbody>
</table>

### Base
DZ-9091K
DZ-9091


<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A9092T</strong> Intelligent Red Sounder with Visual Indicator (DZ-9091K Base)</td>
<td>1426h/01</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>Meets the requirements of EN 54-3 at the following tone:</td>
<td></td>
</tr>
<tr>
<td>Sweep tone 667Hz-2kHz @0.21Hz</td>
<td></td>
</tr>
</tbody>
</table>

### Base
DZ-9091K

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**SHIELD FIRE, SAFETY AND SECURITY LIMITED**
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 1708 377731 • Fax: +44 1708 347637
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com


### Audible Warning Devices

<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEN-A4021</strong> enhanced deep isolating base</td>
<td>010ak/01</td>
</tr>
<tr>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3:2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Standard-840Hz,0.5s/558Hz,0.5s</td>
<td></td>
</tr>
<tr>
<td>Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>German DIN-1200-500Hz over 1s</td>
<td></td>
</tr>
<tr>
<td><strong>SEN-A4022</strong> Type B Intelligent Open Area Sounder Beacon (Red) (SEN-A4025 enhanced deep isolating base)</td>
<td>010ak/03</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3:2001 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>Standard-840Hz,0.5s/558Hz,0.5s</td>
<td></td>
</tr>
<tr>
<td>Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off</td>
<td></td>
</tr>
<tr>
<td>German DIN-1200-500Hz over 1s</td>
<td></td>
</tr>
<tr>
<td>2. The Beacon function is not approved to EN 54-23</td>
<td></td>
</tr>
<tr>
<td><strong>SEN-A4026</strong> Addressable Sounder Base [White] with Isolator (SEN-A4027 and SEN-A4028 Caps)</td>
<td>010ax/01</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3: 2001 at the following tone settings:</td>
<td></td>
</tr>
<tr>
<td>Tone 1 Apollo Evacuation Tone - 567Hz for 0.5s, 850Hz for 0.5s</td>
<td></td>
</tr>
<tr>
<td>Tone 12 Alternating - (Hochiki &amp; Fulleon) - 925Hz for 0.25s, 626Hz for 0.25s</td>
<td></td>
</tr>
<tr>
<td>Tone 14 Medium Sweep - 800Hz to 970Hz at 1 Hz</td>
<td></td>
</tr>
<tr>
<td>Tone 3 Dutch Slow Whoop (sweep) - 500Hz - 1200Hz for 3.5s, 0.5s off</td>
<td></td>
</tr>
</tbody>
</table>

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PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

Tone 4 DIN Toe (sweep) - 1200Hz - 500Hz for 1s
Tone 18 Swedish Fire Tone - 660Hz, 150ms on, 150ms off
Tone 0 Apollo Alert Tone - 1s off, 1s 850Hz
Tone 11 Continuous (Hochiki & Fulleon) - 925Hz
Tone 13 Continuous - 970Hz
Tone 2 Continuous - 850Hz
Tone 17 Swedish all clear signal - Continuous - 660Hz
2. Type A and approved for sounder volumes 2-7 only.

Conventional Wall Sounder Type A/B

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

Accessories:
SEN-A4025  Enhanced deep isolating base (Red)
SEN-A4027  White Cap (Lockable)
SEN-A4028  Red Cap (Lockable)


Visual & Audible Warning Devices

Certificated Products

SC-4050  Conventional Wall Sounder and Visual Alarm Device Type A/B

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   Tone 1 - Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   Tone 2 - Continuous Tone, 970Hz
   Tone 3 - Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   Tone 4 - German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)

   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

SHIELD FIRE, SAFETY AND SECURITY LTD
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 207 712 1610 • Fax: +44 207 712 1578
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com


Audible Warning Devices

Certificated Products

S-A491  Intelligent sounder strobe (Shallow Base and S-49DB Base)

Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   Tone 14 2400Hz - 2900Hz @ 3Hz
   Tone 16 500Hz - 1200Hz, 3.75s on / 0.25s off
   Pre Alarm 800Hz, 1s on / 1s off
2. Approved in both normal and power saving mode
3. The visual alarm function is not in the scope of this approval
4. Approved with single address and dual address (pre-alarm and main alarm).

S-C481  Conventional sounder strobe (Shallow Base and S-49DB Base)

Notes:
1. Meets the requirements of EN 54-3: 2001 at the following tones:
   Tone 01 2800Hz 0.34s off/0.4s on  
   Tone 02 2400Hz - 2900Hz @ 3Hz
2. The visual alarm function is not in the scope of this approval.

S-A496  Analogue Addressable Indoor sounder Beacon Base (DZ-03 base)

**Certificated Products**

**Notes:**
1) Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 14: 2400Hz - 2900Hz @ 3Hz
   - Tone 16: 500Hz - 1200Hz, 3.75s on / 0.25s off
2) Approved in both normal and power saving mode
3) The beacon functionality is not approved to EN 54-23
4) Approved with P-9907 cover plate

**S-C480**
Conventional Type A Sounder (Shallow base, S-49DB Deep Base)

**Notes:**
1) Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 01: 2800Hz 0.34s off / 0.4s on
   - Tone 02: 2400Hz - 2900Hz @ 3Hz

**S-A490**
Intelligent Type A Sounder (Shallow base, S-49DB Deep Base)

**Notes:**
1) Meets the requirements of EN 54-3: 2001 at the following tones:
   - Tone 14: 2400Hz - 2900Hz @ 3Hz
   - Tone 16: 500Hz - 1200Hz, 3.75s / 0.25s off
   - Pre-Alarm: 800Hz 1s off / 1s on

**Bases**
- DZ-03 Standard Base
- S-49DB Deep Base
- Shallow Base

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**Siemens Switzerland Limited**
Building Technologies Division, International Headquarters, Gubelstrasse 22, CH-6301 Zug, Switzerland
Tel: +41 (0) 41 724 24 24 • Fax: +41 (0) 41 724 35 22

**Sounders**

**Accessories:**
- FDB221 Detector base
- FDB221-AA Detector base, addressed with 2 micro-terminals
- FDB291 Base attachment
- FDB293 Base attachment wet
- FDB221/FDB221-AA Analogue addressable base
- FDB222 Flat Analogue addressable base
- FDB291 Base attachment
- FDB293 Base attachment humid

---

**Siemens Switzerland Ltd**
Theilerstrasse 1a, , CH-6300 Zug, Switzerland
Website: www.siemens.com


**Certificated Products**

**Notes:**
1) Meets the requirements of EN 54-3 with the following tones:
   - 970Hz Continuous
   - 950Hz; 1s on, 1s off Intermittent
   - 1200Hz - 500Hz at 1Hz Tone 3 Sweep down
   - 500Hz - 1200Hz over 3.5s, 0.5s off Slow whoop
   - 500Hz; 0.15s on, 0.1s off Pulse tone
   - 500Hz; 0.15s on, 0.6s off Intermittent
   - 500Hz Tone 7 Continuous
   - 550Hz 0.1s / 440Hz 0.4s Tone 8 Alternating
   - 420Hz; 0.6s on, 0.65s off Tone 9 Intermittent
   - 5001200Hz over 3.75s, 0.25s off Tone 10 Slow whoop

**DBS720**
Analogue Addressable Type A Base Sounder

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### Certificated Products

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSB291 Analogue Addressable Loop Sounder Base</td>
<td>531u/02</td>
</tr>
<tr>
<td>FDSB292 Analogue Addressable Loop Sounder Base</td>
<td>531u/03</td>
</tr>
<tr>
<td>FDS229-R Analogue Addressable Type B Sounder Beacon (Red) with Short Circuit Isolator</td>
<td>531p/03</td>
</tr>
<tr>
<td>FDS229-A Analogue Addressable Type B Sounder Beacon (Amber) with Short Circuit Isolator</td>
<td>531p/02</td>
</tr>
<tr>
<td>FDS221-x Analogue Addressable Type B Loop Sounder with Short Circuit Isolator</td>
<td>531p/01</td>
</tr>
<tr>
<td>FDS224-R Analogue Addressable Type B Sounder with Short Circuit Isolator, Red Body</td>
<td>531p/04</td>
</tr>
</tbody>
</table>

**Notes:**

1. Approved for use with detector models FD0OT241-9 and FD0OT241-A9 in collective mode

2. Meets the requirements of EN 54-3 at the following tones:
   - Continuous 970Hz
   - 1s Intermittent 950Hz
   - 1s Sweep-down 1200Hz-500Hz
   - 3.5s Slow-whoop sweep-up, 0.5s linear 500Hz-1200Hz
   - Pulse-tone 150ms on 100ms off 500Hz
   - Intermittent 150ms on 600ms off 500Hz
   - Continuous 500Hz
   - Alternating 0.1s on 0.4s off 560Hz/440Hz
   - Intermittent 600ms on 650ms off 420Hz
   - 3.75s Slow-whoop sweep-up, 0.25s linear 500Hz-1200Hz
   - Intermittent 0.5s on 0.5s off 1s pause 970Hz

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Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Continuous 970Hz</td>
</tr>
<tr>
<td>2 - Intermittent 950Hz, 1s on, 1s off</td>
</tr>
<tr>
<td>3 - Sweep down 1200Hz to 500Hz, 1s period</td>
</tr>
<tr>
<td>4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off</td>
</tr>
<tr>
<td>10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off</td>
</tr>
<tr>
<td>11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap</td>
</tr>
<tr>
<td>12 - Sweep-up 800Hz to 970Hz, 1/7s period</td>
</tr>
<tr>
<td>13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall</td>
</tr>
</tbody>
</table>

2. Operating voltage range 12-33V

FDS224-W
Analogue Addressable Type B Sounder with Short Circuit Isolator, White Body (FDB226-W, FDB227-W bases)
Notes:
1. Meets the requirement of EN 54-3 at the following tones:
1 - Continuous 970Hz
2 - Intermittent 950Hz, 1s on, 1s off
3 - Sweep down 1200Hz to 500Hz, 1s period
4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
12 - Sweep-up 800Hz to 970Hz, 1/7s period
13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

FDS225-R
Analogue Addressable Type B Voice Sounder with Short Circuit Isolator, Red Body (FDB226-R, FDB227-R bases)
Notes:
1. Meets the requirement of EN 54-3 at the following tones:
1 - Continuous 970Hz
2 - Intermittent 950Hz, 1s on, 1s off
3 - Sweep down 1200Hz to 500Hz, 1s period
4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
5 - Pulse tone 500Hz, 0.15s on, 0.6s off
6 - Intermittent 500Hz, 0.15s on, 0.6s off
7 - Continuous 500Hz
8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
9 - Intermittent 420Hz, 0.6s on, 0.65s off
10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
12 - Sweep-up 800Hz to 970Hz, 1/7s period
13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2. Operating voltage range 12-33V

FDS225-W
Analogue Addressable Type B Voice Sounder with Short Circuit Isolator, White Body (FDB226-W, FDB227-W bases)
Notes:
1. Meets the requirement of EN 54-3 at the following tones:
1 - Continuous 970Hz
2 - Intermittent 950Hz, 1s on, 1s off
3 - Sweep down 1200Hz to 500Hz, 1s period
4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
5 - Pulse tone 500Hz, 0.15s on, 0.6s off
6 - Intermittent 500Hz, 0.15s on, 0.6s off
7 - Continuous 500Hz
8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
9 - Intermittent 420Hz, 0.6s on, 0.65s off
10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
12 - Sweep-up 800Hz to 970Hz, 1/7s period
13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2. Operating voltage range 12-33V

FDB221 Detector base
FDB221-AA Detector base, addressed with 2 micro-terminals
FDB291 Base attachment
FDB293 Base attachment wet
FDB221/FDB221-AA Analogue addressable base
FDB222 Flat, Analogue addressable base
FDB291 Base attachment
FDB293 Base attachment humid
FDB226-R / FDB226-W Base (IP33C)
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FDB227-R / FDB227-W Deep base (IP33C)


Certificated Products

<table>
<thead>
<tr>
<th>Certificate No.</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>FDS226-RR</td>
<td>531v/01</td>
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<tr>
<td>FDS226-WR</td>
<td>531v/02</td>
</tr>
<tr>
<td>FDS226-RW</td>
<td>531v/01</td>
</tr>
</tbody>
</table>

FDB227-R / FDB227-W Deep base (IP33C)

FDS226-RR Analogue Addressable Type B Sounder Beacon VAD with Short Circuit isolator, Red Body, Red LEDs (FDB226-R, FDB227-R bases)

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 - Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall
2) Meets the requirements of EN 54-23 at the following:
   - Category W-2.8-8.8 (High Beacon Intensity)
   - W-2.4-7.5 (Medium Beacon Intensity)
   - O-2-6.2 (Low Beacon Intensity)
   - Flash Rate 0.5Hz
   - Operating Voltage Range 16-33V

FDS226-WR Analogue Addressable Type B Sounder Beacon VAD with Short Circuit isolator, White Body, Red LEDs (FDB226-W, FDB227-W bases)

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
12 - Sweep-up 800Hz to 970Hz, 1/7s period
13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall
2) Meets the requirements of EN 54-23 at the following:
   - Category W-2.8-8.8 (High Beacon Intensity)
   - W-2.4-7.5 (Medium Beacon Intensity)
   - O-2-6.2 (Low Beacon Intensity)
   - Flash Rate 0.5Hz
   - Operating Voltage Range 16-33V

FDS226-RW Analogue Addressable Type B Sounder Beacon VAD with Short Circuit isolator, Red Body, White LEDs (FDB226-R, FDB227-R bases)

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
2) Meets the requirements of EN 54-23 at the following:
   - Category W-2.8-8.8 (High Beacon Intensity)
   - W-2.4-7.5 (Medium Beacon Intensity)
   - O-2-6.2 (Low Beacon Intensity)
   - Flash Rate 0.5Hz
   - Operating Voltage Range 16-33V
### Certificated Products

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off</td>
</tr>
<tr>
<td>11</td>
<td>Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap</td>
</tr>
<tr>
<td>12</td>
<td>Sweep-up 800Hz to 970Hz, 1/7s period</td>
</tr>
<tr>
<td>13</td>
<td>Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall</td>
</tr>
</tbody>
</table>

2) Meets the requirements of EN 54-23 at the following:
- Category W-3.2-10 (High Beacon Intensity)
- W-2.4-7.5 (Medium Beacon Intensity)
- O-2-6.2 (Low Beacon Intensity)
  - Flash Rate 0.5Hz
  - Operating Voltage Range 16-33V

### FDS226-WW
Analogue Addressable Type B Sounder Beacon VAD with Short Circuit isolator, White Body, White LEDs (FDB226-W, FDB227-W bases)

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 - Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
- Category W-3.2-10 (High Beacon Intensity)
- W-2.4-7.5 (Medium Beacon Intensity)
- O-2-6.2 (Low Beacon Intensity)
  - Flash Rate 0.5Hz
  - Operating Voltage Range 16-33V

### FDS227-RR
Analogue Addressable Type B Voice Sounder Beacon VAD with Short Circuit isolator, Red Body, Red LEDs (FDB226-R, FDB227-R bases)

Notes:
Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 - Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
- Category W-2.8-8.8 (High Beacon Intensity)
- W-2.4-7.5 (Medium Beacon Intensity)
- O-2-6.2 (Low Beacon Intensity)
  - Flash Rate 0.5Hz
  - Operating Voltage Range 16-33V

### FDS227-WR
Analogue Addressable Type B Voice Sounder Beacon VAD with Short Circuit Isolator, White Body, Red LEDs (FDB226-W, FDB227-W bases)

Notes:
Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
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6 - Intermittent 500Hz, 0.15s on, 0.6s off
7 - Continuous 500Hz
8 - Alternating 500Hz and 440Hz, 0.1s and 0.4s
9 - Intermittent 420Hz, 0.6s on, 0.65s off
10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
12 – Sweep-up 800Hz to 970Hz, 1/7s period
13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-2.8-8.8 (High Beacon Intensity)
     W-2.4-7.5 (Medium Beacon Intensity)
     O-2-6.2 (Low Beacon Intensity)
     - Flash Rate 0.5Hz
     - Operating Voltage Range 16-33V


Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 500Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
  10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
  11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
  12 – Sweep-up 800Hz to 970Hz, 1/7s period
  13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-2.8-8.8 (High Beacon Intensity)
     W-2.4-7.5 (Medium Beacon Intensity)
     O-2-6.2 (Low Beacon Intensity)
     - Flash Rate 0.5Hz
     - Operating Voltage Range 16-33V

*Can be configured according to specific customer requirements


Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 500Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 – Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-2.8-8.8 (High Beacon Intensity)
     W-2.4-7.5 (Medium Beacon Intensity)
     O-2-6.2 (Low Beacon Intensity)
     - Flash Rate 0.5Hz
     - Operating Voltage Range 16-33V

*Can be configured according to specific customer requirements

FDS227-RW Analogue Addressable Type B Voice Sounder Beacon VAD with Short Circuit isolator, Red Body, White LEDs (FDB226-R, FDB227-R bases)

Notes:
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ALARM WARNING DEVICES

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Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 – Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-3.2-10 (High Beacon Intensity)
   - W-2.4-7.5 (Medium Beacon Intensity)
   - O-2-6.2 (Low Beacon Intensity)
     - Flash Rate 0.5Hz
     - Operating Voltage Range 16-33V

FDS227-WW
Analogue Addressable Type B Voice Sounder Beacon VAD with Short Circuit isolator, White Body, White LEDs (FDB226-W, FDB227-W bases)

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 – Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-3.2-10 (High Beacon Intensity)
   - W-2.4-7.5 (Medium Beacon Intensity)
   - O-2-6.2 (Low Beacon Intensity)
     - Flash Rate 0.5Hz
     - Operating Voltage Range 16-33V

FDS227-RW-C
Analogue Addressable Type B Voice Sounder Beacon VAD with Short Circuit isolator, Red Body, White LEDs* (FDB226-R, FDB227-R bases)

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
   10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
   11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
   12 – Sweep-up 800Hz to 970Hz, 1/7s period
   13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-3.2-10 (High Beacon Intensity)
   - W-2.4-7.5 (Medium Beacon Intensity)
   - O-2-6.2 (Low Beacon Intensity)
     - Flash Rate 0.5Hz
     - Operating Voltage Range 16-33V

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Certificated Products | LPCB Ref. No.
---------------------|------------------
FDS227-WW-C Analogue Addressable Type B Voice Sounder Beacon VAD with Short Circuit isolator, White Body, White LEDs* (FDB226-W, FDB227-W bases) | 531v/04

Notes:
1. Meets the requirement of EN 54-3 at the following tones:
   1 - Continuous 970Hz
   2 - Intermittent 950Hz, 1s on, 1s off
   3 - Sweep down 1200Hz to 500Hz, 1s period
   4 - Slow whoop 500Hz to 1200Hz, 4s period, 3.5s sweep, 0.5s off
   5 - Pulse tone 500Hz, 0.15s on, 0.1s off
   6 - Intermittent 500Hz, 0.15s on, 0.6s off
   7 - Continuous 500Hz
   8 - Alternating 560Hz and 440Hz, 0.1s and 0.4s
   9 - Intermittent 420Hz, 0.6s on, 0.65s off
10 - Slow whoop sweep up 500Hz to 1200Hz, 3.75s sweep, 0.25s off
11 - Intermittent 970Hz, three pulse 0.5s with 0.5s off, then 1.5s gap
12 - Sweep-up 800Hz to 970Hz, 1/7s period
13 - Industrial alarm 150Hz to 1000Hz, 10s rise, 40s hold at 1000Hz, 10s fall

2) Meets the requirements of EN 54-23 at the following:
   - Category W-3.2-10 (High Beacon Intensity)
   W-2.4-7.5 (Medium Beacon Intensity)
   O-2-6.2 (Low Beacon Intensity)

   - Flash Rate 0.5Hz
   - Operating Voltage Range 16-33V

*Can be configured according to specific customer requirements

Bases
FDB226-R / FDB226-W Base (IP33C)
FDB227-R / FDB227-W Deep base (IP33C)

Silver-Tec Limited
Unit 1-2, Building 53B, Pensnett Trading Estate, Kingswinford, West Midlands DY6 7XQ, United Kingdom
Tel: +44 (0)1384 671611
E-mail: info@silver-tec.co.uk • Website: www.silver-tec.co.uk


Certificated Products | LPCB Ref. No.
---------------------|------------------
ST-ABS-W Intelligent Analogue Addressable Type A Base Sounder - White Version (ST-ABI-SCW, ST-ABI-SCR bases) | 164h/01
Note:
1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

ST-AWS-R Intelligent Analogue Addressable Type A Wall Sounder (ST-ABI-SCR base) | 164h/02
Note:
1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

ST-AWS-W Intelligent Analogue Addressable Type A Wall Sounder - White Version (ST-ABI-SCR base) | 164h/02
Note:
1. Meets the requirements of EN 54-3 for all 51 tones listed under Approved Tones.

Bases:
ST-ABI-SCW Short Circuit Isolator Base
ST-ABI-SCR Short Circuit Isolator Base

Approved Tones:
1 - 925 Hz : 250 ms / 628 Hz : 250 ms
2 - 925 Hz Continuous
3 - 628 Hz Continuous
4 - (French) 554 Hz : 100 ms / 440 Hz : 400 ms
5 - (Swedish) 660 Hz : 150 ms / Off : 150 ms

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### ALARM WARNING DEVICES

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<th>Tone Code</th>
<th>Frequency Range</th>
<th>Duration</th>
<th>Off Duration</th>
</tr>
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<tbody>
<tr>
<td>6</td>
<td>925 Hz</td>
<td>150 ms</td>
<td>600 ms</td>
</tr>
<tr>
<td>7</td>
<td>670 Hz</td>
<td>250 ms</td>
<td>845 Hz</td>
</tr>
<tr>
<td>8</td>
<td>Whoop 500 Hz - 1200 Hz</td>
<td>3000 ms</td>
<td>Off : 500 ms</td>
</tr>
<tr>
<td>9</td>
<td>1200 Hz</td>
<td>500 ms</td>
<td>500 Hz</td>
</tr>
<tr>
<td>10</td>
<td>970 Hz</td>
<td>500 ms</td>
<td>Off : 500 ms</td>
</tr>
<tr>
<td>11</td>
<td>Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)</td>
<td>12</td>
<td>Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>13</td>
<td>Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)</td>
<td>14</td>
<td>Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)</td>
</tr>
<tr>
<td>15</td>
<td>Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)</td>
<td>16</td>
<td>Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)</td>
</tr>
<tr>
<td>17</td>
<td>ISO8201 : 970 Hz : 500 ms / Off : 500 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>ISO8201 : 2850 Hz : 500 ms / Off : 500 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>800 Hz : 250 ms / 970 Hz : 250 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>2850 Hz Continuous</td>
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</tr>
<tr>
<td>21</td>
<td>2400 Hz : 250 ms / 2850 Hz : 250 ms</td>
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<td></td>
</tr>
<tr>
<td>22</td>
<td>800 Hz : 500 ms / 970 Hz : 500 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>2850 Hz : 500 ms / Off : 500 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>925 Hz : 250 ms / Off : 1000 ms</td>
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<td>25</td>
<td>970 Hz Continuous</td>
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<td>26</td>
<td>660 Hz : 1800 ms / Off : 1800 ms</td>
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<tr>
<td>27</td>
<td>660 Hz : 6500 ms / Off : 13000 ms</td>
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<td>28</td>
<td>660 Hz Continuous</td>
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</tr>
<tr>
<td>29</td>
<td>554 Hz : 500 ms / 440 Hz : 500 ms</td>
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<td></td>
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<tr>
<td>30</td>
<td>660 Hz : 500 ms / Off : 500 ms</td>
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</tr>
<tr>
<td>31</td>
<td>2850 Hz : 150 ms / Off : 100 ms</td>
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<tr>
<td>32</td>
<td>Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)</td>
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<tr>
<td>33</td>
<td>Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)</td>
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<tr>
<td>34</td>
<td>988 Hz : 250 ms / 645 Hz : 250 ms</td>
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<td>35</td>
<td>510 Hz : 250 ms / 610 Hz : 250 ms</td>
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<td>36</td>
<td>Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)</td>
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<td>37</td>
<td>Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)</td>
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<td>38</td>
<td>845 Hz Continuous</td>
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<td></td>
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<tr>
<td>39</td>
<td>970 Hz : 1000 ms / Off : 1000 ms</td>
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<tr>
<td>40</td>
<td>800 Hz : 150 ms / 970 Hz : 150 ms</td>
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<td>41</td>
<td>Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)</td>
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<tr>
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<td>43</td>
<td>2850 Hz : 1000 ms / Off : 1000 ms</td>
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<td>44</td>
<td>2400 Hz : 150 ms / 2850 Hz : 150 ms</td>
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<tr>
<td>45</td>
<td>(German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms</td>
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<td>46</td>
<td>440 Hz : 600 ms / Off : 600 ms</td>
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<td>47</td>
<td>Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms</td>
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<tr>
<td>48</td>
<td>ISO8201 : 925 Hz, 628 Hz : 250 ms / Off : 500 ms</td>
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<tr>
<td>49</td>
<td>ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms</td>
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<td></td>
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<tr>
<td>50</td>
<td>ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms</td>
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<tr>
<td>51</td>
<td>Whoop 500-1200 3500 ms / Off 500 ms</td>
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**Certificate No:** 164t-(cl-1) to EN 54-3:2001 + A1:2002 + A2:2006, EN 54-23:2010

**Certificated Products**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Addressable Type A/B Wall Sounder (White LED) Beacon (ST-ABI-SCR and ST-ABI-W bases)</th>
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<tr>
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<td>Notes:</td>
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<tr>
<td>ST-AWSF-RWL</td>
<td>1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
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<td>- Category 0</td>
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<td>- Flash rate 0.5Hz</td>
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<tr>
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<td>- Synchronization</td>
</tr>
<tr>
<td></td>
<td>2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.</td>
</tr>
<tr>
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<td>3. The VAD is Type A when used with any of the above bases and Type B when used with a ST-AKWB-R weatherproofing kit</td>
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<tr>
<td>ST-AWSF-WWL</td>
<td>1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
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<td>- Category 0</td>
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<td></td>
<td>- Flash rate 0.5Hz</td>
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<td></td>
<td>- Synchronization</td>
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<tr>
<td></td>
<td>2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones.</td>
</tr>
<tr>
<td></td>
<td>3. The VAD is Type A when used with any of the above bases and Type B when used with a ST-AKWB-R weatherproofing kit</td>
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PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

ST-ABSF-WWL
Analogue Addressable Type A Base Sounder (White LED) Beacon
(STM-ABI-SCR and ST-ABI-W bases)

Notes:
1. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category 0
   - Flash rate 0.5Hz
   - Synchronization
2. Meets the requirements of EN 54-3 for all 51 tones as listed under approved tones

Bases:
ST-ABI-SCR Standard Base
ST-ABI-W Standard Base

Accessories:
ST-AKWB-R Weatherproofing kit

Approved tones:
1 - 925 Hz : 250 ms / 628 Hz : 250 ms
2 - 925 Hz Continuous
3 - 628 Hz Continuous
4 - (French) 554 Hz : 100 ms / 440 Hz : 400 ms
5 - (Swedish) 660 Hz : 150 ms / Off : 150 ms
6 - 925 Hz : 150 ms / Off : 600 ms
7 - 670 Hz : 250 ms / 845 Hz : 370 ms
8 - Whoop 500 Hz - 1200 Hz : 3000 ms / Off : 500 ms
9 - 1200 Hz : 500 ms / 500 Hz : 500 ms
10 - 970 Hz : 500 ms / Off : 500 ms
11 - Sweep 800 Hz - 970 Hz over 140 ms (7 Hz)
12 - Sweep 800 Hz - 970 Hz over 1000 ms (1 Hz)
13 - Sweep 800 Hz - 970 Hz over 20 ms (50 Hz)
14 - Sweep 2400 Hz - 2850 Hz over 140 ms (7 Hz)
15 - Sweep 2400 Hz - 2850 Hz over 1000 ms (1 Hz)
16 - Sweep 300 Hz - 1200 Hz over 1000 ms (1 Hz)
17 - ISO8201 : 970 Hz : 500 ms / Off : 500 ms
18 - ISO8201 : 2850 Hz : 500 ms / Off : 500 ms
19 - 800 Hz : 250 ms / 970 Hz : 250 ms
20 - 2850 Hz Continuous
21 - 2400 Hz : 250 ms / 2850 Hz : 250 ms
22 - 800 Hz : 500 ms / 970 Hz : 500 ms
23 - 2850 Hz : 500 ms / Off : 500 ms
24 - 925 Hz : 250 ms / Off : 1000 ms
25 - 970 Hz Continuous
26 - 660 Hz : 1800 ms / Off : 1800 ms
27 - 660 Hz : 6500 ms / Off : 13000 ms
28 - 660 Hz Continuous
29 - 554 Hz : 500 ms / 440 Hz : 500 ms
30 - 660 Hz : 500 ms / Off : 500 ms
31 - 2850 Hz : 150 ms / Off : 100 ms
32 - Sweep 2400 Hz - 2850 Hz over 20 ms (50 Hz)
33 - Sweep 800 Hz - 970 Hz over 500 ms (2 Hz)
34 - 988 Hz : 250 ms / 645 Hz : 250 ms
35 - 510 Hz : 250 ms / 610 Hz : 250 ms
36 - Sweep 800 Hz - 970 Hz over 110 ms (9 Hz)
37 - Sweep 800 Hz - 970 Hz over 330 ms (3 Hz)
38 - 845 Hz Continuous
39 - 970 Hz : 1000 ms / Off : 1000 ms
40 - 800 Hz : 150 ms / 970 Hz : 150 ms
41 - Sweep 2400 Hz - 2850 Hz over 110 ms (9 Hz)
42 - Sweep 2400 Hz - 2850 Hz over 330 ms (3 Hz)
43 - 2850 Hz : 1000 ms / Off : 1000 ms
44 - 2400 Hz : 150 ms / 2850 Hz : 150 ms
45 - (German) Whoop 1200 Hz - 500 Hz : 1000ms / Off : 10 ms
46 - 440 Hz : 600 ms / Off : 600 ms
47 - Whoop 500 Hz - 1200 Hz : 3750 ms / Off : 250 ms
48 - ISO8201 : 925 Hz, 628 Hz : 250 ms / Off 500 ms
49 - ISO8201 : Sweep 300 Hz - 1200 Hz : 500 ms / Off : 500 ms
50 - ISO8201 : Sweep 1200 Hz - 300 Hz : 500 ms / Off : 500 ms
51 - Whoop 500-1200 3500 ms / Off 500 ms
**SMS (Novar Systems Ltd)**  
Hamilton Industrial Park, 140 Waterside Road, Leicester LE5 1TN, United Kingdom  
Tel: +44 (0)116 246 2100 • Fax: +44 (0)116 246 2016  
Website: www.smsfire.co.uk

Certificate No: 567ah-(cl-1) to EN 54-17: 2005 & EN 54-23: 2010  

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<tr>
<td>SEN-S-EP-R</td>
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<tr>
<td>Note:</td>
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</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following sounder tone settings:</td>
<td></td>
</tr>
<tr>
<td>1. Intermittent tone 970Hz @ 1Hz</td>
<td></td>
</tr>
<tr>
<td>2. Alternating tone 730/970Hz @ 2Hz</td>
<td></td>
</tr>
<tr>
<td>3. Continuous tone 970Hz</td>
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<tr>
<td>Bases:</td>
<td></td>
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<tr>
<td>Black Box</td>
<td></td>
</tr>
</tbody>
</table>

| SEN-S-VAD-HPR-R       |               |
| SEN-S-VAD-HPR-R       |               |
| Notes:                |               |
| 1. Meets the requirements of EN 54-3 at the following sounder tone settings: |               |
| 1. Intermittent tone 970Hz @ 1Hz |               |
| 2. Alternating tone 730/970Hz @ 2Hz |               |
| 3. Continuous tone 970Hz |               |
| 2. Meets the requirements of EN 54-23 at the following power settings: |               |
| - Low red output      |               |
| - Medium red output   |               |
| - High red output     |               |
| 3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details: |               |
| - High Performance setting - (Category W: W-6.7-14) |               |
| - Medium Performance setting - (Category W: W-6.5-12.5) |               |
| - Low Performance setting - (Category W: W-5-9.5) |               |
| - Synchronization     |               |
| - Flash rate 2 seconds (0.5Hz) |               |
| Bases:                |               |
| (S3-DB-R and S3-SB-R Bases) |               |

| SEN-S-VAD-HPW-R       |               |
| SEN-S-VAD-HPW-R       |               |
| Notes:                |               |
| 1. Meets the requirements of EN 54-3 at the following sounder tone settings: |               |
| 1. Intermittent tone 970Hz @ 1Hz |               |
| 2. Alternating tone 730/970Hz @ 2Hz |               |
| 3. Continuous tone 970Hz |               |
| 2. Meets the requirements of EN 54-23 at the following power settings: |               |
| - Low white output     |               |
| - Medium white output  |               |
| - High white output    |               |
| 3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details: |               |
| - High Performance setting - (Category W: W-5-12.5) |               |
| - Medium Performance setting - (Category W: W-4.5-11.3) |               |
| - Low Performance setting - (Category W: W-3-8.5) |               |
| - Synchronization     |               |
| - Flash rate 2 seconds (0.5Hz) |               |
| Bases:                |               |
| (S3-DB-R and S3-SB-R Bases) |               |

| SEN-S-VAD-LPR-R       |               |
| SEN-S-VAD-LPR-R       |               |
| Notes:                |               |
| 1. Meets the requirements of EN 54-3 at the following sounder tone settings: |               |
| 1. Intermittent tone 970Hz @ 1Hz |               |
| 2. Alternating tone 730/970Hz @ 2Hz |               |
| 3. Continuous tone 970Hz |               |
| 2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details: |               |
| - Low Performance setting - (Category W: W-3-8.5) |               |
| - Synchronization     |               |
Certificated Products

SEN-S-VAD-LPW-R
Sentri Type A White Standard Performance VAD Red Body Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - Intermittent tone 970Hz @ 1Hz
   - Alternating tone 730/970Hz @ 2Hz
   - Continuous tone 970Hz
2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - Low Performance setting - (Category W: W-3-8.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

SEN-S-R
Sentri Type A Red Body Sounder with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
Note:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - Intermittent tone 970Hz @ 1Hz
   - Alternating tone 730/970Hz @ 2Hz
   - Continuous tone 970Hz

SEN-VAD-HPR-R
Sentri Type A Red High Performance VAD Red Body with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
Notes:
1. Meets the requirements of EN 54-23 at the following power settings:
   - Low red output
   - Medium red output
   - High red output
2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-6.7-14)
   - Medium Performance setting - (Category W: W-6.5-12.5)
   - Low Performance setting - (Category W: W-5-9.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

SEN-VAD-HPW-R
Sentri Type A White High Performance VAD Red Body with Short Circuit Isolator (S3-DB-R and S3-SB-R Bases)
Notes:
1. Meets the requirements of EN 54-23 at the following power settings:
   - Low white output
   - Medium white output
   - High white output
2. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-5-12.5)
   - Medium Performance setting - (Category W: W-4.5-11.3)
   - Low Performance setting - (Category W: W-3-8.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

SEN-S-VAD-HPR-EP-R
Sentri Type A Red High Performance VAD Red Body Sounder with Short Circuit Isolator (Back Box)
Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   - Intermittent tone 970Hz @ 1Hz
   - Alternating tone 730/970Hz @ 2Hz
   - Continuous tone 970Hz
2. Meets the requirements of EN 54-23 at the following power settings:
   - Low red output
   - Medium red output
   - High red output
3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-6.7-14)
   - Medium Performance setting - (Category W: W-6.5-12.5)
   - Low Performance setting - (Category W: W-5-9.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

SEN-S-VAD-HPW-EP-R
Sentri Type A White High Performance VAD Red Body Sounder with Short Circuit Isolator (Back Box)

LPCB Ref. No.
- Flash rate 2 seconds (0.5Hz)
567ag/20
567z/01
567ah/01
567ah/02
567ag/02
567ag/18
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ALARM WARNING DEVICES

Certificated Products

Notes:
1. Meets the requirements of EN 54-3 at the following sounder tone settings:
   1. Intermittent tone 970Hz @ 1Hz
   2. Alternating tone 730/970Hz @ 2Hz
   3. Continuous tone 970Hz
2. Meets the requirements of EN 54-23 at the following power settings:
   - Low white output
   - Medium white output
   - High white output
3. The wall mounted Visual Alarm Device (VAD) meets the requirements of EN 54-23 for the following light pattern details:
   - High Performance setting - (Category W: W-5-12.5)
   - Medium Performance setting - (Category W: W-4.5-11.3)
   - Low Performance setting - (Category W: W-3-8.5)
   - Synchronization
   - Flash rate 2 seconds (0.5Hz)

S3-DB-R Deep Base - Red
S3-SB-R Shallow Base - Red

SS Fire & Security Sdn Bhd
80A, Jalan Megat, Batu Pahat, Johor 83000, Malaysia
Tel: +60167788888
E-mail: ss@ssfiresecurity.com


Audible Warning Devices

Certificated Products

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>LPCB Ref. No.</th>
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<td>SEC-9403</td>
<td>Conventional Sounder Strobe (Shallow Base and SE-94DB Deep Base)</td>
<td>548e/01</td>
</tr>
<tr>
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<td>1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<tr>
<td></td>
<td>Tone 01 2800Hz 0.34s off / 0.4s on</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tone 02 2400Hz - 2900Hz @3Hz</td>
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</tr>
<tr>
<td></td>
<td>2. The strobe function is not in the scope of the approval.</td>
<td></td>
</tr>
<tr>
<td>SEA-9403</td>
<td>Intelligent Sounder Strobe (Shallow Base and SE-94DB Deep Base)</td>
<td>548e/02</td>
</tr>
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<tr>
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<td>1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<tr>
<td></td>
<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tone 16 500Hz-1200Hz, 3.75s on / 0.25s off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre Alarm 800Hz, 1s on / 1s off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Approved in both normal and power saving mode</td>
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<tr>
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<td>3. The strobe function is not in the scope of the approval</td>
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<td>4. Approved with single address and dual address (pre-alarm and main alarm)</td>
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<td>SEC-9404</td>
<td>Conventional Type A Sounder (Shallow Base, SE-94DB Deep Base)</td>
<td>548e/04</td>
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<td>1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<td>Tone 01 2800Hz 0.34s off / 0.4s on</td>
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<tr>
<td></td>
<td>Tone 02 2400Hz - 2900Hz @3Hz</td>
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<td>SEA-9404</td>
<td>Intelligent Type A Sounder (Shallow Base, SE-94DB Deep Base)</td>
<td>548e/05</td>
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<td>1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<td></td>
<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tone 16 500Hz-1200Hz, 3.75s on / 0.25s off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre Alarm 800Hz, 1s on / 1s off</td>
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<td>SEA-9405</td>
<td>Analogue Addressable Type A Sounder Base (SE-DB-01 Base)</td>
<td>548e/06</td>
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<td>1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tone 16 500Hz-1200Hz, 3.75s on / 0.25s off</td>
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<tr>
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<td>2. Approved with SHA-9103E heat detector and SMA-9102E smoke detector</td>
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<tr>
<td>SEA-9406</td>
<td>Analogue Addressable Type A Flashing Sounder Beacon Base (SE-DB-01 Base)</td>
<td>548e/07</td>
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<td>1. Meets the requirements of EN 54-3: 2001 at the following tones:</td>
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<tr>
<td></td>
<td>Tone 14 2400Hz-2900Hz @ 3Hz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tone 16 500Hz-1200Hz, 3.75s on / 0.25s off</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Approved with SHA-9103E heat detector and SMA-9102E smoke detector</td>
<td></td>
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<tr>
<td></td>
<td>3. The visual alarm function is not in the scope of this approval</td>
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</table>

Bases

20 Oct 2020
PART 1: SECTION 7
ALARMS WARNING DEVICES

Sterling Safety Systems
Unit B12a, Holly Farm Business Park, Honiley, Warwickshire CV8 1NP, United Kingdom
Tel: +44(0)1926485282 • Fax: +44(0)1926485090
E-mail: info@sterlingsafety.co.uk • Website: www.sterlingsafety.co.uk


Audible Warning Devices
Certificated Products

<table>
<thead>
<tr>
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<th>Product Description</th>
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<tbody>
<tr>
<td>HFI-ABS-05</td>
<td>Altair Addressable Type A Sounder Base</td>
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<tr>
<td>HFI-ABSB-05</td>
<td>Altair Addressable Type A Sounder Beacon Base</td>
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<td>HFC-WSR-03</td>
<td>Conventional Type A/B (indoor/outdoor) Wall Sounder (Red Body)</td>
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<tr>
<td>HFC-WSW-03+HFI-SIM-01</td>
<td>Altair Addressable Type A/B (indoor/outdoor) Wall Sounder with Short Circuit Isolator (White Body)</td>
</tr>
<tr>
<td>HFC-WSR-03+HFI-SIM-01</td>
<td>Altair Addressable Type A/B (indoor/outdoor) Wall Sounder with Short Circuit Isolator (Red Body)</td>
</tr>
<tr>
<td>HFC-WSW-03</td>
<td>Conventional Type A/B (indoor/outdoor) Wall Sounder (White Body)</td>
</tr>
<tr>
<td>Ancillaries</td>
<td>Addressable module with short circuit isolator</td>
</tr>
</tbody>
</table>

Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1 - Dual Tone 800Hz and 960Hz, 250ms-250ms
   - Tone 2 - Continuous Tone, 1000Hz, Steady
   - Tone 4 - Slow Whoop, 500-1200Hz, 3500ms Sweep, 500ms OFF
   - Tone 5 - Sweep (DIN) Tone, 1200-500Hz, 1s sweep (1Hz)
2. Cover plate (LID100-AL/W or AL/R)

2. Device is only addressable when used in conjunction with HFI-SIM-01

3. The beacon function is not included within the scope of this approval

4. Device is only addressable when used in conjunction with HFI-SIM-01
Visual & Audible Warning Devices
Certificated Products

**HFC-SBR-23-03**
Conventional Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device (Red Body)
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

**HFC-SBR-23-03 + HFI-SIM-01**
Altair Addressable Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (Red Body)
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization
   3. Device is only addressable when used in conjunction with HFI-SIM-01

**HFC-SBW-23-03**
Conventional Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device (White Body)
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization

**HFC-SBW-23-03 + HFI-SIM-01**
Altair Addressable Type A/B (indoor/outdoor) Wall Sounder and Visual Alarm Device with Short Circuit Isolator (White Body)
Notes:
1. Meets the requirements of EN 54-3 at the following tone settings:
   - Tone 1: Warble Tone 800Hz for 500ms, then 1000Hz for 500ms
   - Tone 2: Continuous Tone, 970Hz
   - Tone 3: Slow Whoop (Dutch), 500-1200Hz for 3500ms, then off for 500ms
   - Tone 4: German DIN Tone, 1200-500Hz swept every 1000ms (1Hz)
2. The wall mounted VAD meets the requirements of EN 54-23 for the following:
   - Category W-2.5-7
   - Flash rate - 0.5Hz
   - Synchronization
   3. Device is only addressable when used in conjunction with HFI-SIM-01

Ancillaries
**HFI-SIM-01** Addressable module with short circuit isolator
PART 1: SECTION 7
ALARM WARNING DEVICES

Syncoln Ltd
3rd Floor, 14 Hanover Street, Mayfair, London W1S 1YH, United Kingdom
Tel: +44 (0)207 514 5813
E-mail: sales@syncoln.com • Website: www.syncoln.com


Alarm Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>717a/01</td>
<td>1000-100 Conventional Type A Sounder with LED Strobe (Red Head / Red Base) (PSO-0001 base)</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13 2. Certification excludes the strobe function</td>
</tr>
<tr>
<td>717a/01</td>
<td>1000-101 Conventional Type B Sounder with LED Strobe (Red Head / Red Base) (PSO-0001 base)</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13 2. Certification excludes the strobe function</td>
</tr>
<tr>
<td>717a/05</td>
<td>1000-200 Conventional Type A Sounder (Red) (PSO-0001 base)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
</tr>
<tr>
<td>717a/05</td>
<td>1000-201 Conventional Type B Sounder (Red) (PSO-0003 base)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
</tr>
<tr>
<td>010ak/01</td>
<td>5000-902 Syncoln Intelligent Open-Area Sounder (Red) (45681-518SHA base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. Meets the requirements of EN 54-3:2001 at the following tones: - Apollo standard-840Hz,0.5s/558Hz,0.5s - Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off - German DIN-1200-500Hz over 1s</td>
</tr>
<tr>
<td>010ak/03</td>
<td>5000-903 Syncoln Intelligent Open-Area Sounder Visual Indicator (Red) (45681-518SHA base)</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. Meets the requirements of EN 54-3:2001 at the following tones: - Apollo standard-840Hz,0.5s/558Hz,0.5s - Dutch (slow whoop)- 500-1200Hz in 3.5s, 0.5s off - German DIN-1200-500Hz over 1s - The Beacon function is not approved to EN 54-23</td>
</tr>
</tbody>
</table>

Visual Warning Devices
Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Product Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>717e/03</td>
<td>1000-300 Conventional Type A Wall Mounted White Light LED Visual Alarm Device (red head / red bases) - (PSO-0001 base)</td>
</tr>
<tr>
<td></td>
<td>Note: 1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following: - Category W-3.1-11.3 - Flash rates 0.5Hz and 1Hz - Synchronization</td>
</tr>
<tr>
<td>717e/03</td>
<td>1000-301 Conventional Type B Wall Mounted White Light LED Visual Alarm Device (red head / red bases) - (PSO-0017)</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
</tr>
</tbody>
</table>

Certificate No: 717e-(cl-1) to EN 54-23:2010
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

1. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:
   - Category W-3.1-11.3
   - Flash rates 0.5Hz and 1Hz
   - Synchronization

Bases
PSO-0001 Red shallow base
PSO-0017 Red deep base

Tanda (UK) Limited
Fourth Floor, 30-31 Furnival Street, London EC4A 1JQ, United Kingdom
Tel: +44 8451162945
E-mail: info@tandauk.com • Website: www.tandauk.com


Certificated Products

TX7300 Addressable Sounder Strobe (TX7300 base)
Notes:
1. Approved to Type A Indoor use only.
2. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 14, 2400 Hz - 2900 Hz @ 3Hz
   - Tone 16, 500Hz - 1200Hz, 3.75s on/0.25s off
   - Tone 17, 800Hz, 1s off/1s on
3. The strobe function is not approved to EN 54-23

Tanda Development Pte Ltd
21 Bukit Batok Crescent, #15-75 Wcega Tower, Singapore 658065, Singapore
Tel: +86013223307015
E-mail: Wanyuemin@tandatech.com • Website: www.tnafirealarm.com


Certificated Products

TX7300 Addressable Sounder Strobe (TX7300 base)
Notes:
1. Approved to Type A Indoor use only.
2. Meets the requirements of EN 54-3:2001 at the following tones:
   - Tone 14, 2400 Hz - 2900 Hz @ 3Hz
   - Tone 16, 500Hz - 1200Hz, 3.75s on/0.25s off
   - Tone 17, 800Hz, 1s off/1s on
3. The strobe function is not approved to EN 54-23

Base
TX7300 Sounder Base
PART 1: SECTION 7
ALARM WARNING DEVICES

TX7300

Tecnoalarm S.r.l.
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E-mail: info@tecnofiredetection.com • Website: www.tecnofiredetection.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1519e/02</td>
<td>TFIS01-L Addressable Internal Siren with Short Circuit Isolator (TFBase01- Base)</td>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1) Technofire alarm (sweep up) - 353Hz to 1950Hz in 1000ms + 50ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Technofire technical alarm (sweep up) - 445Hz to 590Hz in 1000ms + 50ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3) Technofire failure (sweep up/down) - 445Hz to 1000Hz in 1000ms + 700Hz in 1000ms + 50ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4) Technofire prealarm (4 tone pulses) - 100ms @ 1050Hz + 50ms off + 200ms @ 1300Hz + 50ms off + 100ms @ 1600Hz + 50ms off + 200ms @ 1900Hz + 50ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5) AFNOR French alarm tone - 400ms @ 440Hz + 100ms @ 554Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6) AFNOR French alarm tone - 500ms @ 500Hz + 500ms @ 1200Hz</td>
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<tr>
<td></td>
<td></td>
<td>10) - 250ms @ 628Hz + 250ms @ 925Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13) - 500ms @ 800Hz + 500ms @ 970Hz</td>
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<tr>
<td></td>
<td></td>
<td>15) Telecom alternate tone - 250ms @ 800Hz + 250ms @ 970Hz</td>
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<td></td>
<td></td>
<td>18) - 250ms @ 2400Hz + 250ms @ 2850Hz</td>
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<tr>
<td></td>
<td></td>
<td>22) Swedish alarm tone - 150ms @ 660Hz + 150ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>27) Intermittent tone - 250ms @ 925Hz + 1s off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28) Intermittent tone - 250ms @ 970Hz + 1s off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30) - 3 x (500ms @ 950Hz + 500ms off) + 1500ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>31) Intermittent tone - 1sec @ 970Hz + 1s to off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33) HF &amp; BS 5893 Pt1 backup alarm - 500ms @ 2850Hz + 500ms off</td>
</tr>
<tr>
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<td>34) - 3 x (500ms @ 2850Hz + 500ms off) + 1500ms off</td>
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<tr>
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<td></td>
<td>36) US temporal tone 3 - 610Hz continuous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38) End alarm or Swedish alarm tone - 660Hz continuous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41) British alarm tone - 970Hz continuous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43) US temporal tone 3 - 2850Hz continuous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>45) Sweep - 300Hz to 1200Hz in 1000ms + 0ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>46) Sweep - 3 x (300Hz to 1200Hz in 500ms + 500ms off) + 1500ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>47) Sweep - 3 x (400Hz to 1200Hz in 500ms + 500ms off) + 1500ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48) Sweep - 400Hz to 1200Hz in 3000ms + 500ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50) Netherland NEN 2575 slow evacuation swap - 500Hz to 1200Hz in 3.5sec + 500ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51) Netherland NEN 2575 slow evacuation swap - 500Hz to 1200Hz in 3.76sec + 250ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>52) BS 5839 Pt1 LF buzzer - 800Hz to 970Hz in 20ms + 0ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53) BS 5839 Pt1 fast sweep - 800Hz to 970Hz in 140ms + 0ms off (7Hz)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>55) 800Hz to 970Hz in 330ms + 0ms off (3Hz)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>57) BS 5839 Pt1 medium sweep - 800Hz to 970Hz in 1000ms + 0ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>59) DIN &amp; PFEER evacuation tone - 1200Hz to 500Hz in 1000ms + 10ms off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>62) VdS fast sweep or Australian alarm tone - 2400Hz to 2850Hz in 140ms + 0ms off (7Hz)</td>
</tr>
</tbody>
</table>
PART 1: SECTION 7
ALARM WARNING DEVICES

Teledata S.r.l.
Via Giulietti 8, Milan 20132, Italy
Tel: +39 02-27201352 • Fax: +39 02-2593704
E-mail: R.Pennati@teledata-i.com • Website: www.teledata-i.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1154g/01</td>
<td>FDS500 Analogue Addressable Type A Sounder with Short Circuit Isolator</td>
<td>Meets the requirements of EN 54-3 at the following tone settings: Dual tone: 990Hz and 650Hz, 2Hz (250ms-250ms); Pulsed tone: 990Hz, 1Hz (500ms ON - 500ms OFF); Continuous tone: 990Hz, steady</td>
</tr>
<tr>
<td>1154g/02</td>
<td>FDS500H Analogue Addressable Type A Sounder with Short Circuit Isolator</td>
<td>Meets the requirements of EN 54-3 at the following tone settings: Slow whoop tone 500Hz to 1200Hz, 3s sweep, 0.5s silence; Sweep (DIN) tone 1200Hz to 500Hz, 1Hz; Continuous tone 990Hz, steady</td>
</tr>
</tbody>
</table>

Teletek Electronics JSC
14A Srebarna Street, Sofia 1407, Bulgaria
Tel: +359 2 9694 700 • Fax: +359 2 9625 213
E-mail: info@teletek-electronics.bg • Website: www.teletek-electronics.com


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1139e/01</td>
<td>SensoIRIS WSOU IS-R Intelligent Analogue Addressable Fire Alarm Type A Indoor Sounder with built-in Short Circuit Isolator Module</td>
<td>Approved to Type A Indoor only; Meets the requirements of EN 54-3 and approved at the following tone: Tone 27, 2400Hz - 2900Hz @ 3Hz high volume only</td>
</tr>
<tr>
<td>1139e/02</td>
<td>SensoIRIS BSOU IS Intelligent Analogue Addressable Fire Alarm Type A Base Sounder with built-in Short Circuit Isolator Module</td>
<td>Approved to Type A Indoor only; Meets the requirements of EN 54-3 and approved at the following tone: Tone 27, 2400Hz - 2900Hz @ 3Hz high volume only</td>
</tr>
<tr>
<td>1139e/03</td>
<td>SensoIRIS BSST IS Intelligent Analogue Addressable Fire Alarm Type A Base Sounder Strobe/Flash with built-in Short Circuit Isolator Module</td>
<td>Approved to Type A Indoor only; Meets the requirements of EN 54-3 and approved at the following tone: Tone 27, 2400Hz - 2900Hz @ 3Hz high volume only</td>
</tr>
<tr>
<td>1139d/01</td>
<td>SensoIRIS WSST IS Intelligent Analogue Addressable Fire Alarm Type A Indoor Wall Sounder and Strobe with built-in Short Circuit Isolator Module</td>
<td>Approved to Type A Indoor only; Meets the requirements of EN 54-3 and approved at the following tone: Tone 27, 2400Hz - 2900Hz @ 3Hz high volume only; Meets the requirements of EN 54-23 and approved as Open Class Category</td>
</tr>
<tr>
<td>1139e/04</td>
<td>Expera BSi Intelligent Analogue Addressable Fire Alarm Type A Base Sounder with built-in Short Circuit Isolator Module</td>
<td>Notes:</td>
</tr>
<tr>
<td>Certificated Products</td>
<td>LPCB Ref. No.</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td><strong>PSS-0068</strong> Conventional Sounder with LED Strobe (Red Head / Red Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
<td>717a/01</td>
<td></td>
</tr>
</tbody>
</table>
| Notes:  
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only  
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PSS-0079** Conventional Sounder with LED Strobe (Red Head / White Base) (PSO-0003 & PSO-0007 bases) | 717a/02 |
| Notes:  
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only  
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PSS-0073** Conventional Sounder with LED Strobe (Amber Head / Red Base) (PSO-0003 & PSO-0007 bases) | 717a/03 |
| Notes:  
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only  
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PSS-0080** Conventional Sounder with LED Strobe (Amber Head / White Base) (PSO-0001, PSO-0006, PSO-0003 & PSO-0007 bases) | 717a/04 |
| Notes:  
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only  
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PSS-0084** Sonos DC Sounder Wide Voltage (Red) (PSO-0001, PSO-0006, PSO-0003 & PSO-0007 bases) | 717a/05 |
| Notes:  
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only  
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PSS-0089** Sonos DC Sounder Wide Voltage (White) (PSO-0001, PSO-0006, PSO-0003 & PSO-0007 bases) | 717a/06 |
| Notes:  
1. The above sounder is Type A when used with the shallow base & Type B when used with the deep base only  
2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PBS-0003** Universal base sounder (White) | 717a/07 |
| Notes:  
1. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
| **PBS-0009** Universal base sounder (Cream) | 717a/08 |
| Notes:  
1. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13 | |
<table>
<thead>
<tr>
<th>Certificated Products</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td><strong>PSC-0045</strong></td>
<td>717a/10</td>
</tr>
<tr>
<td>Conventional Sounder with LED Strobe Common Operation (Red Head / Red Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
<td></td>
</tr>
<tr>
<td><strong>PSC-0051</strong></td>
<td>717a/11</td>
</tr>
<tr>
<td>Conventional Sounder with Red LED Strobe Common Operation (Clear Lens / White Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
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</tr>
<tr>
<td><strong>PSC-0054</strong></td>
<td>717a/12</td>
</tr>
<tr>
<td>Conventional Sounder with LED Strobe Common Operation (Amber Head / Red Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
<td></td>
</tr>
<tr>
<td><strong>PSC-0055</strong></td>
<td>717a/13</td>
</tr>
<tr>
<td>Conventional Sounder with Red LED Strobe (Clear Lens / White Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
<td></td>
</tr>
<tr>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
<td></td>
</tr>
<tr>
<td><strong>PBS-0015</strong></td>
<td>717a/14</td>
</tr>
<tr>
<td>Universal base sounder (Red)</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
<td></td>
</tr>
<tr>
<td><strong>PSC-0062</strong></td>
<td>717a/16</td>
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<tr>
<td>Conventional Sounder with LED Strobe Common Operation (Red Head / White Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
<td></td>
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<tr>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
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<tr>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
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<tr>
<td><strong>PSC-0063</strong></td>
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<tr>
<td>Conventional Sounder with LED Strobe Common Operation (Amber Head / White Base) (PSO-0001, PSO-0006, PSO-0003 &amp; PSO-0007 bases)</td>
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<td>Notes:</td>
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<tr>
<td>1. The above sounder is Type A when used with the shallow base &amp; Type B when used with the deep base only</td>
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<tr>
<td>2. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 &amp; 13</td>
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<tr>
<td><strong>ESCA3000R</strong></td>
<td>717d/01</td>
</tr>
<tr>
<td>Conventional Type A sounder and ceiling mounted white light LED visual alarm device (red head / red base) - (PSO-0001 / 18-185856-2, PSO-0017 / HSG6918 bases)</td>
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<tr>
<td>Notes:</td>
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<tr>
<td>1. The sounder meets the requirements of EN 54-3:2001 at tones 1, 2, 3, 6, 7 &amp; 13</td>
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<tr>
<td>2. The ceiling mounted VAD meets the requirements of EN 54-23:2010 for the following: - Category C-3-15 - Flash rates 0.5Hz and 1Hz - Synchronization</td>
<td></td>
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<tr>
<td><strong>ESCA3000W</strong></td>
<td>717d/02</td>
</tr>
<tr>
<td>Conventional Type A sounder and ceiling mounted white light LED visual alarm device (white head / white base) - (PSO-0006 / 18-186049-2, PSO-0018 / HSG6917 bases)</td>
<td></td>
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<tr>
<td>Notes:</td>
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<td>1. The sounder meets the requirements of EN 54-3:2001 at tones 1, 2, 3, 6, 7 &amp; 13</td>
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</tbody>
</table>
## PART 1: SECTION 7
### ALARM WARNING DEVICES

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<tr>
<td>Conventional Type A sounder and wall mounted white light LED visual alarm device (red head / red base)</td>
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<td>- (PSO-0001 / 18-185856-2, PSO-0017 / HSG6918 bases)</td>
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<td>1. The sounder meets the requirements of EN 54-3:2001 at tones 1, 2, 3, 6, 7 &amp; 13</td>
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<tr>
<td>2. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following:</td>
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<td><strong>ESBA3000R</strong></td>
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<td><strong>ESDA2000R</strong></td>
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<tr>
<td>Conventional Type A/B Ceiling Mounted Red Light LED Visual Alarm Device (Red Head / Red Bases)</td>
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<tr>
<td><strong>ESDA2000W</strong></td>
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<td>Conventional Type A/B Ceiling Mounted Red Light LED Visual Alarm Device (White Head / White Bases)</td>
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<tr>
<td><strong>ESDA1000R</strong></td>
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<td>Conventional Type A/B Wall Mounted Red Light LED Visual Alarm Device (Red Head / Red Bases)</td>
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<td>Notes:</td>
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<tr>
<td>1. The VAD is Type A when used with the shallow base &amp; Type B with the</td>
<td></td>
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</tbody>
</table>
Certificated Products | LPCB Ref. No.
--- | ---
ESDA1000W | 717d/08
Conventional Type A/B Wall Mounted Red Light LED Visual Alarm Device (White Head / White Base) | - (PSO-0006 / 18-186049-2, PSO-0018 / HSG6917 Bases)
Notes: 1. The VAD is Type A when used with the shallow base & Type B with the deep base. 2. The wall mounted VAD meets the requirements of EN 54-23: 2010 for the following:- Category W-2.4-7.5 - Flash rates 0.5Hz and 1Hz - Synchronization
ESFA2000R | 717d/05
Conventional Type A Sounder and Ceiling Mounted Red Light LED Visual Alarm Device (Red Head / Red Base) - (PSO-0001 / 18-185856-2, PSO-0017 / HSG6918 Bases)
Notes: 1. The sounder meets the requirements of EN 54-3: 2001 at the following tones:- 1) 970Hz continuous, 2) 800Hz/970Hz @ 2Hz, 3) 800Hz - 970Hz @ 1Hz, 5) 554Hz, 0.1s/440Hz, 0.4s, 6) 500 - 1200Hz, 3.5s/0.5s OFF, 13) 1200Hz - 500Hz @ 1Hz
ESFA2000W | 717d/06
Conventional Type A Sounder and Ceiling Mounted Red Light LED Visual Alarm Device (White Head / White Base) | - (PSO-0006 / 18-186049-2, PSO-0018 / HSG6917 Bases)
Notes: 1. The sounder meets the requirements of EN 54-3:2001 at the following tones:- 1) 970Hz continuous, 2) 800Hz/970Hz @ 2Hz, 3) 800Hz - 970Hz @ 1Hz, 6) 554Hz, 0.1s/440Hz, 0.4s, 7) 500 - 1200Hz, 3.5s/0.5s OFF
ESFA1000R | 717d/07
Conventional Type A Sounder and Wall Mounted Red Light LED Visual Alarm Device (Red Head / Red Base) | - (PSO-0001 / 18-185856-2, PSO-0017 / HSG6918 Bases)
Notes: 1. The sounder meets the requirements of EN 54-3:2001 at the following tones:- 1) 970Hz continuous, 2) 800Hz/970Hz @ 2Hz, 3) 800Hz - 970Hz @ 1Hz, 6) 554Hz, 0.1s/440Hz, 0.4s, 7) 500 - 1200Hz, 3.5s/0.5s OFF, 13) 1200Hz - 500Hz @ 1Hz
ESFA1000W | 717d/08
Conventional Type A sounder and wall mounted red light LED visual alarm device (white head / white base) - (PSO-0006 / 18-186049-2, PSO-0018 / HSG6917 bases)
Notes: 1. The sounder meets the requirements of EN 54-3:2001 at the following tones:- 1) 970Hz continuous, 2) 800Hz/970Hz @ 2Hz, 3) 800Hz - 970Hz @ 1Hz, 6) 554Hz, 0.1s/440Hz, 0.4s, 7) 500 - 1200Hz, 3.5s/0.5s OFF, 13) 1200Hz - 500Hz @ 1Hz
ESFA1000G | 717d/09
Conventional Type A Sounder and Wall Mounted Red Light LED Visual Alarm Device (grey head / grey base) (PSO-0022 base)
Notes: 1. The sounder meets the requirements of EN 54-3:2001 at the following tones: 1) 970Hz continuous, 2) 800Hz/970Hz @ 2Hz, 3) 800Hz - 970Hz @ 1Hz, 4) 554Hz, 0.1s / 440Hz, 0.4s, 5) 500 - 1200Hz, 3.5s / 0.5s OFF, 6) 1200Hz - 500Hz @ 1Hz 2. The wall mounted VAD meets the requirements of EN 54-23:2010 for the following: Category W-2.4-7.5
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

- Flash rates 0.5Hz and 1Hz
- Synchronization

PSS-0151 Sonos DC Sounder Wide Voltage (Grey) (PSO-0022 base) 717a/18

Notes:
1. Meets the requirements of EN 54-3:2001 at tones 1,2,3,6,7 & 13
2. Approved to Type A Indoor use only

TCC-0001 Intrinsically Safe Fire Alarm Sounder Type B (Red) (HSG6890SA base) 717p/01

Note:
1. Meets the requirements of EN 54-3:2001 for the following tones
   - Tone 1 970Hz Continuous
   - Tone 2 800Hz/970Hz @ 2Hz
   - Tone 3 800Hz 970Hz @ 1Hz
   - Tone 6 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
   - Tone 7 500 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
   - Tone 13 1200Hz 500Hz @ 1Hz (DIN 33 404)

TCC-0007 Intrinsically Safe Fire Alarm Sounder Amber Beacon Type B (Red) (HSG6890SA base) 717p/02

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones
   - Tone 1 970Hz Continuous
   - Tone 2 800Hz/970Hz @ 2Hz
   - Tone 3 800Hz 970Hz @ 1Hz
   - Tone 6 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
   - Tone 7 500 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
   - Tone 13 1200Hz 500Hz @ 1Hz (DIN 33 404)

TCC-0008 Intrinsically Safe Fire Alarm Sounder Red Beacon Type B (Red) (HSG6890SA base) 717p/02

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones
   - Tone 1 970Hz Continuous
   - Tone 2 800Hz/970Hz @ 2Hz
   - Tone 3 800Hz 970Hz @ 1Hz
   - Tone 6 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
   - Tone 7 500 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
   - Tone 13 1200Hz 500Hz @ 1Hz (DIN 33 404)

TCC-0010 Intrinsically Safe Fire Alarm Sounder Green Beacon Type B (Red) (HSG6890SA base) 717p/02

Notes:
1. Meets the requirements of EN 54-3:2001 for the following tones
   - Tone 1 970Hz Continuous
   - Tone 2 800Hz/970Hz @ 2Hz
   - Tone 3 800Hz 970Hz @ 1Hz
   - Tone 6 554Hz, 0.1s / 440Hz, 0.4s (AFNOR NF S 32 001)
   - Tone 7 500 1200Hz, 3.5s / 0.5s OFF (NEN 2575:2000 Dutch Slow Whoop)
   - Tone 13 1200Hz 500Hz @ 1Hz (DIN 33 404)

Bases:
PSO-0001 Shallow base (red)
PSO-0006 Shallow base (white)
<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
<th>Note:</th>
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<tbody>
<tr>
<td>681g/01</td>
<td>802SB Analogue Addressable Type A Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Fast Sweep Dutch Slow Whoop 500Hz to 1200Hz Temporal 3 880Hz</td>
</tr>
<tr>
<td>681g/01</td>
<td>FC430SB Analogue Addressable Type A Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Fast Sweep Dutch Slow Whoop 500Hz to 1200Hz Temporal 3 880Hz</td>
</tr>
<tr>
<td>681g/02</td>
<td>601SB Type A Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Temporal 3 880Hz Dutch Slow Whoop 500Hz to 1200Hz Continuous 880Hz</td>
</tr>
<tr>
<td>681g/03</td>
<td>601SBD Type A Diode Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Temporal 3 880Hz Dutch Slow Whoop 500Hz to 1200Hz Continuous 880Hz</td>
</tr>
<tr>
<td>681g/04</td>
<td>602SB Type A Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Temporal 3 880Hz Dutch Slow Whoop 500Hz to 1200Hz Continuous 880Hz</td>
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<td>681g/05</td>
<td>602SBD Type A Diode Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Temporal 3 880Hz Dutch Slow Whoop 500Hz to 1200Hz Continuous 880Hz</td>
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<tr>
<td>681g/06</td>
<td>901SB Analogue Addressable Type A Sounder Base</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: Temporal 3 880Hz Dutch Slow Whoop 500Hz to 1200Hz Continuous 880Hz</td>
</tr>
<tr>
<td>378e/01</td>
<td>LPSY800-R Symphoni MX Addressable Loop Powered Type A Sounder (Red) with Short Circuit Isolator</td>
<td>1. Meets the requirements of EN 54-3 at the following tones: 1 - Dutch Slow Whoop Sweep 2 - 7Hz Fast Sweep 6 - Temporal 3 (ISO8201)</td>
</tr>
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</table>
## PART 1: SECTION 7
### ALARM WARNING DEVICES

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<tr>
<td>LPSY800-W</td>
<td>378e/02</td>
</tr>
<tr>
<td>FC410LPSYW</td>
<td>378e/02</td>
</tr>
<tr>
<td>LPSY865</td>
<td>378e/03</td>
</tr>
<tr>
<td>FC410LPSY</td>
<td>378e/03</td>
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<tr>
<td>FC410LPAV</td>
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<tr>
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<td>378e/05</td>
</tr>
<tr>
<td>FC410LPAVW</td>
<td>378e/05</td>
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</tbody>
</table>

### Certificated Products Details:

**FC410LPSYR**
- **FireClass Addressable Loop Powered Type A Sounder (Red) with Short Circuit Isolator**
- Note:
  - Meets the requirements of EN 54-3 at the following tones:
    - 9 - Continuous 850Hz

**LPSY800-W**
- **Symphoni MX Addressable Loop Powered Type A Sounder (White) with Short Circuit Isolator**
- Note:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz

**FC410LPSYW**
- **FireClass Addressable Loop Powered Type A Sounder (White) with Short Circuit Isolator**
- Note:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz

**LPSY865**
- **Symphoni MX Addressable Loop Powered Type B Sounder (Red) with Short Circuit Isolator**
- Note:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz

**FC410LPSY**
- **FireClass Addressable Loop Powered Type B Sounder (Red) with Short Circuit Isolator**
- Note:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz

**LPAV800-R**
- **Symphoni MX Addressable Loop Powered Type A Sounder Beacon (Red) with Short Circuit Isolator**
- Notes:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz
  - 2. The beacon function of this device is not included in the scope of this approval

**FC410LPAV**
- **FireClass Addressable Loop Powered Type A Sounder Beacon (Red) with Short Circuit Isolator**
- Notes:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz
  - 2. The beacon function of this device is not included in the scope of this approval

**LPAV800-W**
- **Symphoni MX Addressable Loop Powered Type A Sounder Beacon (White) with Short Circuit Isolator**
- Notes:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
    - 9 - Continuous 850Hz
  - 2. The beacon function of this device is not included in the scope of this approval

**FC410LPAVW**
- **FireClass Addressable Loop Powered Type A Sounder Beacon (White) with Short Circuit Isolator**
- Notes:
  - Meets the requirements of EN 54-3 at the following tones:
    - 1 - Dutch Slow Whoop Sweep
    - 2 - 7Hz Fast Sweep
    - 6 - Temporal 3 (ISO8201)
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<td>LPAV865 Symphoni MX Addressable Loop Powered Type B Sounder Beacon (Red) with Short Circuit Isolator</td>
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<td></td>
</tr>
<tr>
<td>1. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>1 - Dutch Slow Whoop Sweep</td>
<td></td>
</tr>
<tr>
<td>2 - 7Hz Fast Sweep</td>
<td></td>
</tr>
<tr>
<td>6 - Temporal 3 (ISO8201)</td>
<td></td>
</tr>
<tr>
<td>9 - Continuous 850Hz</td>
<td></td>
</tr>
<tr>
<td>2. The beacon function of this device is not included in the scope of this approval</td>
<td></td>
</tr>
</tbody>
</table>

| FC410LPAV FireClass Addressable Loop Powered Type B Sounder Beacon (Red) with Short Circuit Isolator | 378e/06       |
| Notes:                                                     |               |
| 1. Meets the requirements of EN 54-3 at the following tones: |
| 1 - Dutch Slow Whoop Sweep                                |
| 2 - 7Hz Fast Sweep                                         |
| 6 - Temporal 3 (ISO8201)                                   |
| 9 - Continuous 850Hz                                       |
| 2. The beacon function of this device is not included in the scope of this approval |

| FC430LPASB FireClass Loop Powered Sounder Beacon Base with Short Circuit Isolator | 378e/07       |
| Note:                                                                       |               |
| 1. Meets the requirements of EN 54-3 at the following tones: |
| 1 - Dutch Slow Whoop, 500 to 1200Hz                                  |
| 2 - 7Hz Fast Sweep, 800 to 970Hz                                    |
| 3 - BS 1Hz Sweep, 800 to 970Hz                                       |
| 4 - 2 Tone, 660 / 880Hz                                             |
| 5 - Temporal 4, 880Hz                                              |
| 6 - Australian Sound (AS 1670.4) Temporal 3 type tone, 500 to 1200Hz  |
| 7 - March Time Beep, 880Hz                                         |
| 8 - Continuous, 970Hz                                              |
| 9 - DIN 1Hz Sweep, 1200 to 500Hz                                    |
| 10 - Banshee LF Buzzer, 800 to 950Hz                               |
| 11 - 3Hz Banshee Fast Sweep, 800 to 950Hz                          |
| 12 - 9Hz Banshee Fast Sweep, 800 to 950Hz                          |
| 13 - Alternating (NF-S 32.001), 554 / 440Hz                        |
| 14 - Yodalarm, 800 / 1000Hz                                        |
| 15 - Conventional Bell, 1450Hz                                     |
| 2. The beacon function of this device is not included in the scope of this approval |

| FC430LPSB FireClass Loop Powered Sounder Beacon Base with Short Circuit Isolator | 378e/08       |
| Note:                                                                       |               |
| 1. Meets the requirements of EN 54-3 at the following tones: |
| 1 - Dutch Slow Whoop, 500 to 1200Hz                                  |
| 2 - 7Hz Fast Sweep, 800 to 970Hz                                    |
| 3 - BS 1Hz Sweep, 800 to 970Hz                                       |
| 4 - 2 Tone, 660 / 880Hz                                             |
| 5 - Temporal 4, 880Hz                                              |
| 6 - Australian Sound (AS 1670.4) Temporal 3 type tone, 500 to 1200Hz  |
| 7 - March Time Beep, 880Hz                                         |
| 8 - Continuous, 970Hz                                              |
| 9 - DIN 1Hz Sweep, 1200 to 500Hz                                    |
| 10 - Banshee LF Buzzer, 800 to 950Hz                               |
| 11 - 3Hz Banshee Fast Sweep, 800 to 950Hz                          |
| 12 - 9Hz Banshee Fast Sweep, 800 to 950Hz                          |
| 13 - Alternating (NF-S 32.001), 554 / 440Hz                        |
| 14 - Yodalarm, 800 / 1000Hz                                        |
| 15 - Conventional Bell, 1450Hz                                     |
| 2. The beacon function of this device is not included in the scope of this approval |

| P80SB Zettler Addressable Type A Indoor Base Sounder with Short Circuit Isolator, White Housing (576.080.002) | 681at/01     |
| Note:                                                                       |               |
| Meets the requirements of EN 54-3 at the following tones: |
| 1 - Dutch Slow Whoop 500-1200Hz                                      |
| 2 - 7Hz Fast Sweep 800-970Hz                                         |
| 3 - BS 1Hz Sweep 800-970Hz                                           |
| 4 - 2 Tone 680/800Hz                                                |
| 5 - Temporal 4 880Hz                                                |
| 6 - Temporal 3 880Hz                                                |
| 7 - March Time Beep 880Hz                                            |
| 8 - Continuous 970 970Hz                                            |
| 9 - DIN 1Hz Sweep 1200-500Hz                                        |
| 10 - Banshee LF Buzzer 800-950Hz                                    |
| 11 - 3Hz Banshee 800-950Hz                                          |
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<td>FC440SB FireClass Addressable Type A Indoor Base Sounder with Short Circuit Isolator, White Housing (576.440.002)</td>
</tr>
<tr>
<td>681at/01</td>
<td>4098-5273 Simplex Type A Indoor Sounder Base Sounder with Short Circuit Isolator, White Housing</td>
</tr>
<tr>
<td>681at/02</td>
<td>P80AIB Zettler Addressable Type A Indoor Base Sounder Beacon VID with Short Circuit Isolator (Red Flash), Clear Housing (576.080.010)</td>
</tr>
<tr>
<td>681at/02</td>
<td>FC440AIB FireClass Addressable Type A Indoor Base Sounder Beacon VID with Short Circuit Isolator (Red Flash), Clear Housing (576.080.010)</td>
</tr>
</tbody>
</table>

Note:
- Meets the requirements of EN 54-3 at the following tones:
  1. Dutch Slow Whoop 500-1200Hz
  2. 7Hz Fast Sweep 800-970Hz
  3. BS 1Hz Sweep 800-970Hz
  4. 2 Tone 680/800Hz
  5. Temporal 4 880Hz
  6. Temporal 3 880Hz
  7. March Time Beep 880Hz
  8. Continuous 970 970Hz
  9. DIN 1Hz Sweep 1200-500Hz
  10. Banshee LF Buzzer 800-950Hz
  11. 3Hz Banshee 800-950Hz
  12. 9Hz Banshee 800-950Hz
  13. Alternating 554/440Hz
  14. Yodalarm 800/1000Hz
  15. Conventional Bell 1450Hz
Certificated Products

9 - DIN 1Hz Sweep 1200-500Hz
10 - Banshee LF Buzzer 800-950Hz
11 - 3Hz Banshee 800-950Hz
12 - 9Hz Banshee 800-950Hz
13 - Alternating 554/440Hz
14 - Yodalarm 800/1000Hz
15 - Conventional Bell 1450Hz

4098-5274 Simplex Addressable Type A Indoor Sounder/Beacon Base with Short Circuit Isolator Clear Housing
Note: Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - DIN 1Hz Sweep 1200-500Hz
10 - Banshee LF Buzzer 800-950Hz
11 - 3Hz Banshee 800-950Hz
12 - 9Hz Banshee 800-950Hz
13 - Alternating 554/440Hz
14 - Yodalarm 800/1000Hz
15 - Conventional Bell 1450Hz

80DSB Zettler Type A Indoor Detector Base Sounder, White Housing (576.080.001)
Note: 1. Meets the requirements of EN 54-3 at the following tones:
DIN 1Hz Sweep 1200Hz to 500Hz
Dutch Slow Whoop 500Hz to 1200Hz
Temporal 4 880Hz
BS 1Hz Sweep 800Hz to 970Hz
March Time Beep 880Hz
7Hz Fast Sweep 800Hz to 970Hz
Temporal 3 880Hz
2 Tone 660Hz/880Hz
Continuous 970Hz

FC440DSB FireClass Type A Indoor Detector Base Sounder, White Housing (576.440.001)
Note: 1. Meets the requirements of EN 54-3 at the following tones:
DIN 1Hz Sweep 1200Hz to 500Hz
Dutch Slow Whoop 500Hz to 1200Hz
Temporal 4 880Hz
BS 1Hz Sweep 800Hz to 970Hz
March Time Beep 880Hz
7Hz Fast Sweep 800Hz to 970Hz
Temporal 3 880Hz
2 Tone 660Hz/880Hz
Continuous 970Hz

P80SW Zettler Addressable Type A Wall Sounder with Short Circuit Isolator, White Housing (576.080.003)
Note: Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzzer 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

FC440SW FireClass Addressable Type A Wall Sounder with Short Circuit Isolator, White Housing (576.440.003)
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Certificated Products

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzzer 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

P80SR
Zettler Addressable Type A Indoor Wall Sounder with Sort Circuit Isolator, Red Housing (576.080.004)

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzzer 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

FC440SR
FireClass Addressable Type A Indoor Wall Sounder with Sort Circuit Isolator, Red Housing (576.440.004)

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzzer 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

P80AIW
Zettler Addressable Type A Indoor Wall Sounder Beacon VID with Short Circuit Isolator, White Housing (576.080.011)

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz

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### Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>681at/05</td>
<td>FC440AlW FireClass Addressable Type A Indoor Wall Sounder Beacon VID with Short Circuit Isolator, White Housing (576.440.011)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td></td>
<td>1. Dutch Slow Whoop 500-1200Hz</td>
</tr>
<tr>
<td></td>
<td>2. 7Hz Fast Sweep 800-970Hz</td>
</tr>
<tr>
<td></td>
<td>3. BS 1Hz Sweep 800-970Hz</td>
</tr>
<tr>
<td></td>
<td>4. 2 Tone 680/800Hz</td>
</tr>
<tr>
<td></td>
<td>5. Temporal 4 880Hz</td>
</tr>
<tr>
<td></td>
<td>6. Temporal 3 880Hz</td>
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<tr>
<td></td>
<td>7. March Time Beep 880Hz</td>
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<td>11. Banshee LF Buzzer 800-950Hz</td>
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<tr>
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<td>13. 9Hz Banshee 800-950Hz</td>
</tr>
<tr>
<td></td>
<td>14. Alternating 554/440Hz</td>
</tr>
<tr>
<td></td>
<td>15. Yodalarm 800/1000Hz</td>
</tr>
<tr>
<td></td>
<td>16. Conventional Bell 1450Hz</td>
</tr>
<tr>
<td>681at/06</td>
<td>P80AIR Zettler Addressable Type A Indoor Wall Sounder Beacon VID with Short Circuit Isolator, Red Housing (576.080.012)</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td></td>
<td>1. Dutch Slow Whoop 500-1200Hz</td>
</tr>
<tr>
<td></td>
<td>2. 7Hz Fast Sweep 800-970Hz</td>
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<tr>
<td></td>
<td>3. BS 1Hz Sweep 800-970Hz</td>
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<tr>
<td></td>
<td>15. Yodalarm 800/1000Hz</td>
</tr>
<tr>
<td></td>
<td>16. Conventional Bell 1450Hz</td>
</tr>
<tr>
<td>681at/06</td>
<td>FC440AIR FireClass Addressable Type A Indoor Wall Sounder Beacon VID with Short Circuit Isolator, Red Housing (576.440.012)</td>
</tr>
<tr>
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<td>Note: Meets the requirements of EN 54-3 at the following tones:</td>
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<tr>
<td></td>
<td>1. Dutch Slow Whoop 500-1200Hz</td>
</tr>
<tr>
<td></td>
<td>2. 7Hz Fast Sweep 800-970Hz</td>
</tr>
<tr>
<td></td>
<td>3. BS 1Hz Sweep 800-970Hz</td>
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<td>7. March Time Beep 880Hz</td>
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<td>9. Continuous 850 850Hz</td>
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</tr>
<tr>
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<td>12. 3Hz Banshee 800-950Hz</td>
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<tr>
<td></td>
<td>14. Alternating 554/440Hz</td>
</tr>
<tr>
<td></td>
<td>15. Yodalarm 800/1000Hz</td>
</tr>
<tr>
<td></td>
<td>16. Conventional Bell 1450Hz</td>
</tr>
<tr>
<td>681at/06</td>
<td>4906-5223 Simplex Type A Indoor Sounder Beacon Red with Short Circuit Isolator</td>
</tr>
<tr>
<td></td>
<td>Note: Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td></td>
<td>1. Dutch Slow Whoop 500-1200Hz</td>
</tr>
<tr>
<td></td>
<td>2. 7Hz Fast Sweep 800-970Hz</td>
</tr>
<tr>
<td></td>
<td>3. BS 1Hz Sweep 800-970Hz</td>
</tr>
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<td>P85SR Zettler Addressable Type B Outdoor Wall Sounder IP with Short Circuit Isolator, Red Housing (576.080.005)</td>
<td>Meets the requirements of EN 54-3 at the following tones:</td>
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<tr>
<td></td>
<td>FC445SR FireClass Addressable Type B Outdoor Wall Sounder IP with Short Circuit Isolator, Red Housing (576.440.005)</td>
<td>Meets the requirements of EN 54-3 at the following tones:</td>
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<td></td>
<td>4906-5222 Simplex Type B Outdoor Sounder IP Red with Short Circuit Isolator</td>
<td>Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
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</table>
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Certificated Products | LPCB Ref. No.
P85AIR Zettler Addressable Type B Outdoor Wall Sounder Beacon VID IP with Short Circuit Isolator, Red Housing (576.080.013) | 681at/08

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzz 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

FC445AIR FireClass Addressable Type B Outdoor Wall Sounder Beacon VID IP with Short Circuit Isolator, Red Housing (576.440.013) | 681at/08

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzz 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

4098-5278 Simplex Type A Indoor Non-Addressable Sounder Base, White Housing (B-CAP) | 681g/07

Note:
1. Meets the requirements of EN 54-3 at the following tones:
   DIN 1Hz Sweep 1200Hz to 500Hz
   Dutch Slow Whoop 500Hz to 1200Hz
   Temporal 4 880Hz
   BS 1Hz Sweep 800Hz to 970Hz
   March Time Beep 880Hz
   7Hz Fast Sweep 800Hz to 970Hz
   Temporal 3 880Hz
   2 Tone 660Hz/880Hz
   Continuous 970Hz

4906-5225 Simplex Addressable Type A Indoor Wall Sounder White with Short Circuit Isolator | 681at/03

Note:
Meets the requirements of EN 54-3 at the following tones:
1 - Dutch Slow Whoop 500-1200Hz
2 - 7Hz Fast Sweep 800-970Hz
3 - BS 1Hz Sweep 800-970Hz
4 - 2 Tone 680/800Hz
5 - Temporal 4 880Hz
6 - Temporal 3 880Hz
7 - March Time Beep 880Hz
8 - Continuous 970 970Hz
9 - Continuous 850 850Hz
10 - DIN 1Hz Sweep 1200-500Hz
11 - Banshee LF Buzz 800-950Hz
12 - 3Hz Banshee 800-950Hz
13 - 9Hz Banshee 800-950Hz
14 - Alternating 554/440Hz
15 - Yodalarm 800/1000Hz
16 - Conventional Bell 1450Hz

4906-5224 Simplex Addressable Type A Indoor Wall Sounder Red with Short Circuit Isolator | 681at/04

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<td>4906-5226</td>
<td>Simplex Type A Indoor Sounder Beacon White with Short Circuit Isolator</td>
</tr>
<tr>
<td>681at/05</td>
<td>Note: Meets the requirements of EN 54-3 at the following tones:</td>
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<tr>
<td></td>
<td>1 - Dutch Slow Whoop 500-1200Hz</td>
</tr>
<tr>
<td></td>
<td>2 - 7Hz Fast Sweep 800-970Hz</td>
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<tr>
<td></td>
<td>3 - BS 1Hz Sweep 800-970Hz</td>
</tr>
<tr>
<td></td>
<td>4 - 2 Tone 680/800Hz</td>
</tr>
<tr>
<td></td>
<td>5 - Temporal 4 880Hz</td>
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<td>6 - Temporal 3 880Hz</td>
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<td></td>
<td>7 - March Time Beep 880Hz</td>
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<td>8 - Continuous 970 970Hz</td>
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<td>9 - Continuous 850 850Hz</td>
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<tr>
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<td>10 - DIN 1Hz Sweep 1200-500Hz</td>
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<tr>
<td></td>
<td>11 - Banshee LF Buzzer 800-950Hz</td>
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<tr>
<td></td>
<td>12 - 3Hz Banshee 800-950Hz</td>
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<td>13 - 9Hz Banshee 800-950Hz</td>
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<tr>
<td></td>
<td>14 - Alternating 554/440Hz</td>
</tr>
<tr>
<td></td>
<td>15 - Yodalarm 800/1000Hz</td>
</tr>
<tr>
<td></td>
<td>16 - Conventional Bell 1450Hz</td>
</tr>
</tbody>
</table>

#### Accessories:

B-CAP


<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>378k/01</td>
<td>LPBS800-R L/P Beacon Symphoni Type A Sounder with Short Circuit Isolator - Red Housing</td>
</tr>
<tr>
<td></td>
<td>Notes: 1. The VAD is rated as Open Class (refer to installation guide)</td>
</tr>
<tr>
<td></td>
<td>2. The VAD is a Type A device and includes synchronisation.</td>
</tr>
<tr>
<td></td>
<td>3. VAD Light Colour - White Flashing Light</td>
</tr>
<tr>
<td></td>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
</tr>
<tr>
<td></td>
<td>5. Meets the requirements of EN 54-3 at the following tones:</td>
</tr>
<tr>
<td></td>
<td>1 - Dutch Slow Whoop 500Hz-1200Hz</td>
</tr>
<tr>
<td></td>
<td>2 - 7Hz Fast Sweep 800Hz-970Hz</td>
</tr>
<tr>
<td></td>
<td>3 - BS 1Hz Sweep 800-970Hz</td>
</tr>
<tr>
<td></td>
<td>4 - 2 Tone 680/800Hz</td>
</tr>
<tr>
<td></td>
<td>5 - Temporal 4 880Hz</td>
</tr>
<tr>
<td></td>
<td>6 - Temporal 3 880Hz</td>
</tr>
<tr>
<td></td>
<td>7 - March Time Beep 880Hz</td>
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<tr>
<td></td>
<td>8 - Continuous 970 970Hz</td>
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<tr>
<td></td>
<td>9 - Continuous 850 850Hz</td>
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<tr>
<td></td>
<td>10 - DIN 1Hz Sweep 1200-500Hz</td>
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<tr>
<td></td>
<td>11 - Banshee LF Buzzer 800-950Hz</td>
</tr>
<tr>
<td></td>
<td>12 - 3Hz Banshee 800-950Hz</td>
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<tr>
<td></td>
<td>13 - 9Hz Banshee 800-950Hz</td>
</tr>
<tr>
<td></td>
<td>14 - Alternating 554/440Hz</td>
</tr>
<tr>
<td></td>
<td>15 - Yodalarm 800/1000Hz</td>
</tr>
<tr>
<td></td>
<td>16 - Conventional Bell 1450Hz</td>
</tr>
</tbody>
</table>

| 378k/02       | LPBS800-W L/P Beacon Symphoni Type A Sounder with Short Circuit Isolator - White Housing |
|               | Notes: 1. The VAD is rated as Open Class (refer to installation guide) |
|               | 2. The VAD is a Type A device and includes synchronisation. |
|               | 3. VAD Light Colour - White Flashing Light |
|               | 4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz |
|               | 5. Meets the requirements of EN 54-3 at the following tones: |
|               | 1 - Dutch Slow Whoop 500Hz-1200Hz |
|               | 2 - 7Hz Fast Sweep 800Hz-970Hz |
|               | 3 - BS 1Hz Sweep 800-970Hz |
|               | 4 - 2 Tone 680/800Hz |
|               | 5 - Temporal 4 880Hz |
|               | 6 - Temporal 3 880Hz |
|               | 7 - March Time Beep 880Hz |
|               | 8 - Continuous 970 970Hz |
|               | 9 - Continuous 850 850Hz |

| 378k/03       | LPBS865 LP Beacon Symphoni Type B Sounder IP65 with Short Circuit Isolator - Red Housing |
|               | Notes: 1. The VAD is rated as Open Class (refer to installation guide) |
|               | 2. The VAD is a Type B device and includes synchronisation. |
### Certificated Products

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<tr>
<th>Product Description</th>
<th>LPCB Ref. No.</th>
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<tr>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>5. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>1 - Dutch Slow Whoop 500Hz-1200Hz</td>
<td></td>
</tr>
<tr>
<td>2 - 7Hz Fast Sweep 800Hz-970Hz</td>
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</tr>
<tr>
<td>6 - Temporal 3 880Hz</td>
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<td>9 - Continuous 850Hz</td>
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<tr>
<td><strong>LPBS3000 Loop Powered Beacon Sounder Base with Short Circuit Isolator</strong> (Type A</td>
<td>378k/04</td>
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<tr>
<td>Mounting Flange)</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The VAD is rated as Open Class (refer to installation guide)</td>
<td></td>
</tr>
<tr>
<td>2. The VAD includes synchronisation.</td>
<td></td>
</tr>
<tr>
<td>3. VAD Light Colour - White Flashing Light</td>
<td></td>
</tr>
<tr>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>5. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>1 - Dutch Slow Whoop 500Hz-1200Hz</td>
<td></td>
</tr>
<tr>
<td>2 - 7Hz Fast Sweep 800Hz-970Hz</td>
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<tr>
<td>6 - Temporal 3 880Hz</td>
<td></td>
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<tr>
<td><strong>FC410LPBS-R FireClass Loop Powered Type A Beacon Sounder with Short Circuit</strong></td>
<td>378k/05</td>
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<tr>
<td>Isolator - Red Housing</td>
<td></td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The VAD is rated as Open Class (refer to installation guide)</td>
<td></td>
</tr>
<tr>
<td>2. The VAD is a Type A device and includes synchronisation.</td>
<td></td>
</tr>
<tr>
<td>3. VAD Light Colour - White Flashing Light</td>
<td></td>
</tr>
<tr>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>5. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>1 - Dutch Slow Whoop 500Hz-1200Hz</td>
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<tr>
<td>2 - 7Hz Fast Sweep 800Hz-970Hz</td>
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</tr>
<tr>
<td>6 - Temporal 3 880Hz</td>
<td></td>
</tr>
<tr>
<td>9 - Continuous 850 850Hz</td>
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<tr>
<td><strong>FC410LPBS-W FireClass Loop Powered Type A Beacon Sounder with Short Circuit</strong></td>
<td>378k/06</td>
</tr>
<tr>
<td>Isolator - White Housing</td>
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</tr>
<tr>
<td><strong>Notes:</strong></td>
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</tr>
<tr>
<td>1. The VAD is rated as Open Class (refer to installation guide)</td>
<td></td>
</tr>
<tr>
<td>2. The VAD is a Type A device and includes synchronisation.</td>
<td></td>
</tr>
<tr>
<td>3. VAD Light Colour - White Flashing Light</td>
<td></td>
</tr>
<tr>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>5. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>1 - Dutch Slow Whoop 500Hz-1200Hz</td>
<td></td>
</tr>
<tr>
<td>2 - 7Hz Fast Sweep 800Hz-970Hz</td>
<td></td>
</tr>
<tr>
<td>6 - Temporal 3 880Hz</td>
<td></td>
</tr>
<tr>
<td>9 - Continuous 850 850Hz</td>
<td></td>
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<tr>
<td><strong>FC410LPBS LP FireClass Loop Powered Type B Beacon/Sounder (IP65) with Short</strong></td>
<td>378k/07</td>
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<td></td>
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<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The VAD is rated as Open Class (refer to installation guide)</td>
<td></td>
</tr>
<tr>
<td>2. The VAD is a Type B device and includes synchronisation.</td>
<td></td>
</tr>
<tr>
<td>3. VAD Light Colour - White Flashing Light</td>
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</tr>
<tr>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
<td></td>
</tr>
<tr>
<td>5. Meets the requirements of EN 54-3 at the following tones:</td>
<td></td>
</tr>
<tr>
<td>1 - Dutch Slow Whoop 500Hz-1200Hz</td>
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</tr>
<tr>
<td>2 - 7Hz Fast Sweep 800Hz-970Hz</td>
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</tr>
<tr>
<td>6 - Temporal 3 880Hz</td>
<td></td>
</tr>
<tr>
<td>9 - Continuous 850 850Hz</td>
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<tr>
<td><strong>FC430LPBSB LP FireClass Loop Powered Beacon Sounder Base with Short Circuit</strong></td>
<td>378k/08</td>
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<tr>
<td>Isolator (Type A Mounting Flange)</td>
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</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
</tr>
<tr>
<td>1. The VAD is rated as Open Class (refer to installation guide)</td>
<td></td>
</tr>
<tr>
<td>2. The VAD includes synchronisation.</td>
<td></td>
</tr>
<tr>
<td>3. VAD Light Colour - White Flashing Light</td>
<td></td>
</tr>
<tr>
<td>4. VAD Flash Rate - Fast flash 1Hz, or slow flash 0.5Hz</td>
<td></td>
</tr>
</tbody>
</table>
5. Meets the requirements of EN 54-3 at the following tones:
   1. Dutch Slow Whoop 500Hz-1200Hz
   2. 7Hz Fast Sweep 800Hz-970Hz
   3. BS 1Hz Sweep 800Hz-970Hz
   4. 2 Tone 660Hz/880Hz
   5. Temporal 4 880Hz
   6. Australian Sound (AS 1670.4) 500Hz-1200Hz
   7. March Time Beep 880Hz
   8. Continuous 970Hz
   9. DIN 1Hz Sweep 1200Hz-500Hz
  10. Banshee LF Buzzer 800Hz-950Hz
  11. 3Hz Banshee Fast Sweep 800Hz-950Hz
  12. 9Hz Banshee Fast Sweep 800Hz-950Hz
  13. Alternating (NF-S 32.001) 554Hz/440Hz
  14. Yodalarm 800Hz/1000Hz
  15. Conventional Bell 1450Hz


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Zettler Addressable Type A Indoor Wall Sounder Beacon VAD with Short Circuit Isolator, White Housing (576.080.007), (S-BOX, A-BOX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P80AVW</td>
<td>Meets the requirements of EN 54-23 for the following:</td>
</tr>
<tr>
<td></td>
<td>- Category W-2.4-7.5 (High Beacon Intensity)</td>
</tr>
<tr>
<td></td>
<td>- Open Class O-1.6-5.1 (Low Beacon Intensity)</td>
</tr>
<tr>
<td></td>
<td>- Flash rate 0.5Hz and 1Hz</td>
</tr>
<tr>
<td></td>
<td>- Operating voltage range 20-40 VDC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>FireClass Addressable Type A Indoor Wall Sounder Beacon VAD with Short Circuit Isolator, White Housing (576.440.007) (S-BOX, A-BOX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC440AVW</td>
<td>Meets the requirements of EN 54-23 for the following:</td>
</tr>
<tr>
<td></td>
<td>- Category W-2.4-7.5 (High Beacon Intensity)</td>
</tr>
<tr>
<td></td>
<td>- Open Class O-1.6-5.1 (Low Beacon Intensity)</td>
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<tr>
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<td>- Flash rate 0.5Hz and 1Hz</td>
</tr>
<tr>
<td></td>
<td>- Operating voltage range 20-40 VDC</td>
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</table>
Certificated Products

P80AVR
Zettler Addressable Type A Indoor Wall Sounder Beacon VAD with Short Circuit Isolator, Red Housing (576.080.008) (S-BOX, A-BOX) 681aw/02
Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category W-2.4-7.5 (High Beacon Intensity)
   - Open Class O-1.6-5.1 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC
2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time Beep, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950HZ
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz

FC440AVR
FireClass Addressable Type A Indoor Wall Sounder Beacon VAD with Short Circuit Isolator, Red Housing (576.440.008) (S-BOX, A-BOX) 681aw/02
Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category W-2.4-7.5 (High Beacon Intensity)
   - Open Class O-1.6-5.1 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC
2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time Beep, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950HZ
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz

P85AVR
Zettler Addressable Type B Outdoor Wall Sounder Beacon VAD Weatherproof with Short Circuit Isolator, Red Housing (576.080.009) 681aw/03
Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category W-2.4-7.5 (High Beacon Intensity)
   - Open Class O-1.6-5.1 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC
2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time Beep, Intermittent 880Hz
PART 1: SECTION 7
ALARM WARNING DEVICES

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<td>681aw/03</td>
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<tr>
<td>681aw/04</td>
<td>FC445CAV FireClass Addressable Type B Outdoor Wall Sounder Beacon VAD BC with Short Circuit Isolator, Red Housing (576.440.017)</td>
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<tr>
<td>681aw/05</td>
<td>P80AVB Zettler Addressable Type A Indoor Base Sounder Beacon VAD Standard Power with Short Circuit Isolator, Clear Housing (576.080.006) (B-CAP, A-CON)</td>
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3. Ingress Protection IP55

<table>
<thead>
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<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>681aw/03</td>
<td>FC445AVR FireClass Addressable Type B Outdoor Wall Sounder Beacon VAD Weatherproof with Short Circuit Isolator, Red Housing (576.440.009)</td>
</tr>
<tr>
<td>681aw/04</td>
<td>FC445CAV FireClass Addressable Type B Outdoor Wall Sounder Beacon VAD BC with Short Circuit Isolator, Red Housing (576.440.017)</td>
</tr>
<tr>
<td>681aw/05</td>
<td>P80AVB Zettler Addressable Type A Indoor Base Sounder Beacon VAD Standard Power with Short Circuit Isolator, Clear Housing (576.080.006) (B-CAP, A-CON)</td>
</tr>
</tbody>
</table>

Notes:

1. Meets the requirements of EN 54-23 for the following:
   - Category W-2.4-7.5 (High Beacon Intensity)
   - Open Class O-1.6-5.1 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   - Dutch Slow Whoop, Sweep 500-1200Hz
   - 7Hz Fast Sweep, 800-970Hz
   - BS 1Hz Sweep, 800-970Hz
   - 2 Tone, Alternating 660 / 880Hz
   - Temporal 4, Intermittent 880Hz
   - Temporal 3 (ISO 8201), Intermittent 880Hz
   - March Time Beep, Intermittent 880Hz
   - Continuous 970, 970Hz
   - Continuous 850, 850Hz
   - DIN 1Hz Sweep, 1200-500Hz
   - Banshee LF Buzzer, Sweep 800-950HZ
   - Banshee Fast Sweep, 800-950Hz
   - Alternating (NF-S 32.001), Alternating 554 / 440Hz
   - Yodalarm, Alternating 800 / 1000Hz
   - Continuous Bell 1450Hz

3. Ingress Protection IP55

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Certificated Products</th>
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<tbody>
<tr>
<td>681aw/04</td>
<td>FC445CAV FireClass Addressable Type B Outdoor Wall Sounder Beacon VAD BC with Short Circuit Isolator, Red Housing (576.440.017)</td>
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<tr>
<td>681aw/05</td>
<td>P80AVB Zettler Addressable Type A Indoor Base Sounder Beacon VAD Standard Power with Short Circuit Isolator, Clear Housing (576.080.006) (B-CAP, A-CON)</td>
</tr>
</tbody>
</table>

Notes:

1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-8 (High Beacon Intensity)
   - Open Class O-2.1-7.0 (Low Beacon Intensity)
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

- Flash rate 0.5Hz and 1Hz
- Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time BEEP, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950Hz
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz

FireClass Addressable Type A Indoor Base Sounder Beacon VAD Standard Power with Short Circuit Isolator, Clear Housing (576.440.006) (B-CAP, A-CON)

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-8 (High Beacon Intensity)
   - Open Class O-2.1-7.0 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time BEEP, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950Hz
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz

Zettler Addressable Type A Base Sounder Beacon VAD High Power with Short Circuit Isolator, Clear Housing (576.080.014) (B-CAP, A-CON)

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-15 (High Beacon Intensity)
   - Open Class O-2.7-8.5 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time BEEP, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950Hz
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz
**Certificated Products**

**FC441AVB**
FireClass Addressable Type A Base Sounder Beacon VAD High Power with Short Circuit Isolator, Clear Housing (576.440.014) (B-CAP, A-CON)

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Category C-3-15 (High Beacon Intensity)
   - Open Class O-2.7-8.5 (Low Beacon Intensity)
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time Beep, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950HZ
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz

**FC440CAVB**
FireClass Addressable Type A Indoor Base Sounder Beacon VAD BC with Short Circuit Isolator, Clear Housing (576.440.016) (B-CAP, A-CON)

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Open Class O-1.8-6.2
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time Beep, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950HZ
   12. 3Hz Banshee Fast Sweep, 800-950Hz
   13. 9Hz Banshee Fast Sweep, 800-950Hz
   14. Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15. Yodalarm, Alternating 800 / 1000Hz
   16. Continuous Bell 1450Hz

**P85CAV**
Zettler Addressable Type B Outdoor Wall Sounder Beacon VAD BC with Short Circuit Isolator, Red Housing (576.080.017)

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Open Class O-1.6-5.1
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1. Dutch Slow Whoop, Sweep 500-1200Hz
   2. 7Hz Fast Sweep, 800-970Hz
   3. BS 1Hz Sweep, 800-970Hz
   4. 2 Tone, Alternating 660 / 880Hz
   5. Temporal 4, Intermittent 880Hz
   6. Temporal 3 (ISO 8201), Intermittent 880Hz
   7. March Time Beep, Intermittent 880Hz
   8. Continuous 970, 970Hz
   9. Continuous 850, 850Hz
   10. DIN 1Hz Sweep, 1200-500Hz
   11. Banshee LF Buzzer, Sweep 800-950HZ
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<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>12 - 3Hz Banshee Fast Sweep, 800-950Hz</td>
<td></td>
</tr>
<tr>
<td>13 - 9Hz Banshee Fast Sweep, 800-950Hz</td>
<td></td>
</tr>
<tr>
<td>14 - Alternating (NF-S 32.001), Alternating 554 / 440Hz</td>
<td></td>
</tr>
<tr>
<td>15 - Yodalarm, Alternating 800 / 1000Hz</td>
<td></td>
</tr>
<tr>
<td>16 - Continuous Bell 1450Hz</td>
<td></td>
</tr>
</tbody>
</table>

3. Ingress Protection IP55

P80CAVB Zettler Addressable Type A Indoor Base Sounder Beacon VAD BC with Short Circuit Isolator, Clear Housing (576.080.016) (B-CAP, A-CON)

Notes:
1. Meets the requirements of EN 54-23 for the following:
   - Open Class O-1.8-6.2
   - Flash rate 0.5Hz and 1Hz
   - Operating voltage range 20-40 VDC

2. Meets the requirements of EN 54-3 for the following:
   1 - Dutch Slow Whoop, Sweep 500-1200Hz
   2 - 7Hz Fast Sweep, 800-970Hz
   3 - BS 1Hz Sweep, 800-970Hz
   4 - 2 Tone, Alternating 660 / 880Hz
   5 - Temporal 4, Intermittent 880Hz
   6 - Temporal 3 (ISO 8201), Intermittent 880Hz
   7 - March Time Beep, Intermittent 880Hz
   8 - Continuous 970, 970Hz
   9 - Continuous 850, 850Hz
   10 - DIN 1Hz Sweep, 1200-500Hz
   11 - Banshee LF Buzzer, Sweep 800-950Hz
   12 - 3Hz Banshee Fast Sweep, 800-950Hz
   13 - 9Hz Banshee Fast Sweep, 800-950Hz
   14 - Alternating (NF-S 32.001), Alternating 554 / 440Hz
   15 - Yodalarm, Alternating 800 / 1000Hz
   16 - Continuous Bell 1450Hz

Accessories
S-BOX Surface Backbox for Indoor Wall Sounder VAD (Red)
A-BOX Flush Backbox Adaptor for Indoor Wall Sounder (Metal)
B-CAP Blanking Cap for Sounder VAD (White)
A-CON Conduit Adaptor for Sounder VAD (White)

UTC Fire & Security Inc. Trading as Edwards Systems Technology
8985 Town Center Parkway, Bradenton, Florida 34202, USA
Tel: 941-739-4214 • Fax:
E-mail: sean.hawes@carrier.com • Website: www.ccs.utc.com

Certificate No: 262ac to EN 54-23:2010

Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1x-HD-E Genesis Temporal Horn</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Approved with back boxes G1B-MP and 27193-16
2. Meets the requirements of EN 54-3 at all volumes and the following tones:-
   Continuous 3200Hz (interrupted at 40Hz)
   Temporal 3200Hz (interrupted at 40Hz); 2 pulses 0.5s on / 0.5s off, 1 pulse 0.5s on / 1.5s off, repeat.
3. x denotes housing colours
   Blank = White housing
   R = Red housing
   F = White housing with Fire Marking
   RF = Red housing with Fire Marking.

G1x-HDVM-E Genesis Type A Indoor Temporal Sounder / Beacon

20 Oct 2020 723
**Certificated Products**

**Notes:**

1. Approved with backboxes G1xB-MP and 27193-xx
2. Meets the requirements of EN 54-3 at the following tones:
   - Continuous 3200Hz (interrupted at 40Hz)
   - Temporal 3200Hz (interrupted at 40Hz); 2 pulses 0.5s on / 0.5s off,
     1 pulse 0.5s on / 1.5s off, repeat
3. The wall mounted VAD meets the requirements of EN 54-23:2010
   for the following:
   - Category (light pattern details):
     @15cd (W-3.0-2.8 or W-2.5-3.3)
     @30cd (W-4.4-4.5)
     @75cd (W-6.0-7.5)
     @110cd (W-6.5-8.4)
   - Synchronization
     Flash rate 1Hz
4. x denotes housing colours
   - Blank = White housing
   - R = Red housing
   - F = White housing with Fire Marking
   - RF = Red housing with Fire Marking

**G1x-VM-E Genesis Type A Indoor Temporal Beacon**

**Notes:**

1. Approved with backboxes G1xB-MP and 27193-xx
2. The wall mounted VAD meets the requirements of EN 54-23:2010
   for the following:
   - Category (light pattern details):
     @15cd (W-3.0-2.8 or W-2.5-3.3)
     @30cd (W-4.4-4.5)
     @75cd (W-6.0-7.5)
     @110cd (W-6.5-8.4)
   - Synchronization
     Flash rate 1Hz
3. x denotes housing colours
   - Blank = White housing
   - R = Red housing
   - F = White housing with Fire Marking
   - RF = Red housing with Fire Marking

**SIGA-AB4GI Sounder Base**

**Notes:**

1. Certified for use with fire detector models - SIGA-IPHSI, SIGA-PHSI, SIGA-PSI, SIGA-IS and SIGA-HRSI.
2. Meets the requirements of EN 54-3 with steady and temporal tones and operating voltages from 16-33 VDC.
3. Certified for use with AB4G-SB Surface mounting box.
4. This is a Type A device.

**Ancillaries**

- G1B-MP Back box G1 series, white
- G1RB-MP Red Back box, G1 Series, plastic
- 27193-16 Back box, surface white
- 27193-11 Red back box, Surface, Metal
- AB4G-SB Surface Mounting Box

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**V-GREAT GLOBAL CORPORATION**

Second Floor, Capital City, Independence Avenue, P O Box 1008, Victoria, Mahe, Seychelles
Tel: 008613581542023
E-mail: vgreatech@hotmail.com


**Audible Warning Device**

**Certificated Products**

**Notes:**

1. Approved with backboxes G1xB-MP and 27193-xx
2. Meets the requirements of EN 54-3 at the following tones:
   - Continuous 3200Hz (interrupted at 40Hz)
   - Temporal 3200Hz (interrupted at 40Hz); 2 pulses 0.5s on / 0.5s off,
     1 pulse 0.5s on / 1.5s off, repeat
3. The wall mounted VAD meets the requirements of EN 54-23:2010
   for the following:
   - Category (light pattern details):
     @15cd (W-3.0-2.8 or W-2.5-3.3)
     @30cd (W-4.4-4.5)
     @75cd (W-6.0-7.5)
     @110cd (W-6.5-8.4)
   - Synchronization
     Flash rate 1Hz
4. x denotes housing colours
   - Blank = White housing
   - R = Red housing
   - F = White housing with Fire Marking
   - RF = Red housing with Fire Marking

**VG-6734 Conventional Type A Sounder Strobe (VG-6711 Base)**

**Notes:**
PART 1: SECTION 7
ALARM WARNING DEVICES

Certificated Products

1. Meets the requirements of EN 54-3 and approved at the following tones:
   1) Tone 01, 2400Hz - 2900Hz @ 3 Hz
   2) Tone 10, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off
2. The strobe function is not included within the scope of this approval

VG-6737
Addressable Type A Indoor Digital Sounder Beacon (VG-6619 Base)

Notes:
1. Meets the requirements of EN 54-3 and approved at the following tones:
   1) Tone 00, 2400Hz - 2900Hz @ 3Hz
   2) Tone 01, 2400Hz - 2900Hz @ 9Hz
   3) Tone 08, 500Hz - 1200Hz x 3, 3.5s on / 0.5s off
   4) Tone 14, 1500Hz - 2700Hz @ 3Hz
2. The beacon function is not included within the scope of this approval

Bases:
VG-6711 Standard base
VG-6619 Mounting base

Vimpex Limited
Star Lane, Great Wakering, Essex SS3 0PJ, United Kingdom
Tel: +44 (0) 1702 216999 • Fax: +44 (0) 1702 216699
E-mail: sales@vimpex.co.uk • Website: www.vimpex.co.uk


Certificated Products

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>MBF-6EV-24</th>
<th>6&quot; (150mm) Type A 24Vdc Fire Alarm Bell with Aluminium Gong (Indoor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBF-8EV</td>
<td>8&quot; (200mm) Type A 24Vdc Fire Alarm Bell with Aluminium Gong (Indoor)</td>
<td></td>
</tr>
<tr>
<td>MBA-6 + BBX-4</td>
<td>6&quot; (150mm) Type B Fire Alarm Bell with Aluminium Gong complete with Back Box (Outdoor)</td>
<td></td>
</tr>
<tr>
<td>MBA-8 + BBX-4</td>
<td>8&quot; (200mm) Type B Fire Alarm Bell with Aluminium Gong complete with Back Box (Outdoor)</td>
<td></td>
</tr>
</tbody>
</table>

VIVA ELEKTRONIK SISTEMLER
Rasimpasa Mah. Muhendis Sari Ali, Sok. Birlik Han No:3/1, Kadikoy, IŞTANBUL 34716, Turkey
Tel: 0090 549 797 70 80
E-mail: info@vivafire.com • Website: www.vivafire.com


Certificated Products

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>VI 100-SB</th>
<th>Conventional Sounder Beacon (DZ-9091K Base)</th>
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<tbody>
<tr>
<td></td>
<td>Notes:</td>
<td>1) Meets the requirements of EN 54-23 at the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Category C-3-8 + W-2.4-6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Flash rate 0.5Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- One Mode (Light output synchronization)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Flash Colour White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- For wall and ceiling mounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Meets the requirements of EN 54-3 at the following tone:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tone 1: 667Hz - <a href="mailto:2000Hz@0.22Hz">2000Hz@0.22Hz</a></td>
</tr>
<tr>
<td></td>
<td>VI 200-SB</td>
<td>Addressable Sounder Beacon (DZ-9091 Base)</td>
</tr>
<tr>
<td></td>
<td>Notes:</td>
<td>1) Meets the requirement of EN 54-23 at the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Category C-3-8 + W-2.4-6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Flash Rate 0.5Hz</td>
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<tr>
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<td>- One Mode (Light output synchronization)</td>
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<td></td>
<td></td>
<td>- For wall and ceiling mounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) Meets the requirements of EN 54-3 at the following tone:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Tone 1: 667Hz - <a href="mailto:2000Hz@0.22Hz">2000Hz@0.22Hz</a></td>
</tr>
</tbody>
</table>

20 Oct 2020
PART 1: SECTION 7
ALARM WARNING DEVICES

Yingkou Tiancheng Fire Protection Equipment Co., Ltd
No. 11-2, Kechechang Xili, Xishi District, Yingkou, Pilot Free Trade Zone, Liaoning 115004, China
Tel: 0417-2607119 • Fax: 0417-2867119
E-mail: wayne@tcfiretech.com • Website: www.tcfiretech.com


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<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1450a/01</td>
<td>TCSG5266 Addressable Sounder Strobe Type A (Base with 86H50 Embedded Box)</td>
</tr>
</tbody>
</table>

Notes:
- Meets the requirements of EN 54-3: 2001 for the following tones
  1) One Default Tone 3.5s – 4.5s
- The Beacon function is not approved to EN 54-23

Base
Base with 86H50 Embedded Box

Zeta Alarms Limited
Detection House, 72-78 Morfa Road, Swansea SA1 2EN, United Kingdom
Tel: +44 (0)1792 455175 • Fax: +44 (0)1792 455176
E-mail: ghassan@zetaalarmsystems.com • Website: www.zetaalarmsystems.com


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<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>330r/01</td>
<td>MKII-AXT/R Xtratone Addressable Type A Indoor Sounder (Red)</td>
</tr>
<tr>
<td>330r/02</td>
<td>MKII-SSB Fyreye II Sandwich Type A Indoor Sounder Base (MKII-AOP, MKII-AHR, MKII-AHF &amp; MKII-AOH detectors &amp; MKII-CB base)</td>
</tr>
<tr>
<td>330r/03</td>
<td>MKII-AXT/W Xtratone Addressable Type A Indoor Sounder (White)</td>
</tr>
<tr>
<td>330s/01</td>
<td>ZXTB/R Conventional Xtratone Indoor Sounder Beacon, Red Plastic, White Flash</td>
</tr>
</tbody>
</table>

Notes:
- Meets the requirements of EN54-3 at the following tones:
  1. Alternating 800Hz/970Hz, 1Hz (500ms-500ms)
  2. Slow whoop 500Hz - 1200Hz, 3.5s sweep 0.5s silence, then repeat

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>330s/02</td>
<td>ZXTB/W Conventional Xtratone Indoor Sounder Beacon, White Plastic, White Flash</td>
</tr>
</tbody>
</table>

Notes:
- Meets the requirements of EN 54-3 at the following tones:
Certificated Products

- **LPCB Ref. No.**

1. **ZRB/R** Conventional Raptor Outdoor Sounder Beacon, Red Plastic, White Flash
   - **Notes:**
     1. Meets the requirements of EN 54-3 at the following tones:
        - Tone 0: 800Hz and 970Hz, 500ms each
        - Tone 7: 500 to 1200Hz -3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop
     2. The wall mounted, Type A VAD meets the requirements of EN 54-23 for the following:
        - Coverage volume W 3.4 - 7.0
        - Flash rate 0.5Hz
        - White LED

2. **ZRB/W** Conventional Raptor Outdoor Sounder Beacon, White Plastic, White Flash
   - **Notes:**
     1. Meets the requirements of EN 54-3 at the following tones:
        - Tone 0: 800Hz and 970Hz, 500ms each
        - Tone 7: 500 to 1200Hz -3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop
     2. The wall mounted, Type B VAD meets the requirements of EN 54-23 for the following:
        - Coverage volume W 5.1 - 7.25
        - Flash rate 0.5Hz
        - White LED

3. **ZTB6B/24** 6 (150mm) Type A 24 Vdc Fire Alarm Bell with Aluminium Gong (Indoor)
   - **Notes:**
     1. Meets the requirements of EN54-3 at the following tones:
        - Tone 0: 800Hz and 970Hz, 500ms each
        - Tone 8: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

4. **ZTB8B** 8 (200mm) Type A 24 Vdc Fire Alarm Bell with Aluminium Gong (Indoor)

5. **ZTB6B/WP** 6 (150mm) Type B Fire Alarm Bell with Aluminium Gong complete with Back Box (Outdoor)

6. **ZTB8B/WP** 8 (200mm) Type B Fire Alarm Bell with Aluminium Gong complete with Back Box (Outdoor)

7. **MKII-AXT/R** Zeta Addressable Xtratone Type A Indoor Sounder (Red)
   - **Notes:**
     1. Meets the requirements of EN54-3 at the following tones:
        - Tone 0: 800Hz and 970Hz, 500ms each
        - Tone 8: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

8. **MKII-AXT/W** Zeta Addressable Xtratone Type A Indoor Sounder (White)
   - **Notes:**
     1. Meets the requirements of EN54-3 at the following tones:
        - Tone 0: 800Hz and 970Hz, 500ms each
        - Tone 8: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

9. **ZRAP/R** Zeta Addressable Raptor Type B Outdoor Sounder (Red)
   - **Notes:**
     1. Meets the requirements of EN54-3 at the following tones:
        - Tone 0: 800Hz and 970Hz, 500ms each
        - Tone 8: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

10. **ZRAP/W** Zeta Addressable Raptor Type B Outdoor Sounder (White)
    - **Notes:**
      1. Meets the requirements of EN54-3 at the following tones:
         - Tone 0: 800Hz and 970Hz, 500ms each
         - Tone 8: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

11. **MKII-AXTB/R** Zeta Addressable Xtratone Type A Wall Sounder Beacon, Red Plastic, White Flash
    - **Notes:**
      1. Meets the requirements of EN 54-3 at the following tones:
         - Tone 0: 800Hz and 970Hz, 500ms each
         - Tone 8: 500 to 1200Hz -3.5s sweep, 0.5 s silence, repeat Dutch Slow Whoop
      2. The wall mounted, Type A VAD meets the requirements of EN 54-23 for the following:
         - Coverage volume W 3.1 - 9.1
         - Flash rate 0.5Hz
         - White LED

12. **MKII-AXTB/W** Zeta Addressable Xtratone Type A Wall Sounder Beacon, White Plastic, White Flash
    - **Notes:**
      1. Meets the requirements of EN 54-3 at the following tones:
         - Tone 0: 800Hz and 970Hz, 500ms each
         - Tone 8: 500 to 1200Hz -3.5s sweep, 0.5 s silence, repeat Dutch Slow Whoop
      2. The wall mounted, Type A VAD meets the requirements of EN 54-23 for the following:
         - Coverage volume W 3.1 - 9.1
         - Flash rate 0.5Hz
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### ALARM WARNING DEVICES

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<th>Product Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ZRAPB/R</td>
<td>Zeta Addressable Raptor Type B Sounder Beacon, Red Plastic, White Flash</td>
<td>330s/07</td>
</tr>
<tr>
<td>ZRAPB/W</td>
<td>Zeta Addressable Raptor Type B Sounder Beacon, White Plastic, White Flash</td>
<td>330s/08</td>
</tr>
<tr>
<td>MKII-CB</td>
<td>Shallow base</td>
<td></td>
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<tr>
<td>MKII-AOP</td>
<td>Fyreye II Addressable optical smoke detector</td>
<td></td>
</tr>
<tr>
<td>MKII-AHR</td>
<td>Fyreye II Addressable A1R heat detector</td>
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<tr>
<td>MKII-AHF</td>
<td>Fyreye II Addressable A2S heat detector</td>
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<tr>
<td>MKII-AOH</td>
<td>Fyreye II Addressable optical and heat detector</td>
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</tr>
<tr>
<td>ZXT/R</td>
<td>Zeta Conventional Xtratone Indoor Sounder (Red)</td>
<td>330r/04</td>
</tr>
<tr>
<td>ZXT/W</td>
<td>Zeta Conventional Xtratone Indoor Sounder (White)</td>
<td>330r/05</td>
</tr>
<tr>
<td>ZRP/R</td>
<td>Conventional Raptor Outdoor Sounder (Red)</td>
<td>330r/06</td>
</tr>
</tbody>
</table>

#### Notes:
- **ZRAPB/R**
  - Meets the requirements of EN 54-3 at the following tones:
    - Tone 0: 800Hz and 970Hz, 500ms each
    - Tone 8: 500 to 1200Hz -3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop
  - The wall mounted, Type B VAD meets the requirements of EN 54-23 for the following:
    - Coverage volume W 3.0 - 8.7
    - Flash rate 0.5Hz
    - White LED

- **ZRAPB/W**
  - Meets the requirements of EN 54-3 at the following tones:
    - Tone 0: 800Hz and 970Hz, 500ms each
    - Tone 8: 500 to 1200Hz -3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop
  - The wall mounted, Type B VAD meets the requirements of EN 54-23 for the following:
    - Coverage volume W 3.0 - 8.7
    - Flash rate 0.5Hz
    - White LED

- **ZXT/R**
  - Meets the requirements of EN54-3 at the following tones:
    - Tone 0: 800Hz and 970Hz, 500ms each
    - Tone 7: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

- **ZXT/W**
  - Meets the requirements of EN54-3 at the following tones:
    - Tone 0: 800Hz and 970Hz, 500ms each
    - Tone 7: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop

- **ZRP/R**
  - Meets the requirements of EN54-3 at the following tones:
    - Tone 0: 800Hz and 970Hz, 500ms each
    - Tone 7: 500Hz - 1200Hz, 3.5s sweep, 0.5s silence, repeat Dutch Slow Whoop
This section is split into two categories, section 8.1 fire resistant cables and section 8.2 fire retardant cables.

Both types of cables are required to perform differently in the event of a fire.

Fire resistant cables are designed such that in the event of a fire they maintain circuit integrity.

Fire retardant cables are designed such that in the event of a fire they limit the generation and spread of fire and smoke.
This section lists fire resistant cables for use in fire safety, fire detection and fire alarm systems and other applications where specifications require cables with specific performance in the event of a fire.

**BS 5839-1:2013 Fire detection and fire alarm systems for buildings. Code of practice for system design, installation, commissioning and maintenance**

BS 5839-1:2013 includes requirements for fire resistant cables for fire detection and alarm systems. It calls for ‘Standard’ and ‘Enhanced’ fire resistant cables and defines the requirements for these in Clause 26.2. These cables have to comply with EN 60702-1 (with a polymeric sheath), BS 7629-1 or BS 7846.

**‘Standard’ fire resisting cables also have to:**

1. a) achieve at least Class PH30 when tested in accordance with EN 50200:2006.

and

2. b) maintain circuit integrity when exposed to a special flame / mechanical shock / water spray sequence equivalent to achieving a duration of 30 minutes when tested in accordance with EN 50200:2006 Annex E.

**‘Enhanced’ fire resistant cables also have to:**

1. a) achieve a 120 minute survival when tested in accordance with EN 50200:2006,

and

2. b) maintain circuit integrity when exposed to a special flame / mechanical shock / water spray sequence equivalent to achieving a duration of 120 minutes when tested in accordance with BS 8434-2:2003+A2:2009.

Only cables complying with these requirements are listed as ‘Standard’ or ‘Enhanced’ under BS 5839-1, Clause 26.2.

**BS 8519:2010 Selection and installation of fire-resistant power and control cable systems for life safety and fire-fighting applications - Code of practice**

BS 8519:2010 gives guidance and recommendations on the selection and installation of power and control cable systems which are required to maintain their circuit integrity for life safety and fire-fighting applications. It also gives specific recommendations for electrical system design for such applications, and recommended limits for survival times.

**Category 1: means of escape (30 min fire survival time).**

- power cables of 20 mm overall diameter and above meeting the 30 min survival time when tested in accordance with BS 8491, or
- control cables meeting the PH30 classification when tested in accordance with EN 50200:2006, and the 30 min survival time when tested in accordance with Annex E of that standard

**Category 2: means of escape (60 min fire survival time).**

- power cables of 20 mm overall diameter and above meeting the 60 min survival time when tested in accordance with BS 8491 or
- control cables meeting the PH60 classification when tested in accordance with EN 50200:2006, and the 120 min survival time when tested in accordance with BS 8434-2:2003+A2:2009

**Category 3: fire-fighting (120 min fire survival time).**

- power cables of 20 mm overall diameter and above meeting the 120 min survival time when tested in accordance with BS 8491, or
- control cables meeting the PH120 classification when tested in accordance with EN 50200:2006, and the 120 min survival time when tested in accordance with BS 8519 Annex B.
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Building Regulations 2010 - Fire Safety - Approved Document B
The Building Regulations 2010 - Fire Safety - Approved Document B - Volume 2 - Buildings other than
dwelling houses defines a protected power circuit to be able to continue to function during a fire. A protected
circuit for operation of equipment in the event of fire should consist of a cable meeting at least the
requirements of PH30 when tested in accordance with EN 50200. Larger or complex buildings may require
fire protection systems to operate for extended periods during fire and guidance on such systems is given in
BS 5839-1, BS 5266-1 and BS 8491 (BS 7346-6).

Other Standards Used
The other standards and test methods currently used for certification are listed below. This list includes some
"withdrawn" standards. Where possible, these will be replaced by the superseding standards when certificates
are renewed. However, where withdrawn standards are called up by current standards, certification to the
withdrawn standard may need to be maintained until the calling standard is amended to remove the reference:

- BS 6387:1994 Performance requirements for cables required to maintain circuit integrity under fire
  conditions
- BS 7629-1:1997 Thermosetting insulated cables with limited circuit integrity when affected by fire. Part 1: Multicore cables
- BS 7629-1:1997 (Incorporating Amendment Nos.1 and 2) Thermosetting insulated cables with limited circuit integrity when affected by fire. Part 1: Multicore cables (The provisions introduced by amendment No.1: 2004 are effective from 1st April 2004)
- BS 7629-1:2008 Electric cables - Specification for 300/500 V fire resistant screened cables having low emission of smoke and corrosive gases when affected by fire - Part 1: Multicore and multipair cables
- BS 7846:2000 Electric cables 600/1000 V armoured fire-resistant cables having thermosetting insulation and low emission of smoke and corrosive gases when affected by fire
- BS 8491:2008 Method for assessment of fire integrity of large diameter power cables for use as components for smoke and heat control systems and other certain active fire safety systems
- BS 8519:2010 Selection and installation of fire-resistant power and control cable systems for life safety and fire-fighting applications - Code of practice
- EN 50200:2006 Method of test for resistance to fire of unprotected small cables for use in emergency circuits
- EN 50267-2-1:1999 Common test method for cables under fire conditions- tests on gases evolved during combustion of materials from cables - procedures - Determination of the amount of halogen acid gas
- EN 60332-3:2009 Tests on electric and optical fibre cables under fire conditions - Part 3: Test for vertical flame spread of vertically mounted bunched wires or cables
- EN 60702-1:2002 Mineral insulated cables and their terminations with rated voltage not exceeding 750V - Part 1: Cables
- EN 61034-2:2005 Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements (IEC 61034-2)
- EN 61034-2: 2005 Measurement of smoke density of cables burning under defined conditions
- IEC 60331-1:2009 - Tests for electric cables under fire conditions - Circuit integrity - Part 1: Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0.6/1,0kV and with an overall diameter exceeding 20mm.
- IEC 60331-2:2009 - Tests for electric cables under fire conditions - Circuit integrity - Part 2: Test method for fire with shock at a temperature of at least 830°C for cables of rated voltage up to and including 0.6/1,0kV and with an overall diameter not exceeding 20mm.
- IEC 60331-21:1999 Tests for electric cables under fire conditions - Circuit integrity - Part 21 Procedure and requirements - Cables of rated voltage up to and including 0.6/1,0kV
- IEC 60332-3:2009 Tests on electric cables under fire conditions - Part 3: Tests on bunched wires or cables
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

- IEC 60754-1:2011 Tests on gases evolved during combustion of materials from cables - Part 1: Determination of the amount of halogen acid gas
- IEC 60754-2:2011 Tests on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
- IEC 61034-2:2005 Measurement of smoke density of cables burning under defined conditions

Notes:
1) The rated voltages Uo/U recognised for BS 6387:1994 are, 300/500V and 450/750V, and for BS 7629-1 are 300/500V, where Uo is the power-frequency voltage to earth and U is the power-frequency voltage between conductors.
2) Testing of single core cable to BS 6387:1994 is not recognised by the standard. This is because it requires the cable to have at least two metallic elements. Therefore LPCB approval of single core cable is based on the cable being tested in a stainless steel conduit.
3) All BS 6387 approvals must include EN 50267-2-1 (acid gas) and EN 61034-2 (smoke density) testing
4) MICC Cables approved to BS 5839-1:2002+A2:2008 Clause 26.2 must be sheathed with an overall polymeric covering.
5) EN 50200:2006 Annex E and BS 8434-2:2003+A2:2009 provide methods of test that meet the requirements for a special flame / mechanical shock / water spray sequences described in BS 5839-1:2013, Clause 26.2 d) and e), respectively.
6) BS 8491 does not cover cables with a voltage rating that exceeds 600/1000V or where the external cable diameter is less than 20mm.
7) BS 8519 standard covers both Power and Control cables; different test methods apply to each cable type. Control cables up to & including 4.0mm² can be approved to BS 8519.

2M KABLO SAN. ve TIC. A.S.
Gaziosmanpasa Mahallesi, Organize Sanayi Bolgesi, 4. Cd. 941. Ada D: No:18, 59500, Cerkezkoy/Terkirdag, Turkey
Tel: +90 212 672 7314 • Fax: +90 212 672 7312
E-mail: info@2mkablo.com • Website: www.2mkablo.com

Certificate No: 711d to BS 7629-1:2008 BS 6387:2013 (CWZ) EN 50200:2006 (Class PH120) EN 50200:2006 Annex E (30 mins) BS 5839-1:2013 (Clause 26.2d Standard) BS 8519 (Clause 11) BS 5266-1 (Clause 8.2.2a) BS 5839-6 (Clause 16.2) BS 5839-8 (Clause 27.6)

Firekab SFR FE 180

<table>
<thead>
<tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


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</tr>
</tbody>
</table>

3E - Electrical Energy Efficiency FZE
PO Box 341084, Silicon Oasis, Dubai, United Arab Emirates
Tel: +971 4 326 3950 • Fax: +971 4 326 3972
E-mail: info@3edubai.com • Website: www.3edubai.com

PART 1: SECTION 8.1
FIRE RESISTANT CABLES

APS Fire

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

AEI Cables Limited

Unit 32, Crowther Road, Crowther Industrial Estate, Washington, Tyne & Wear NE38 0AQ, United Kingdom
Tel: +44 (0)191 410 3111 • Fax: +44 (0)191 410 8312
E-mail: sales@aeicables.co.uk • Website: www.aeicables.co.uk


Firetec Impact Power

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


AEI Mineral Insulated Cable

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 221e to BS 7629-1:2015 (STANDARD 60) BS 6387:2013 (CWZ) EN 50200:2015 (Class PH120) BS 5839-1:2013 (Clause 26.2d Standard)

Firetec Standard Multicore LSZH

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Firetec Enhanced Multicore LSZH

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Firetec Single Core

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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

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Certificate No: 221k to BS 7846: 2015 Cat F2

Firetec Power

LPCB Ref. No.
221k/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Al Rayan Security & Safety Trading
Warehouse No, 12, Al Qusais Industrial Area 4, P O Box 233949, Dubai, United Arab Emirates
Tel: +971 42630396 • Fax: +971 42630397
E-mail: rayandxb@eim.ae • Website: www.rayandxb.ae


SECURE FR Multicore Cables

LPCB Ref. No.
1383b/01-(cl-5)

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Al Rayan Security & Safety Trading
Al Qusais Industrial Area 4, PO Box 52257, Dubai, United Arab Emirates
Tel: 00971 04 252 5333
E-mail: maintenance@alrayandxb.com


SECURE Fire Resistant Cables

LPCB Ref. No.
1383a/01-(cl-8)

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Al Tahadi Security And Safety Equipment Trading
PO Box 45668, Ind. Area 11, Sharjah, United Arab Emirates
Tel: +971 5 0868 4543 • Fax: +971 6535 9220
E-mail: Sharqawi61@yahoo.com • Website: www.tahadi-fire.com


TAHADI FR Multicore Cables

LPCB Ref. No.
1383b/01-(cl-4)

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### FIREPROOF Cables

#### Nominal CSA of Conductor (mm²)

<table>
<thead>
<tr>
<th>Nominal CSA of Conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>IEC 60331-21</th>
<th>EN 60754-1</th>
<th>EN 60754-2</th>
<th>IEC 61034-2</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>1.5</td>
<td>One CWZ</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>One CWZ</td>
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<tr>
<td>4.0</td>
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<td></td>
<td>Complies</td>
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</tr>
<tr>
<td>6.0</td>
<td>One CWZ</td>
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<td></td>
<td>Complies</td>
<td>&gt;60%</td>
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<td></td>
</tr>
<tr>
<td>10</td>
<td>One CWZ</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>One CWZ</td>
<td></td>
<td></td>
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<td>Complies</td>
<td>&gt;60%</td>
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<td></td>
</tr>
<tr>
<td>25</td>
<td>One CWZ</td>
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<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>One CWZ</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>One CWZ</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>One CWZ</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>One CWZ</td>
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<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
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</tr>
<tr>
<td>240</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>630</td>
<td>One C</td>
<td></td>
<td></td>
<td></td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Uo/U 450/750V**

**Notes:**

1. Stranded conductor only
2. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 60754-1:2014, the FIREPROOF cables listed also met the requirements of EN 60754-2:2014.
3. The Alfanar FIREPROOF Wires cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C for a duration of 90mins at a voltage rating of 450V.


**Certificate No:** 1343c to BS 7846:2015 Category F2 and F120, EN 60754-2:2014 and IEC 60331-21:1999
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Alfanar FIREPROOF (F120) Multi-core Cables
LPCB Ref. No.
1343c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Fireproof (CWZ)
LPCB Ref. No.
1343a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

B3 International S.R.L.
Monte Napoleone 8, Milan 20121, Italy
Tel: +39 02 8732 3325 • Fax: +39 02 8732 3101
E-mail: Mathias.Lundh@b3cable.com • Website: www.b3cable.com


B3 Cables Italy
LPCB Ref. No.
1168a/01-(cl-1)

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Bahra Cables Company
CPC Industrial Park, Bahra, Jeddah 21432, Kingdom of Saudi Arabia
Tel: +966 25911115, (Toll Free) 8001248111 • Fax: +966 25915683
E-mail: fsb@bahra-cables.com • Website: www.bahra-cables.com


FSB Wires

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction</th>
<th>BS 6387</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 50267-2-3</th>
<th>BS EN 61034-2</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>1069a/01</td>
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<td></td>
</tr>
<tr>
<td>4.0 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6.0 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td></td>
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</tr>
<tr>
<td>16 One(1) C, W, Z (2, 3)</td>
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<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
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<tr>
<td>25 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
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<tr>
<td>35 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
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<tr>
<td>50 One(1) C, W, Z (2, 3)</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td></td>
<td></td>
<td></td>
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</table>
## PART 1: SECTION 8.1

### FIRE RESISTANT CABLES

**Nominal csa of conductor (mm²)** | **Core construction** | **BS 6387** | **BS EN 50267-2-1** | **BS EN 50267-2-3** | **BS EN 61034-2** | **IEC 60331-21** | **LPCB Ref. No.**
---|---|---|---|---|---|---|---
70 | One<sup>(1)</sup> C, W, Z | (2, 3) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
95 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
120 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
150 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
185 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
240 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
300 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
400 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 
500 | One<sup>(1)</sup> C | (2, 4) | <0.5% HCI | Complies | >60% | Complies<sup>(5)</sup> | 

**Notes:**

1. Stranded conductor only.
2. Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
3. To satisfy the requirement of BS 6387:2013, testing for C, W & Z categories was conducted using a 20mm stainless steel conduit as the other metallic element.
4. To satisfy the requirement of BS 6387:2013, testing for C category was conducted using a 38mm stainless steel conduit as the other metallic element.
5. The FSB Wires cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950ºC for a duration of 180mins, at a voltage rating of 450V.


### FSB 3000 Single core

**Nominal csa of conductor (mm²)** | **Core construction** | **BS 6387** | **IEC 60331-21** | **EN 50267-2-1** | **EN 50267-2-3** | **IEC 61034-2** | **EN 60332-2-24** | **LPCB Ref. No.**
---|---|---|---|---|---|---|---|---
2.5 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 1069d/01
4.0 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
6.0 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
10 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
16 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
25 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
35 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
50 | One CWZ<sup>(4)</sup> | | Complies | <0.5% HCI | Complies | >60% | - | 
70 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
95 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
120 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
150 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
185 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
240 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
300 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
400 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
500 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 
630 | One CWZ<sup>(3)</sup> | | Complies | <0.5% HCI | Complies | >60% | Complies | 

**Uo/U 450/750V**
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Notes:
1. Stranded conductor only.
2. Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
3. To satisfy the requirement of BS 6387, testing for Category C was conducted using a 38mm stainless steel conduit as the other metallic element.
4. To satisfy the requirement of BS 6387, testing for Categories W and Z was conducted using a 20mm stainless steel conduit as the other metallic element.
5. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the FSB 3000 Single Core cables listed also met the requirements of EN 50267-2-2:1999.
6. The FSB 3000 Single Core cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 750°C for a duration of 180mins at a voltage rating of 600V.
7. The FSB 3000 Single Core cables listed also met the requirements of EN 60332-1-2:2004


FSB 3000 Multicore

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>IEC 60331-21</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>IEC 61034-2</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>2.5</td>
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<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60% Complies</td>
<td>Complies</td>
<td>1069d/02</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3 &amp; 4 CWZ</td>
<td>Complies</td>
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<td>Complies</td>
<td>&gt;60% Complies</td>
<td>Complies</td>
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<td></td>
</tr>
<tr>
<td>6.0</td>
<td>2, 3 &amp; 4 CWZ</td>
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<td>&gt;60% Complies</td>
<td>Complies</td>
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<td>&gt;60% Complies</td>
<td>Complies</td>
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<td>&gt;60% Complies</td>
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<td>&gt;60% Complies</td>
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<td></td>
<td></td>
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<tr>
<td>120</td>
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<tr>
<td>150</td>
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<td>&gt;60% Complies</td>
<td>Complies</td>
<td></td>
<td></td>
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<tr>
<td>185</td>
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<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60% Complies</td>
<td>Complies</td>
<td></td>
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<tr>
<td>240</td>
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<td>Complies</td>
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<td></td>
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<tr>
<td>300</td>
<td>2, 3 &amp; 4 CWZ</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60% Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1. Stranded conductor only.
2. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the FSB 3000 Multicore cables listed also met the requirements of EN 50267-2-2:1999.
3. The FSB 3000 Multicore cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 750°C for a duration of 180mins at a voltage rating of 600V.
4. The FSB 3000 Multicore cables listed also met the requirements of EN 60332-1-2:2004.

### PART 1: SECTION 8.1
FIRE RESISTANT CABLES

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>IEC 60331-21</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>IEC 61034-2</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>One CWZ</td>
<td></td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
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<tr>
<td>95</td>
<td>One CWZ</td>
<td></td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>1069e%01</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>One CWZ</td>
<td></td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
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</tr>
<tr>
<td>150</td>
<td>One CWZ</td>
<td></td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>1069e%01</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>One CWZ</td>
<td></td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
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</tr>
<tr>
<td>240</td>
<td>One CWZ</td>
<td></td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
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<td>300</td>
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<td>&lt;0.5% HCI</td>
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<tr>
<td>630</td>
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Uo/U 600/1000V

Notes:

1. Stranded conductor only.
2. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the FSB 5000 Single Core cables listed also met the requirements of EN 50267-2-2:1999.
3. The FSB 3000 Multicore cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C for a duration of 90mins at a voltage rating of 600V.

Certificate No: 1069c to BS 7846: 2015 Category F120 and BS 8519:2010 Category 3

**FSB 6000**

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1069b to BS 7846:2015 Cat F2 & F120

**FSB Cable**

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Bahri & Mazroei Technical Systems Co. LLC
BMTC Building, PO Box 1247, Al Khabaisi, Dubai, United Arab Emirates
Tel: +971 4 269 9051 • Fax: +971 4 269 9052
E-mail: Svetlana.Kostetskaya@bmtc.ae • Website: www.bmts.ae


**URANUS BM30 FE 180 PH30**

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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

URANUS BMUR120E30

LPCB Ref. No.
1469a-(cl-2)/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Belden Wire & Cable B. V.
Edisonstraat 9, 5928 PG Venlo, The Netherlands
Tel: 00 317 7387 8300
E-mail: peter.bedaux@belden.com • Website: www.belden.com


SAFE-T-LINE

LPCB Ref. No.
1460a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

BERICA CAVI S.p.A.
Via della Meccanica 2, 36040 Meledo di Sarego, Meledo di Sarego (VI) 36040, Italy
Tel: +39 0444 820044 • Fax: +39 0444 820050
E-mail: bericacavi@bericacavi.com • Website: www.bericacavi.com


EUROSAFE PLUS

LPCB Ref. No.
1167a/01

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Burn Cable Management Systems (B. C. M. S. Sarl)
4 Rue Des Valettes, Zone Industrielle, 45140 Ingre, France
Tel: +33 221 310 000 • Fax: +33 221 310 004
E-mail: certification@bcmsint.com • Website: www.bcmsint.com


FM100 Fire Resistant Cable Simplex UK

LPCB Ref. No.
1510a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

FC200 & FC200S Fire Combat Cables

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Mineral Cable Simplex UK Light Duty & Mineral Cable Simplex UK Heavy Duty

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FM200 FIRE RESISTANT CABLE SIMPLEX UK

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Cavicel SpA
Via Caduti del Lavoro, 18/A, Piolettlo - MI 20096, Italy
Tel: +39 02 9216 0521 • Fax: +39 02 9216 0753
E-mail: cavicel@cavicel.com • Website: www.cavicel.com


Firecel SR 106H

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Firecel SR 485

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Opticel FR

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FIRECEL SR 114H

LPCB Ref. No.

217f/01


FIRECEL SR 114E

LPCB Ref. No.

217g/01


FIRECEL LAN

LPCB Ref. No.

217l/01


FIRECEL LAN 6

LPCB Ref. No.

217m/01


FIRECEL SR 112

LPCB Ref. No.

217d/01
Cleveland Cable Company
Riverside Park Road, Middlesbrough, Cleveland TS2 1QW, United Kingdom
Tel: +44 1642 757 300 • Fax: +44 1642 222 683
E-mail: sales@clevelandcable.com • Website: http://www.clevelandcable.com


ZFLAM200

LPCB Ref. No.
1410a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Context Plus Ltd
Export House, 175 Mauldeth Road, Fallowfield, Manchester M14 6SG, United Kingdom
Tel: +44 (0)161 257 2541 • Fax: +44 (0)161 225 8817
E-mail: xportsales@xportsales.com • Website: www.xportsales.com


Context Plus

LPCB Ref. No.
682a/01

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Context Plus XPS

LPCB Ref. No.
682e/01

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Context Plus XP

LPCB Ref. No.
682c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
### Datwyler Standard Fire Safety Cable

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>BS 6387</th>
<th>EN 50200</th>
<th>EN 50200 Annex E</th>
<th>BS 5839-1 Clause 26.2</th>
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<td>2, 3 &amp; 4</td>
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<td>C, W, Z</td>
<td>Class PH30</td>
<td>30min (1)</td>
<td>Standard (5)</td>
<td>172b/01</td>
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<td>2, 3 &amp; 4</td>
<td>Complies (3)</td>
<td>C, W, Z</td>
<td>Class PH30</td>
<td>30min (1)</td>
<td>Standard (5)</td>
<td></td>
</tr>
<tr>
<td>2.5 (2)</td>
<td>2, 3 &amp; 4</td>
<td>Complies (3)</td>
<td>C, W, Z</td>
<td>Class PH30</td>
<td>30min (1)</td>
<td>Standard (5)</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Solid conductor only.
2. Solid and stranded conductors.
3. In meeting the requirements of BS 7629-1:2008, the Datwyler Standard Fire Safety Cables listed met the requirements of smoke density of EN 61034-2:2005 and achieved less than 0.5%HCl on the insulation, binder tape & outer covering when tested in accordance with EN 50267-2-1:1999.
4. The duration of 30min when tested in accordance with EN 50200:2006 Annex E is achieved by 15min for the fire and mechanical shock phase and an additional 15min for the fire, mechanical shock and water phase.
5. The Datwyler Standard Fire Safety Cables listed conform to BS 7629-1:2008, met Class PH30 when tested in accordance with EN 50200:2006 Annex E and hence met the requirements for a standard fire resistant cable as described in Clause 26.2 of BS 5839-1:2013.

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**DFS EN**

<table>
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**DFS ST**

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**DFS ME**

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**Datwyler Enhanced Fire Safety Cable**

**LPCB Ref. No.**

172c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**DFS EN BS**

**LPCB Ref. No.**

172h/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**DFS ST BS**

**LPCB Ref. No.**

172i/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

**Doha Cables**

MIC Community Area, Mesaieed 22487, Qatar
Tel: +974 5591 2001 • Fax: +974 4490 2176
E-mail: info@dohacables.com • Website: www.dohacables.com


**FIRE GUARD 1000 PLUS**

**LPCB Ref. No.**

1281a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FIRE GUARD 1000**

**LPCB Ref. No.**

1281c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


20 Oct 2020
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

FIRE GUARD 100

LPCB Ref. No.
1281b/01

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Doncaster Cables

Millfields Industrial Estate, Arksey Lane, Bentley, Doncaster, South Yorkshire DN5 0SJ, United Kingdom
Tel: +44 (0)1302 821700 • Fax: +44 (0)1302 821701
E-mail: sales@doncastercables.com • Website: www.doncastercables.com


FIRESURE CABLES

LPCB Ref. No.
338a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com


FIRESURE PLUS

LPCB Ref. No.
338b/01

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Certificate No: 338d to EN 60702-1:2002

(DONCASTER CABLES ENGLAND) MINERAL INSULATED CABLE

LPCB Ref. No.
338d/01
338d/02

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FIRESURE 1

LPCB Ref. No.
338e/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


FIRESURE 500

LPCB Ref. No.
338c/01
A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Draka (Malaysia) Sdn. Bhd.
Lot 48, Jalan Industri 13, Alor Gajah Industrial Estate, 78000 Alor Gajah, Malacca, Malaysia
Tel: +606 556 3833 • Fax: +606 556 3282
E-mail: scmm@draka.com • Website: www.draka.com.my


---

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction (See note 1)</th>
<th>BS 6387 (See notes 2 - 4)</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>IEC 60331-21 (See note 9)</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 One</td>
<td>C, W, Z(5)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td>994a/01</td>
</tr>
<tr>
<td>2.5 One</td>
<td>C, W, Z(5)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
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<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
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<td>Complies</td>
<td></td>
</tr>
<tr>
<td>10 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50 One</td>
<td>C, W, Z(5, 7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
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<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
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<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300 One</td>
<td>C(7)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400 One</td>
<td>Complies(8)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>500 One</td>
<td>Complies(8)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>630 One</td>
<td>Complies(8)</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1) Stranded conductor only.
2) Clauses 8 (Bending) and 9.1 & 9.2 (Impact) cannot be conducted due to the cable having only one core.
3) These cables also met category C, W, Z when tested for voltage rating 600/1000V which is not recognised by BS 6387.
4) Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
5) To satisfy the requirement of BS 6387, testing for C, W & Z categories were conducted using a 20mm stainless steel conduit as the other metallic element.
6) To satisfy the requirement of BS 6387, testing for W & Z categories were conducted using a 20mm stainless steel conduit as the other metallic element.
7) To satisfy the requirement of BS 6387, testing for C category was conducted using a 38mm stainless steel conduit as the other metallic element.
8) Only Clause 10 of BS 6387 was conducted.
9) These cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 750°C and at a voltage rating of 600V.

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Tel: 01332 345431 • Fax: 01332 331237
E-mail: cableuk@draka.com • Website: www.drakauk.com


FT30

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1134a/01</td>
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</tbody>
</table>
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1134c to BS 6387:2013 and IEC 60331-21: 1999

**FT SIFER 950i**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm$^2$)</th>
<th>Core construction</th>
<th>BS 6387</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
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<td>C, W, Z</td>
<td>Complies</td>
<td>1134c/01</td>
</tr>
<tr>
<td>25</td>
<td>One</td>
<td>C, W, Z</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>One</td>
<td>C, W, Z</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>One</td>
<td>C, W, Z</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>One</td>
<td>C, W, Z</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>One</td>
<td>C, W, Z</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>One</td>
<td>C</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>One</td>
<td>C</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>One</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>One</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>One</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>One</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>One</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>630</td>
<td>One</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1) Stranded conductor only.
2) Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
3) To satisfy the requirement of BS 6387, testing for C, W & Z categories was conducted using a 20mm stainless steel conduit as the other metallic element.
4) To satisfy the requirement of BS 6387, testing for W & Z categories was conducted using a 20mm stainless steel conduit as the other metallic element.
5) To satisfy the requirement of BS 6387, testing for C category was conducted using a 38mm stainless steel conduit as the other metallic element.
6) The FT SIFER 950i cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C for a duration of 90mins + 15mins cool down, at a voltage rating of 600V.


**FT30 SAFFIRE**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm$^2$)</th>
<th>Core construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>EN 50200</th>
<th>EN 50200 Annex E</th>
<th>BS 5839-1 Clause 26.2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>2, 3 &amp; 4</td>
<td>Complies$^{(1),(2)}$</td>
<td>PH30 &amp; PH60</td>
<td>30min$^{(3)}$</td>
<td>Standard$^{(6)}$</td>
<td>1134k/01</td>
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<tr>
<td>2.5</td>
<td>2, 3 &amp; 4</td>
<td>Complies$^{(1),(2)}$</td>
<td>PH30 &amp; PH60</td>
<td>30min$^{(3)}$</td>
<td>Standard$^{(6)}$</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3 &amp; 4</td>
<td>Complies$^{(1),(2)}$</td>
<td>PH30 &amp; PH60</td>
<td>30min$^{(3)}$</td>
<td>Standard$^{(6)}$</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500V

Notes:
1) Solid conductor only.
2) Stranded conductor only.
3) In meeting the requirements of BS 7629-1:1997, the FT30 SAFFIRE cables listed met the requirements for smoke density of EN 61034-2:2005, the fire resistance requirements in BS 6387:2103 Categories CWZ and achieved less than 0.5% HCl for the insulation, binder tape & outer covering when tested in accordance with EN 50267-2-1:1999.
4) BS 7629-1:1997 was amended in 2004 to implement the changes to the identification of cores by colours, in accordance with the CENELEC Harmonisation Document HD 308 S2. The un-amended version of the standard was withdrawn on 31st March 2006. However, cables with the old identification colours, meeting the withdrawn version of the standard, are still requested by some regulators outside of the EU. Certification to the un-amended version of the standard has therefore been maintained, for the time being, to satisfy the requirements of these regulators.
5) The duration of 30 min when tested in accordance with EN 50200:2006 Annex E is achieved by 15 min for the fire and mechanical shock phase and a further 15 min for the fire, mechanical shock and water phase.
6) The FT30 SAFFIRE cables listed conform to BS 7629-1:1997, met Class PH30 when tested in accordance with BS EN 50200:2006 and met the 30min duration when tested in accordance with EN 50200:2006 Annex E and hence met the requirements for a standard fire resistant cable as described in Clause 26.2 of BS 5839-1:2013.

Certificate 1134j covers cables certified in accordance with BS 7629-1:2008
PART 1: SECTION 8.1
FIRE RESISTANT CABLES


FTP

<table>
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<th>LPCB Ref. No.</th>
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FTP

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<th>LPCB Ref. No.</th>
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FT120

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<th>LPCB Ref. No.</th>
<th>1134b/01</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


FT30 SAFFIRE

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</table>

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FT SIFER 950i OHLS

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<th>LPCB Ref. No.</th>
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FTP120

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### PART 1: SECTION 8.1
FIRE RESISTANT CABLES

**FT SIFER 950s**

<table>
<thead>
<tr>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>BS 6387</th>
<th>EN 50200</th>
<th>BS 8434-2</th>
<th>BS 5839-1 (clause 26.2)</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0**(2)**</td>
<td>Enhanced</td>
<td>C,W,Z</td>
<td>Class PH120</td>
<td>120min**(4)**</td>
<td>Enhanced**(5)**</td>
<td>781e/01</td>
</tr>
<tr>
<td>1.5**(1 &amp; 2)**</td>
<td>Enhanced</td>
<td>C,W,Z</td>
<td>Class PH120</td>
<td>120min**(4)**</td>
<td>Enhanced**(5)**</td>
<td></td>
</tr>
<tr>
<td>2.5**(1 &amp; 2)**</td>
<td>Enhanced</td>
<td>C,W,Z</td>
<td>Class PH120</td>
<td>120min**(4)**</td>
<td>Enhanced**(5)**</td>
<td></td>
</tr>
<tr>
<td>4.0**(1)**</td>
<td>Enhanced</td>
<td>C,W,Z</td>
<td>Class PH120</td>
<td>120min**(4)**</td>
<td>Enhanced**(5)**</td>
<td></td>
</tr>
</tbody>
</table>

Notes:

1. Solid conductor only.
2. Stranded construction only.
3. In meeting the requirements of BS 7629-1:2015, the DUCAB Flam BICC 2a Enhanced cables listed met the requirements for smoke density of EN 61034-2:2005+A1:2013, achieved less than 0.5%HCl for the insulation, binder tape and outer covering when tested in accordance with EN 60754-1:2014 and in addition also met the fire resistance requirements of BS 6387: 2013 Categories CWZ.
4. The duration of 120min when tested in accordance with BS 8434-2:2003+A2:2009 is achieved by 60min for the fire and mechanical shock phase and an additional 60min for the fire, mechanical shock and water phase.
5. The DUCAB Flam BICC 2a Enhanced cables listed conform to BS 7629-1:2015, met Class PH120 when tested in accordance with EN 50200: 2015 and met the 120min duration when tested in accordance with BS 8434-2:2003+A2:2009 and hence met the requirements for an enhanced fire resistant cable as described in Clause 26.2 of BS 5839-1:2013.


**Ducab Flam BICC 1**

<table>
<thead>
<tr>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 6387</th>
<th>EN 50200</th>
<th>BS 8434-2</th>
<th>BS 5839-1 (clause 26.2)</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced</td>
<td>C,W,Z</td>
<td>Class PH120</td>
<td>120min**(4)**</td>
<td>Enhanced**(5)**</td>
<td>781c/01</td>
</tr>
</tbody>
</table>

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**Certificate No: 781a to BS 7846:2015 Cat F2**

**Ducab Flam BICC 4**

<table>
<thead>
<tr>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 6387</th>
<th>EN 50200</th>
<th>BS 8434-2</th>
<th>BS 5839-1 (clause 26.2)</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced</td>
<td>C,W,Z</td>
<td>Class PH120</td>
<td>120min**(4)**</td>
<td>Enhanced**(5)**</td>
<td>781a/01</td>
</tr>
</tbody>
</table>
**PART 1: SECTION 8.1**

**FIRE RESISTANT CABLES**

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**Dubai Cable Company (Private) Limited, Trading as Ducab**

Ducab-M1, Plot No. - 2D12,3D2,4D2,5D2, Sector - M41, Industrial City of Abu Dhabi-1, Mussafah, Abu Dhabi, United Arab Emirates

Tel: +9714 815 8888 • Fax: +9714 815 8433

E-mail: ducab@ducab.com • Website: www.ducab.com

Certificate No: 782j to BS 7629-1:1997. This certificate is to a withdrawn version of the BS 7629-1:1997, Cables conforming to this version of the standard may not be suitable for use within the jurisdiction of the European Union (EU). BS 5839-1:2013 Clause 26.2d, EN 50200:2006 Class PH120, EN 50200:2006 Annex E

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**Ducab Flam BICC 2a**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>BS 7629-1 (see note 6)</th>
<th>EN 50200</th>
<th>EN 50200 Annex E</th>
<th>BS 5839-1 Clause 26.2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>Class PH120</td>
<td>30min Standard</td>
<td>782j/01</td>
<td></td>
</tr>
<tr>
<td>2.5(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>Class PH120</td>
<td>30min Standard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0(2)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>Class PH120</td>
<td>30min Standard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500V

Notes:

1. Solid conductor only.
2. Stranded conductor only.
3. In meeting the requirements of BS 7629-1:1997, the Ducab Flam BICC 2a cables listed met the requirements of smoke density of EN 61034-2:2005, fire resistance requirements CWZ in Clause 11 of BS 6387:1994 and achieved less than 0.5%HCl on the insulation, binder tape and outer covering when tested in accordance with EN 50267-2-1:1999.
4. The duration of 30min when tested in accordance with EN 50200:2006 Annex E is achieved by 15min for the fire and mechanical shock phase and an additional 15min for the fire, mechanical shock and water phase.
5. The Ducab Flam BICC 2a cables listed conform to BS 7629-1:1997, met Class PH120 when tested in accordance with EN 50200:2006 and met the 30min duration when tested in accordance with EN 50200:2006 Annex E and hence met the requirements for a standard fire resistant cable as described in Clause 26.2 of BS 5839-1:2013.
6. BS 7629-1:1997 was amended in 2004 to implement the changes to the identification of cores by colours, in accordance with the CENELEC Harmonisation Document HD 308 S2. The un-amended version of the standard was withdrawn on 31st March 2006. However, cables with the old identification colours, meeting the withdrawn version of the standard, are still requested by some regulators outside of the EU. Certification to the un-amended version of the standard has therefore been maintained, for the time being, to satisfy the requirements of these regulators.

Certificate 782h covers cables certified in accordance with BS 7629-1:2008


**DUCAB Flam BICC 2a Enhanced**

<table>
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<tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 782a to BS 7846: 2015 Cat F2

**Ducab Flam BICC 4**

<table>
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20 Oct 2020 751
PART 1: SECTION 8.1
FIRE RESISTANT CABLES


Ducab Flam BICC 3

LPCB Ref. No.
782f/01

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Ducab Flam BICC 1

LPCB Ref. No.
782c/01

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Certificate No: 782g to BS 7846:2015 Cat F2 & F120 BS 8519:2010 Clause 11

Ducab Flam BICC 6

LPCB Ref. No.
782g/01

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Ducab Flam BICC 4 AL Armr

LPCB Ref. No.
782l/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Ducab Flam BICC 1 BS 8592

LPCB Ref. No.
782m/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Dubai Cable Company (Private) Limited, Trading as Ducab
Dubac-M2, Plot No. - J6 14-15-16, Sector - M41, Industrial City of Abu Dhabi-1, Mussafah, Abu Dhabi, United Arab Emirates
Tel: +9714 815 8888 • Fax: +9714 815 8433
E-mail: ducab@ducab.com • Website: www.ducab.com, Sales office: PO Box 11529, Dubai, UAE


752 20 Oct 2020
Dubai Cable Company (Private) Limited, Trading as Ducab
P. O. Box No 11529, Old Abu Dhabi Road, Jebel Ali, Dubai, United Arab Emirates
Tel: +971 4 815 8888 • Fax: +971 4 815 8433
E-mail: ducab@ducab.com • Website: www.ducab.com

Certificate No: 781f to BS 7846:2015 (Cat F2 & F120) BS 8519:2010

Ducab FlamBICC 6

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
# PART 1: SECTION 8.1
## FIRE RESISTANT CABLES

### El Sewedy Cables
10th of Ramadan City, Zone A3 44629, Egypt
Tel: +002 015 411218 • Fax: +002 015 411215
E-mail: Huithem@elsewedy.com • Website: www.elsewedycables.com

Certificate No: 1290a to BS 7846:2009 Category F2 and EN 50200 Class PH 60

#### FIRE GUARD 1000

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 7846</th>
<th>BS EN 50200</th>
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<td>Class PH60</td>
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<td>Class PH60</td>
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<td>4.0</td>
<td>4</td>
<td>F2</td>
<td>Class PH60</td>
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<tr>
<td>6.0</td>
<td>4</td>
<td>F2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>4</td>
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<td>16</td>
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<td>F2</td>
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Uo/U 600/1000V

Notes:
1. Stranded conductors only.
2. In meeting the requirements to BS 7846:2009 Category F2, the FIRE GUARD 1000 cables listed met the requirements for smoke density of EN 61034-2:2005, fire resistance requirements to BS 6387:2013 Categories CWZ and achieved less than 0.5%HCl for the insulation, tapes, filler, bedding and outer covering when tested in accordance with EN 50267-2-1:1999.

### El Sewedy Cables - Egypt (Egytech Cables)
3rd Industrial Zone A3, 10th of Ramadan city, Egypt
Tel: +002 015 411350 • Fax: +002 015 411366
E-mail: info@elswedy.com • Website: www.elswedy.com

Certificate No: 1285a to BS 7846:2009 Category F2 and F120

#### FIRE GUARD 1000 PLUS

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<td>25</td>
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<td>1285a/01</td>
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<tr>
<td>35</td>
<td>4&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<tr>
<td>50</td>
<td>4&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<tr>
<td>70</td>
<td>4&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<td>95</td>
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<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<tr>
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<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<tr>
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<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<td>300</td>
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<td>F2&lt;sup&gt;(2)&lt;/sup&gt; &amp; F120&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td></td>
</tr>
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</table>

Uo/U 600/1000V

Notes:
1. Stranded conductors only.
2. In meeting the requirements to BS 7846:2009 Category F2, the FIRE GUARD 1000 PLUS cables listed met the requirements for smoke density of EN 61034-2:2005, fire resistance requirements to BS 6387:2013 Categories CWZ and achieved less than 0.5%HCl for the insulation, tapes, filler, bedding and outer covering when tested in accordance with EN 50267-2-1:1999.
3. In meeting the requirements of BS 7846:2009 Category F120, the FIRE GUARD 1000 PLUS cables listed met the requirements for 120 minutes fire resistance to BS 8491:2008.
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

---

**Electrical Energy Efficiency FZE**
PO Box 341084, DUBAI Silicon Oasis, United Arab Emirates
Tel: +971 4 3263950
E-mail: info@3edubai.com

(30 mins) BS 5839-1:2013 (Clause 26.2d Standard)

**APS Fire**

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

---

**Erse Kablo Sanayi Ticaret A.S.**
Halil Rifat Pasa Mh. Yuzer Havuz Sk., No: 5-9 Sisli, 34384, Instanbul, Turkey
Tel: +90 212 737 3700
E-mail: info@ersekablo.com.tr • Website: www.ersekablo.com.tr


**FIRESAFE GOLD**

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

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**Fireguard Global Ltd.**
Unit 11 Chancel Industrial Estate, Newhall Street, Willenhall, West Midlands WV13 1NX, United Kingdom
Tel: +44 (0)8450 751042 • Fax: +44 (0)845 2991039
E-mail: info@fireguard-uk.com • Website: www.fireguard-uk.com


**Fireguard-UK FG FRC 180 PH30**

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

---

**Firesafe**
10 Sanderson Way, Marton, Blackpool, Lancashire FY4 4NB, United Kingdom
Tel: 01253 699500 • Fax: 01253 699550
E-mail: info@firesafe.co.uk • Website: www.firesafe.co.uk

PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Zeroburn Plus

LPCB Ref. No.
682d/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


zeroburn

LPCB Ref. No.
682a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Fluid Equipment International BV
Rumbeeksegravier 166, Units D & E, Roeselare, West-Flanders 8800, Belgium
Tel: +32 51 811 711
E-mail: contact@fluid-equipment.be • Website: www.fluid-equipment.com


Fluid-FR Multi-Core Cables

LPCB Ref. No.
1383b/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Gulf Fire Vision Workshop Equipment Machinery & Spare parts Trading
P. O. Box 234713, Dubai, United Arab Emirates
Tel: +971 566 886 408 • Fax: +971 561 0311
E-mail: jashpal.m@gulfirevision.com • Website: www.gulfirevision.com


ACCUREX-FR

LPCB Ref. No.
1383a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Helukabel GmbH
Dieselstraße 8-12, Hemmingen 71282, Germany
Tel: +49 7150 9209 311 • Fax: +49 7150 9209 5311
E-mail: erwin.kerekes@helukabel.de • Website: www.helukabel.de

Huzhou Jiusheng Electric Co Ltd
1000 Xifeng Road, Huzhou Economy & Technology Area, Huzhou, Zhejiang, China
Tel: +86 572 222 8188 • Fax: +86 572 222 8177
E-mail: zjh@hz-tec • Website: www.teccable.com
Certificate No: 948a to EN 60702-1:2002 and BS 6387:2013 (Category C,W,Z)

### TEC MI BARE CABLE (LIGHT DUTY)

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>EN 60702-1</th>
<th>BS 6387</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>1.0(1,2)</td>
<td>2, 3, 4 &amp; 7</td>
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<td>1.5(1,2)</td>
<td>2, 3, 4 &amp; 7</td>
<td>Complies C.W.Z</td>
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<tr>
<td>2.5(1,2)</td>
<td>2, 3, 4 &amp; 7</td>
<td>Complies C.W.Z</td>
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<tr>
<td>4.0(1,2)</td>
<td>2</td>
<td>Complies C,W.Z</td>
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Uo/U 300/500V

Notes:
1. Solid conductor only.
2. The above cables are certified in Bare construction only.


### TEC MI SERVED CABLE (LIGHT DUTY)

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>EN 60702-1</th>
<th>BS 6387</th>
<th>BS 8434-2</th>
<th>BS 5839-1 Clause 26.2 (outer covering)</th>
<th>EN 50267-2-1</th>
<th>LPCB Ref. No.</th>
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<td>1.0(1,2)</td>
<td>2, 3, 4 &amp; 7</td>
<td>Complies C.W,Z</td>
<td>Class PH120</td>
<td>120min</td>
<td>Enhanced(4)</td>
<td>&lt;0.5% HCl</td>
<td>948b/01</td>
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<td>1.5(1,2)</td>
<td>2, 3, 4 &amp; 7</td>
<td>Complies C.W.Z</td>
<td>Class PH120</td>
<td>120min</td>
<td>Enhanced(4)</td>
<td>&lt;0.5% HCl</td>
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<td>2.5(1,2)</td>
<td>2, 3, 4 &amp; 7</td>
<td>Complies C.W.Z</td>
<td>Class PH120</td>
<td>120min</td>
<td>Enhanced(4)</td>
<td>&lt;0.5% HCl</td>
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<tr>
<td>4.0(1,2)</td>
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<td>Complies C,W,Z</td>
<td>Class PH120</td>
<td>120min</td>
<td>Enhanced(4)</td>
<td>&lt;0.5% HCl</td>
<td></td>
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Uo/U 300/500V

Notes:
1. Solid conductor only.
2. The above cables are certified in Served construction only.
3. In meeting the requirements of EN 60702-1: 2002, the TEC MI SERVED CABLE (LIGHT DUTY) listed met the requirements of smoke density of IEC 61034-2: 2005 and also met the requirements of pH & conductivity when tested in accordance with IEC 60754-2: 2011.
4. The TEC MI SERVED CABLE (LIGHT DUTY) listed conform to EN 60702-1: 2002, met Class PH120 when tested in accordance with EN 50200: 2006 and met a duration of 120min when tested in accordance with BS 8434-2: 2003+A2:2009 and hence met the requirements for an Enhanced fire resistant cable as described in Clause 26.2 of BS 5839-1: 2013.
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

IDH Cables Limited
Millbanks, New Ross, County Wexford, Ireland
Tel: 00353 51 421 405
E-mail: sales@cables.idh.ie

Certificate No: 1302b to BS 7629-1:2015, BS 6387:2013 (Category CWZ), EN 50200:2015 (PH60) and EN 50200:2015 Annex E and BS 5839-1 Clause 26.2d

Killflam Standard 2000

<table>
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Killflam Enhanced 3000

<table>
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Killflam 1000

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Italcond S.r.l.
Via Erideo Marinucci 42/44, 62019 Recanati (MC), Italy
Tel: +39 071 7501692 • Fax: +39 071 7503017
E-mail: info@italcond.it • Website: www.italcond.it


ITALCOND/ITALFIRE - Fire Resistant

<table>
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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Jaylow Supplies Ltd
Jaylow House, Leyton Link Estate, Argall Avenue, Leyton, London E10 7FD, United Kingdom
Tel: +44 (0)208 558 1921 • Fax: +44 (0)208 988 5114
Website: www.jaylowcables.com


Jayflame Enhanced
LPCB Ref. No.
682d/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Jayflame
LPCB Ref. No.
682a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Jeddah Cables Company
Industrial City Phase III, P.O. Box 31248, Jeddah 21497, Kingdom of Saudi Arabia
Tel: +966 12 636 0770 +971 4262 6605
E-mail: info@cables.energya.com • Website: www.jeddah-cables.com


FireX200 (Armoured)
LPCB Ref. No.
1538c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


FireX100
LPCB Ref. No.
1538a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


FireX200 (Unarmoured)
LPCB Ref. No.
1538b/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com
Keystone Electric Wire & Cable Company Ltd
#110 DD 83, Kwan Ti North Village, Fanling, New Territories, Hong Kong
Tel: +852 2691 7183 • Fax: +852 2695 9738
E-mail: sales@keystonecable.com • Website: www.keystonecable.com

Certificate No: 663d to BS 7846:2015 F2 and F120 BS 8491:2008

**KEYSTONE Enhanced Fire Resistance Armoured Cable**

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**KEYSTONE Fire Resistance Armoured Cable**

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**KEYSTONE FR 7211 Cable**

<table>
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KME Italy SpA
Via Della Repubblica 257, 55051 Fornaci Di Barga, Lucca, Italy
Tel: +39 0583 701.1 • Fax: +39 0583 701623
E-mail: alessandro.tardivel@kme.com • Website: www.kme-italy.com


<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
Lambent Global Trading
Office # 2911, Churchill Executive Tower, Business Bay, Buj Khalifa Area, Dubai, United Arab Emirates
Tel: +971 505 52 0071 • Fax: +971 436 08 114
E-mail: sh.ali@lambentglobal.com • Website: www.lambentglobal.com


**Lambent-FireResist3 Standard**

<table>
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<th>BS 6387</th>
<th>EN 60754-1</th>
<th>EN 61034-2</th>
<th>IEC 60332-1-2</th>
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<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
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<td>568c/02</td>
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<td>CWZ</td>
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<td>&gt;60%</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
<tr>
<td>16&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
<tr>
<td>25&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
<tr>
<td>35&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
<tr>
<td>50&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
<tr>
<td>70&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
<tr>
<td>95&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(&lt;sup&gt;(4)&lt;/sup&gt;)</td>
<td>Complies(&lt;sup&gt;(3)&lt;/sup&gt;)</td>
<td>Complies</td>
<td>568c/02</td>
</tr>
</tbody>
</table>


**PART 1: SECTION 8.1**

**FIRE RESISTANT CABLES**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>EN 61034-2</th>
<th>IEC 60332-1-2</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>120(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Stranded conductor only.
2. These cables met category CWZ when tested for voltage rating 600/1000V.
3. The BETAflam FR-MI 110 Cable Multicore cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C and at a voltage rating of 600/1000V.
4. The flame test IEC 60332-1-2 is fulfilled for the complete cable and for the insulated conductor without sheath.


**BETAflam FR-MI 110 Cable Multicore STA**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>BS 61034-2</th>
<th>IEC 60332-1-2</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5(1)</td>
<td>2 - 41</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td>896c/02</td>
</tr>
<tr>
<td>2.5(1)</td>
<td>2 - 21</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
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</tr>
<tr>
<td>4.0(1)</td>
<td>2 - 7</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0(1)</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>10(1)</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16(1)</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25(1)</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
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</tr>
<tr>
<td>35(1)</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400(1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Stranded conductor only.
2. These cables also met category CWZ when tested for voltage rating 600/1000V.
3. EN 61034-2: 2005 approval applies to the 35mm² cable at 3 & 4 cores only.
4. The BETAflam FR-MI 110 Cable Multicore STA cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C and at a voltage rating of 600/1000V.
5. The flame test IEC 60332-1-2 is fulfilled for the complete cable and for the insulated conductor without sheath.


**BETAflam FR-MI 110 Cable Multicore SWA**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>IEC 60332-1-2</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5(1)</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
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</tr>
<tr>
<td>4.0(1)</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0(1)</td>
<td>2 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>10(1)</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
<td>Complies</td>
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</tr>
<tr>
<td>16(1)</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(3)</td>
<td>Complies(4)</td>
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### PART 1: SECTION 8.1
**FIRE RESISTANT CABLES**

<table>
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<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>IEC 60332-1</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>25&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
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</tr>
<tr>
<td>35&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 - 5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
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</tr>
<tr>
<td>70&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95&lt;sup&gt;(1)&lt;/sup&gt;</td>
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<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
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</tr>
<tr>
<td>120&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
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</tr>
<tr>
<td>240&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
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<tr>
<td>400&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

**Notes:**
1. Stranded conductor only.
2. These cables also met category CWZ when tested for voltage rating 600/1000V.
3. The BETAflam FR-MI 110 Cable Multicore SWA cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C and at a voltage rating of 600/1000V.
4. The flame test IEC 60332-1 is fulfilled for the complete cable and for the insulated conductor without a sheath.


### BETAflam FR-SIR-F 90

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction (excluding drain wire)</th>
<th>BS 6387</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>IEC 60332-3-22</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>1 pair</td>
<td>C,W,Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td>896e/01</td>
</tr>
<tr>
<td>2.5&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>1 pair</td>
<td>C,W,Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
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</tr>
</tbody>
</table>

Uo/U 300/500V

**Notes:**
1. Solid conductor only.


### BETAflam FR-SIR-U 90

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction (excluding drain wire)</th>
<th>BS 6387</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>IEC 60332-3-22</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>1 pair</td>
<td>C,W,Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td>896f/01</td>
</tr>
</tbody>
</table>

Uo/U 300/500V

**Notes:**
1. Solid conductor only.


### BETAflam FR-MI 90 Cable Multicore

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>EN 60134-2</th>
<th>IEC 60332-1</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>2-41</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
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<td>896g/01</td>
</tr>
<tr>
<td>10&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>Complies</td>
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</tr>
</tbody>
</table>

20 Oct 2020 763
### PART 1: SECTION 8.1
FIRE RESISTANT CABLES

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>EN 60134-2</th>
<th>IEC 60332-1-2</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<tr>
<td>2.5 (1)</td>
<td>2-24</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>29 (1)</td>
<td>2.5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300 (1)</td>
<td>3 &amp; 4</td>
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<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0 (1)</td>
<td>2-7</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1. Stranded conductors only.
2. These cables met category CWZ when tested for voltage rating 600/1000V.
3. The BETAflam FR-MI 90 Cable Multicore Cables met the requirements of IEC, 60331-21:1999 when tested at a temperature of 950°C and at a voltage rating of 600/1000V.
4. The flame test IEC 60332-1-2 is fulfilled for the complete cable and for the insulated conductor without sheath.


---

### BETAt flam FR-MI 90 Cable Multicore STA

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>EN 60134-2</th>
<th>IEC 60332-1-2</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2-41</td>
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<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td>896g/02</td>
</tr>
<tr>
<td>10 (1)</td>
<td>2-5</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>18 (1)</td>
<td>3 &amp; 4</td>
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<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
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<td>2-21</td>
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<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>29 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0 (1)</td>
<td>2-7</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>&gt;60%</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95 (1)</td>
<td>3 &amp; 4</td>
<td>CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(5)</td>
<td>Complies(4)</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1. Stranded conductors only.
2. These cables met category CWZ when tested for voltage rating 600/1000V.
3. EN 61034-2:2005 approval applies to the 35mm² cable at 3 & 4 cores only
4. The BETAt flam FR-MI 90 Cable Multicore STA Cables met the requirements of IEC, 60331-21:1999 when tested at a temperature of 950°C and at a voltage rating of 600/1000V.
5. The flame test IEC 60332-1-2 is fulfilled for the complete cable and for the insulated conductor without sheath.

## BETAflam FR-MI 90 Cable Multicore SWA

<table>
<thead>
<tr>
<th>Nominal CSA of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>EN 61034-2</th>
<th>IEC 60332-1</th>
<th>IEC 60331-21</th>
<th>IEC 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10²(1)</td>
<td>3 &amp; 5 CWZ</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td>896g/03</td>
<td></td>
</tr>
<tr>
<td>120²(1)</td>
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<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150²(1)</td>
<td>3 &amp; 4 CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16²(1)</td>
<td>3 &amp; 5 CWZ</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>185²(1)</td>
<td>3 &amp; 4 CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5²(1)</td>
<td>2 &amp; 5 CWZ</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<td></td>
</tr>
<tr>
<td>240²(1)</td>
<td>3 &amp; 4 CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
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</tr>
<tr>
<td>25²(1)</td>
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<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<td></td>
</tr>
<tr>
<td>300²(1)</td>
<td>3 &amp; 4 CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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</tr>
<tr>
<td>35²(1)</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<td></td>
</tr>
<tr>
<td>4.0²(1)</td>
<td>2 &amp; 5 CWZ</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<td></td>
</tr>
<tr>
<td>400²(1)</td>
<td>3 &amp; 4 CWZ</td>
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<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<tr>
<td>50²(1)</td>
<td>3 &amp; 4 CWZ</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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</tr>
<tr>
<td>6.0²(1)</td>
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<td>&gt;60%</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
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</tr>
<tr>
<td>70²(1)</td>
<td>3 &amp; 4 CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
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<tr>
<td>95²(1)</td>
<td>3 &amp; 4 CWZ</td>
<td>&lt;0.5%HCl</td>
<td>-</td>
<td>Complies(4)</td>
<td>Complies(3)</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

**Notes:**

1. Stranded conductors only.
2. These cables met category CWZ when tested for voltage rating 600/1000V.
3. The BETAflam FR-MI 90 Cable Multicore SWA Cables met the requirements of IEC, 60331-21:1999 when tested at a temperature of 950°C and at a voltage rating of 600/1000V.
4. The flame test IEC 60332-1 is fulfilled for the complete cable and for the insulated conductor without sheath.


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## BETAflam FR-MI 110 Cable Comms S/UTP

<table>
<thead>
<tr>
<th>LRPCB Ref. No.</th>
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<tbody>
<tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


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<table>
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<tr>
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# PART 1: SECTION 8.1
## FIRE RESISTANT CABLES

### MAF Fire and Safety Equipment General Trading
PO Box 49895, Al Qusais, Dubai, United Arab Emirates  
Tel: +0097 155 9987 303 • Fax: +0097 142 3987 10  
E-mail: info@mafsafety.ae • Website: www.mafsafety.ae


<table>
<thead>
<tr>
<th>MAF-FEU Cable</th>
<th>LPCB Ref. No.</th>
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<tbody>
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### MICC (Shanghai) Electric Co Ltd
801-810, NO.2 Building, Shanghai Technology Innovation Center, 100 Qinzhou Road, Shanghai 200235, China  
Tel: 0086 21 5169 1990 • Fax: 0086 21 5228 8095  
E-mail: sales@miccgroup.com • Website: www.miccgroup.com


<table>
<thead>
<tr>
<th>MICC Wiring Cable</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>1035a/01</td>
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</table>

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### Mineral Insulated Cable Co Ltd
Temperature House, 21 Sedling Road, Wear Industrial Estate, Washington, Tyne & Wear NE38 9BZ, United Kingdom  
Tel: +44 191 416 7777 • Fax: +44 191 419 2345  
E-mail: sales@trmltd.co.uk • Website: www.temperature-house.com


<table>
<thead>
<tr>
<th>MICC Wiring Cable</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1039a/01</td>
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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
**Mission Fire Fighting and Safety Equipment Trading Est**  
Wh No 25, P. O. Box 10550, Al Qusais Industrial Area 1, Dubai, United Arab Emirates  
Tel: 00971 425 84 055  
E-mail: sales@missiondubai.com • Website: www.missiondubai.com


**MISSION FIRE UK-FR**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>IEC 60331-21</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>568d/01</td>
</tr>
<tr>
<td>1.5(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
</tr>
<tr>
<td>2.5(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500V

Note:
1) Solid and Stranded conductors.


**JST Fire Cable IEC 60331**

**NAJD ELECTRICALS & SAFETY EQUIPMENT TRADING**  
PO Box 85961, Baghdad Street, Al Qusais 2, Dubai, United Arab Emirates  
Tel: +971 4 267 5414 • Fax: +971 4 267 5443  
E-mail: najdelec@emirates.net.ae • Website: www.najdelec-safety.com


<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>IEC 60331-21</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>1.0(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>568ci/02</td>
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</tbody>
</table>

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**JST FIRE CABLE**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>IEC 60331-21</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 61034-2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0(1)</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>568ci/02</td>
</tr>
</tbody>
</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

PART 1: SECTION 8.1
FIRE RESISTANT CABLES

JST Fire Cables Plus

LPCB Ref. No. 568j/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

National Cables Industry
Plot No. 06, Al Sajja Industrial Estate, Al Dhaid Road, Sharjah, United Arab Emirates
Tel: 00971 65311888
E-mail: altaf@nci.ae • Website: www.nci.ae

Certificate No: 1246a to BS 7846:2015 Cat F2

LPCB Ref. No. 1246a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


NCI-FP1

LPCB Ref. No. 1246b/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


NCI-FP2

LPCB Ref. No. 1246c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1246e to BS 7846: 2015 Cat F2 & F120

NCI-FP6

LPCB Ref. No. 1246e/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Newage Cables Pvt Ltd
Newage House 33K, Gulberg-2, Lahore 54660, Pakistan
Tel: +92 300 846 1900
E-mail: amer@newagecables.com • Website: www.newagecables.com

PART 1: SECTION 8.1
FIRE RESISTANT CABLES

NF 1000
LPCB Ref. No.
1518a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Nexans (Yanggu) New Rihui Cables Co., Ltd
No. 14 Xihu, Yanggu County, Shandong Province 252300, China
Tel: +86 185 6356 5311 • Fax: +86 063 565 12 578
E-mail: Jiajuan.Hu@nexans.com • Website: www.yanggu.nexans.com


NX 100 Alsecure Plus Mica
LPCB Ref. No.
1524a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Nexans Turkiye Endustri ve Ticaret A.S.
Bozburun Mahallesi, Ahmet Nuri Erikoglu Caddesi No: 2, Denizli, Turkey
Tel: 0090 212 266 0160 • Fax: 0090 212 266 0170
E-mail: Info.turkey@nexans.com • Website: www.nexans.com.tr


ALSECURE PLUS NX300
LPCB Ref. No.
946c/01
946c/02

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 946a to BS 7846: 2015 (Category F2) EN 50200:2015 PH120

NX 400 ALSECURE PLUS
LPCB Ref. No.
946a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


NX 600 ALSECURE PLUS
LPCB Ref. No.
946d/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

**NX 100 ALSECURE PLUS**

| LPCB Ref. No. | 946b/01 |

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

---

**Ningbo Haishu Tianyu Cables & Wire Co., Ltd**

Zhongyi Village, Gulin Town, Haishu District, Ningbo City, Zhejiang Province 315177, China

Tel: +86 574 2788 6208 • Fax: +86 574 8829 0822

E-mail: minpor@minpor.com • Website: www.minpor.com

Certificate No: 1569a to BS 7629-1:2015 Enhanced 120 BS 6387:2013 (Category CWZ) BS 5839-1:2013 Clause 26.2e

**Fire Resistance Cable**

| LPCB Ref. No. | 1569a/01 |

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

---

**Norden Communication UK Ltd**

Unit 13 Baker Close, Oakwood Business Park, Clacton-On-Sea, Essex CO15 4BD, United Kingdom

Tel: +44 (0) 207 788 7663 • Fax: +44 (0) 203 292 1987

E-mail: sales@nordencommunication.com • Website: www.nordencommunication.com


**PH30 Improved Fire Resistant Cable**

| LPCB Ref. No. | 1383a/01 |

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**Fire Resistant Cable PH 120 SFR Insulation**

| LPCB Ref. No. | 711d/01 |

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 711d-(cl-2) to BS 7629-1:2008 BS 6387:2013 (CWZ) EN 50200:2006 (Class PH120) EN 50200:2006 Annex E (30 mins) BS 8519 (Clause11) BS 5266-1 (Clause 8.2.2a) BS 5839-6 (Clause 16.2) BS 5839-8 (Clause 27.6) BS 5839-1:2013 (Clause 26.2d Standard)

**NORDEN MI BARE CABLE (LIGHT DUTY)**

| LPCB Ref. No. | 948a/01 |
A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**NORDEN MI SERVED CABLE (LIGHT DUTY)**

<table>
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<th>LPCB Ref. No.</th>
<th>948b/01</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**Firenor Premium Cable**

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<th>LPCB Ref. No.</th>
<th>1469a-(cl-1)/01</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FireNor PH30**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

**Nuhas Oman L.L.C**

P.O Box 186, Road No. 2, Plot No. 70, Rusayl Industrial Estate 124, Sultanate of Oman
Tel: +968 24449007
Website: www.nuhasoman.com

Certificate No: 1341a to BS 7846:2009 Category F2

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 7846</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
<td>1341a/01</td>
</tr>
<tr>
<td>2.5</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
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<tr>
<td>6.0</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
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<td>10</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
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<td>16</td>
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<td>F2(1)</td>
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<td>25</td>
<td>2.3 &amp; 4(1)</td>
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<td>35</td>
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<td>70</td>
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<td>95</td>
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<td>F2(1)</td>
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<td>300</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
<td></td>
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<tr>
<td>400</td>
<td>2.3 &amp; 4(1)</td>
<td>F2(1)</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

1. Stranded conductors only.
2. In meeting the requirements to BS 7846:2009 Category F2, the Fire Resistant Cables listed met the requirements for smoke density of EN 61034-2:2005, fire resistance requirements to BS 6387:2013 Categories CWZ and achieved less than 0.5% HCl for the insulation, tapes, bedding and outer covering when tested in accordance with EN 50267-2-1:1999.


<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>1341b/01</td>
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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

nVent Solutions (UK) Limited
3 Rutherford Road, Stephenson Industrial Estate, Washington, Tyne & Wear NE37 3HX, United Kingdom
E-mail: Gerry.DeBlick@nVent.com • Website: www.nVentthermal.com


<table>
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<th>LPCB Ref. No.</th>
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<tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

OLYMPIC CABLE COMPANY SDN. BHD.
Lot PT 2126-2131, Jalan PK1, Taman Perindustrian Krubong, 75250 Melaka, Malaysia
Tel: +606 337 3088 • Fax: +606 335 1911
E-mail: chauchiang.tan@olympic-cable.com.my • Website: www.olympic-cable.com.my


<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
Oman Cables Industry (SAOG)
Road No.2, Factory No. 206, Rusayl Industrial Estate, Rusayl, Muscat, Sultanate of Oman
Tel: +968 24443100 • Fax: +968 24446096
E-mail: omancables@omancables.com • Website: www.omancables.com


**OCIFLAM-FS1**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**OCIFLAM1 PREMIUM**

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 995a to BS 7846:2015 Category F2

**OCIFLAM-FSA**

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Paramount Communications Limited
Plot No. SP-30A, SP-30B & E-31, RIICO Industrial Area, Khushkhera (Near Bhiwadi), Budi Bawal (Karoli), Alwar, Rajasthan 301 707, India
Tel: +91 997 171 2846 • Fax: +91 149 325 0222
E-mail: mktg@paramountcables.com • Website: www.paramountcables.com


**FireSecure Cable**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FireSecure Punch Cable**

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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

Polycab India Ltd
Polycab House, 771 Mogul Lane, Mahim (West), Mumbai, Maharashtra 400 016, India
Tel: +91 267 622 7374
E-mail: rithesh.karkera@polycab.com • Website: www.polycab.com


Polycab Electric Cables
LPCB Ref. No.
1628a

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Pony Cables
7F Toranomon 40MT Bldg 5-31-1, Toranomon, Minato-ku, Tokyo 105 0001, Japan
Tel: +81 3 4530 9633 • Fax: +81 3 4530 9800
E-mail: masuyo.arata@ponycables.com • Website: www.ponycables.com


PONY-FR Multi-Core Cables
LPCB Ref. No.
1383b-(cl-2)

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


PONY-FR Multi-Core Cables
LPCB Ref. No.
1383a-(cl-7)

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Prysmian Cables & Systems Limited
Energy Cables, Chickenhall Lane, Bishopstoke, Eastleigh, Hants SO50 6YU, United Kingdom
Tel: +44 (0)8457 678345 • Fax: +44 (0)2380 295465
E-mail: cables.marketing.uk@prysmian.com • Website: www.prysmian.co.uk


FP100 Fire resistant single core cable for installation in conduit

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm$^2$)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 50267-2-1 (outer covering)</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>One</td>
<td>CWZ</td>
<td>-</td>
<td>Complies</td>
<td>077c/01</td>
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<tr>
<td>25</td>
<td>One</td>
<td>CWZ</td>
<td>-</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>One</td>
<td>CWZ</td>
<td>-</td>
<td>Complies</td>
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</table>

774 20 Oct 2020
**PART 1: SECTION 8.1**

**FIRE RESISTANT CABLES**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 50267-2-1 (outer covering)</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>50</td>
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<td>CWZ</td>
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<td>Complies</td>
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<tr>
<td>630</td>
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<td>-</td>
<td>-</td>
<td>Complies</td>
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</tr>
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</table>

**Nominal csa of conductor:**

- **Uo/U 450/750 V**
- **Uo/U 600/1000 V**

**Notes:**

1. Standard conductor only.
2. Where a single cable is fitted to a conduit, only phase to earth voltage was applied.
3. To satisfy the requirement of BS 6387, testing for C, W & Z categories was conducted using a 20mm stainless steel conduit as the other metallic element.
4. To satisfy the requirement of BS 6387, testing for W & Z categories was conducted using a 20mm stainless steel conduit as the other metallic element.
5. To satisfy the requirement of BS 6387, testing for C category was conducted using a 38mm stainless steel conduit as the other metallic element.
6. The FP100 cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C for a duration of 90mins + 15mins cool down, at a voltage rating of 600V.


**FP300 and FP400 fire resistant cable LSOH outer covering**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>077b/01</td>
</tr>
<tr>
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</tbody>
</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FP Plus**

<table>
<thead>
<tr>
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<tbody>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FP200 Gold**

<table>
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<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 077e to BS 6387:2013 (Category CWZ) EN 60754-1:20014, IEC 60331-21:1999

**FP 300 and FP 300MI single core cable**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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<tbody>
<tr>
<td>077e/01</td>
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</table>
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

FP600S

LPCB Ref. No.
077n/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Nominal csa of conductor (mm$^2$) | Core Construction (excluding drain wire & earth) | BS 7629-1 (Incorporating Amendments Nos. 1 and 2) | LPCB Ref. No.
--- | --- | --- | ---
1.0 | 7 | Complies$^{(2)}$ | 077n/02
1.5 | 7, 12 & 19 | Complies$^{(2)}$ |
2.5 | 7 & 12 | Complies$^{(2)}$ |

Uo/U 300/500V

Notes:
1) Solid conductor only
2) In meeting the requirements of BS 7629-1: 1997 (Incorporating Amendments Nos. 1 & 2), the FP200 Gold LSOH cables listed met the requirements for smoke density of EN 61034-2, the fire resistance requirements in BS 6387: 2013 Categories CWZ and achieved less than 0.5%HCl for the outer covering, binder tape & insulation when tested in accordance with EN 50267-2-1: 1999.

Certificate No: 077b to BS 6387: 2013 and EN 50267-2-1: 1999

FP200 Gold LSOH

Nominal csa of conductor (mm$^2$) | Core Construction (excluding drain wire & earth) | BS 6387 | EN 50267-2-1 (binder tape & outer covering) | LPCB Ref. No.
--- | --- | --- | --- | ---
2.5 | 19 | C & W | <0.5% HCl | 077b/03

Uo/U 300/500V
Notes:
1) Stranded conductors only


### FP100 Fire resistant single core cable for installation in conduit

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387</th>
<th>EN 50267-2-1 (outer covering)</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>One</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td></td>
<td>077c/01</td>
</tr>
<tr>
<td>1.5</td>
<td>One</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>One</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>One</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>One</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>One</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td></td>
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</tr>
</tbody>
</table>

Uo/U 450/750V


### FP Plus Flex

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>BS 6387</th>
<th>EN 50200</th>
<th>BS 8434-2</th>
<th>BS 5839-1 Clause 26.2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2,3 &amp; 4(1)</td>
<td>ENHANCED 120(1)</td>
<td>C,W,Z</td>
<td>PH120</td>
<td>120min(1)</td>
<td>Enhanced(1)</td>
<td>077h/01</td>
</tr>
<tr>
<td>2.5</td>
<td>2,3 &amp; 4(1)</td>
<td>ENHANCED 120(1)</td>
<td>C,W,Z</td>
<td>PH120</td>
<td>120min(1)</td>
<td>Enhanced(1)</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2,3 &amp; 4(1)</td>
<td>ENHANCED 120(1)</td>
<td>C,W,Z</td>
<td>PH120</td>
<td>120min(1)</td>
<td>Enhanced(1)</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>2(1)</td>
<td>ENHANCED 120(1)</td>
<td>C,W,Z</td>
<td>PH120</td>
<td>120min(1)</td>
<td>Enhanced(1)</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500V

Notes:
1) Solid conductor only.
2) Stranded conductor only.
3) In meeting the requirements of BS 7629-1: 2015, the FP Plus Flex cables listed met the requirements for smoke density of EN 61034-2: 2005+A1:2013, and achieved less than 0.5%HCl for the insulation, binder tape and outer covering when tested in accordance with EN 60754-1:2014 and in addition also met the fire resistance requirements of BS 6387:2013 Categories CWZ.
4) The duration of 120min when tested in accordance with BS 8434-2: 2003 is achieved by 60min for the fire and mechanical shock phase and an additional 60min for the fire, mechanical shock and water phase.
5) The FP Plus Flex cables listed conform to BS 7629-1: 2015, met Class PH120 when tested in accordance with EN 50200: 2015 and met a duration of 120min when tested in accordance with BS 8434-2: 2003+A2:2009 and hence met the requirements for an enhanced fire resistant cable as described in Clause 26.2 of BS 5839-1: 2013.

Certificate No: 077j to BS 7629-1: 1997

### FP200 Gold LSOH

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>7</td>
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<td>Complies</td>
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<tr>
<td>2.5</td>
<td>7 &amp; 12</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500V

Notes:
1) Solid conductor only.
2) In meeting the requirements of BS 7629-1: 1997, the FP200 Gold LSOH cables listed met the requirements for smoke density of EN 61034-2:2005, the fire resistance requirements of BS 6387: 2013 Categories CWZ and achieved less than 0.5%HCl for the outer covering, binder tape & insulation when tested in accordance with EN 50267-2-1:1999.
3) BS 7629-1: 1997 was amended in 2004 to implement the changes to the identification of cores by colours, in accordance with the CENELEC Harmonisation Document HD 308 S2. The un-amended version of the standard was withdrawn on 31st March 2006. However, cables with the old identification colours, meeting the withdrawn version of the standard, are still requested by some regulators outside of the EU. Certification to the un-amended version of the standard has therefore been maintained, for the time being, to satisfy the requirements of those regulators.

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Certificate 077a covers cables certified in accordance with BS 7629-1: 1997 (Incorporating Amendments Nos. 1 & 2)

Certificate No: 077j to BS 7629-1: 1997

**FP200 Flex**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Complies</td>
<td>077j/02</td>
</tr>
<tr>
<td>1.5</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

**Uo/U 300/500V**

Notes:
1) Stranded conductor only.
2) In meeting the requirements of BS 7629-1: 1997, the FP200 Flex cables listed met the requirements for smoke density of EN 61034-2:2005, the fire resistance requirements of BS 6387: 2013 Categories CWZ and achieved less than 0.5%HCl for the outer covering, binder tape & insulation when tested in accordance with EN 50267-2-1:1999.
3) BS 7629-1: 1997 was amended in 2004 to implement the changes to the identification of cores by colours, in accordance with the CENELEC Harmonisation Document HD 308 S2. The un-amended version of the standard was withdrawn on 31st March 2006. However, cables with the old identification colours, meeting the withdrawn version of the standard, are still requested by some regulators outside of the EU. Certification to the un-amended version of the standard has therefore been maintained, for the time being, to satisfy the requirements of these regulators.


**FP200 Gold LSOH**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 7629-1</th>
<th>EN 50200</th>
<th>EN 50200 Annex E</th>
<th>BS 5839-1 Clause 26.2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>PH30</td>
<td>30 min Standard</td>
<td>Standard</td>
<td>077k/01</td>
</tr>
<tr>
<td>2.5</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>PH30 &amp; PH60</td>
<td>30 min Standard</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>PH30 &amp; PH60</td>
<td>30 min Standard</td>
<td>Standard</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>2, 3 &amp; 4</td>
<td>Complies</td>
<td>PH30 &amp; PH60</td>
<td>30 min Standard</td>
<td>Standard</td>
<td></td>
</tr>
</tbody>
</table>

**Uo/U 300/500V**

Notes:
1) Solid conductor only.
2) Stranded conductor only.
3) In meeting the requirements of BS 7629-1: 1997, the FP200 Gold LSOH cables listed met the requirements for smoke density of EN 61034-2:2005, the fire resistance requirements in BS 6387:2013 Categories CWZ and achieved less than 0.5%HCl for the outer covering, binder tape & insulation when tested in accordance with EN 50267-2-1:1999.
4) BS 7629-1: 1997 was amended in 2004 to implement the changes to the identification of cores by colours, in accordance with CENELEC Harmonisation Document HD 308 S2. The un-amended version of the standard was withdrawn on 31st March 2006. However, cables with the old identification colours, meeting the withdrawn version of the standard, are still requested by some regulators outside of the EU. Certification to the un-amended version of the standard has therefore been maintained, for the time being, to satisfy the requirements of these regulators.
5) The duration of 30 min when tested in accordance with EN 50200:2006 Annex E is achieved by 15 min for the fire and mechanical shock phase and a further 15 min for the fire, mechanical shock and water phase.
6) The FP200 Gold LSOH cables listed conform to BS 7629-1:1997, met Class PH30 when tested in accordance with EN 50200:2006 and met the 30min duration when tested in accordance with EN 50200:2006 Annex E and hence met the requirements for a standard fire resistant cable as described in Clause 26.2 of BS 5839-1:2013

Certificate 077l covers cables certified in accordance with BS 7629-1:2008.


**FP100 LSOH**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction (see note 1)</th>
<th>BS 6387</th>
<th>EN 50267-2-1</th>
<th>EN 61034-2</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>C.W.Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>077p/01</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>C.W.Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>C.W.Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>Complies</td>
<td></td>
<td></td>
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</tbody>
</table>
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction (see note 1)</th>
<th>BS 6387</th>
<th>EN 50267-2-1</th>
<th>EN 61034-2</th>
<th>IEC 60331-21</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>One</td>
<td>C.W.Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>One</td>
<td>C.W.Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:

1. Stranded conductor only.
2. Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
3. To satisfy the requirement of BS 6387:2013, for Categories C,W,Z, testing was conducted using a 20mm stainless steel conduit as the other metallic element.
4. The FP100 LSOH cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C for a duration of 90mins + 15mins cool down, at a voltage rating of 600V.

Prysmian Cables & Systems Limited
Energy Cables Unit, Wrexham Industrial Estate, Wrexham LL13 9PH, United Kingdom
Tel: +44 (0)1978 662345 • Fax: +44 (0)1978 662292
E-mail: cables.marketing.uk@prysmian.com • Website: www.prysmian.co.uk


**FP400 Fire Resistant Cable**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>517b/01</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FP300 Single Core LSZH Cable**

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>517a/01</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FP600S**

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<tr>
<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FP300MI**

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

20 Oct 2020
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FIRE RESISTANT CABLES

PYRONEX ELECTRICAL EQUIPMENT TRADING
PO Box 6473, Dubai, United Arab Emirates
Tel: +9714 3362646
E-mail: sales@firenixcables.com • Website: www.pyronexfire.com


FIRENIX PH 120

| LPCB Ref. No. | FIRENIX PH 120
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


FIRENIX BASIC

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FIRENIX PH120 Enhanced

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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Qatar International Cables Company (QICC - Nexans)
PF 65 Light Industrial St., 707, Umm Mesaieed Area, P O Box 15991, Doha, Qatar
Tel: +974 4408 5119 • Fax: +974 4467 3230
E-mail: lotfi.ouerghi@nexans.com • Website: www.nexans.qa


ALSECURE PLUS NX400

<table>
<thead>
<tr>
<th>Nominal csa of Conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>BS 7846</th>
<th>IEC 60331-21</th>
<th>EN 50267-2-3</th>
<th>LPCB Ref. No.</th>
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<td>Complies</td>
<td>1262b/01</td>
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</tr>
<tr>
<td>25 2, 3 &amp; 4</td>
<td>FZ&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 2, 3 &amp; 4</td>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
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</tr>
<tr>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
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<tr>
<td>70 2, 3 &amp; 4</td>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
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<tr>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
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</tr>
<tr>
<td>120 2, 3 &amp; 4</td>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
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</tr>
<tr>
<td>150 2, 3 &amp; 4</td>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
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<tr>
<td>240 2, 3 &amp; 4</td>
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<td>300 2, 3 &amp; 4</td>
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<td>Complies&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Uo/U 600/1000V

Notes:
1. Stranded conductor only.
2. Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
3. To satisfy the requirement of BS 6387, testing for Category C was conducted using a 38mm stainless steel conduit as the other metallic element.
4. To satisfy the requirement of BS 6387, testing for Categories W and Z was conducted using a 20mm stainless steel conduit as the other metallic element.
5. The ALSECURE PLUS NX300 cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 850°C for a duration of 90mins + 15mins cool down, at a voltage rating of 600V.


ALSECURE PLUS NX300

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>16</td>
<td>One</td>
<td>-</td>
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<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td>1262c/01</td>
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<tr>
<td>25</td>
<td>One</td>
<td>-</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
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<tr>
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<td>One</td>
<td>CWZ 1A</td>
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<td>Complies</td>
<td>&gt;60%</td>
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<td>CWZ 1A</td>
<td>&lt;0.5% HCI</td>
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<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>One</td>
<td>C 3)</td>
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<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
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<td>Complies</td>
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<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
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<tr>
<td>185</td>
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<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
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<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
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<tr>
<td>300</td>
<td>One</td>
<td>C 3)</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>One</td>
<td>-</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>One</td>
<td>-</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>630</td>
<td>One</td>
<td>-</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>800</td>
<td>One</td>
<td>-</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V
Notes:
1. Stranded conductor only.
2. In meeting the requirements of BS 7846:2009 Category F2, the ALSECURE PLUS NX400 cables met the requirements for smoke density to EN 61034-2:2005, fire resistance to BS 6387:2013 CWZ and achieved less than 0.5%HCl on the insulation, tapes, filler, bedding and outer covering when tested in accordance with EN 50267-2-1:1999.
3. The ALSECURE PLUS NX400 cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 850°C for a duration of 90mins + 15mins cool down, at a voltage rating of 600V.


ALSECURE PLUS NX100

| LPCB Ref. No. | 1262a/01 |

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
PART 1: SECTION 8.1
FIRE RESISTANT CABLES


ALSECURE PLUS NX600

<table>
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<tr>
<th>LPCB Ref. No.</th>
<th>1262d/01</th>
</tr>
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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Rafic Gazzaoui & Co S. A. L.
Ramlet El-Bayda, Venezuela Street, Jamil Ibrahim Building, Beirut 20471504, Lebanon
Tel: +961 185 5888 • Fax: +961 185 8555
E-mail: Mohamad.wadi@gazzaoui.com.lb • Website: www.gazzaoui.com


GAMMAFIRECRO-F3-FIRE RESISTANT Cable

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>568a/02-(cl-9)</th>
</tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

RAMCRO S.p.A.
Via Marzorati, 15 - 20014 Nerviano, Milan, Italy
Tel: +39 0331 406511 • Fax: +39 0331 406559
E-mail: ramcro@ramcro.it • Website: www.ramcro.it


<table>
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<tr>
<th>LPCB Ref. No.</th>
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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Ramfirecro-F3 FIRE SAFE

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Ramfirecro-F3 FIRE PLANET

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<td>568e/01</td>
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Ramfirecro-F3 FIRE GROUND

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Ramfirecro-F3 Standard FIRE SUN

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Ramfirecro-F3 FIRE STAR

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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Riyadh Cables Group
2nd Industrial City, Al Khair Road, Street No. 175, 3rd Lane Zone D, Riyadh, Kingdom of Saudi Arabia
Tel: 00 966 11 265 0850
E-mail: technical@riyadh-cables.com • Website: www.riyadh-cables.com


<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1482b to BS 7846:2015 Cat F2

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Shakun Polymers Limited
(Cable Division), Plot No. 4, Silver Industrial Estate, Bhimpore, Patalia Road, Daman 396 210, India
Tel: +91 260 222 1538 • Fax: +91 260 222 1199
E-mail: technical@shakunpolymers.com • Website: www.shakuncables.com


<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>978d/01</th>
</tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
Shenzhen Lilutong Technology Industry Co Ltd
No. 83 Pingxin North Road, Pinghu, Shenzhen 518111, China
Tel: +0086 755 89636 160 • Fax: +0086 755 84693 195
E-mail: huang@lltcable.com • Website: http://www.lltsecurity.com/


LLT-FR Multi-Core Cables

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>1383b/01</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


LLT-FR Multi-Core Cables

<table>
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<tr>
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</tr>
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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Shield Fire, Safety & Security Ltd
Genesis, Unit 3, Endeavour Drive, Basildon SS14 3WF, United Kingdom
Tel: 01708 377 731 • Fax: 01708 347 637
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com


SH-FRC

<table>
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<tr>
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Shield-UK Premium

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PART 1: SECTION 8.1
FIRE RESISTANT CABLES


Shield-UK Special

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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

SHIELD FIRE, SAFETY AND SECURITY LTD
Redburn House, 2a Tonbridge Road, Romford, Essex RM3 8QE, United Kingdom
Tel: +44 207 712 1610 • Fax: +44 207 712 1578
E-mail: shielduk@shieldglobal.com • Website: www.shieldglobal.com


Shield-UK

<table>
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<tr>
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</tr>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Tai Sin Electric Limited
24 Gul Crescent, Jurong Town 629531, Singapore
Tel: 65 6672 9292 • Fax: 65 6861 4084
E-mail: yoononn@taisin.com.sg • Website: www.taisin.com.sg


FR-XH110

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


FR-H110

<table>
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786 20 Oct 2020
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

TecniKabel S.p.A.
Via Brandizzo 243, 10088 Volpiano (TO), Italy
Tel: +39 011 995 19 97 • Fax: +39 011 995 30 62
E-mail: clerici@tecnikabel.it • Website: www.tecnikabel.it


TK FR 30 Standard

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 6387</th>
<th>EN 50267-2-1</th>
<th>EN 61034-2</th>
<th>EN 50200</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5⁽¹⁾</td>
<td>2, 3 &amp; 4</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>PH30</td>
<td>1352b/01</td>
</tr>
<tr>
<td>0.75⁽¹⁾</td>
<td>2, 3 &amp; 4</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>PH30</td>
<td></td>
</tr>
<tr>
<td>1.0⁽¹⁾</td>
<td>2, 3 &amp; 4</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>PH30</td>
<td></td>
</tr>
<tr>
<td>1.5⁽¹⁾</td>
<td>2, 3 &amp; 4</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>PH30</td>
<td></td>
</tr>
<tr>
<td>2.5⁽²⁾</td>
<td>2, 3 &amp; 4</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>PH30</td>
<td></td>
</tr>
<tr>
<td>4.0⁽²⁾</td>
<td>2, 3 &amp; 4</td>
<td>C, W, Z</td>
<td>&lt;0.5% HCl</td>
<td>&gt;60%</td>
<td>PH30</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500

Notes:
1. Solid conductor only.
2. Stranded conductor only.


TK FR 120 Enhanced

<table>
<thead>
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<th>LPCB Ref. No.</th>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


TOL6xD 48 4(12 LWP) VH9M

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


TOL8xD 96 8(12 LWP) VH9M

<table>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Certificate No: 1352g to BS 7629-1:2015 Enhanced 120 BS 6387:2013 (Category CWZ) BS 5839-1:2013 Clause 26.2e

TK Flexible Extreme Fire Safety Cable

<table>
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PART 1: SECTION 8.1
FIRE RESISTANT CABLES

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**TK Prime Fire Resistant Cable**

LPCB Ref. No. 1352c/01


**TK Supreme Fire Resistant Cable**

LPCB Ref. No. 1352d/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

**Tekab Co. LLC**
Industrial Area No. 13, PO Box 40474, Sharjah, United Arab Emirates
Tel: 0097 165 034 900
E-mail: Hazem.Khalil@tekab.com • Website: www.tekab.com


**Firetek**

LPCB Ref. No. 1517b/01


**Firetek Plus**

LPCB Ref. No. 1517a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

**Teksfera Mechanical and Engineering Trading LLC**
P O Box 122362, Dubai, United Arab Emirates
Tel: 00 971 423 40 880
E-mail: nisham@teksfera.com


**nTek Fire Resistant Cables**

LPCB Ref. No. 1383b/01-(cl-6)
A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

TELE-FONIKA kable S.A.
ul. Hipolita Cegielskiego 1, Myslenice 32400, Poland
Tel: +48 12 652 00 00 • Fax: +48 12 652 51 56
E-mail: robert.slapak@tfkable.com • Website: www.tfkable.com

Certificate No: 1354a to BS 7846:2009 F2 & F120 and BS 8491:2008

### FLAME-X 950 SERIES 6

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>BS 7846</th>
<th>BS 8491</th>
<th>LPCB Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>10 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>120 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>150 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>16 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>185 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 MIN</td>
</tr>
<tr>
<td>240 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 MIN</td>
</tr>
<tr>
<td>250 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>300 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 MIN</td>
</tr>
<tr>
<td>350 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>4.0 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>400 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 MIN</td>
</tr>
<tr>
<td>500 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>6.0 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>700 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
<tr>
<td>95 (1)</td>
<td>3 &amp; 4</td>
<td>F2 (2)</td>
<td>F120 (3)</td>
<td>120 Min</td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1. Stranded conductor only.
2. In meeting the requirements of BS 7846:2009 Category F2, the FLAME-X 950 SERIES 6 cables met the requirements for smoke density to EN 61034-2:2005, fire resistance to BS 6387:2013 CWZ and achieved less than 0.5% HCI on the insulation, tapes, filler, bedding and outer covering when tested in accordance with EN 50267-2-1:1999.
3. In meeting the requirements of BS 7846:2009 Category F120, the FLAME-X 950 SERIES 6 cables listed met the requirements for 120 minutes fire resistance to BS 8491:2008.

Certificate No: 1354c to BS 7846:2009 Category F2

<table>
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<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 7846</th>
<th>LPCB Ref. No.</th>
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<td>1.5</td>
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<td>F2 (1)</td>
<td>1354c/01</td>
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<td>2.5</td>
<td>2, 3 &amp; 4 (1)</td>
<td>F2 (1)</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3 &amp; 4 (1)</td>
<td>F2 (1)</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>2, 3 &amp; 4 (1)</td>
<td>F2 (1)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>2, 3 &amp; 4 (1)</td>
<td>F2 (1)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>2, 3 &amp; 4 (1)</td>
<td>F2 (1)</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000 V

1. Stranded conductors only.
2. In meeting the requirements to BS 7846:2009 Category F2, the FLAME-X 950 SERIES 4 cables listed met the requirements for smoke density of EN 61034-2:2005, fire resistance requirements to BS 6387:2013 Categories CWZ and achieved less than 0.5%HCI for the insulation, tapes, bedding and outer covering when tested in accordance with EN 50267-2-1:1999.

## PART 1: SECTION 8.1
### FIRE RESISTANT CABLES

<table>
<thead>
<tr>
<th>Nominal CSA of conductor (mm²)</th>
<th>Core Construction (excluding drain wire &amp; earth)</th>
<th>BS 6387</th>
<th>EN 60754-1</th>
<th>IEC 61034-2</th>
<th>IEC 60331-21</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>One CWZ (2, 3 &amp; 4)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td>1354b/01</td>
</tr>
<tr>
<td>35</td>
<td>One CWZ (2, 3 &amp; 4)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>One CWZ (2, 3 &amp; 4)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>One C³ (3)</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>One -</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>One -</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>630</td>
<td>One -</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>800</td>
<td>One -</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>One -</td>
<td>&lt;0.5%</td>
<td>&gt;60%</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U/o/U 600/100V

**Notes:**
1. Stranded conductor only.
2. Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
3. To satisfy the requirement of BS 6387, testing for C & W categories was conducted using a 38mm stainless steel conduit as the other metallic element.
4. To satisfy the requirement of BS 6387, testing for Z categories were conducted using a 20mm stainless steel conduit as the other metallic element.
5. The FLAME-X 950 SERIES 3 cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950˚C for a duration of 90mins at a voltage rating of 600V.


**Flame-X 950 Series 3**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1354d/01</td>
</tr>
</tbody>
</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


**FLAME-X 950 SERIES 2**

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>1354e/01</td>
</tr>
</tbody>
</table>

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### PART 1: SECTION 8.1
FIRE RESISTANT CABLES


**FLAME-X 950 SERIES 2E**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 6387 (See Notes 2, 6 &amp; 7)</th>
<th>EN 50267-2-1</th>
<th>IEC 60331-21 (See Note 8)</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>One(1)</td>
<td>C, W, Z(2, 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td>814c/01</td>
</tr>
<tr>
<td>2.5</td>
<td>One(1)</td>
<td>C, W, Z(2, 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>One(1)</td>
<td>C, W, Z(2, 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>One(1)</td>
<td>C, W, Z(2, 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>One(1)</td>
<td>C, W, Z(2, 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>One(1)</td>
<td>C, W, Z(3, 4 &amp; 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>One(1)</td>
<td>C, W, Z(3, 4 &amp; 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>One(1)</td>
<td>C, W, Z(3, 4 &amp; 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>One(1)</td>
<td>C, W, Z(3, 4 &amp; 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>One(1)</td>
<td>C, W, Z(3, 4 &amp; 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>One(1)</td>
<td>C, W, Z(3, 4 &amp; 5)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>One(1)</td>
<td>C(5, 9)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>One(1)</td>
<td>C(5, 9)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>One(1)</td>
<td>C(5, 9)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>One(1)</td>
<td>C(5, 9)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>One(1)</td>
<td>C(5, 9)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>One(1)</td>
<td>C(5, 9)</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>One(1)</td>
<td>-</td>
<td>&lt;0.5%HCl</td>
<td>Complies(6)</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

Notes:
1) Stranded conductor only.
2) To satisfy the requirement of BS 6387, testing for C, W & Z categories were conducted using a 20mm stainless steel conduit as the other metallic element.
3) To satisfy the requirement of BS 6387, testing for C category was conducted using a 38mm stainless steel conduit as the other metallic element.
4) To satisfy the requirement of BS 6387, testing for W & Z categories were conducted using a 20mm stainless steel conduit as the other metallic element.
5) Where a single cable is fitted in a conduit, only phase to earth voltage was applied.
6) These cables met the requirements of IEC 60331-21: 1999 when tested at a temperature of 950°C and at a voltage rating of 600V.

Certificate No: 814d to BS 7846:2009 Category F2

**FLAME-X 950 SERIES 4**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction</th>
<th>BS 7846</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td>814d/01</td>
</tr>
<tr>
<td>2.5</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>2, 3 &amp; 4</td>
<td>F2(2)</td>
<td></td>
</tr>
</tbody>
</table>
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

### Nominal CSA of Conductor (mm²) | Core Construction | BS 7846 | LPCB Ref. No.
--- | --- | --- | ---
185(1) | 2, 3 & 4 | F2(2) |
240(1) | 2, 3 & 4 | F2(2) |
300(1) | 2, 3 & 4 | F2(2) |
400(1) | 2, 3 & 4 | F2(2) |

Uo/U 600/1000V

Notes:
1) Stranded conductor only.
2) In meeting the requirements of BS 7846:2009 Category F2, the FLAME-X SERIES 4 cables listed met the requirements for fire resistance characteristics Category CWZ specified in BS 6387:2013.

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Tianjin Pro Made Fire Equipment Company Limited
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E-mail: info@tpmcsteel.com • Website: www.tpmcsteel.com


---

TPMC C04-FR Multi-Core Cables

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1383a/01</td>
</tr>
</tbody>
</table>

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Turk Prysmian Kablo ve Sistemleri A.S.
Omerbey Mah, Bursa Asfalti Cad. No: 51, 16941 Mudanya, Bursa, Turkey
Tel: 00 90 224 270 3000 • Fax: 0090 224 270 3030
E-mail: tpks@prysmiangroup.com • Website: www.prysmian.com.tr


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AFUMEX NHXMH

<table>
<thead>
<tr>
<th>Nominal CSA of Conductor (mm²)</th>
<th>Core Construction</th>
<th>EN 60332-1-2</th>
<th>EN 60332-3-24</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3 (see note 3)</th>
<th>EN 61034-2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5(1)</td>
<td>2, 3, 4 &amp; 5</td>
<td>Complies</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td>1151a/01</td>
</tr>
<tr>
<td>10(1)(2)</td>
<td>2, 3, 4 &amp; 5</td>
<td>Complies</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
</tr>
<tr>
<td>16(1)(2)</td>
<td>2, 3, 4 &amp; 5</td>
<td>Complies</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
</tr>
<tr>
<td>2.5(1)</td>
<td>2, 3, 4 &amp; 5</td>
<td>Complies</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
</tr>
<tr>
<td>4.0(1)</td>
<td>2, 3, 4 &amp; 5</td>
<td>Complies</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
</tr>
<tr>
<td>6.0(1)</td>
<td>2, 3, 4 &amp; 5</td>
<td>Complies</td>
<td>Complies</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 300/500V

Notes:
1. Solid conductor only.
2. Stranded conductor only.
3. In achieving a weighted average of pH greater than 4.3 and a weighted average of Conductivity less than 10µS/mm on the constituent materials when tested in accordance with BS EN 50267-2-3: 1999, the AFUMEX NHXMH cables listed also met the requirements of BS EN 50267-2-2: 1999.
### PART 1: SECTION 8.1

**FIRE RESISTANT CABLES**


**AFUMEX H07Z1**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core construction</th>
<th>BS EN 60332-1-2</th>
<th>BS EN 60332-3-24</th>
<th>BS EN 50267-2-1</th>
<th>BS EN 50267-2-3 (see note 4)</th>
<th>BS EN 60134-2</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td>1151b/01</td>
</tr>
<tr>
<td>2.5 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>150 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>185 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240 One (3)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
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<td></td>
</tr>
<tr>
<td>150 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>185 One (2)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>240 One (2)</td>
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<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 One (1)</td>
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<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5 One (1)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
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</tr>
<tr>
<td>4.0 One (1)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0 One (1)</td>
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<td>Complies</td>
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<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 One (1)</td>
<td>Complies</td>
<td>Complies</td>
<td>0.5% HCI</td>
<td>Complies</td>
<td>&gt;60%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_Uo/U 450/750V_

**Notes:**

1. Solid (Class 1) conductor.
2. Stranded (Class 2) conductor.
3. Flexible (Class 5) conductor.
4. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with BS EN 50267-2-3: 1999, the AFUMEX H07Z1 cables listed also met the requirements of BS EN 50267-2-2: 1999.


**AFUMEX N2XH FE 180**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>IEC 60331-21</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 One</td>
<td>&gt;60%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1151c/01</td>
</tr>
<tr>
<td>120 One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150 One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16 One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185 One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

20 Oct 2020 793
## PART 1: SECTION 8.1

FIRE RESISTANT CABLES

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm$^2$)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>IEC 60331-21</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>7.0</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
1. Solid conductor only.
2. Stranded conductor only.
3. The AFUMEX N2XH FE 180 cables met the requirements of IEC 60331-21:1999 when tested at a temperature of 750°C for a duration of 180mins at a voltage rating of 600/1000V.
4. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the AFEMEX N2XH FE 180 cables listed also met the requirements of EN 50267-2-2:1999.
5. The AFUMEX N2XH FE 180 cables listed also met the requirements of EN 60332-1-2:2004.

### AFUMEX N2XH FE 180

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm$^2$)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>IEC 60331-21</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>2, 3, 4, 5, 7, 10, 12, 14 &amp; 16</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td>1151c/01</td>
</tr>
<tr>
<td>10$^2$</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16$^2$</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>2, 3, 4, 5, 7, 10, 12, 14 &amp; 16</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>7.0</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
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</tr>
<tr>
<td>95</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
1. Solid conductor only.
2. Stranded conductor only.
3. The AFUMEX N2XH FE 180 cables met the requirements of IEC 60331-21:1999 when tested at a temperature of 750°C for a duration of 180mins at a voltage rating of 600/1000V.
4. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the AFEMEX N2XH FE 180 cables listed also met the requirements of EN 50267-2-2:1999.
5. The AFUMEX N2XH FE 180 cables listed also met the requirements of EN 60332-1-2:2004.
### PART 1: SECTION 8.1

**FIRE RESISTANT CABLES**


**AFUMEX N2XH FE 180**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>IEC 60331-21</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/70</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td>1151c/01</td>
</tr>
<tr>
<td>150/70</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16/10</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185/95</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240/120</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25/16</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35/16</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50/25</td>
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<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70/35</td>
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<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
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</tr>
<tr>
<td>95/50</td>
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<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

**Uo/U 600/1000V**

**Notes:**
1. Solid conductor only.
2. Stranded conductor only.
3. The AFUMEX N2XH FE 180 cables met the requirements of IEC 60331-21:1999 when tested at a temperature of 750°C for a duration of 180mins at a voltage rating of 600/1000V.
4. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the AFUMEX N2XH FE 180 cables listed also met the requirements of EN 50267-2-2:1999.
5. The AFUMEX N2XH FE 180 cables listed also met the requirements of EN 60332-1-2:2004.


**AFUMEX N2XH**

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>EN 60332-3-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td>1151d/01</td>
</tr>
<tr>
<td>120</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
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</tr>
<tr>
<td>150</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5 HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
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</tr>
<tr>
<td>70</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>One</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCI</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

**Uo/U 600/1000V**

**Notes:**
1. Solid conductor only.
2. Stranded conductor only.
3. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10μS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the AFEMEX N2XH cables listed also met the requirements of EN 50267-2-2:1999.
4. The AFUMEX N2XH cables listed also met the requirements of EN 60332-1-2:2004.


### AFUMEX N2XH

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>EN 50267-2-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>2, 3, 4, 5, 7, 10, 12, 14 &amp; 16</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>1151d/01</td>
</tr>
<tr>
<td>10 [2)</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16 [2]</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>185</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>2, 3, 4, 5, 7, 10, 12, 14 &amp; 16</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>2, 3, 4 &amp; 5</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>4</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

**Notes:**
1. Solid conductor only.
2. Stranded conductor only.
3. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10μS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the AFEMEX N2XH cables listed also met the requirements of EN 50267-2-2:1999.
4. The AFUMEX N2XH cables listed also met the requirements of EN 60332-1-2:2004.


### AFUMEX N2XH

<table>
<thead>
<tr>
<th>Nominal csa of conductor (mm²)</th>
<th>Core Construction (excluding drain wire and earth)</th>
<th>EN 61034-2</th>
<th>EN 50267-2-1</th>
<th>EN 50267-2-3</th>
<th>EN 50267-2-24</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/70</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td>1151d/01</td>
</tr>
<tr>
<td>150/70</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>16/10</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>165/95</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>240/120</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>25/16</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>35/16</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>50/25</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>70/35</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>95/50</td>
<td>3</td>
<td>&gt;60%</td>
<td>&lt;0.5% HCl</td>
<td>Complies</td>
<td>Complies</td>
<td></td>
</tr>
</tbody>
</table>

Uo/U 600/1000V

**Notes:**
1. Solid conductor only.
2. Stranded conductor only.
3. In achieving a weighted average of pH greater than 4.3 and a weighted average of conductivity less than 10µS/mm on the constituent materials when tested in accordance with EN 50267-2-3:1999, the AFEMEX N2XH cables listed also met the requirements of EN 50267-2-2:1999.

4. The AFUMEX N2XH cables listed also met the requirements of EN 60332-1-2:2004.

Union Cable Company Ltd
Unit 15, Faraday Road, Astmoor Industrial Estate, Runcorn, Cheshire WA7 1QF, United Kingdom
Tel: +44 (0)1928 577 418 • Fax: +44 (0)1928 581 099 jim@unioncable.co.uk
E-mail: sales@unioncable.co.uk • Website: www.unioncable.co.uk


Firetrax Xcel

LPCB Ref. No.
682d/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


Firetrax Gold

LPCB Ref. No.
682a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Ventcroft Limited
Faraday Road, Astmoor Industrial Estate, Runcorn, Cheshire WA7 1PE, United Kingdom
Tel: +44 (0)1928 581098 • Fax: +44 (0)1928 581099
E-mail: sales@ventcroft.co.uk • Website: www.ventcroft.co.uk


NoBurn Platinum

LPCB Ref. No.
682a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


NoBurn Plus

LPCB Ref. No.
682d/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
PART 1: SECTION 8.1
FIRE RESISTANT CABLES


NoBurn XPS

LPCB Ref. No.
682e/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


NoBurn XP

LPCB Ref. No.
682c/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com

Wrexham Mineral Cables

Wynnstay Technology Park, Ruabon, Wrexham, Clwyd LL14 6EN, United Kingdom
Tel: +44 (0)1978 810789 • Fax: +44 (0)1978 821502
E-mail: sales@wrexhammineralcable.com • Website: www.wrexhammineralcables.com


Wrexham Mineral Insulated Cables

LPCB Ref. No.
333a/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com

Yilu Wire and Cable Technology Co., Ltd

Da Songshu Ling, Xiekeng Village, Qingxi Town, Dongguan, Guangdong Province 523652, China
Tel: +86 1382 6492 897
E-mail: yilucable@gmail.com


YILUFR Cables

LPCB Ref. No.
1383b-(cl-3)/01

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
PART 1: SECTION 8.1
FIRE RESISTANT CABLES

Yuyao Lintong Electric Appliance Industrial Co. Limited
Macao Tou, Mazhu Town, Yuyao City, Zhejiang, Ningbo Yuyao 315453, China
Tel: 0086 574 626 40019 • Fax: 0086 574 626 48268
E-mail: good2@chinalingtong.com • Website: www.chinalingtong.com

Certificate No: 1443a to BS 7629-1:2015 Standard 60

<table>
<thead>
<tr>
<th>LPCB Ref. No.</th>
<th>1443a/01</th>
</tr>
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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
This section lists fire retardant cables for use in fire safety, fire detection and fire alarm systems and other applications where specifications require cables with specific performance in the event of a fire.

Flame retardant cables are designed with the objective of limiting the generation and spread of fire and smoke.

The below list is typical of the standards to which apply to fire retardant cables:

- EN 50267-2-1: Common test method for cables under fire conditions - tests on gases evolved during combustion of materials from cables - procedures - Determination of the amount of halogen acid gas
- EN 50267-2-3: Common test methods for cables under fire conditions - Tests on gases evolved during combustion of materials from cables - Procedure 2-3: Procedures - Determination of degree of acidity of gases for cables by determination of the weighted average of pH and conductivity
- EN 60332-3: Tests on electric and optical fibre cables under fire conditions - Part 3: Test for vertical flame spread of vertically mounted bunched wires or cables
- EN 61034-2: Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements (IEC 61034-2)
- EN 61034-2: Measurement of smoke density of cables burning under defined conditions
- IEC 60754-1: Tests on gases evolved during combustion of materials from cables - Part 1: Determination of the amount of halogen acid gas
- IEC 60754-2: Tests on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
- IEC 61034-2 Measurement of smoke density of cables burning under defined conditions
- IEC 60332-2-22 Tests on electric cables under fire conditions Part 3: test for vertical flame spread of vertically-mounted bunched wires or cables Section 22: category A
- IEC 60332-2-23 Tests on electric cables under fire conditions Part 3: test for vertical flame spread of vertically-mounted bunched wires or cables Section 23: category B
- IEC 60332-2-24 Tests on electric cables under fire conditions Part 3: test for vertical flame spread of vertically-mounted bunched wires or cables Section 24: category C
- IEC 60332-2-25 Tests on electric cables under fire conditions Part 3: test for vertical flame spread of vertically-mounted bunched wires or cables Section 25: category D
- EN 60332-1-2, Reaction to fire, Tests on electric and optical fibre cables under fire conditions – Part 1 – 2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW premixed flame

---

**LEONI Studer AG**
Herrenmattstr. 20, CH 4658 Däniken, Switzerland
Tel: +41 62 288 82 82 • Fax: +41 62 288 83 83
E-mail: sales-export@leoni.com • Website: www.leoni.com

Certificate No: 896h to EN/IEC 60332-3-24 EN/IEC 61034-2 EN/IEC60754-1 EN/IEC 60332-1-2

<table>
<thead>
<tr>
<th>Product Name</th>
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</thead>
<tbody>
<tr>
<td>BETAflam FRT-MI90 SCSI Cable</td>
<td>896h01</td>
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<tr>
<td>BETAflam FRT-MI90 SCDI Cable</td>
<td>896h02</td>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
PART 1: SECTION 8.2
FIRE RETARDANT CABLES

MCI-Draka Cable Co. Ltd
2/7 Moo 2, Banbung-Bankhai Road, KM 57 Nongbua, Bankhai Rayong 22110, Thailand
Tel: +66 3896 1158 60
E-mail: hatthakrit.klinjan@prysmiangroup.com • Website: www.prysmiangroup.com


<table>
<thead>
<tr>
<th>Product Name</th>
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<tr>
<td>CU/LSHF</td>
<td>1614a/01</td>
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A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


<table>
<thead>
<tr>
<th>Product Name</th>
<th>LPCB Ref. No.</th>
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<td>MAX-FOH</td>
<td>1614b/01</td>
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</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com


<table>
<thead>
<tr>
<th>Product Name</th>
<th>LPCB Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX-FOH (i)</td>
<td>1614c-01</td>
</tr>
</tbody>
</table>

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the certificate link in the associated entry on www.RedBookLive.com
This section lists Alarm Receiving Centres approved to LPS 1020 Requirements for Alarm Receiving Centres and those certified to the requirements of BS 5979 Code of Practice for Remote Centres Receiving Signals from Security Systems.

The Fire Service’s 'Model Agreement' between the Fire and Rescue authorities and users of remotely monitored fire alarm systems calls for third party certification of both the installer and the Alarm Receiving Centre (ARC).

The LPCB approval scheme based on the criteria of LPS 1020 when used in conjunction with BS 5979 provides the means to achieve the alarm receiving centre requirement of the model agreement. Third party certification of the installer can be achieved via the LPCB’s scheme for installers based, on the requirements of LPS 1014 Requirements for certificated fire detection and alarm systems firms.

For further details of the ‘Model Agreement’ contact:-

The Chief Fire Officers’ Association
9-11 Pebble Close
Amington
Tamworth
Staffordshire
B77 4RD
Tel: +44 (0) 1827 302 300

Since the Alarm Receiving Centres must have links to the appropriate fire brigade mobilisation centres, the list includes details of the fire authority areas for which they are approved.

LPS 1020 is in the process of being revised. Please check www.RedBookLive.com for updates.

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EMCS - East Midlands Central Station Limited
Waterside House, Tissington Close, Chilwell, Nottingham NG9 6QG, United Kingdom
Tel: +44 (0)844 80 999 80 • Fax: +44 (0)844 80 999 70
E-mail: admin@emcs.co.uk • Website: www.emcs.co.uk

Certificate No. CFSA 017 to LPS 1020 Issue 2.1

Alarm receiving equipment: BT Redcare (Incorporating Classic,GSM,AGILE and ASSURE), CSL Dualcom, Emizon21, Webway One Digital Communicators, (Point Id and SIA communication Protocols) CCTV - Adpro, DM and VDT.


---

National Monitoring (Prop. AVR Group Limited)
Units 16/24, Attenburys Park Estate, Attenburys Lane, Timperley, Cheshire WA14 5QE, United Kingdom
Tel: (0)333 222 3998

Certificate No. CFSA008 to LPS 1020

Alarm receiving equipment: Telecom Red CARE System.

Approved fire authority areas of operation:
PART 1: SECTION 9
ALARM RECEIVING CENTRES

Norfolk, Northamptonshire, Northern Ireland, Nottinghamshire, North Yorkshire, Shropshire, South Yorkshire, Staffordshire, Suffolk, Surrey, Tyne and Wear Warwickshire, West Glamorgan, West Midlands, West Yorkshire, Strathclyde.

Southern Monitoring Services Limited
Security House, 212-218, London Road, Waterlooville, Hampshire PO7 7AJ, United Kingdom
Tel: +44 (0)844 871 2223 • Fax: +44 (0)870 243 330

Certificate No. CFSA003 to LPS 1020

Alarm receiving equipment: Telecom Red CARE System.

Approved fire authority areas of operation:
This section of the Red Book lists alarm transmission and fault warning routing equipment suitable for use with fire alarm systems as defined by Figure 1 of EN 54-1: 1996 *Fire detection and fire alarm systems Part 1*.

Alarm transmission equipment suitable for use with intruder alarm and hold-up systems is listed in Volume 2, Part 4, Section 1.2 of the Red Book.

Where alarm transmission equipment may be suitable for use with both fire alarm systems and intruder alarm and hold-up systems the entry for the approved equipment will appear in Volume 1, Part 1, Section 10 and Volume 2, Part 4, Section 1.2 of the Red Book.

Where appropriate, reference is made to published standards and the following standards are currently used for the approval schemes:

- EN 54-21: 2006 *Fire detection and fire alarm systems - Part 21: Alarm transmission and fault warning routing equipment*
- LPS 1277 *Requirements for LPCB Approval and listing of Alarm Transmission Equipment*

EN 54-21: 2006 EN 54-21:2006 is an EU harmonised standard addressing the provisions of the Construction Products Regulation

ANNEX ZA of EN 54-21 states that for CE marking purposes it is not necessary to test the alarm transmission and fault warning routing equipment performance characteristics in conjunction with the transmission networks to confirm the claimed transmission parameters D, M, T, A, S, and I. These parameters are however described in the EN 54-21 normative ANNEX A and may be tested as an option. Unless otherwise stated, LPCB approval to EN 54-21 confirms that the routing equipment meets only those requirements of ANNEX ZA relating to the operational and environmental reliability of the item(s) located within the protected premises.

Whereas LPS 1277 includes criteria for both fire and security systems that specifically requires the alarm transmission and fault warning routing equipment to be tested in conjunction with the appropriate transmission networks, particular emphasis is placed on the verification of manufacturers’ claims by measuring alarm transmission times over the transmission path(s) between the equipment under test and the corresponding alarm receiving centre. The response to the reporting of fault conditions is measured in a similar way. The results of these measurements are expressed in terms of alarm transmission system (ATS) performance criteria classification, using the parameters D, M, T and where applicable S and I.

Where,

\[D=\text{Transmission time classification}\]
\[M=\text{Transmission time maximum values}\]
\[T=\text{Fault reporting time classification}\]
\[S=\text{Substitution Security}\]
\[I=\text{Information Security}\]

Availability is considered a key parameter under LPCB approval and is therefore included within the requirements of LPS 1277 and the resultant performance is expressed using the parameter ‘A’ for Availability.

To assist specifiers in their selection of the products most appropriate for protecting their risks, the LPCB enhanced performance ratings are included with the product listing entry in the Redbook as an indicator of the level of performance that can be expected from the alarm transmission system.

Products approved to LPS 1277 Issue 3.0 encompass all of the requirements of EN 54-21 and products tested and approved by the LPCB will have met the compliance criteria of EN 54-21 in full. It is therefore recommended that alarm transmission and fault warning routing equipment be approved to LPS 1277 where possible.

Compliance with relevant safety standards and applicable mandatory directives is a pre-requisite of LPCB approval and listing. Regular product auditing and regular factory inspections are carried out by LPCB to ensure high manufacturing standards and continued compliance with the applicable product standard.
Notes:
Since the LPCB uses national and international standards for the listing of products, in some instances the requirements of these standards may conflict with the recommendations of local codes of practice. We recommend that specifiers seek advice from the relevant local authorities and amend their specifications accordingly.
PART 1: SECTION 10.1
ALARMS AND FIRE PROTECTION SYSTEMS

Alarm transmission and fault warning routing equipment approved to the requirements of EN 54-21: 2006 Fire detection and fire alarm systems - Part 21: Alarm transmission and fault warning routing equipment.

Unless stated otherwise the performance of those components of the alarm transmission and fault warning routing system normally located in the protected premises have been tested and assessed for compliance without connection to the associated alarm transmission networks as prescribed by ANNEX ZA of EN 54-21.

Supervised premises transceivers are part of the alarm transmission and fault warning routing equipment. They are located at the protected premises and are connected between the transmission network and the fire alarm control panel.

Specifiers are advised to check the issue of LPS 1277 against which the supervised premises transceiver is approved. The current publication of LPS 1277 is Issue 4.

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**Supervised Premises Transceivers**

BT Redcare Secure Mk3 (GPRS/PSTN) with Redcare Secure 3 Roaming & Fire service

A dual path, GPRS (primary) and PSTN (secondary) supervised premises transceiver capable of fulfilling:

The requirements of EN 54-21 for Type 2 fire alarm transmission and fault warning routing equipment.

LPCB Ref. No.: 1270d/02

A copy of the certificate, confirming the full scope of approval including notes relating to the superscript references in the above table, may be viewed online by clicking on the product name in the associated entry on www.RedBookLive.com
This Section lists Power supply equipment which is either not intended to supply power to Fire Alarm Control Panels or which is standalone and has not been tested and approved as part of a Fire Alarm System.

Products listed in this section have been approved to:

- EN 54-4: 1997 Power supply equipment;
- ISO 7240-4: 2003 Power supply equipment;

Audit:
Regular product auditing and regular factory inspections are carried out by LPCB ensuring high manufacturing standards and continued compliance with the applicable product standard.

Notes:
1. EN 54-4: 1997 is a harmonised standard for the Construction Products Regulation and CE marking is required for most of the European market from 1 August 2009. It is therefore recommended that power supply equipment are certificated to EN 54-4: 1997 + A1: 2002 and A2: 2006.

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Kentec Electronics Limited  
Units 25-27, Fawkes Avenue, Questor, Dartford, Kent DA1 1JQ, United Kingdom  
Tel: +44 (0)1322 222121 • Fax: +44 (0)1322 291794  
E-mail: sales@kentec.co.uk • Website: www.kentec.co.uk


### Power Supply Equipment

<table>
<thead>
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<th>Certificated Products</th>
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<td>K25800 03</td>
<td>360a/01</td>
</tr>
<tr>
<td>KD25800 03</td>
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<tr>
<td>K25800 15</td>
<td>360a/03</td>
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<td>KD25800 15</td>
<td>360a/04</td>
</tr>
<tr>
<td>K25800 M3</td>
<td>360a/05</td>
</tr>
<tr>
<td>KD25800 M3</td>
<td>360a/06</td>
</tr>
<tr>
<td>Certificated Products</td>
<td>LPCB Ref. No.</td>
</tr>
<tr>
<td>-----------------------</td>
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</tr>
<tr>
<td>K25800 D3 10.25 A Power supply with maximum 45Ah Batteries in D3 housing</td>
<td>360a/07</td>
</tr>
<tr>
<td>Incorporating the following units: S408 Power supply module, S584 Power supply LED indication PCB</td>
<td></td>
</tr>
<tr>
<td>KD25800 D3 Dual O/P 10.25 A Power supply with maximum 18Ah Batteries in D3 housing</td>
<td>360a/08</td>
</tr>
<tr>
<td>Incorporating the following units: S408 Power supply module, S584 Power supply LED indication PCB, S789 Dual output PCB</td>
<td></td>
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