

LPCB Red Book



1

Part: 4

Fixed fire fighting systems

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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:

- 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
- Passive fire protection products
- Security protection products
- Fire doors and shutters
- Smoke and fire ventilation systems
- SABRE
- 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.

FOR SPECIFIERS AND REGULATORS:

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

FOR SPECIFIERS AND REGULATORS:

- 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.

Part 4

Fixed fire fighting systems

FIXED FIRE FIGHTING SYSTEMS

INTRODUCTION

The fixed fire extinguishing systems included in this section are for the protection of specific risks, e.g. computer rooms, switch gear, high risk production lines, commercial kitchen protection systems etc.

Great care must be taken in the choice of fire extinguishing agent with respect to life safety, damage to equipment from bi-products, venting and the time it takes to have the system operational again after a discharge incident.

In addition to careful product/system selection it is recommended that all systems are designed, installed and commissioned by third party approved contractors who have demonstrated their competence.

Listings in this section include:

Products

- Gaseous system components
- Gaseous systems
- Fixed fire extinguishing systems for catering equipment
- Direct low pressure (DLP) application systems
- Condensed aerosol extinguishing generators

Products are approved in accordance with a range of standards, the details of which are given at the front of each section relevant to the product.

Design, installation and commissioning contractors

LPS 1204: Requirements for contractors engaged in the design, installation and commissioning of fixed fire systems.

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CONDENSED AEROSOL EXTINGUISHING GENERATORS

These generators comprise a non-pressurized container filled with a dry solid fire extinguishing compound which, when activated, discharges an aerosol to extinguish the fire. They are designed to be fixed in place for total flooding applications, where the whole protected risk area is filled to achieve a specific design application density.

Subject to satisfactory performance and function tests, including full scale fire tests, these generators can be designated for use against the following classes:

- Class A (solid surface burning fires)
- Class B (liquid pool fires)

The selection and specification of fire protection equipment should be based on the completion of a suitable risk assessment and local regulatory requirements.

Generators are typically activated by appropriate fire detectors with the aim of ensuring that they operate early in the fire development phase. Guidance on the use, limitations, safety considerations and precautions, venting and structural strength of compartments, detection, actuation and control arrangements as well as commissioning, acceptance and maintenance procedures can be found in EN 15276 parts 1 and 2.

Condensed aerosol generators are approved on the basis that they will be installed and maintained in accordance with EN 15276 and the manufacturers instructions.

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Certificate No: 1417a to LPS 1656 Issue 1

Condensed Aerosol Generator

Product Name	Description	LPCB Ref. No.
FP-1200	Condensed aerosol generator (electrical activation only) and mounting bracket	1417a/01
FP-2000	Condensed aerosol generator (electrical activation only) and mounting bracket	1417a/02
FP-3000	Condensed aerosol generator (electrical activation only) and mounting bracket	1417a/03
FP-4200	Condensed aerosol generator (electrical activation only) and mounting bracket	1417a/04
FP-5700	Condensed aerosol generator (electrical activation only) and mounting bracket	1417a/05

Certificate No: 1417b to LPS 1656 Issue 1

Condensed Aerosol Generator

Product Name	Description	LPCB Ref. No.
FP-100T	Condensed aerosol generator (electrical activation only) and mounting bracket	1417b/01
FP-200T	Condensed aerosol generator (electrical activation only) and mounting bracket	1417b/02
FP-500T	Condensed aerosol generator (electrical activation only) and mounting bracket	1417b/03

DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

The approval of the fire suppression systems listed in this section is based on LPS 1666: Issue 1.0 *Requirements and test procedures for the LPCB approval of direct low pressure (DLP) application fixed fire suppression systems, using heat sensitive pneumatic detection tubing, for the protection of small defined volume unoccupied enclosures.*

This standard specifies the requirements and test procedures for LPCB approval of direct low pressure (DLP) application fixed fire suppression systems, using heat sensitive pneumatic detection tubing, designed for the protection of small unoccupied defined volume enclosures such as electrical switchgear cabinets, server racking and similar installations from small local flaming fire sources.

The objective of the approval is to assess the ability of the system to prevent fire spread between units by evaluating the effectiveness and reliability of a system to detect and extinguish the fire at its source. The system shall also be capable of isolating the power to the protected enclosures and generating a signal for an alarm. The evaluation of a system is essentially a verification of the parameters specified in the system manual.

The selection and specification of fire protection equipment should be based on the completion of a suitable risk assessment and local regulatory requirements.

These systems are intended solely to provide enhanced local fire protection. They are not intended for use as whole room or building fire protection systems.

The requirements and test procedures specified herein are those which generally enable a satisfactory evaluation of a system to be made. However, the LPCB reserves the right to apply special considerations dependant on the scope of application of a particular system if it is not adequately dealt with by this standard.

The scheme provides approval for systems with:

- A single container heat detection tube installation run protecting a maximum single volume of 2m³.
- Up to 4 heat detection tube runs connected to a single container where no single protected volume exceeds a 2m³ volume.
- A maximum heat detection tube length of 10m from the container outlet to the end of any single detection tube run.

The range of materials and products employed within these enclosed volumes is large and whilst this scheme addresses a number of potential fire scenarios it cannot be considered to address all applications in particular where the electrical power supply is not isolated/removed upon activation of the suppression system and the risk of re-ignition remains high.

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Certificate No: 1408b to LPS 1666: Issue 1.0

ARMANfire HFC-227ea Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
ARF22701TB	1.3 Litre	1 kg HFC-227ea DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408b/01
ARF22702TB	3.8 Litre	2 kg HFC-227ea DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408b/02
ARF22703TB	3.8 Litre	3 kg HFC-227ea DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408b/03
ARF22704TB	7.5 Litre	4 kg HFC-227ea DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408b/04
ARF22706TB	7.5 Litre	6 kg HFC-227ea DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408b/05

Certificate No: 1408c to LPS 1666: Issue 1.0

ARMANfire FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
ARFFK501TB	1.3 Litre	1 kg FK-5-1-12 DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408c/01
ARFFK502TB	3.8 Litre	2 kg FK-5-1-12 DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408c/02
ARFFK503TB	3.8 Litre	3 kg FK-5-1-12 DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408c/03

DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

ARFFK504TB	7.5 Litre	4 kg FK-5-1-12 DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408c/04
ARFFK506TB	7.5 Litre	6 kg FK-5-1-12 DLP system	P/N: 125101 6mm o/d	Enclosed & open options	Natural airflow only	1408c/05

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Certificate No: 1754a to LPS 1666: Issue 1.0

Ardent Limited Direct Chemical Fire Suppression System

Product Name	Container Size/agent quantity	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
CS151	2.3 litres/1 kg	1 kg FK-5-1-12 DLP system	P/N: AD216-01-RT 8mm	Enclosed and open options	Forced and Natural	1754a/01
CS152S	2.3 litres/2 kg	2 kg FK-5-1-12 DLP system (small)	P/N: AD216-01-RT 8mm	Enclosed and open options	Forced and Natural	1754a/02
CS 152	4.9 litres/2 kg	2 kg FK-5-1-12 DLP System	P/N: AD216-01-RT 8mm	Enclosed and open options	Forced and Natural	1754a/03
CS 154	10.2 litres/6 kg	6 kg FK-5-1-12 DLP system	P/N: AD216-01-RT 8mm	Enclosed and open options	Forced and Natural	1754a/05
CS 153	6.8 litres/4 kg	4 kg FK-5-1-12 DLP system	P/N: AD216-01-RT 8mm	Enclosed and open options	Forced and Natural	1754a/04

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Certificate No: 1765a to LPS 1666: Issue 1.0

Direct low pressure (DLP) application systems

Product Name	Model	Size	Detector tube	Cylinder valve	Natural ventilation	Forced ventilation	LPCB Ref. No.
0.9 kg FK-5-1-12 DLP system	LPCB CFK 116 0.9	0.9 kg	BlazeTube O/D 6 mm	116	Enclosed and open options	Forced and natural	1765a/01
1.8 kg FK-5-1-12 DLP system	LPCB CFK 116 1.8	1.8 kg	BlazeTube O/D 6 mm	116	Enclosed and open options	Forced and natural	1765a/02
3.75 kg FK-5-1-12 DLP system	LPCB CFK 116 3.75	3.75 kg	BlazeTube O/D 6 mm	116	Enclosed and open options	Forced and natural	1765a/03
0.9 kg FK-5-1-12 DLP system	LPCB CFK 118 0.9	0.9 kg	BlazeTube O/D 8 mm	118	Enclosed and open options	Forced and natural	1765a/04
1.8 kg FK-5-1-12 DLP system	LPCB CFK 118 1.8	1.8 kg	BlazeTube O/D 8 mm	118	Enclosed and open options	Forced and natural	1765a/05
3.75 kg FK-5-1-12 DLP system	LPCB CFK 118 3.75	3.75 kg	BlazeTube O/D 8 mm	118	Enclosed and open options	Forced and natural	1765a/06
1.8 kg FK-5-1-12 DLP system	LPCB CFK 126 1.8	1.8 kg	BlazeTube O/D 6 mm	126	Enclosed and open options	Forced and natural	1765a/07
3.75 kg FK-5-1-12 DLP system	LPCB CFK 126 3.75	3.75 kg	BlazeTube O/D 6 mm	126	Enclosed and open options	Forced and natural	1765a/08
1.8 kg FK-5-1-12 DLP system	LPCB CFK 128 1.8	1.8 kg	BlazeTube O/D 8 mm	128	Enclosed and open options	Forced and natural	1765a/09
3.75 kg FK-5-1-12 DLP system	LPCB CFK 128 3.75	3.75 kg	BlazeTube O/D 8 mm	128	Enclosed and open options	Forced and natural	1765a/10

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Certificate No: 1329c to LPS 1666: Issue 1.0

Ceasefire Industries Ltd HFC-236fa Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product	Container	Description	Detector Tube	Ventilation (Enclosed or Open	Air Flow (Forced /	LPCB Ref.
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DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

Name	Size			Vents)	Natural)	No.
CF-000792	2 kg	2 kg HFC-236fa DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329c/01
CF-000793	4 kg	4 kg HFC-236fa DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329c/02

Certificate No: 1329d to LPS 1666: Issue 1.0

Ceasefire Industries Ltd HFC-227ea Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
CF-000880	2 kg	2 kg HFC-227ea DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329d/01
CF-000881	4 kg	4 kg HFC-227ea DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329d/02

Certificate No: 1329k to LPS 1666: Issue 1.0

Ceasefire Industries Pvt. Ltd FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
CF-000792A	2 kg	2 kg FK-5-1-12 DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329k/01
CF-000792B	3 kg	3 kg FK-5-1-12 DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329k/02
CF-000792C	4 kg	4 kg FK-5-1-12 DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329k/03

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Certificate No: 1329Bc to LPS 1666: Issue 1.0

Ceasefire Industries U.K. Ltd HFC-236fa Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
CF-000792	2 kg	2 kg HFC-236fa DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bc/01
CF-000793	4 kg	4 kg HFC-236fa DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bc/02

Certificate No: 1329Bd to LPS 1666: Issue 1.0

Ceasefire Industries U.K. Ltd HFC-227ea Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
CF-000880	2 kg	2 kg HFC-227ea DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bd/01
CF-000881	4 kg	4 kg HFC-227ea DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bd/02

Certificate No: 1329Bk to LPS 1666: Issue 1.0

Ceasefire Industries U.K. Ltd FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
CF-000792A	2 kg	2 kg FK-5-1-12 DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bk/01
CF-000792B	3 kg	3 kg FK-5-1-12 DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bk/02
CF-000792C	4 kg	4 kg FK-5-1-12 DLP system	P/N:TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Bk/03

Certificate No: 1329Cc to LPS 1666: Issue 1.0

DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

SECUREZONE HFC-236fa Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
SZ-000792	2 kg	2 kg HFC-236fa DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Cc/01
SZ-000793	4 kg	4 kg HFC-236fa DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Cc/02

Certificate No: 1329Cd to LPS 1666: Issue 1.0

SECUREZONE HFC-227ea Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
SZ-000880	2 kg	2 kg HFC-227ea DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Cd/01
SZ-000881	4 kg	4 kg HFC-227ea DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Cd/02

Certificate No: 1329Ck to LPS 1666: Issue 1.0

SECUREZONE FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
SZ-000792A	2 kg	2 kg FK-5-1-12 DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Ck/01
SZ-000792B	3 kg	3 kg FK-5-1-12 DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Ck/02
SZ-000792C	4 kg	4 kg FK-5-1-12 DLP system	P/N: TI-000010A 6mm o/d	Enclosed & open options	Forced & natural	1329Ck/03

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Certificate No: 724c to LPS 1666: Issue 1.0

FireDETEC 3M™ Novec™ 1230/FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
B07004524	1.2 Litre	1.4 kg Novec™ 1230 DLP system	P/N: B07800002 6mm o/d	Enclosed & open options	Natural airflow only	724c/01
B07004525	2.9 Litre	3.2 kg Novec™ 1230 DLP system	P/N: B07800002 6mm o/d	Enclosed & open options	Natural airflow only	724c/02
B07004528	1.2 Litre	1.4 kg FK-5-1-12 DLP system	P/N: B07800002 6mm o/d	Enclosed & open options	Natural airflow only	724c/03
B07004529	2.9 Litre	3.2 kg FK-5-1-12 DLP system	P/N: B07800002 6mm o/d	Enclosed & open options	Natural airflow only	724c/04

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Certificate No: 1400a to LPS 1666: Issue 1.0

Firetrace International LLC 3M™ Novec™ 1230 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
920205	2.5 lb	2.5 lb Novec™ 1230 DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400a/01
898001	1 kg	1 kg Novec™ 1230 DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400a/03
920505	5 lb	5 lb Novec™ 1230 DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400a/05

DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

898002	2 kg	2 kg Novec™ 1230 DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400a/07
921005	10 lb	10 lb Novec™ 1230 DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400a/09
898003	5 kg	5 kg Novec™ 1230 DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400a/11

Certificate No: 1400b to LPS 1666: Issue 1.0

Firetrace International LLC HFC-227ea Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
920301	3 lb	3 lb HFC-227ea DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400b/01
898004	1 kg	1 kg HFC-227ea DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400b/03
920601	6 lb	6 lb HFC-227ea DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400b/05
898005	2 kg	2 kg HFC-227ea DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400b/07
921201	12 lb	12 lb HFC-227ea DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400b/09
898006	5 kg	5 kg HFC-227ea DLP system	P/N: 200005 6mm o/d	Enclosed only	None	1400b/11

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E-mail: info@firetrace.co.uk • Website: www.firetrace.co.uk

Certificate No: 1430a to LPS 1666: Issue 1.0

Firetrace® Ltd 3M™ Novec™ 1230 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
2Kg Firetrace®	2 kg	2 kg Novec™ 1230 DLP system	FT0115	Enclosed only	None	1430a/01

I-CAT International Consulting and Trading Pty (Ltd)

38 Amathole Road, N4 Gateway Park West, Willow Park Manor Ext 65, Pretoria, South Africa

Tel: +2786 112 4228

E-mail: info@i-cat.co • Website: www.i-cat.co

Certificate No: 1805a to LPS 1666: Issue 1.0

I-PROTECT Low Pressure Direct System (LPDS)

Product Name	Container size	Description	Detector tube	Cylinder head Assembly	Natural ventilation	Forced ventilation	LPCB Ref. No.
FS-IP-0015 Cleavos 1230	1.0 kg	1.0 kg Cleavos 1230 Direct low pressure system	FS-IP-0001	FS-VA-0021	Enclosed and open options	Forced and natural	1805a/01
FS-IP-0016 Cleavos 1230	2.0 kg	2.0 kg Cleavos 1230 Direct low pressure system	FS-IP-0001	FS-VA-0021	Enclosed and open options	Forced and natural	1805a/02
FS-IP-0017 Cleavos 1230	5.0 kg	5.0 kg Cleavos 1230 Direct low pressure system	FS-IP-0001	FS-VA-0021	Enclosed and open options	Forced and natural	1805a/03
FS-IP-0028 Cleavos 200	1.0 kg	1.0 kg Cleavos 200 Direct low pressure system	FS-IP-0001	FS-VA-0021	Enclosed and open options	Forced and natural	1805a/04
FS-IP-0029 Cleavos 200	2.0 kg	2.0 kg Cleavos 200 Direct low pressure system	FS-IP-0001	FS-VA-0021	Enclosed and open options	Forced and natural	1805a/05
FS-IP-0030 Cleavos 200	5.0 kg	5.0 kg Cleavos 200 Direct low pressure system	FS-IP-0001	FS-VA-0021	Enclosed and open options	Forced and natural	1805a/06

Jactone Products Limited

Springvale Business Park, Springvale Avenue, Bilston, West Midlands, WV14 0QL, United Kingdom

Tel: +44 (0)1902 357777

E-mail: sales@jactone.com • Website: www.jactone.com

Certificate No: 783d to LPS 1666: Issue 1.0

Jactone® PAFSS® 3M™ Novec™ 1230/FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

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DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
PAFSSND2	2 kg	2 kg Novec™ 1230/FK-5-1-12 DLP system	FSTFV300	Enclosed & open options 4	Forced & natural 5	783d/01
PAFSSND25	2.5 kg	2.5 kg Novec™ 1230/FK-5-1-12 DLP system	FSTFV300	Enclosed & open options 4	Forced & natural 5	783d/02
PAFSSND3	3 kg	3 kg Novec™ 1230 DLP/FK-5-1-12 system	FSTFV300	Enclosed & open options 4	Forced & natural 5	783d/03

Macron Safety Systems (UK) Ltd

Burlingham House, Hewett Road, Gapton Hall Industrial Estate, Great Yarmouth, Norfolk, NR31 0NN, United Kingdom

Tel: +44 (0)1493 417600

E-mail: infogy@tycoint.com • Website: www.macron-safety.com

Certificate No: 587c to LPS 1666: Issue 1.0

SAPPHIRE COMPACT 3M™ Novec™ 1230 or SAPPHIRE FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
3031500XX (F13516)	2 kg	SAPPHIRE COMPACT 2kg DLP system	304150013	Enclosed & open options 4	Forced & natural 5	587c/01
3031500XX (F13517)	2.5 kg	SAPPHIRE COMPACT 2.5kg DLP system	304150013	Enclosed & open options 4	Forced & natural 5	587c/02
3031500XX (F13518)	3 kg	SAPPHIRE COMPACT 3kg DLP system	304150013	Enclosed & open options 4	Forced & natural 5	587c/03

NAFFCO FZ Co

PO Box 17014, Jebel Ali, Dubai, United Arab Emirates

Tel: +971 4815111

E-mail: natfire@emirates.net.ae • Website: www.naffco.com

Certificate No: 463v to LPS 1666: Issue 1.0

NAFFCO DLP FK-5-1-12 System

Product Name	Size	Description	Detector tube	Cylinder valve	Natural ventilation	Forced ventilation	LPCB Ref. No.
NF02DLPFK5-1	0.75 kg	0.75 kg FK-5-1-12 DLP system	N07800302	NF07000111	Enclosed and open options (5)	Forced and natural (6)	463v/01
NF02DLPFK5-2	1.8 kg	1.8 kg FK-5-1-12 DLP system	N07800302	NF07000111	Enclosed and open options (5)	Forced and natural (6)	463v/02
NF02DLPFK5-3	2.7 kg	2.7 kg FK-5-1-12 DLP system	N07800302	NF07000111	Enclosed and open options (5)	Forced and natural (6)	463v/03
NF02DLPFK5-4	3.6 kg	3.6 kg FK-5-1-12 DLP system	N07800302	NF07000111	Enclosed and open options (5)	Forced and natural (6)	463v/04

Reacton Fire Suppression Ltd

14 Baynes Place, Waterhouse Business Park, Chelmsford, CM1 2QX, United Kingdom

Tel: 08000306526

E-mail: info@reactonfire.com • Website: www.reactonfire.com

Certificate No: 1683a to LPS 1666: Issue 1.0

Reacton Fire Suppression FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
RE-CT-014-010-FK5	1.4 Litre	1 kg FK-5-1-12 DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683a/01
RE-CT-026-020-FK5	2.6 Litre	2 kg FK-5-1-12 DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683a/02
RE-CT-048-030-FK5	4.8 Litre	3 kg FK-5-1-12 DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683a/03
RE-CT-048-040-FK5	4.8 Litre	4 kg FK-5-1-12 DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683a/04
RE-CT-075-060-FK5	7.5 Litre	6 kg FK-5-1-12 DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683a/05

DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

Certificate No: 1683b to LPS 1666: Issue 1.0

Reacton Fire Suppression HFC-227ea Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
RE-CT-014-010-HFC	1.4 Litre	1 kg HFC-227ea DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683b/01
RE-CT-026-020-HFC	2.6 Litre	2 kg HFC-227ea DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683b/02
RE-CT-048-030-HFC	4.8 Litre	3 kg HFC-227ea DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683b/03
RE-CT-048-040-HFC	4.8 Litre	4 kg HFC-227ea DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683b/04
RE-CT-075-060-HFC	7.5 Litre	6 kg HFC-227ea DLP system	P/N: RE7211 6mm o/d	Enclosed & open options	Forced & natural	1683b/05

Resguardo Industries Pvt Ltd

Plot No: 312 D, Harohalli Industrial Area, 2nd Phase Harohalli, Ramanagara Dist, Kanakapura Taluk, Karnataka, 562112, India

Tel: 080-29760151, 9632235143

E-mail: mail@resguardo.com • Website: www.resguardo.com

Certificate No: 1604a to LPS 1666: Issue 1.0

Resguardo Automatic Fire Sniper FK-5-1-12 Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
900115	1.2 Litre	1 kg FK-5-1-12 DLP system	P/N: 701007 6mm o/d	Enclosed & open options	Natural and forced ventilation	1604a/01
900116	2.3 Litre	2 kg FK-5-1-12 DLP system	P/N: 701007 6mm o/d	Enclosed & open options	Natural and forced ventilation	1604a/02
900117	4.7 Litre	4 kg FK-5-1-12 DLP system	P/N: 701007 6mm o/d	Enclosed & open options	Natural and forced ventilation	1604a/03
900118	7.0 Litre	6 kg FK-5-1-12 DLP system	P/N: 701007 6mm o/d	Enclosed & open options	Natural and forced ventilation	1604a/04

Swastik Synergy Engineering Pvt. Ltd.

53/2 & 53/3, Ajivali, Khopoli-Pen Road, Taluka: Khalapur, Post: Donvat, Dist.: Raigad, , Khopoli, Maharashtra, 410203, India

Tel: 022 67550111/12/13

E-mail: admin@swastiksynergy.com • Website: www.swastiksynergy.com

Head Office

302, Business Suites 9, S.V.ROAD, Santacruz West, Mumbai, 400054, India

Certificate No: 1619a to LPS 1666: Issue 1.0

Synergy Firessense FK-5-1-12 (Synergy1230) Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
SSE-SFS-1110001 - 01	1.2 Litre	1 kg FK-5-1-12 DLP system	P/N: SSE-FT-111006 or SSE-FT-111020 6mm o/d	Enclosed & open options	Natural airflow only	1619a/01
SSE-SFS-1110001 - 02	2.3 Litre	2 kg FK-5-1-12 DLP system	P/N: SSE-FT-111006 or SSE-FT-111020 6mm o/d	Enclosed & open options	Natural airflow only	1619a/02
SSE-SFS-1110001 - 04	5.2 Litre	4 kg FK-5-1-12 DLP system	P/N: SSE-FT-111006 or SSE-FT-111020 6mm o/d	Enclosed & open options	Natural airflow only	1619a/03

Head Office

302, Business Suites 9, S.V.ROAD, Santacruz West, Mumbai, 400054, India

Certificate No: 1619b to LPS 1666: Issue 1.0

DIRECT LOW PRESSURE (DLP) APPLICATION SYSTEMS

Synergy Firessense HFC-227ea (Synergy227) Direct Low Pressure (DLP) Application Fixed Fire Suppression Systems

Product Name	Container Size	Description	Detector Tube	Ventilation (Enclosed or Open Vents)	Air Flow (Forced / Natural)	LPCB Ref. No.
SSE-SFS-111000-01	1.2 Litre	1 kg HFC-227ea DLP system	P/N: SSE-FT-111006 or SSE-FT-111020 6mm o/d	Enclosed & open options	Natural airflow only	1619b/01
SSE-SFS-111000-02	2.3 Litre	2 kg HFC-227ea DLP system	P/N: SSE-FT-111006 or SSE-FT-111020 6mm o/d	Enclosed & open options	Natural airflow only	1619b/02
SSE-SFS-111000-04	5.2 Litre	4 kg HFC-227ea DLP system	P/N: SSE-FT-111006 or SSE-FT-111020 6mm o/d	Enclosed & open options	Natural airflow only	1619b/03

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

The LPCB Approval Scheme for fixed fire extinguishing systems for catering equipment has been developed to provide protection against the specific risks posed by oil fires in cooking appliances used in catering or food production establishments.

Product Testing

The listed systems below have been assessed against LPS 1223 *Requirements and Testing Procedures for Approval of Fixed Fire Extinguishing Systems for Catering Equipment*. This standard not only addresses the fire extinguishing performance of the system but also includes:

- Design manual assessment
- Component testing, including pressure testing
- System discharge tests
- System fire detection and extinguishment tests
- Long term ageing tests

It is considered hazardous for powder and carbon dioxide to be used on Class F fires. The fire extinguishing tests in LPS 1223 recognise this hazard together with the need to ensure that neither the composition of the agent nor the manner in which it is discharged onto the fire causes flaming oil to be ejected or enhance the fire.

Authorised installer requirement

Such fixed extinguishing systems rely upon competent designers and installers and as such LPS 1223 contains requirements placed upon the listed manufacturers to ensure they maintain adequate control over their authorised installers.

Fish and chip ranges

Fish and chip ranges are a specialised type of catering equipment that require special consideration with regards to protection, based on the position and orientation of the extract system.

Unless otherwise stated in the individual product entries, the listed systems are not approved for protection of fish and chip ranges.

Note: LPS 1263:Part 1 *Fire Performance Requirements for Kitchen Extract Systems* has also been developed to provide additional protection against potential fire spread in the extract ductwork associated with grease filtration systems.

This section lists products approved in accordance with:

LPS 1223 - *Requirements and testing procedures for the LPCB certification and listing of fixed fire extinguishing systems for catering equipment*.

AIR Fire S.p.A.

Via Tenuta della Mistica - 33/37, Rome, 00155, Italy

Tel: +34 680395217

E-mail: info@airfire.eu • Website: www.airfire.eu

Certificate No: 1408a to LPS 1223: Issue 2.3

ARMANfire Chef Fixed Fire Extinguishing System for Catering Equipment

Product Name	Designation	Description	LPCB Ref. No.
ARMANfire Chef "Piccolo" Kitchen Suppression System	ARFCHEF06C	Manual and automatic operation, 11.8 litre cylinder (6 litres wet chemical agent), maximum of 3 discharge nozzles	1408a/01
ARMANfire Chef "Piccolo" Kitchen Suppression System	ARFCHEF08C	Manual and automatic operation, 11.8 litre cylinder (8 litres wet chemical agent), maximum of 4 discharge nozzles	1408a/02
ARMANfire Chef "Medio" Kitchen Suppression System	ARFCHEF10C	Manual and automatic operation, 15.9 litre cylinder (10 litres wet chemical agent), maximum of 5 discharge nozzles	1408a/03
ARMANfire Chef "Medio" Kitchen Suppression System	ARFCHEF12C	Manual and automatic operation, 15.9 litre cylinder (12 litres wet chemical agent), maximum of 6 discharge nozzles	1408a/04
ARMANfire Chef "Medio" Kitchen Suppression System	ARFCHEF14C	Manual and automatic operation, 25.3 litre cylinder (14 litres wet chemical agent), maximum of 7 discharge nozzles	1408a/05
ARMANfire Chef "Grande" Kitchen Suppression System	ARFCHEF16C	Manual and automatic operation, 25.3 litre cylinder (16 litres wet chemical agent), maximum of 8 discharge nozzles	1408a/06
ARMANfire Chef "Grande" Kitchen Suppression System	ARFCHEF18C	Manual and automatic operation, 25.3 litre cylinder (18 litres wet chemical agent), maximum of 9 discharge nozzles	1408a/07
ARMANfire Chef "Grande" Kitchen Suppression System	ARFCHEF20C	Manual and automatic operation, 25.3 litre cylinder (20 litres wet chemical agent), maximum of 10 discharge nozzles	1408a/08

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

Suppression System

maximum of 10 discharge nozzles

Amerex Corporation

7595 Gadsden Highway, Trussville, Alabama 35173, USA

Tel: +1 205 655 3271

E-mail: sales@amerex-fire.com • Website: www.amerex-fire.com/fireinfo

Certificate No: 407a to LPS 1223

Amerex KP and ZD Fire Suppression System for catering equipment

Product Name	Designation	Description	LPCB Ref. No.
KP	275	Manual and automatic operation, 10.41 litres Amerex Kitchen Wet Chemical Agent	407a/01
KP	375	Manual and automatic operation, 14.2 litres Amerex Kitchen Wet Chemical Agent	407a/01
KP	475	Manual and automatic operation, 18.17 litres Amerex Kitchen Wet Chemical Agent	407a/01
ZD	275	Manual and automatic operation, 10.41 litres Kitchen Wet Chemical Agent	407a/02
ZD	375	Manual and automatic operation, 14.2 litres Amerex Kitchen Wet Chemical Agent	407a/02
ZD	475	Manual and automatic operation, 18.17 litres Amerex Kitchen Wet Chemical Agent	407a/02
KP	600	Manual and automatic operation, 23.23 litres Amerex Kitchen Wet Chemical Agent	407a/01

Ansul Incorporated

One Stanton Street, Marinette, Wisconsin 54143-2542, USA

Tel: +1 715 735 7411

Website: www.ansul.com

Certificate No: 591a to LPS 1223

Ansul R-102 Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
R-102	Single Tank System (1.5 or 3 US gallon)	Manual and automatic operation, 5.8 or 11.6 litres Ansul LpH™ liquid agent	591a/01
R-102	Double Tank System (4.5 or 6 US gallon)	Manual and automatic operation 17.1 or 22.7 litres Ansul LpH™ liquid agent	591a/01
R-102	Multiple Tank System	Manual and automatic operation, 28.4 - 170 litres Ansul LpH™ liquid agent	591a/01
Piranha	Single Tank System (1.5, 2.25 or 3 US gallon)	Manual and automatic operation, 5.7, 8.5 or 11.4 litres PRX™ liquid agent	591a/02
Piranha	Multiple Tank System	Manual and automatic operation, 11.4 to 34.2 litres PRX™ liquid agent	591a/02

Buckeye Fire Equipment

110 Kings Road, Kings Mountain, 28086, USA

Tel: +1 704-739-7415

E-mail: beuler@buckeyefire.com • Website: www.buckeyefire.com

Certificate No: 1467a to LPS 1223: Issue 2.3

Kitchen Mister Fixed Fire Extinguishing System for Catering Equipment

Product Name	Designation	Description	LPCB Ref. No.
Kitchen Mister Restaurant Cooking Area Fire Suppression System	BFR-5	Manual and automatic operation, 7.2 litres wet chemical agent, maximum of 5 flow points	1467a/01
Kitchen Mister Restaurant Cooking Area Fire Suppression System	BFR-10	Manual and automatic operation, 14.4 litres wet chemical agent, maximum of 10 flow points	1467a/02
Kitchen Mister Restaurant Cooking Area Fire Suppression System	BFR-15	Manual and automatic operation, 21.6 litres wet chemical agent, maximum of 15 flow points	1467a/03
Kitchen Mister Restaurant Cooking Area Fire Suppression System	BFR-20	Manual and automatic operation, 28.8 litres wet chemical agent, maximum of 20 flow points	1467a/04

Ceasefire Industries Private Limited

E6, Selaqui Industrial Area, Dehradun, Uttarakhand, 248011, India

Tel: +911204223473

E-mail: amit@ceasefire.in

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

Certificate No: 1329a to LPS 1223: issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
Ceasefire wet chemical kitchen suppression system, 11.5 litre capacity	1 x 11.5 litre	Manual and Automatic operation, Wet chemical extinguishant	1329a/4
Ceasefire wet chemical kitchen suppression system, 15.6 litre capacity	1 x 15.6 litre	Manual and Automatic operation, Wet chemical extinguishant	1329a/5
Ceasefire wet chemical kitchen suppression system, 25 litre capacity	1 x 25 litre	Manual and Automatic operation, Wet chemical extinguishant	1329a/6
Ceasefire Kitchen Safe Enviro Series water mist suppression system	11.5 litre	Manual and automatic operation, water mist extinguishant	1329a/7
Ceasefire Kitchen Safe Enviro Series water mist suppression system	27 litre	Manual and automatic operation, water mist extinguishant	1329a/8
Ceasefire Kitchen Safe Enviro Series water mist suppression system	56 litre	Manual and automatic operation, water mist extinguishant	1329a/9
Ceasefire Kitchen Safe Ultra Series wet chemical suppression system	11.5 litre	Manual and automatic operation, wet chemical extinguishant	1329a/10
Ceasefire Kitchen Safe Ultra Series wet chemical suppression system	18 litre	Manual and automatic operation, wet chemical extinguishant	1329a/11
Ceasefire Kitchen Safe Ultra Series wet chemical suppression system	27 litre	Manual and automatic operation, wet chemical extinguishant	1329a/12
Ceasefire Kitchen Safe Ultra + Series wet chemical suppression system	11.5 litre	Manual and automatic operation, wet chemical extinguishant	1329a/13
Ceasefire Kitchen Safe Ultra + Series wet chemical suppression system	18 litre	Manual and automatic operation, wet chemical extinguishant	1329a/14
Ceasefire Kitchen Safe Ultra + Series wet chemical suppression system	27 litre	Manual and automatic operation, wet chemical extinguishant	1329a/15
Ceasefire Kitchen Safe Ultra Series wet chemical suppression system	44 litre	Manual and automatic operation, wet chemical extinguishant	1329a/16

Ceasefire Industries U.K. Limited

Office Number 301.3, One Victoria Square, Birmingham, West Midlands, B1 1BD, United Kingdom

Tel: +44 (0) 113 868 6666 / (0) 1268 919999

Website: www.ceasefire.co.uk

Certificate No: 1329Ba to LPS 1223: Issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
Ceasefire Industries UK Limited Kitchen Safe Ultra Series wet chemical suppression system	11.5 litre	Manual and automatic operation, wet chemical extinguishant	1329Ba/10
Ceasefire Industries UK Limited Kitchen Safe Ultra Series wet chemical suppression system	18 litre	Manual and automatic operation, wet chemical extinguishant	1329Ba/11
Ceasefire Industries UK Limited Kitchen Safe Ultra Series wet chemical suppression system	27 litre	Manual and automatic operation, wet chemical extinguishant	1329Ba/12
Ceasefire Industries UK Limited Kitchen Safe Ultra Series wet chemical suppression system	44 litre	Manual and automatic operation, wet chemical extinguishant	1329Ba/16

Certificate No: 1329Ca to LPS 1223: Issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
Secure Zone Kitchen Safe Ultra Series wet chemical suppression system	11.5 litre	Manual and automatic operation, wet chemical extinguishant	1329Ca/10
Secure Zone Kitchen Safe Ultra Series wet chemical suppression system	18 litre	Manual and automatic operation, wet chemical extinguishant	1329Ca/11
Secure Zone Kitchen Safe Ultra Series wet chemical suppression system	27 litre	Manual and automatic operation, wet chemical extinguishant	1329Ca/12
Secure Zone Kitchen Safe Ultra Series wet chemical suppression system	44 litre	Manual and automatic operation, wet chemical extinguishant	1329Ca/16

Ceodeux Extinguisher Valves Technology S.A. (ROTAREX FIRETEC)

24 rue de Diekirch, L-7440 Lintgen, Luxembourg

Tel: +352 32 78 32-1

E-mail: cornil.morgan@Rotarex.com • Website: www.rotarex.com

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

Certificate No: 724b to LPS 1223: Issue 2.3

ROTAREX FIRETEC – TRIPLESTAR wet chemical, restaurant fire suppression system

Product Name	Designation	Description	LPCB Ref. No.
TRIPLESTAR, restaurant fire suppression system.	9 liters wet chemical extinguishant1	Manual and Automatic operation, 9 liters of agent, 3 nozzles.	724b/01
TRIPLESTAR, restaurant fire suppression system.	16 liters wet chemical extinguishant 2	Manual and Automatic operation, 16 liters of agent, 4 to 6 nozzles.	724b/03
TRIPLESTAR, restaurant fire suppression system.	25 liters wet chemical extinguishant 2	Manual and Automatic operation, 25 liters of agent, 7 to 9 nozzles.	724b/04

Emirates Fire Fighting Equipment Factory L.L.C. (FIREX)

P.O.Box 22436, Industrial Area 13, Sharjah, United Arab Emirates

Tel: +971 6 5340300

E-mail: firex@emirates.net.ae • Website: www.firexuae.com

Certificate No: 863f to LPS 1223: Issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
FIREX FX-KHS Kitchen Hood System	KHSC10	Manual and automatic operation, wet chemical, 3 to 4 nozzles, 1 x 10 litre cylinder.	863f/01
FIREX FX-KHS Kitchen Hood System	KHSC20	Manual and automatic operation, wet chemical, up to 9 nozzles, 1 x 20 litre cylinder.	863f/02

Finder Yangin Güvenlik Elektronik Sistemler A.S

Kepez Mh., 5071 Sk, No: 10 07090, Kepez, Antalya, Turkey

Tel: +90 242 221 40 07

E-mail: finder@finder.com.tr • Website: www.finder.com.tr

Certificate No: 1530a to LPS 1223: Issue 2.3

'Defender DM' and 'Defender DP' Fixed Fire Extinguishing Systems for Catering Equipment

Product Name	Designation	Description	LPCB Ref. No.
Defender DM Kitchen Extinguishing System	DM8	Manual and automatic operation, 9.5 litres Fire Eraser wet chemical agent, maximum of 8 flow points	1530a/01
Defender DM Kitchen Extinguishing System	DM12	Manual and automatic operation, 15 litres Fire Eraser wet chemical agent, maximum of 12 flow points	1530a/02
Defender DM Kitchen Extinguishing System	DM18	Manual and automatic operation, 22.7 litres Fire Eraser wet chemical agent, maximum of 18 flow points	1530a/03
Defender DP Kitchen Extinguishing System	DP4	Manual and automatic operation, 6 litres Fire Eraser wet chemical agent, maximum of 4 flow points	1530a/04
Defender DP Kitchen Extinguishing System	DP8	Manual and automatic operation, 9.5 litres Fire Eraser wet chemical agent, maximum of 8 flow points	1530a/05
Defender DP Kitchen Extinguishing System	DP16	Manual and automatic operation, 20 litres Fire Eraser wet chemical agent, maximum of 16 flow points	1530a/06

Jactone Products Limited

Springvale Business Park, Springvale Avenue, Bilston, West Midlands, WV14 0QL, United Kingdom

Tel: +44 (0)1902 357777

E-mail: sales@jactone.com • Website: www.jactone.com

Certificate No: 783c to LPS 1223: issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
PAFSS KitchenGuard restaurant fire suppression system	FSGA8L	Manual and Automatic operation, wet chemical, 1 x 8 litre cylinder.	783c/04
PAFSS KitchenGuard restaurant fire suppression system	FSGA12L	Manual and Automatic operation, wet chemical, 1 x 12 litre cylinder.	783c/05

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

Lehavot Production & Protection (1995) Ltd

Kibbutz Lehavot Habashan, Upper Galille, 1212500, Israel

Tel: +972 523493146

E-mail: Israels@lehavot.com • Website: www.lehavot.com

Certificate No: 1553a to LPS 1223: Issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
WCK – kitchen fire suppression system, wet chemical	WCK 6 liter	Manual and automatic operation, wet chemical extinguishant	1553a/01
WCK – kitchen fire suppression system, wet chemical	WCK 9 liter	Manual and automatic operation, wet chemical extinguishant	1553a/02
WCK – kitchen fire suppression system, wet chemical	WCK 16 liter	Manual and automatic operation, wet chemical extinguishant	1553a/03
WCK – kitchen fire suppression system, wet chemical	WCK 20 liter	Manual and automatic operation, wet chemical extinguishant	1553a/04
WCK – kitchen fire suppression system, wet chemical	WCK 26 liter	Manual and automatic operation, wet chemical extinguishant	1553a/05
WCK – kitchen fire suppression system, wet chemical	WCK 16 liter + WCK 6 liter	Manual and automatic operation, wet chemical extinguishant	1553a/06
WCK – kitchen fire suppression system, wet chemical	WCK 16 liter + WCK 9 liter	Manual and automatic operation, wet chemical extinguishant	1553a/07
WCK – kitchen fire suppression system, wet chemical	WCK 16 liter + WCK 16 liter	Manual and automatic operation, wet chemical extinguishant	1553a/08

NAFFCO FZ Co

PO Box 17014, Jebel Ali, Dubai, United Arab Emirates

Tel: +971 4815111

E-mail: natfire@emirates.net.ae • Website: www.naffco.com

Certificate No: 463oa to LPS 1223

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
NAFFCO FZ Co pre-engineered kitchen fire suppression system with fusible link detection.	9.5 litre	Manual or Automatic operation, fusible link system, wet chemical extinguishant.	463oa/01
NAFFCO FZ Co pre-engineered kitchen fire suppression system with fusible link detection.	15 litre	Manual or Automatic operation, fusible link system, wet chemical extinguishant.	463oa/02
NAFFCO FZ Co pre-engineered kitchen fire suppression system with fusible link detection.	30 litre	Manual or Automatic operation, fusible link system, wet chemical extinguishant.	463oa/04
NAFFCO FZ Co pre-engineered kitchen fire suppression system with fusible link detection.	22.5 litre	Manual or Automatic operation, fusible link system, wet chemical extinguishant.	463oa/03

Nobel Fire Systems

7 Quest Park, Moss Hall Road, Heywood, Lancashire, BL9 7JZ, United Kingdom

Tel: +44 (0)1706 625 777

E-mail: info@nobel-fire-systems.com • Website: www.nobel-fire-systems.com

Certificate No: 642b to LPS 1223: Issue 2.3

Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
Nobel K-Series, wet chemical, fixed fire extinguishing system for catering equipment	K15	15 litre, manual and automatic operation, wet chemical extinguishant	642b/01
Nobel K-series, wet chemical, fixed fire extinguishing system for catering equipment	K30	30 litre, manual and automatic operation, wet chemical extinguishant	642b/02

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

Spoon2 International Limited

Haselor Lane, Hinton on the Green, Worcestershire, WR11 2QZ, United Kingdom

Tel: +44 (0) 1386 861344

E-mail: info@spoon2.com • Website: www.spoon2.com

Certificate No: 970a to LPS 1223

'Spoon2' Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
SP2	SP2 - 1	Manual and automatic operation, 14, 28 or 42 litres Spoon2 K2 liquid agent	970a/01
SP2	SP2 - 2	Manual and automatic operation, 56, 70 or 84 litres Spoon2 K2 liquid agent	970a/01
SP2	SP2 - 3	Manual and automatic operation, 98, 112 or 126 litres Spoon2 K2 liquid agent	970a/01
SP2	SP2 - 4	Manual and automatic operation, 141, 155 or 169 litres Spoon2 K2 liquid agent	970a/01
SP2	SP2 - 5	Manual and automatic operation, 183, 197 or 211 litres Spoon2 K2 liquid agent	970a/01

Certificate No: 970a to LPS 1223

'Fireguard' Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
K2	K2 - 1	Manual and automatic operation, 14, 28 or 42 litres Spoon2 K2 liquid agent	970a/01
K2	K2 - 2	Manual and automatic operation, 56, 70 or 84 litres Spoon2 K2 liquid agent	970a/01
K2	K2 - 3	Manual and automatic operation, 98, 112 or 126 litres Spoon2 K2 liquid agent	970a/01
K2	K2 - 4	Manual and automatic operation, 141, 155 or 169 litres Spoon2 K2 liquid agent	970a/01
K2	K2 - 5	Manual and automatic operation, 183, 197 or 211 litres Spoon2 K2 liquid agent	970a/01

Steel Recon Industries Sdn Bhd

No 8 Jalan Subang 7, Taman Perindustrian Subang, , Subang Jaya, Selangor Darul Ehsan, 47610 , Malaysia

Tel: +603 8023 2323

E-mail: ck.wee@sri.com.my • Website: www.sri.com.my

Certificate No: 1239Ab to LPS 1223: issue 2.3

Kitchen Shield F808, wet chemical, restaurant fire suppression system

Product Name	Designation	Description	LPCB Ref. No.
Kitchen Shield F808, wet chemical, restaurant fire suppression system.	F8081000	9 litre, Manual and Automatic operation, wet chemical extinguishant	1239Ab/01
Kitchen Shield F808, wet chemical, restaurant fire suppression system.	F8082000	2 X 6 litre, Manual and Automatic operation, wet chemical extinguishant	1239Ab/02
Kitchen Shield F808, wet chemical, restaurant fire suppression system.	F8083000	2 X 9 litre, Manual and Automatic operation, wet chemical extinguishant	1239Ab/03

Certificate No: 1435a to LPS 1223: issue 2.3

KitchenShield, fire detection and suppression system for commercial kitchens and deep fat fryers

Product Name	Designation	Description	LPCB Ref. No.
KitchenShield, fire detection and suppression system for commercial kitchens and deep fat fryers.	SPS-KS014-CYL-15L	8 litre, Manual and automatic operation, wet chemical extinguishant	1435a/01
KitchenShield, fire detection and suppression system for commercial kitchens and deep fat fryers.	SPS-KS014-CYL-12L	10 litre, Manual and automatic operation, wet chemical extinguishant	1435a/02
KitchenShield, fire detection and suppression system for commercial kitchens and deep fat fryers.	SPS-KS014-CYL-20L	12 or 15 litre, Manual and automatic operation, wet chemical extinguishant	1435a/03
KitchenShield, fire detection and suppression system for commercial kitchens and deep fat fryers.	SPS-KS014-CYL-30L	17, 19 or 22 litre, Manual and automatic operation, wet chemical extinguishant	1435a/04
KitchenShield, fire detection and suppression system for commercial kitchens and deep fat fryers.	SPS-KS014-CYL-35L	24 or 26 litre, Manual and automatic operation, wet chemical extinguishant	1435a/05

Telesto Sp. z o.o.

Ul. Fabryczna 5, 26-130 Suchedniow, Poland

Tel: +48 22 489 6571

E-mail: telesto@telesto.pl • Website: www.telesto.pl

FIXED FIRE EXTINGUISHING SYSTEMS FOR CATERING EQUIPMENT

Certificate No: 1129a to LPS 1223: issue 2.3

"Safety Chef" Restaurant Fire Suppression System

Product Name	Designation	Description	LPCB Ref. No.
SafetyChef	320 cm	Manual and Automatic operation, water mist restaurant suppression system up to 320 cm protected length supplied from single or manifold containers, 12.27, 30 and 50 litre volumes.	1129a/01
SafetyChef	800 cm	Manual and Automatic operation, water mist restaurant suppression system up to 800 cm protected length supplied from single or manifold containers, 12.27, 30 and 50 litre volumes.	1129a/02

Watermist Ltd

Amber House, Station Road, Attleborough, Norfolk, NR17 2AT, United Kingdom

Tel: +44 (0)800 731 9288

E-mail: info@hydramist.co.uk • Website: www.hydramist.co.uk

Certificate No: 1077a to LPS 1223

Hydramist Fire Suppression System for Catering Equipment

Product Name	Designation	Description	LPCB Ref. No.
Hydramist 15AMPU	Single phase electric pump system	Manual and Automatic operation, potable water used to produce water mist extinguishant	1077a/01
Hydramist 18AMPU	Three phase electric pump system	Manual and Automatic operation, potable water used to produce water mist extinguishant	1077a/02

GASEOUS SYSTEM COMPONENTS

The equipment listed in this section has been assessed and tested to a test schedule, suitable for the product, containing tests from both LPS and EN standards for gaseous system components. The production facilities have also been assessed to ensure that the components meet and continue to meet these standards.

Where a component is not covered by a published part of EN 12094 it will be evaluated against an LPCB Schedule of Requirements.

In order to function correctly the approved components must be used in accordance with the manufacturer's technical instructions.

Component approval does not mean LPCB system approval. LPCB system approval requirements are set out in Gaseous Systems section.

AIR Fire S.p.A.

Via Tenuta della Mistica - 33/37, Rome, 00155, Italy

Tel: +34 680395217

E-mail: info@airfire.eu • Website: www.airfire.eu

Certificate No: 1239Ca to EN12094-4

Container Valve Actuators

Product Name	Description	LPCB Ref. No.
072202	Pneumatic actuator	1239Ca/02
072203	Manual actuator	1239Ca/02
022001	Electrical actuator	1239Ca/02
072213	Pneumatic /manual actuator	1239Ca/02

Certificate No: 1239Ca to EN 12094-4

Container Valves

Product Name	Description	LPCB Ref. No.
071251	DN12 Container Valve 50 bar, HFC227ea & FK-5-1-12	1239Ca/01
071221	DN12 Container Valve 50 bar, HFC227ea & FK-5-1-12	1239Ca/01
071231	DN12 Container Valve 50 bar, HFC227ea & FK-5-1-12	1239Ca/01
072201	DN12 Container Valve 250 bar, CO ₂	1239Ca/01
072231	DN12 Container Valve 190 bar, CO ₂	1239Ca/01
072211	DN12 Container Valve 190 bar, CO ₂	1239Ca/01
072221	DN12 Container Valve 190 bar, CO ₂	1239Ca/01
073221	DN12 Container Valve 270 bar, Inert	1239Ca/01
073201	DN12 Container Valve 270 bar, Inert	1239Ca/01
073211	DN12 Container Valve 270 bar, Inert	1239Ca/01
073222	DN12 Container Valve 405 bar, Inert	1239Ca/01
073202	DN12 Container Valve 405 bar, Inert	1239Ca/01
073212	DN12 Container Valve 405 bar, Inert	1239Ca/01

Ceasefire Industries Private Limited

E6, Selaqui Industrial Area, Dehradun, Uttarakhand, 248011, India

Tel: +911204223473

E-mail: amit@ceasefire.in

Certificate No: 1239Ba to EN 12094-4

Ceasefire Container Valves DN33 and DN50 for use with HFC227ea and FK 5-1-12

Product Name	Description	LPCB Ref. No.
SM-RM1994	DN33 container valve 25 bar, (60 bar burst disc)	1239Ba/01
SM-RM2132	DN33 container valve 42 bar, (95 bar burst disc)	1239Ba/01
SM-RM2121	DN50 container valve 25 bar, (60 bar burst disc)	1239Ba/01
SM-RM2122	DN50 container valve 42 bar, (95 bar burst disc)	1239Ba/01

Certificate No: 1239Ba to EN 12094-8

GASEOUS SYSTEM COMPONENTS

Ceasefire Pilot and Discharge Connectors

Product Name	Description	LPCB Ref. No.
SM-RM2170x	Pilot hose DN5 F/F end couplings, 150mm long	1239Ba/04
SM-RM2192x	Pilot hose DN5 M/F end couplings, 150mm long	1239Ba/04
SM-RM2214x	Straight discharge hose DN38 – 17/8" 12UN F turnable/G 11/2" M, 300mm long	1239Ba/04
SM-RM2226x	Discharge hose with 90° bend DN38 – 17/8" 12UN F turnable/G 11/2" M, 350mm long	1239Ba/04
SM-RM2237x	Straight discharge hose DN51 – M24 x1.5mm/G ¾" 340mm long	1239Ba/04
SM-RM2126x	Discharge hose with 90° bend, DN51 – M24 x1.5mm/G ¾" 400mm long	1239Ba/04

Certificate No: 1239Ba to EN 12094-4

Ceasefire Container Valve Actuators

Product Name	Description	LPCB Ref. No.
SM-RM1996	Manual actuator	1239Ba/02
SM-RM2109	Pneumatic/manual actuator	1239Ba/02
SM-RM2166	Pneumatic actuator	1239Ba/02
SM-RM2169	Pneumatic/manual actuator (with plug)	1239Ba/02
SM-RM2167	Pneumatic actuator (with plug)	1239Ba/02
SM-RM2168	Pneumatic actuator	1239Ba/02
SM-RM1995	Solenoid actuator	1239Ba/02

Certificate No: 1239Ba to EN 12094-13

Ceasefire Check Valves

Product Name	Description	LPCB Ref. No.
SM-RM2130	DN50 HFCs (70 bar)	1239Ba/03
SM-RM2080	DN33 HFCs (70 bar)	1239Ba/03

Certificate No: 1329f to FprEN 12094-7 and LPCB schedule of requirements, FprEN 12094-7:2010

Ceasefire Nozzles for HFC227ea and FK 5-1-12

Product Name	Description	LPCB Ref. No.
SM-RM1715	15 NB Discharge Nozzle, 360°	1329f/01
SM-RM1716	20 NB Discharge Nozzle, 360°	1329f/01
SM-RM0899	20 NB Discharge Nozzle, 180°	1329f/01
SM-RM0898	15 NB Discharge Nozzle, 180°	1329f/01
SM-RM0900	25 NB Discharge Nozzle, 180°	1329f/01
SM-RM1718	32 NB Discharge Nozzle, 360°	1329f/01
SM-RM1717	25 NB Discharge Nozzle, 360°	1329f/01
SM-RM0902	40 NB Discharge Nozzle, 180°	1329f/01
SM-RM1720	50 NB Discharge Nozzle, 360°	1329f/01
SM-RM1719	40 NB Discharge Nozzle, 360°	1329f/01
SM-RM0901	32 NB Discharge Nozzle, 180°	1329f/01
SM-RM0903	50 NB Discharge Nozzle, 180°	1329f/01

Certificate No: 1329f to FprN12094-7:2010 and LPCB schedule of requirements

Ceasefire Nozzles with FRP for HFC227ea and FK 5-1-12

Product Name	Description	LPCB Ref. No.
SM-RM3557	15 NB Discharge Nozzle, 180°	1329f/03
SM-RM3558	20 NB Discharge Nozzle, 180°	1329f/03
SM-RM3565	25 NB Discharge Nozzle, 360°	1329f/03
SM-RM3559	25 NB Discharge Nozzle, 180°	1329f/03
SM-RM3561	40 NB Discharge Nozzle, 180°	1329f/03
SM-RM3562	50 NB Discharge Nozzle, 180°	1329f/03
SM-RM3563	15 NB Discharge Nozzle, 360°	1329f/03
SM-RM3560	32 NB Discharge Nozzle, 180°	1329f/03
SM-RM3567	40 NB Discharge Nozzle, 360°	1329f/03
SM-RM3568	50 NB Discharge Nozzle, 360°	1329f/03
SM-RM3564	20 NB Discharge Nozzle, 360°	1329f/03
SM-RM3566	32 NB Discharge Nozzle, 360°	1329f/03

Certificate No: 1329f to an LPCB schedule of requirements

Ceasefire Manifolds

GASEOUS SYSTEM COMPONENTS

Product Name	Description	LPCB Ref. No.
CF/Manifold/L-002	80 NB 2-Way Manifold	1329f/02
CF/Manifold/L-003	80 NB 3-Way Manifold	1329f/02
CF/Manifold/L-004	80 NB 4-Way Manifold	1329f/02

Certificate No: 980Aa to EN 12094-10:2003

Ceasefire Pressure gauges with switch

Product Name	Description	LPCB Ref. No.
TI-000826	0-60 bar range, 22.5 bar switch contact	980Aa/01
TI-000827	0-60 bar range, 22.5 bar switch contact	980Aa/01
TI-000828	0-100 bar range, 38 bar switch contact	980Aa/01
TI-000829	0-100 bar range, 38 bar switch contact	980Aa/01

Ceasefire Industries U.K. Limited

Office Number 301.3, One Victoria Square, Birmingham, West Midlands, B1 1BD, United Kingdom

Tel: +44 (0) 113 868 6666 / (0) 1268 919999

Website: www.ceasefire.co.uk

Certificate No: 1239Da to EN 12094-13

Ceasefire Industries U.K. Ltd Check Valves

Product Name	Description	LPCB Ref. No.
SM-RM2130	DN50 HFCs (70 bar)	1239Da/06
SM-RM2080	DN33 HFCs (70 bar)	1239Da/06

Certificate No: 1239Da to EN 12094-8

Ceasefire Industries U.K. Ltd Pilot and Discharge Connectors

Product Name	Description	LPCB Ref. No.
SM-RM2170x	Pilot hose DN5 F/F end couplings, 150mm long	1239Da/05
SM-RM2214x	Straight discharge hose DN38 - 17/8" 12UN F turnable/G 1 1/2" M, 300mm long	1239Da/05
SM-RM2226x	Discharge hose with 90° bend DN38 - 17/8" 12UN F turnable/G 1 1/2" M, 350mm long	1239Da/05
SM-RM2237x	Straight discharge hose DN51 - M24 x1.5mm/G ¾" 340mm long	1239Da/05
SM-RM2126x	Discharge hose with 90° bend, DN51 - M24 x1.5mm/G ¾" 400mm long	1239Da/05

Certificate No: 1239Da to EN 12094-4

Ceasefire Industries UK Ltd Container Valve Actuators

Product Name	Description	LPCB Ref. No.
SM-RM1995	Solenoid actuator	1239Da/02
SM-RM1996	Manual actuator	1239Da/02
SM-RM2109	Pneumatic/manual actuator	1239Da/02
SM-RM2166	Pneumatic actuator	1239Da/02
SM-RM2168	Pneumatic actuator	1239Da/02

Certificate No: 1239Da to EN 12094-13

Ceasefire Industries U.K. Ltd Non-Return Valve

Product Name	Description	LPCB Ref. No.
SM-RM2114	DN 4 (360 bar) Non-Return Valve for pilot line	1239Da/07

Certificate No: 1239Da to EN 12094-4

Ceasefire Industries UK Ltd Container Valves DN33 and DN50 for use with HFC227ea and FK 5-1-12

Product Name	Description	LPCB Ref. No.
SM-RM1994	DN33 container valve 25 bar, (60 bar burst disc)	1239Da/03
SM-RM2132	DN33 container valve 42 bar, (95 bar burst disc)	1239Da/03
SM-RM2121	DN50 container valve 25 bar, (60 bar burst disc)	1239Da/04
SM-RM2122	DN50 container valve 42 bar, (95 bar burst disc)	1239Da/04

Certificate No: 1239Ea to EN 12094-13

GASEOUS SYSTEM COMPONENTS

SECUREZONE Check Valves

Product Name	Description	LPCB Ref. No.
SM-RM2130	DN50 HFCs (70 bar)	1239Ea/06
SM-RM2080	DN33 HFCs (70 bar)	1239Ea/06

Certificate No: 1239Ea to EN 12094-13

SECUREZONE Non-Return Valve

Product Name	Description	LPCB Ref. No.
SM-RM2114	DN 4 (360 bar) Non-Return Valve for pilot line	1239Ea/07

Certificate No: 1239Ea to EN 12094-8

SECUREZONE Pilot and Discharge Connectors

Product Name	Description	LPCB Ref. No.
SM-RM2170x	Pilot hose DN5 F/F end couplings, 150mm long	1239Ea/05
SM-RM2214x	Straight discharge hose DN38 - 17/8" 12UN F turnable/G 11/2" M, 300mm long	1239Ea/05
SM-RM2226x	Discharge hose with 90° bend DN38 - 17/8" 12UN F turnable/G 11/2" M, 350mm long	1239Ea/05
SM-RM2237x	Straight discharge hose DN51 - M24 x1.5mm/G ¾" 340mm long	1239Ea/05
SM-RM2126x	Discharge hose with 90° bend, DN51 - M24 x1.5mm/G ¾" 400mm long	1239Ea/05

Certificate No: 1239Ea to EN 12094-4

SECUREZONE Container Valve Actuators

Product Name	Description	LPCB Ref. No.
SM-RM1995	Solenoid actuator	1239Ea/02
SM-RM1996	Manual actuator	1239Ea/02
SM-RM2109	Pneumatic/manual actuator	1239Ea/02
SM-RM2166	Pneumatic actuator	1239Ea/02
SM-RM2168	Pneumatic actuator	1239Ea/02

Certificate No: 1239Ea to EN 12094-4

SECUREZONE Container Valves DN33 and DN50 for use with HFC227ea and FK 5-1-12

Product Name	Description	LPCB Ref. No.
SM-RM1994	DN33 container valve 25 bar, (60 bar burst disc)	1239Ea/03
SM-RM2132	DN33 container valve 42 bar, (95 bar burst disc)	1239Ea/03
SM-RM2121	DN50 container valve 25 bar, (60 bar burst disc)	1239Ea/04
SM-RM2122	DN50 container valve 42 bar, (95 bar burst disc)	1239Ea/04

Ceodeux Extinguisher Valves Technology S.A. (ROTAREX FIRETEC)

24 rue de Diekirch, L-7440 Lintgen, Luxembourg

Tel: +352 32 78 32-1

E-mail: cornil.morgan@Rotarex.com • Website: www.rotarex.com

Certificate No: 724a to EN 12094-4

Ceodeux CO2 Container valves

Product Name	Description	LPCB Ref. No.
B0480 0007	CO ₂ Container Valve	724a/01
B0480 0106	CO ₂ Container Valve	724a/01
B0480 0110	CO ₂ Container Valve	724a/01
B0480 0111	CO ₂ Container Valve	724a/01
B0480 0113	CO ₂ Container Valve	724a/01
B0480 0127	CO ₂ Container Valve	724a/01
B0480 0128	CO ₂ Container Valve	724a/01

Certificate No: 724a to EN 12094-4

Ceodeux 200 bar Inert Container valves

Product Name	Description	LPCB Ref. No.
B0480 1208	200 bar Inert Container Valve	724a/02

GASEOUS SYSTEM COMPONENTS

B0480 1209	200 bar Inert Container Valve	724a/02
B0480 1210	200 bar Inert Container Valve	724a/02
B0480 1212	200 bar Inert Container Valve	724a/02
B0480 1213	200 bar Inert Container Valve	724a/02
B0480 1219	200 bar Inert Container Valve	724a/02
B0480 1218	200 bar Inert Container Valve	724a/02

Certificate No: 724a to EN 12094-4

Ceodeux 300 bar Inert Container valves

Product Name	Description	LPCB Ref. No.
B0480 2007	300 bar Inert Container Valve	724a/03
B0480 2010	300 bar Inert Container Valve	724a/03
B0480 2012	300 bar Inert Container Valve	724a/03
B0480 2021	300 bar Inert Container Valve	724a/03
B0480 2020	300 bar Inert Container Valve	724a/03

Certificate No: 724a to EN 12094-4

Ceodeux Actuators

Product Name	Description	LPCB Ref. No.
B04420092	Pneumatic / Manual Actuator	724a/04
B04420093	Pneumatic Actuator	724a/04
B04420097	Pneumatic Actuator	724a/04
B04425131	Electrical Actuator	724a/04
B04420065	Pneumatic / Manual Actuator	724a/04
B04420066	Pneumatic Actuator	724a/04
B04420076	Pneumatic Actuator	724a/04
B04420081	Pneumatic Actuator	724a/04
B04420082	Pneumatic Actuator	724a/04
B04420083	Pneumatic / Manual Actuator	724a/04
B04425146	Electrical Actuator	724a/04
B04425147	Electrical Actuator	724a/04
B04425148	Electrical Actuator	724a/04
B04425149	Electrical Actuator	724a/04
B04425137	Electrical Actuator	724a/04
B04425164	Electrical Actuator	724a/04
B04425165	Electrical Actuator	724a/04

Certificate No: 724a to EN 12094-4

Ceodeux Inert Container Valves Discharge Regulator

Product Name	Description	LPCB Ref. No.
B08400002	Discharge Constant Pressure Regulator	724a/05
B08400003	Discharge Constant Pressure Regulator	724a/05
B08400006	Discharge Constant Pressure Regulator	724a/05
B08400007	Discharge Constant Pressure Regulator	724a/05
B08400009	Discharge Constant Pressure Regulator	724a/05
B08400011	Discharge Constant Pressure Regulator	724a/05

Eurotech Fire Protection Ltd, in collaboration with Firetec Systems Ltd

Unit 6, The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2QZ, United Kingdom

Tel: +44 118 989 7910

E-mail: jamie.morris@firetec-systems.com • Website: www.firetec-systems.com

Certificate No: 1222b to EN 12094-13

Eurotech227, Eurosafe227, Eurotech1230 & Eurosafe1230 Check and Non Return Valves

Product Name	Description	LPCB Ref. No.
NF2433x	33mm Discharge Check Valve	1222b/12
NF2449x	49mm Discharge Check Valve	1222b/13

GASEOUS SYSTEM COMPONENTS

Certificate No: 1222b to EN 12094-13

Inertech Check Valve

Product Name	Description	LPCB Ref. No.
NF34131	Inertech Check Valve	1222b/16

Certificate No: 1222b to EN 12094-8

Eurotech227, Eurosafe227, Eurotech1230 & Eurosafe1230 Flexible Connectors

Product Name	Description	LPCB Ref. No.
NF271xxx	Pilot hose (Type 3 Connector)	1222b/09
NF2333xxx	33mm Discharge hose (Type 1 Connector)	1222b/10
NF2349xxx	49mm Discharge hose (Type 1 Connector)	1222b/11

Certificate No: 1222b to EN 12094-8

Inertech Flexible Connectors

Product Name	Description	LPCB Ref. No.
NF3312xxx	Inertech Discharge Hose	1222b/14
NF370xxx	Inertech Actuation Hose	1222b/15

Certificate No: 1222b to EN 12094-4

Eurotech227, Eurosafe227, Eurotech1230 & Eurosafe1230 Container Valves

Product Name	Description	LPCB Ref. No.
NF21330x	33mm Container Valve	1222b/01
NF21331x	33mm Container Valve with Integral Solenoid Actuator	1222b/02
NF21490x	49mm Container Valve	1222b/03
NF21491x	49mm Container Valve with Integral Solenoid Actuator	1222b/04

Certificate No: 1222b to EN 12094-5

Selector Valves

Product Name	Description	Working Pressure	LPCB Ref. No.
NF34015	Inertech Selector Valve DN15	60 bar	1222b/17
NF34020	Inertech Selector Valve DN20	60 bar	1222b/17
NF34025	Inertech Selector Valve DN25	60 bar	1222b/17
NF34032	Inertech Selector Valve DN32	60 bar	1222b/17
NF34040	Inertech Selector Valve DN40	60 bar	1222b/17
NF34050	Inertech Selector Valve DN50	60 bar	1222b/17

Certificate No: 1222c to prEN 12094-7

Eurotech227, Eurosafe227, Eurotech1230 & Eurosafe1230 Nozzles

Product Name	Description	LPCB Ref. No.
NF25152x	15mm Nozzle BSPP	1222c/01
NF25202x	20mm Nozzle BSPP	1222c/02
NF25252x	25mm Nozzle BSPP	1222c/03
NF25322x	32mm Nozzle BSPP	1222c/04
NF25402x	40mm Nozzle BSPP	1222c/05
NF25502x	50mm Nozzle BSPP	1222c/06
NF25152xN	15mm Nozzle NPT	1222c/01
NF25202xN	20mm Nozzle NPT	1222c/02
NF25252xN	25mm Nozzle NPT	1222c/03
NF25322xN	32mm Nozzle NPT	1222c/04
NF25402xN	40mm Nozzle NPT	1222c/05
NF25502xN	50mm Nozzle NPT	1222c/06

Certificate No: 1222c to prEN 12094-7

Inertech Nozzles

GASEOUS SYSTEM COMPONENTS

Product Name	Description	LPCB Ref. No.
NF35151 (1)	Inertech Nozzle DN15 180° & 360°	1222c/07
NF35152 (1)	Inertech Nozzle DN15 180° & 360°	1222c/07
NF35201	Inertech Nozzle DN20 180° & 360°	1222c/08
NF35251	Inertech Nozzle DN25 180° & 360°	1222c/09
NF35321	Inertech Nozzle DN32 180° & 360°	1222c/10
NF35401	Inertech Nozzle DN40 180° & 360°	1222c/11
NF35501	Inertech Nozzle DN50 180° & 360°	1222c/12

Certificate No: 1222d to EN 12094-4

Eurotech227, Eurosafe227, Eurotech1230, Eurosafe1230 & Inertech Container Valve Actuators

Product Name	Description	LPCB Ref. No.
NF26010	Solenoid Actuator	1222d/04
NF26011	Solenoid Actuator with reverse EMF diode	1222d/04
NF26020	Pneumatic Actuator	1222d/04
NF26030	Pneumatic/Manual Actuator	1222d/04

Certificate No: 1222d to EN 12094-4

Inertech Container Valves and Regulator

Product Name	Description	LPCB Ref. No.
NF311202	Inertech 200 bar Container Valve	1222d/02
NF311203	Inertech 300 bar Container Valve	1222d/03
NF311250	Inertech Discharge Constant Pressure Regulator	1222d/05

Certificate No: 1222e to IS 7285-2:2004

Inertech Cylinders - PESO (Seamless)

Product Name	Description	LPCB Ref. No.
51152677-1-xxx	Inertech 300 bar WP nominal 267mm diameter Seamless Cylinder (PESO)	1222e/01
51173568-1-yyy	Inertech 300 bar WP nominal 356mm diameter Seamless Cylinder (PESO)	1222e/02
51126726-2-zzz	Inertech 200 bar WP nominal 267mm diameter Seamless Cylinder (PESO)	1222e/03

Certificate No: 1222f to an LPCB Schedule of requirements

Inertech Manifolds

Product Name	Description	System pressure (bar)	LPCB Ref. No.
NF33x*1xx*2x*3x*4	Inertech Manifold	60	1222f/01

NF33x*1xx*2x*3x*4

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Certificate No: 331bb to EN 12094-4

Container Valve Assemblies

Product Name	Model	Container Pressure, bar	LPCB Ref. No.
Slide valve	IG71-259-200	200	331bb/01
Slide valve	IG71-259-300	300	331bb/02

Certificate No: 331bb to EN 12094-8

Connectors

Product Name	Model	Description	LPCB Ref. No.
Slide Flexible Connector	02-17914-1 (1)	Pilot line hose-push fit both ends	331bb/03
Slide Flexible Connector	02-17914-2 (1)	Pilot line hose-push fit end + 1/8" NPT end	331bb/04
Slide Flexible Connector	02-017846 (2)	3/4" bore discharge hose – 3/4" 90° female swivel both ends	331bb/05
Slide Flexible Connector	02-017847 – X (3)	1" bore discharge hose – 3/4" 90° elbow end + G1 female swivel end	331bb/06

GASEOUS SYSTEM COMPONENTS

Certificate No: 331v to EN 12094-5

PROINERT Selector Valves

Product Name	Description	Working Pressure(bar)	LPCB Ref. No.
IG71-025-SV3	25mm selector valve	64	331v/10
IG71-040-SV3	40mm selector valve	64	331v/10
IG71-050-SV3	50mm selector valve	64	331v/10
IG71-080-SV3	80mm selector valve	64	331v/10

Certificate No: 331v to FprEN12094-7 and an LPCB schedule of requirements

PROINERT Nozzles

Product Name	Description	LPCB Ref. No.
IG71-010-XXX	15mm	331v/08
IG71-011-XXX	20mm	331v/08
IG71-012-XXX	25mm	331v/08
IG71-013-XXX	40mm	331v/08

Certificate No: 331v to EN 12094-4

PROINERT Pilot Actuation Packages

Product Name	Description	LPCB Ref. No.
70-325-2 (1)	Nitrogen Actuator Assembly (Normally Open Pressure Switch Contacts)	331v/04
IG71-118	Primary ProInert Actuator Kit	331v/04
IG71-119	Secondary ProInert Actuator Kit	331v/04
70-325-4 (1)	Nitrogen Actuator Assembly (Normally Closed Pressure Switch Contacts)	331v/04
IG71-120 (1)	Relay Actuator	331v/04

Certificate No: 331v to EN 12094-4

PROINERT Container Valves

Product Name	Description	LPCB Ref. No.
IG71-001-1	300 bar	331v/01
IG71-001-2	200 bar	331v/01

Certificate No: 331v to an LPCB schedule of requirements

PROINERT Container Valve Assemblies

Product Name	Description	LPCB Ref. No.
IG71-006-300	10L-300 bar	331v/09
IG71-067-200	67L-200 bar	331v/09
IG71-080-200-01	80L-200 bar	331v/09
IG71-080-300-01	80L-300 bar	331v/09
IG71-140-300-01	140L-300 bar	331v/09
IG71-080-200-55	80L-200 bar	331v/09
IG71-080-300-55	80L-300 bar	331v/09
IG71-080-200-100	80L-200 bar	331v/09
IG71-080-300-100	80L-300 bar	331v/09
IG71-080-200-541	80L-200 bar	331v/09
IG71-080-300-541	80L-300 bar	331v/09
IG71-140-200-01	140L-200 bar	331v/09
IG71-140-200-55	140L-200 bar	331v/09
IG71-140-300-55	140L-300 bar	331v/09
IG71-140-200-100	140L-200 bar	331v/09
IG71-140-300-100	140L-300 bar	331v/09
IG71-140-200-541	140L-200 bar	331v/09
IG71-140-300-541	140L-300 bar	331v/09
IG71-103-300-55	80L-300 bar	331v/09
IG71-103-200-100	80L-200 bar	331v/09
IG71-103-300-100	80L-300 bar	331v/09
IG71-103-200-541	80L-200 bar	331v/09
IG71-103-300-541	80L-300 bar	331v/09
IG71-103-200-55	80L-300 bar	331v/09

GASEOUS SYSTEM COMPONENTS

Certificate No: 331v to EN 12094-4

PROINERT Actuators

Product Name	Description	LPCB Ref. No.
IG71-104	Pneumatic actuator	331v/02
02-13571	Electrical/manual actuator	331v/02

Certificate No: 331v to EN 12094-8

PROINERT Flexible Connectors

Product Name	Description	LPCB Ref. No.
02-10721	Discharge hose - Inert gas	331v/05
02-10798	Pneumatic hose - Valve actuator	331v/05
02-10801	Pneumatic hose - Pilot actuator	331v/05
02-13713	Pneumatic hose - Pilot connector	331v/05

Certificate No: 331v to EN 12094-13

PROINERT Check Valve

Product Name	Description	LPCB Ref. No.
IG71-008	Check valve	331v/06
02-10927	Non-Return Valve	331v/06

Certificate No: 331x to EN 12094-4an LPCB Schedule of Requirements

CLEAN AGENT Impulse Valve and Container Assemblies

Product Name	Description	LPCB Ref. No.
70-278	1" Valve 26L – HFC227ea	331x/07
70-255	1" Valve 45L – HFC227ea	331x/07
70-256	3" Valve 83L – HFC227ea	331x/07
70-257	3" Valve 150L – HFC227ea	331x/07
70-348	1" Valve 5L – HFC227ea	331x/07
70-349	1" Valve 9L – HFC227ea	331x/07
70-350	1" Valve 16L – HFC227ea	331x/07
70-377-R-NA-NV	1" Valve 5L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-378-R-NA-NV	1" Valve 9L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-379-R-NA-NV	1" Valve 16L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-380-R-NA-NV	1" Valve 26L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-381-R-NA-NV	1" Valve 45L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-382-R-NA-NV	3" Valve 83L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-383-R-NA-NV	3" Valve 150L – 3MTM Novec™ 1230 Fire Protection Fluid (FK-5-1-12)	331x/07
70-436-X	1" Valve 5L – HFC227ea	331x/08
70-437-X	1" Valve 9L – HFC227ea	331x/08
70-438-X	1" Valve 16L – HFC227ea	331x/08
70-439-X	1" Valve 26L – HFC227ea	331x/08
70-440-X	1" Valve 45L – HFC227ea	331x/08
70-441-X	3" Valve 83L – HFC227ea	331x/08
70-442-X	3" Valve 149L – HFC227ea	331x/08
70-443-X	1" Valve 5L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08
70-444-X	1" Valve 9L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08
70-445-X	1" Valve 16L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08
70-446-X	1" Valve 26L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08
70-447-X	1" Valve 45L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08
70-448-X	3" Valve 83L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08
70-449-X	3" Valve 149L – 3MTM Novec™ 1230 and FK-5-1-12	331x/08

Certificate No: 331x to EN 12094-4

CLEAN AGENT Pilot Actuation Packages

Product Name	Description	LPCB Ref. No.
70-339	Primary Clean Agent Actuator Completer Kit	331x/01
70-340	Secondary Clean Agent Actuator Completer Kit	331x/01

Certificate No: 331x to EN 12094-4

GASEOUS SYSTEM COMPONENTS

CLEAN AGENT 12mm Container Valve

Product Name	Description	LPCB Ref. No.
70-187-X	12mm Container Master Valve	331x/03
70-188	12mm Container Slave Valve	331x/03

Certificate No: 331x to EN 12094-4

CLEAN AGENT Impulse Container Valves

Product Name	Description	LPCB Ref. No.
70-242 (1)	1" Impulse Container Valve	331x/05
70-243 (1)	3" Impulse Container Valve	331x/05
70-354 (2)	1" Impulse Container Valve	331x/05
70-355 (2)	3" Impulse Container Valve	331x/05

Certificate No: 331x to EN 12094-4

CLEAN AGENT Container Valve Actuators

Product Name	Description	LPCB Ref. No.
02-12728-E	Electronic/manual actuator	331x/06
02-12729	Pneumatic actuator	331x/06
70-290	Impulse Releasing Interface	331x/06
02-14231	Direct Impulse Valve actuator	331x/06

Certificate No: 331x to EN 12094-8

CLEAN AGENT Flexible connectors

Product Name	Description	LPCB Ref. No.
02-4977	Actuator hose - Pilot Actuator	331x/02

Certificate No: 980Ba to EN 12094-10

Pressure gauges with switch

Product Name	Description	LPCB Ref. No.
02-12391	0-40 bar range	980Ba/01
02-14229	0-250 bar range	980Ba/01
02-14694	0-250 bar range	980Ba/01
02-12562	0-250 bar range	980Ba/01
02-12561	0-315 bar range	980Ba/01
02-12560	0-400 bar range	980Ba/01

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Certificate No: 1287a to EN 12094-13

Fire Eater Manifold and Check Valve / Non Return Valve Assemblies

Product Name	Description	LPCB Ref. No.
3057xx	Ci MT manifold assembly	1287a/08
305302	DN6 pilot line non-return valve	1287a/08

Certificate No: 1287a to EN 12094-4

Fire Eater Discharge Valve Actuators

Product Name	Description	LPCB Ref. No.
305450	Ci IS8B solenoid actuator	1287a/04
305451	Ci IS8B solenoid and manual actuator	1287a/04
305442	Ci IM8 manual actuator	1287a/04
305448	Ci PA8 pneumatic actuator	1287a/04

GASEOUS SYSTEM COMPONENTS

Certificate No: 1287a to EN 12094-10

Fire Eater Pressure Gauge and Switch

Product Name	Description	LPCB Ref. No.
305374	Manoswitch 0-431 bar	1287a/05

Certificate No: 1287a to EN 12094-8

Fire Eater Connectors

Product Name	Description	LPCB Ref. No.
303302	Ci DN10 discharge hose with straight ends, 0.5 m	1287a/06
303304	Ci DN10 discharge hose with straight ends, 1 m	1287a/06
303306	Ci DN10 discharge hose with straight ends, 1.5 m	1287a/06
303308	Ci DN10 discharge hose with straight ends, 2 m	1287a/06
303309	Ci DN10 discharge hose with straight ends, 2.5 m	1287a/06
303311	Ci DN10 discharge hose with straight ends, 3 m	1287a/06
303313	Ci DN10 discharge hose with straight ends, 4 m	1287a/06
303104	Ci DN10 discharge hose with 90° elbow one end, 1 m	1287a/06
303106	Ci DN10 discharge hose with 90° elbow one end, 1.5 m	1287a/06
303108	Ci DN10 discharge hose with 90° elbow one end, 2 m	1287a/06
303109	Ci DN10 discharge hose with 90° elbow one end, 2.5 m	1287a/06
303111	Ci DN10 discharge hose with 90° elbow one end, 3 m	1287a/06
303113	Ci DN10 discharge hose with 90° elbow one end, 4 m	1287a/06
303162	Ci DN6 pilot hose PA1 with straight ends, 0.18 m	1287a/07
303166	Ci DN6 pilot hose PA1 with straight ends, 0.22 m	1287a/07
303169	Ci DN6 pilot hose PA1 with straight ends, 0.25 m	1287a/07
303172	Ci DN6 pilot hose PA1 with straight ends, 0.28 m	1287a/07
303174	Ci DN6 pilot hose PA1 with straight ends, 0.33 m	1287a/07
303180	Ci DN6 pilot hose PA1 with straight ends, 0.5 m	1287a/07
205064	Ci DN6 pilot hose PA1 with straight ends, 0.4 m	1287a/07
205063	Ci DN6 pilot hose PA1 with straight ends, 1.0 m	1287a/07
303182	Ci DN6 pilot hose PA2 with 90° elbow one end, 1 m	1287a/07
303183	Ci DN6 pilot hose PA2 with 90° elbow one end, 3 m	1287a/07
303184	Ci DN6 pilot hose PA2 with 90° elbow one end, 0.4 m	1287a/07
303155	Ci DN6 pilot hose PA3 with 90° elbow each end, 0.35 m	1287a/07
303156	Ci DN6 pilot hose PA3 with 90° elbow each end, 0.45 m	1287a/07

Certificate No: 1287a to an LPCB Schedule of Requirements

Fire Eater Containers and Hand Wheel Valve Assemblies for INERGEN (200 bar) and (300 bar)

Product Name	Description	Hand Wheel Valve Outlet Thread	LPCB Ref. No.
200604	20 litre cylinder (200 bar)	W24.32 x 1 1/4	1287a/01
200606	30 litre cylinder (200 bar)	W24.32 x 1 1/4	1287a/01
200610	50 litre cylinder (200 bar)	W24.32 x 1 1/4	1287a/01
200616	80 litre cylinder (200 bar)	W24.32 x 1 1/4	1287a/01
200609	30 litre cylinder (300 bar)	M25 x 1.5	1287a/01
200615	50 litre cylinder (300 bar)	M25 x 1.5	1287a/01
200624	80 litre cylinder (300 bar)	M25 x 1.5	1287a/01
200642	140 litre cylinder (300 bar)	M25 x 1.5	1287a/01

Certificate No: 1287a to prEN 12094-7 and LPCB schedule

Fire Eater Nozzles

Product Name	Description	LPCB Ref. No.
210203	DN15 360° nozzle (1-3mm DN orifices) (1)	1287a/09
210204	DN15 360° nozzle (1)	1287a/09
210206	DN20 360° nozzle (1)	1287a/09
210208	DN25 360° nozzle (1)	1287a/09
210210	DN32 360° nozzle (1)	1287a/09
210223	DN15 360° nozzle (1-3mm DN orifices) (2)	1287a/09
210224	DN15 360° nozzle (2)	1287a/09
210226	DN20 360° nozzle (2)	1287a/09
210228	DN25 360° nozzle (2)	1287a/09
210230	DN32 360° nozzle (2)	1287a/09
210123	1/2" IN nozzle silencer 112	1287a/09
210125	1/2" IN nozzle silencer	1287a/09

GASEOUS SYSTEM COMPONENTS

210126	¾" IN nozzle silencer	1287a/09
210128	1" IN nozzle silencer	1287a/09

Certificate No: 1287a to EN 12094-4

Fire Eater Discharge Valves

Product Name	Description	LPCB Ref. No.
305421	Ci IV8 container valve (200 bar)	1287a/02
305411	Ci IV8 container valve (300 bar)	1287a/02
305410	Ci IV8 container valve (300 bar) + Manoswitch	1287a/03

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Certificate No: 1239a to EN 12094-4

Container Valves DN12

Product Name	Description	LPCB Ref. No.
F2020001	DN12 Container Valve 50 bar, HFC227ea & FK-5-1-12	1239a/01
F2021000	DN12 Container Valve 250 bar, CO ₂	1239a/01
F2021001	DN12 Container Valve 190 bar, CO ₂	1239a/01
F2022000	DN12 Container Valve 270 bar, Inert	1239a/01
F2023000	DN12 Container Valve 405 bar, Inert	1239a/01
F2021002	DN12 Container Valve 250 bar, CO ₂	1239a/01
F2023001	DN12 Container Valve 405 bar, Inert	1239a/01
F2020003	DN12 Container Valve 50 bar, HFC227ea & FK-5-1-12	1239a/01
F2020005	DN12 Container Valve 50 bar, HFC227ea & FK-5-1-12	1239a/01
F2021003	DN12 Container Valve 250 bar, CO ₂	1239a/01
F2021004	DN12 Container Valve 250 bar, CO ₂	1239a/01
F2022001	DN12 Container Valve 270 bar, Inert	1239a/01
F2022002	DN12 Container Valve 270 bar, Inert	1239a/01
F2023002	DN12 Container Valve 405 bar, Inert	1239a/01
F2023003	DN12 Container Valve 405 bar, Inert	1239a/01

Certificate No: 1239a to EN 12094-4

Container Valves DN33 and DN50 for use HFC125, HFC227ea & FK-5-1-12

Product Name	Description	LPCB Ref. No.
F2050003	DN33 Container Valve 50 bar, (60 bar burst disc)	1239a/03
F2050004	DN33 Container Valve 50 bar, (95 bar burst disc)	1239a/03
F2050005	DN33 Container Valve 50 bar, (95 bar burst disc)	1239a/03
F2050006	DN33 Container Valve 50 bar, (95 bar burst disc)	1239a/03
F2050007	DN33 Container Valve 50 bar, (60 bar burst disc)	1239a/03
F2050008	DN33 Container Valve 50 bar, (60 bar burst disc)	1239a/03
F2050009	DN33 Container Valve 50 bar, (95 bar burst disc)	1239a/03
F2060004	DN50 Container Valve 50 bar, (60 bar burst disc)	1239a/04
F2060005	DN50 Container Valve 50 bar, (95 bar burst disc)	1239a/04
F2060007	DN50 Container Valve 50 bar, (95 bar burst disc)	1239a/04
F2060008	DN50 Container Valve 50 bar, (95 bar burst disc)	1239a/04
F2060009	DN50 Container Valve 50 bar, (60 bar burst disc)	1239a/04
F2060010	DN50 Container Valve 50 bar, (60 bar burst disc)	1239a/04
F2060011	DN50 Container Valve 50 bar, (95 bar burst disc)	1239a/04

Certificate No: 1239a to EN 12094-4

Container Valves DN12 For Use with Inert Gas & CO₂

Product Name	Description	Working Pressure, bar	LPCB Ref. No.
F230 1000	Container Valve 250 bar, CO ₂ (1)	140	1239a/09
F230 1001	Container Valve 190 bar, CO ₂ (2)	140	1239a/10
F230 2000	Container Valve 270 bar, Inert	240	1239a/11
F230 3000	Container Valve 405 bar, Inert	360	1239a/12

GASEOUS SYSTEM COMPONENTS

Certificate No: 1239a to EN 12094-4

Container Valve Actuators For Use with DN12 F230xxxx Container Valves

Product Name	Description	LPCB Ref. No.
F112 0033	Manual actuator	1239a/13
F112 0035	Pneumatic actuator	1239a/14
F112 0037	Electrical actuator, with integrated blocking device with monitoring	1239a/15
F112 0038	Electrical actuator, with integrated blocking device	1239a/16
F112 0039	Electrical actuator with monitoring	1239a/17
F112 0040	Electrical actuator	1239a/18
F112 0043	Electrical actuator, with integrated blocking device, for CO ₂ with monitoring	1239a/19
F112 0044	Electrical actuator, with integrated blocking device, for CO ₂	1239a/20
F112 0046	Pneumatic actuator	1239a/21
F112 0047	Pneumatic actuator	1239a/22

Certificate No: 1239a to EN 12094-8

Connectors

Product Name	Description	LPCB Ref. No.
F104xxxx	Pilot connector (type 3) inert gas (360 bar) DN5 150-1500mm	1239a/05
F105xxxx	Discharge connector (type 1) inert gas (360 bar) DN12 250-1200mm	1239a/05
F106xxxx	Discharge connector (type 1) inert gas (360 bar) DN16 250-1200mm	1239a/05
F107xxxx	Discharge connector (type 1) HFCs (70 bar) DN38 300-1500mm	1239a/05
F108xxxx	Discharge connector (type 1) HFCs (70 bar) DN50 300-1500mm	1239a/05

Certificate No: 1239a to EN 12094-13

Check Valves

Product Name	Description	LPCB Ref. No.
F0170000 & F0170001	DN12 inert gas (360 bar)	1239a/06
F0180000	DN50 HFCs (70 bar)	1239a/06
F0190000	DN33 HFCs (70 bar)	1239a/06

Certificate No: 1239a to EN 12094-13

Non-Return Valve

Product Name	Description	LPCB Ref. No.
F0160001	DN4 (360 bar)	1239a/07

Certificate No: 1239a to EN 12094-4

Container Valve Actuators

Product Name	Description	LPCB Ref. No.
F1120004	Electrical actuator	1239a/02
F1120005	Manual actuator	1239a/02
F1120006	Pneumatic / manual actuator	1239a/02
F1120008	Pneumatic actuator	1239a/02
F1120011	Pneumatic actuator	1239a/02
F1120007	Pneumatic actuator	1239a/02
F1120009	Pneumatic / manual actuator (with plug)	1239a/02
F1120010	Pneumatic actuator (with plug)	1239a/02
F1120015	Pneumatic / manual actuator	1239a/02
F1120016	Pneumatic actuator	1239a/02
F1120019	Pneumatic actuator	1239a/02
F1120020	Manual actuator	1239a/02
F1120021	Electrical actuator	1239a/02
F1120023	Pneumatic / manual actuator	1239a/02
F1120030	Electrical actuator	1239a/02
F1160000	Electrical actuator	1239a/02

Certificate No: 1239a to An LPCB Schedule of Requirements based on Selected Clauses of EN12094-4 & EN12094-13

Constant Pressure Regulator

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GASEOUS SYSTEM COMPONENTS

Product Name	Description	Container Pressure (bar)	Outlet Pressure (bar)	LPCB Ref. No.
F2120010	Constant pressure regulator - manifold installation	200 & 300	Static: 60 (+2 / -6) Dynamic: Max. 60	1239a/08
F2120011	Constant pressure regulator - cylinder installation	200 & 300	Static: 60 (+2 / -6) Dynamic: Max. 60	1239a/08
F2120012	Constant pressure regulator	200 & 300	Static: 60 (+2 / -6) Dynamic: Max. 60	1239a/08

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Certificate No: 331Av to EN 12094-4 & an LPCB schedule of requirements

Actuator Assemblies

Product Name	Description	LPCB Ref. No.
AZ-71-120	Relay actuator	331Av/04
AZ-70-325-2	Nitrogen Actuator Assembly (Normally Open Pressure Switch Contacts)	331Av/04
AZ-70-325-4	Nitrogen Actuator Assembly (Normally Closed Pressure Switch Contacts)	331Av/04

Certificate No: 331Ax to EN 12094-4

CLEAN AGENT Impulse Valve and Container Assemblies

Product Name	Description	LPCB Ref. No.
AZ-70-348	1" Valve 5L - HFC227ea	331Ax/07
AZ-70-349	1" Valve 9L - HFC227ea	331Ax/07
AZ-70-350	1" Valve 16L - HFC227ea	331Ax/07
AZ-70-278	1" Valve 26L - HFC227ea	331Ax/07
AZ-70-255	1" Valve 45L - HFC227ea	331Ax/07
AZ-70-256	3" Valve 83L - HFC227ea	331Ax/07
AZ-70-257	3" Valve 150L - HFC227ea	331Ax/07

Certificate No: 331Ax to EN 12094-4

CLEAN AGENT Container Valve Actuators

Product Name	Description	LPCB Ref. No.
AZ-02-12728	Electronic/manual actuator	331Ax/06
AZ-02-12729	Pneumatic actuator	331Ax/06
AZ-70-290	Impulse Releasing Interface	331Ax/06
AZ-02-14231	Direct Impulse Valve actuator	331Ax/06

Certificate No: 331Ax to EN 12094-4

CLEAN AGENT Impulse Container Valves

Product Name	Description	LPCB Ref. No.
AZ-70-242	1" Impulse Container Valve	331Ax/05
AZ-70-243	3" Impulse Container Valve	331Ax/05

Kidde Fire Protection

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Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

Kidde Fire Protection GX-20 - Container Valves

Product Name	Description	LPCB Ref. No.
B6793-793	GCV40 valve	273a/02
B6793-792	GCV50 valve	273a/02

Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

GASEOUS SYSTEM COMPONENTS

Kidde Fire Protection GX-20 - Pilot Equipment

Product Name	Description	LPCB Ref. No.
B6793-770	Master Cylinder Adaptor Kit	273a/04
B6793-771	559mm Long Pilot hose	273a/04
B6793-772	762mm Long Pilot hose	273a/04
B6793-773	Male Straight Adaptor	273a/04
B6793-774	Male Elbow Adaptor	273a/04
B6793-775	Male Branch Tee	273a/04

Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

Kidde Fire Protection GX-20 - Discharge Nozzles

Product Name	Description	Nominal bore (mm)	LPCB Ref. No.
C3333-301-xx	180° Nozzle (1), (2)	15	273a/03
C3333-302-xx	180° Nozzle (1), (2)	20	273a/03
C3333-303-xx	180° Nozzle (1), (2)	25	273a/03
C3333-304-xx	180° Nozzle (1), (2)	32	273a/03
C3333-305-xx	180° Nozzle (1), (2)	40	273a/03
C3333-306-xx	180° Nozzle (1), (2)	50	273a/03
C3333-307-xx	360° Nozzle (1), (2)	15	273a/03
C3333-308-xx	360° Nozzle (1), (2)	20	273a/03
C3333-309-xx	360° Nozzle (1), (2)	25	273a/03
C3333-310-xx	360° Nozzle (1), (2)	32	273a/03
C3333-311-xx	360° Nozzle (1), (2)	40	273a/03
C3333-312-xx	360° Nozzle (1), (2)	50	273a/03

(1) Nozzles drilled in accordance with system calculations.

(2) Nozzles are manufactured from brass.

Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

Kidde Fire Protection GX-20 - Discharge Hoses, Outlet Adapters, Discharge Manifolds, including Check Valves and Bracket

Product Name	Description	Nominal bore (mm)	LPCB Ref. No.
B6793-760	GCV40 Outlet Hose	40	273a/06
B6793-761	GCV50 Outlet Hose	50	273a/06
K63497-02	GCV40 Outlet Adaptor	40	273a/06
K63497-03	GCV50 Outlet Adaptor	50	273a/06
B6793-762	Elbow Check	50	273a/06
D1511-006	2 Port Manifold	50	273a/06
D1511-007	2 Port Manifold	80	273a/06
D1511-009	2 Port Manifold	100	273a/06
D1511-008	3 Port Manifold	80	273a/06
D1511-010	3 Port Manifold	100	273a/06

Certificate No: 273a to EN 12094-13:2001

Kidde Fire Protection GX20 - Check Valves

Product Name	Description	LPCB Ref. No.
B6793-808	Check valve	273a/01
B6793-809	Check valve	273a/01
B6793-810	Check valve	273a/01
B6793-811	Check valve	273a/01
B6793-812	Check valve	273a/01

Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

Kidde Fire Protection GX-20 - Pressure Switches and Devices

Product Name	Description	LPCB Ref. No.
B6793-730	Cylinder Contents Supervisory Pressure Switch	273a/05
B6793-731	Discharge Pressure Switch	273a/05
B6793-732	Discharge Pressure Switch (Explosion Proof) Pressure Switch	273a/05
B6793-733	Pressure Trip	273a/05

Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

GASEOUS SYSTEM COMPONENTS

Kidde Fire Protection GX-20 - Container Assemblies

Product Name	Description	Capacity (ltr)	Strap	Bracket No.	LPCB Ref. No.
E7763-102	Cyl & GCV40 Valve Assy	8 (1), (2)	C6331-103	D1162-002	273a/07
E7763-122	Cyl & GCV40 Valve Assy	8 (1), (3)	C6331-103	D1162-002	273a/07
E7763-103	Cyl & GCV40 Valve Assy	16 (1), (2)	C6331-104	D1162-003	273a/07
E7763-123	Cyl & GCV40 Valve Assy	16 (1), (3)	C6331-104	D1162-003	273a/07
E7763-104	Cyl & GCV40 Valve Assy	28 (1), (2)	C6331-104	D1162-004	273a/07
E7763-124	Cyl & GCV40 Valve Assy	28 (1), (3)	C6331-104	D1162-004	273a/07
B6793-720	Nitrogen Pilot Cylinder	1.77	-	B6793-721	273a/07
E7763-101	Cyl & GCV40 Valve Assy	5 (1), (2)	C6331-103	D1162-001	273a/07
E7763-121	Cyl & GCV40 Valve Assy	5 (1), (3)	C6331-103	D1162-001	273a/07
E7763-105	Cyl & GCV50 Valve Assy	51 (1), (2)	C6331-105	-	273a/07
E7763-108	Cyl & GCV50 Valve Assy	142 (1), (2)	C6331-106	-	273a/07
E7763-106	Cyl & GCV50 Valve Assy	81 (1), (2)	C6331-105	-	273a/07

Notes:

- (1) Cylinders are designed and manufactured to meet ADR/RID: 2010/35/EU (TPED) & UK regulation 2020 (TPE)
- (2) Vertical mount cylinder with straight syphon tube
- (3) Horizontal mount cylinder with angled syphon tube continued
- (4) All container assemblies listed on this certificate include LPCB approved components, except for the containers which fall outside the scope of LPCB. The containers must have separate third party certification. The container assemblies are listed for end user reference only

Certificate No: 273a to EN 12094 Series plus an LPCB Schedule of Requirements

Kidde Fire Protection GX-20 - Valve Actuators

Product Name	Description	LPCB Ref. No.
B6793-701	Electric Control Head	273a/08
B6793-702	Electric & Cable Control Head	273a/08
B6793-703	Cable & Electric Control Head (Flameproof)	273a/08
B6793-704	Cable Operated Control Head	273a/08
B6793-705	Lever Operated Control Head	273a/08
B6793-706	Pressure & Lever Operated Control Head	273a/08
B6793-707	Pressure Operated Control Head	273a/08
B6793-708	Pressure Operated Control Head (1)	273a/08
B6793-709	Electric Control Head (1)	273a/08

Note:

- (1) Stackable configuration

Certificate No: 273d to EN 12094-8, An LPCB Schedule of Requirements

Kidde Fire Protection Natura™ (400 Series) & 469 Series Inert Gas System – High Pressure Hoses

Product Name	Description	Nominal bore (mm)	System pressure (bar)	Length (mm)	LPCB Ref. No.
01-3260-XXXX (1)	Actuation hose	DN5	150, 200 & 300	200-1000	273d/03
01-3261-XXXX (1)	Actuation Hose	DN5	150, 200 & 300	200-1000	273d/03
01-3271-1100/1200	Actuation Hose	DN5	150, 200 & 300	200-300	273d/03
01-3272-1100/1200	Actuation Hose	DN5	150, 200 & 300	250-500	273d/03
01-3273-1020/1200	Actuation Hose	DN5	150, 200 & 300	200-700	273d/03

Note:

- (1) Where XXXX = Length in mm eg; 0200 = 200mm long

Certificate No: 273d to EN 12094 part 13 and Schedule of Requirements

Kidde Fire Protection 469 Series Inert Gas System – Pilot Line Equipment

Product Name	Description	Nominal bore (mm)	System pressure (bar)	LPCB Ref. No.
01-6363-0000	Pilot Line Check Valve	¼" BSP	150, 200 & 300	273d/18
01-3388-0000	Actuation Line Leak Bleeder Unit	-	150, 200 & 300	273d/18
01-4131-0000	Actuation Line T-Piece	DN5	150, 200 & 300	273d/18
01-4130-1000	Actuation Line Cross	DN5	150, 200 & 300	273d/18

Certificate No: 273d to EN 12094-5

Kidde Fire Protection 469 Series Inert Gas System – Selector Valves

Product Name	Description	Size	System pressure (bar)	LPCB Ref. No.
01-6240-1000	Selector Valve	½"	150, 200 & 300	273d/08
01-6242-1000	Selector Valve	1"	150, 200 & 300	273d/08
01-6244-1000	Selector Valve	1½"	150, 200 & 300	273d/08

GASEOUS SYSTEM COMPONENTS

01-6246-1000

Selector Valve

2"

150, 200 & 300

273d/08

Certificate No: 273d to an LPCB Schedule of Requirements

Kidde Fire Protection 469 Series Inert Gas System – Pressure Relief Devices

Product Name	Description	System pressure (bar)	LPCB Ref. No.
01-6653-0001/0101	Pressure Relief Device	150	273d/17
01-6653-0002/0102	Pressure Relief Device	200	273d/17
01-6653-0003/0103	Pressure Relief Device	300	273d/17

Certificate No: 273d to an LPCB Schedule of Requirements

Kidde Fire Protection 469 Series Inert Gas System – Pressure Restrictor Assemblies

Product Name	Description	Orifice size (mm)	System pressure (bar)	LPCB Ref. No.
01-370X-1030/1070 (1)(2)(3)(4)	½" Restrictor Assembly	3-7	150, 200 & 300	273d/04
01-370X-3050/3180 (2)	1.0" Restrictor Assembly	5-18	150, 200 & 300	273d/04
01-370X-4120/4270 (2)	1½" Restrictor Assembly	12-27	150, 200 & 300	273d/04
01-370X-5200/5360 (2)	2.0" Restrictor Assembly	20-36	150, 200 & 300	273d/04

Notes:

(1) Where XXX = Orifice size e.g., 070 = 7mm, 075 = 7.5mm, 115 = 11.5mm, etc

(2) Where A = "1" NPT Male / NPT Female, "2" NPT Female / NPT Female, "3" NPT Male / BSP female, "4" NPT Female / BSP Female

(3) Also available where A = "5" BSP Male / NPT Female, "6" BSP Male / BSP Female

(4) Not available with NPT Female / NPT Female or NPT Female / BSP Female connections)

Certificate No: 273d to EN 12094-10, An LPCB Schedule of Requirements

Kidde Fire Protection 469 Series Inert Gas System – Pressure Monitoring Devices

Product Name	Description	System pressure (bar)	LPCB Ref. No.
01-7171-1500	Pressure Gauge Unit	150	273d/15
01-7171-1200	Pressure Gauge Unit	200	273d/15
01-7171-1300	Pressure Gauge Unit	300	273d/15
01-7221-0300	Manifold Pressure Gauge, ½" NPT, 0-400 Bar	150, 200 & 300	273d/15
03-5713-0000	Discharge Pressure Switch	Max operating pressure 90 bar	273d/15

Certificate No: 273d to an LPCB Schedule of Requirements

Kidde Fire Protection 469 Series inert Gas System – Pressure Regulator Assemblies

Product Name	Description	Orifice Size (mm)	System pressure (bar)	LPCB Ref. No.
01-6017-0000	Pressure Regulator	N/A	150, 200 & 300	273d/04

Certificate No: 273d to EN 12094-4

Kidde Fire Protection 469 Series Inert Gas System - Container Valves

Product Name	Description	System pressure (bar)	LPCB Ref. No.
01-6471-0150	469 Series Inert Gas Valve	150	273d/10
01-6471-0200	469 Series Inert Gas Valve	200	273d/10
01-6471-0300	469 Series Inert Gas Valve	300	273d/10

Certificate No: 273d to EN 12094-7, An LPCB Schedule of Requirements

Kidde Fire Protection Natura™ (400 Series) & 469 Series Inert Gas System – Discharge Nozzles (Male Threads)

Product Name	Description	Orifice size (mm)	Nozzle pressure (bar)	LPCB Ref. No.
01-3465-A2XXX (1), (2)	½" Nozzle Assembly	3-10	60	273d/05
01-3465-A3XXX (1), (2)	¾" Nozzle Assembly	7-14	60	273d/05
01-3465-A4XXX (1), (2)	1" Nozzle Assembly	10-18	60	273d/05
01-3465-A4XXX (1), (2)	1½" Nozzle Assembly	15-26	60	273d/05

Notes:

(1) Where XXX is Orifice size, e.g., 070 = 7mm, 075 = 7.5mm, 115 = 11.5mm, etc

(2) Where A can be "1" for BSP and "0" for NPT Connections

Certificate No: 273d to EN 12094-13

Kidde Fire Protection 469 Series Inert Gas System – Manifold Check Valve

GASEOUS SYSTEM COMPONENTS

Product Name	Description	Nominal bore (mm)	System pressure (bar)	LPCB Ref. No.
01-6454-0000	Manifold Check Valve	½" BSP & ¾" NPT	150, 200 & 300	273d/09

Certificate No: 273d to EN 12094-8

Kidde Fire Protection 469 Series Inert Gas System – Discharge Hoses

Product Name	Description	Nominal bore (mm)	System pressure (bar)	Length (mm)	LPCB Ref. No.
01-3284-0100/0200	Discharge Hose	DN9	150, 200 & 300	400-700	273d/03

Certificate No: 273d to an LPCB Schedule of Requirements

Kidde Fire Protection 469 Series Inert Gas System – Single Area Manifolds

Product Name	Description	No. cylinders	System pressure (bar)	LPCB Ref. No.
01-3506-2011 to 01-3506-2019	Single Row Discharge Manifold	1 to 10	150, 200	273d/06
01-3506-2021 to 01-3506-2029	Double Row Discharge Manifold	4 to 20	150, 200	273d/06
01-3506-3011 to 01-3506-3019	Single Row Discharge Manifold	1 to 10	300	273d/06
01-3506-3021 to 01-3506-3029	Double Row Discharge Manifold	4 to 20	300	273d/06

Certificate No: 273d to an LPCB Schedule of Requirements

Kidde Fire Protection 469 Series Inert Gas System– Multi-Area Manifold Accessories

Product Name	Description	System Pressure (bar)	LPCB Ref. No.
01-3508-0002	Back-Plate Pilot Manifold (2 Area/Selector Valve Control)	150, 200, 300 (1)	273d/06
01-3508-0003	Back-Plate Pilot Manifold (3 Area/Selector Valve Control)	150, 200 , 300 (1)	273d/06
01-3508-0004	Back-Plate Pilot Manifold (4 Area/Selector Valve Control)	150, 200, 300 (1)	273d/06
01-3508-0005	Back-Plate Pilot Manifold (5 Area/Selector Valve Control)	150, 200, 300 (1)	273d/06

Note:

(1) Working Pressure Outlet 8 bar

Certificate No: 273d to an LPCB Schedule of Requirements

Kidde Fire Protection 469 Series - Container Assemblies

Product Name	Capacity (ltr)	System Pressure (bar)	LPCB Ref. No.
01-1331-590X (1)	15.9	150 (2), (3)	273d/01
01-1311-590X (1)	67.5	150 (2), (3)	273d/01
01-1321-590X (1)	80.0	150 (2), (3)	273d/01
01-1332-590X (1)	15.9	200 (2), (3)	273d/01
01-1312-590X (1)	67.5	200 (2), (3)	273d/01
01-1322-590X (1)	80.0	200 (2), (3)	273d/01
01-1334-590X (1)	15.9	300 (2), (3)	273d/01
01-1314-590X (1)	67.5	300 (2), (3)	273d/01
01-1324-590X (1)	80.0	300 (2), (3)	273d/01
01-1394-590X (1)	140.0	300 (2), (3)	273d/01
01-1394-990X (1)	140.0	300 (4), (3)	273d/01
01-1322-990X (1)	80.0	200 (4), (3)	273d/01
01-1324-990X (1)	80.0	300 (4), (3)	273d/01

Notes :

(1) Where X can be: "0" = Argonite® (IG-55), "2" – Nitrogen (IG-100), "4" = Argon (IG-01) & "5" = IG-541

(2) Cylinder is designed and manufactured in accordance with European Directive 2010/35/EU (TPED) & CDG Regulation 2020 (TPE) through compliance with ISO 9809-2

(3) Cylinder is designed and manufactured in accordance with Government of India (PESO) requirements.

(4) A range of wall brackets, clamping bars, spacers and clamping bolts for secure container installation are also available

Certificate No: 273d to EN 12094-4

Kidde Fire Protection 469 Series Inert Gas System– Release Units

Product Name	Description	System pressure (bar)	LPCB Ref. No.
01-7172-1150	Release Unit	150	273d/11
01-7172-1200	Release Unit	200	273d/11
01-7172-1300	Release Unit	300	273d/11
01-7173-1150	Release Unit	150	273d/11
01-7173-1200	Release Unit	200	273d/11
01-7173-1300	Release Unit	300	273d/11

GASEOUS SYSTEM COMPONENTS

Certificate No: 273e to EN 12094-13

CO2 FIXED FIREFIGHTING COMPONENTS.

Product Name	Description	Nominal Bore (mm)	System pressure (bar)	LPCB Ref. No.
D8562-008	CO ₂ NRV	DN2	140	273e/01

Certificate No: 273f to an LPCB schedule of requirements

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Containers

Product Name	Description	Container pressure, bar	LPCB Ref. No.
38-418021-XXX (1)	80.0 litre cylinder	200 (2) (3)	273f/01
38-418031-XXX (1)	80.0 litre cylinder	300 (2) (3)	273f/02
38-411431-XXX (1)	140.0 litre cylinder	300 (2) (3)	273f/03

Notes:

- (1) Cylinder is designed and manufactured in accordance with European Directive 2010/35/EU (TPED) and/or UN (USA) through compliance with ISO 9809-2, ADR and/or DOT
- (2) A range of wall brackets, clamping bars, spacers and clamping bolts for secure container installation are available
- (3) Where XXX can be: "055" = Argonite® (IG55), "100" = Nitrogen (IG-100), "001" = Argon (IG-01) or "541" = IG-541.
- (4) All container assemblies listed on this certificate include LPCB approved components, except for the containers which fall outside the scope of LPCB. The containers must have separate third party certification. The container assemblies are listed for end user reference only

Certificate No: 273g to EN 12094-4

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Container Valves

Product Name	Description	LPCB Ref. No.
38-400000-001	Natura™ (400 Series) Inert Gas Valve (1) - 200/300 bar	273g/01

Notes:

- (1) Valve nominal outlet pressure = 55 bar

Certificate No: 273h to EN 12094-4

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Release Assemblies

Product Name	Description	LPCB Ref. No.
38-400001-001	Natura™ (400 Series) Release Unit (400 Series)-200 bar, manual/electric, N.O. Gauge – ≥ 160 bar switch (1)	273h/01
38-400001-002	Natura™ (400 Series) Release Unit (400 Series)-200 bar, manual/electric, N.C. Gauge – ≥ 160 bar switch (1)	273h/02
38-400001-003	Natura™ (400 Series) Release Unit (400 Series)-300 bar, manual/electric, N.O. Gauge – ≥ 240 bar switch (1)	273h/03
38-400001-004	Natura™ (400 Series) Release Unit (400 Series)-300 bar, manual/electric, N.C. Gauge – ≥ 240 bar switch (1)	273h/04

Notes:

- (1) Gauge switch type; Normally Closed (N.C.) or Normally Open (N.O.) under pressure at and above the switch point

Certificate No: 273i to EN 12094-10 and an LPCB schedule of requirements

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Pressure Monitoring Devices

Product Name	Description	LPCB Ref. No.
38-400005-001	Pressure Gauge Unit, Gauge Switch N.O. Gauge ≥ 160 bar (1)	273i/01
38-400005-002	Pressure Gauge Unit, Gauge Switch N.C. Gauge ≥ 160 bar (1)	273i/02
38-400005-003	Pressure Gauge Unit, Gauge Switch N.O. Gauge ≥ 240 bar (1)	273i/03
38-400005-004	Pressure Gauge Unit, Gauge Switch N.C. Gauge ≥ 240 bar (1)	273i/04
01-7221-0300	Manifold Pressure Gauge, ½" NPT, 0-400 Bar	273i/05
03-5713-0000	Discharge Pressure Switch (Max 90 bar)	273i/06
81-486536-000	Discharge Pressure Switch (Max 140 bar)	273i/07

Notes:

- (1) Gauge switch type; Normally Closed (N.C.) or Normally Open (N.O.) under pressure at and above the switch point

Certificate No: 273j to EN 12094-8:2006

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Discharge and Pilot Connectors

Product Name	Description	Length (mm)	LPCB Ref. No.
38-401ABX-XXX (1)(2)(3)	Pilot Hose, ¼" Quick Connect (4)	300 - 3000	273j/01
38-400ABX-XXX (1)(2)(3)	Discharge Hose ¾"	300 - 3000	273j/02
01-3273-1020/1200	¼" Straight x 90° for Selector Valve Actuation	200 - 700	273j/03

GASEOUS SYSTEM COMPONENTS

Notes:

- (1) A – Coupling of hose is defined as:
 1. = Straight coupling, zinc plated mild steel
 2. = 45°, set 0°, zinc plated mild steel
 3. = 90°, set 0°, zinc plated mild steel
 (2) X-XXX = Length of Hose in mm (300-3000)
 (3) B – Coupling at opposite end of hose is defined as:
 1. = Straight coupling, zinc plated mild steel
 2. = 45°, set 180°, zinc plated mild steel
 3. = 90°, set 180°, zinc plated mild steel
 (4) Approved for use with Official Festo couplings

Certificate No: 273k to EN 12094-13

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Pilot Line Equipment

Product Name	Description	Nominal bore, mm	Working pressure, bar	LPCB Ref. No.
38-400002-003	Pilot Line Non-Return Valve	2	10	273k/01

Certificate No: 273l to an LPCB schedule of requirements

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Manifolds

Product Name	Description	No. cylinders	Working pressure, bar	LPCB Ref. No.
38-351000-004 to 38-351000-008	Single Row, Kidde IGS – 400 Series Discharge Manifold (80L cylinders)	2 to 6	70	273l/01
38-351000-009 to 38-351000-011	Double Row, Kidde IGS – 400 Series Discharge Manifold (80L cylinders)	4 to 8	70	273l/02
38-351140-004 to 38-351140-008	Single Row, Kidde IGS – 400 Series Discharge Manifold (140L cylinders)	2 to 6	70	273l/03
38-351140-009 to 38-351140-011	Single Row, Kidde IGS – 400 Series Discharge Manifold (140L cylinders)	4 to 8	70	273l/04

Certificate No: 273m to EN 12094-13

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Manifold Check Valve

Product Name	Description	Nominal bore, mm	Working pressure, bar	LPCB Ref. No.
38-400002-002	Manifold Check Valve	14	300	273m/01

Certificate No: 273n to an LPCB schedule of requirements

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Pressure Relief Devices

Product Name	Description	Working pressure, bar	LPCB Ref. No.
38-400006-002	Manifold Pressure Relief Device	70	273n/01

Certificate No: 273p to an LPCB schedule of requirements

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Multi-area Manifold Accessories

Product Name	Description	System Pressure (Bar)	LPCB Ref. No.
01-3508-0002	Back-Plate Pilot Manifold (2 Area/Selector Valve Control)	150, 200, 300 (1)	273p/01
01-3508-0003	Back-Plate Pilot Manifold (3 Area/Selector Valve Control)	150, 200, 300 (1)	273p/02
01-3508-0004	Back-Plate Pilot Manifold (4 Area/Selector Valve Control)	150, 200, 300 (1)	273p/03
01-3508-0005	Back-Plate Pilot Manifold (5 Area/Selector Valve Control)	150, 200, 300 (1)	273p/04
01-3508-0007	Back-Plate Pilot Manifold (7 Area/Selector Valve Control)	150, 200, 300 (1)	273p/06
01-3508-0006	Back-Plate Pilot Manifold (6 Area/Selector Valve Control)	150, 200, 300 (1)	273p/05

Note:

- (1) Outlet pressure 8 bar

Certificate No: 273q to prEN 12094-7

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Discharge Nozzles (Female Threads)

Product Name	Description	Orifice Size (mm)	LPCB Ref. No.
38-4A7100-XXX (1)(2)	½" Nozzle assembly (Female Threads) - 360° Holes	3 – 10	273q/01
38-4A7200-XXX (1)(2)	¾" Nozzle assembly (Female Threads) - 360° Holes	7 – 13.5	273q/02

GASEOUS SYSTEM COMPONENTS

38-4A7300-XXX (1)(2)	1" Nozzle assembly (Female Threads) - 360° Holes	10 – 17	273q/03
38-4A7400-XXX (1)(2)	1½" Nozzle assembly (Female Threads) - 360° Holes	14 - 26	273q/04
38-4A7500-XXX (1)(2)	½" Nozzle assembly (Female Threads) - 180° Holes	3 – 10	273q/05
38-4A7600-XXX (1)(2)	¾" Nozzle assembly (Female Threads) - 180° Holes	7 – 13.5	273q/06
38-4A7700-XXX (1)(2)	1" Nozzle assembly (Female Threads) - 180° Holes	10 – 17	273q/07
38-4A7800-XXX (1)(2)	1½" Nozzle assembly (Female Threads) - 180° Holes	14 - 26	273q/08

Notes:

- (1) Where XXX is Orifice size, e.g. 070 = 7mm, 075 = 7.5mm, 115 = 11.5mm, etc
 (2) Where A can be "1" for BSP and "0" for NPT connections

Certificate No: 273r to an LPCB schedule of requirements

Kidde Fire Protection Natura™ (400 Series) & 469 Series Inert Gas System – Nozzle Sound Reduction Devices

Product Name	Description	Orifice Size (mm)	LPCB Ref. No.
01-3470-0015	½" Nozzle Silencer (1)	3 – 10 (2)	273r/01
01-3470-0020	¾" Nozzle Silencer (1)	7 – 13.5 (2)	273r/02
01-3470-0025	1" Nozzle Silencer (1)	10 – 17 (2)	273r/03
01-3470-1015	½" FSN 112 Nozzle Silencer (1)	3 – 10 (2)	273r/04

Notes:

- (1) BSP thread
 (2) For use in connection with Kidde Natura™ (400 Series) & 469 Series 360° Nozzle Assemblies

Certificate No: 273s to EN 12094-5

Kidde Fire Protection Natura™ (400 Series) Inert Gas System – Selector Valves

Product Name	Description	Max Working pressure (Bar)	LPCB Ref. No.
22-37140-025	1" Selector Valve - BSP	140	273s/01
22-37140-040	1 ½" Selector Valve - BSP	140	273s/02
22-37140-050	2" Selector Valve - BSP	140	273s/03
22-37140-080	3" Selector Valve - Flange (EN 1092-1)	140	273s/04
22-37140-100	4" Selector Valve - Flange (EN 1092-1)	140	273s/05

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400 Main Street, Ashland, Massachusetts 01721, USA

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Website: www.kiddefiresystems.com and www.fenwalfire.com

Certificate No: 273Bf to an LPCB schedule of requirements

Kidde Fire Systems Natura™ Inert Gas (400 Series) Containers

Product Name	Description	Container pressure, bar	LPCB Ref. No.
38-428021-XXX (3)	80.0 litre cylinder	200 (1) (2)	273Bf/01
38-428031-XXX (3)	80.0 litre cylinder	300 (1) (2)	273Bf/02
38-421431-XXX (3)	140.0 litre cylinder	300 (1) (2)	273Bf/03

Certificate No: 273Bg to EN12094-4

Kidde Fire Systems Natura™ Inert Gas (400 Series) Container Valves

Product Name	Description	LPCB Ref. No.
38-400000-001	Natura™ Inert Gas Valve (400 Series) (1) 200/300 bar	273Bg/01

Certificate No: 273Bh to EN12094-4

Kidde Fire Systems Natura™ Inert Gas (M400 Series) Release Assemblies

Product Name	Description	LPCB Ref. No.
38-400001-001	Release Unit (400 Series)-200 bar, manual/electric, N.O. Gauge – 160 bar switch (1)	273Bh/01
38-400001-002	Release Unit (400 Series)-200 bar, manual/electric, N.C. Gauge – 160 bar switch (1)	273Bh/02
38-400001-003	Release Unit (400 Series)-300 bar, manual/electric, N.O. Gauge – 240 bar switch (1)	273Bh/03
38-400001-004	Release Unit (400 Series)-300 bar, manual/electric, N.C. Gauge – 240 bar switch (1)	273Bh/04

Certificate No: 273Bi to EN12094-10 and an LPCB schedule of requirements

GASEOUS SYSTEM COMPONENTS

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Pressure Monitoring Devices

Product Name	Description	LPCB Ref. No.
38-400005-001	Pressure Gauge Unit, Gauge Switch N.O. ≥ 160 bar (1)	273Bi/01
38-400005-002	Pressure Gauge Unit, Gauge Switch N.C. ≥ 160 bar (1)	273Bi/02
38-400005-003	Pressure Gauge Unit, Gauge Switch N.O. ≥ 240 bar (1)	273Bi/03
38-400005-004	Pressure Gauge Unit, Gauge Switch N.C. ≥ 240 bar (1)	273Bi/04
01-7221-0300	Manifold Pressure Gauge	273Bi/05
03-5713-0000	Discharge Pressure Switch	273Bi/06

Certificate No: 273Bj to EN 12094-8:2006

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Discharge and Pilot Connectors

Product Name	Description	LPCB Ref. No.
38-401ABX-XXX (1)	Pilot Hose, ¼" Quick Connect (2)	273Bj/01
38-400ABX-XXX (3)	Discharge Hose ¾"	273Bj/02
01-3273-1000	¼" Straight x 90° for Selector Valve actuation	273Bj/03

Certificate No: 273Bk to EN12094-13

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Pilot Line Equipment

Product Name	Description	Nominal bore, mm	Working pressure, bar	LPCB Ref. No.
38-400002-003	Pilot Line Non-Return Valve	2	10	273Bk/01

Certificate No: 273Bl to an LPCB schedule of requirements

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Manifolds

Product Name	Description	No. cylinders	Working pressure, bar	LPCB Ref. No.
38-351000-004 to 38-351000-008	Single Row, Kidde IGS – 400 Series Discharge Manifold (80L cylinders)	2 to 6	70	273Bl/01
38-351000-009 to 38-351000-011	Double Row, Kidde IGS – 400 Series Discharge Manifold (80L cylinders)	4 to 8	70	273Bl/02
38-351140-004 to 38-351140-008	Single Row, Kidde IGS – 400 Series Discharge Manifold (140L cylinders)	2 to 6	70	273Bl/03
38-351140-009 to 38-351140-011	Single Row, Kidde IGS – 400 Series Discharge Manifold (140L cylinders)	4 to 8	70	273Bl/04

Certificate No: 273Bn to an LPCB schedule of requirements

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Pressure Relief Devices

Product Name	Description	Working pressure, bar	LPCB Ref. No.
38-400006-002	Manifold Pressure Relief Device	70	273Bn/01

Certificate No: 273Bp to an LPCB schedule of requirements

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Multi-area Manifold Accessories

Product Name	Description	LPCB Ref. No.
01-3508-0002	Pilot Manifold (2 Divertor Valves)	273Bp/01
01-3508-0003	Pilot Manifold (3 Divertor Valves)	273Bp/02
01-3508-0004	Pilot Manifold (4 Divertor Valves)	273Bp/03
01-3508-0005	Pilot Manifold (5 Divertor Valves)	273Bp/04

Certificate No: 273Bq to prEN12094-7

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Nozzles

Product Name	Description	Orifice Size (mm)	LPCB Ref. No.
38-4A7100-XXX (1)(2)	½" Nozzle assembly - 360° Holes	3 – 10	273Bq/01
38-4A7200-XXX (1)(2)	¾" Nozzle assembly - 360° Holes	7 – 13.5	273Bq/02
38-4A7300-XXX (1)(2)	1" Nozzle assembly - 360° Holes	10 – 17	273Bq/03
38-4A7400-XXX (1)(2)	1½" Nozzle assembly - 360° Holes	14 – 26	273Bq/04
38-4A7500-XXX (1)(2)	½" Nozzle assembly - 180° Holes	3 – 10	273Bq/05
38-4A7600-XXX (1)(2)	¾" Nozzle assembly - 180° Holes	7 – 13.5	273Bq/06
38-4A7700-XXX (1)(2)	1" Nozzle assembly - 180° Holes	10 – 17	273Bq/07
38-4A7800-XXX (1)(2)	1½" Nozzle assembly - 180° Holes	14 – 26	273Bq/08

Certificate No: 273Br to an LPCB schedule of requirements

GASEOUS SYSTEM COMPONENTS

Kidde Fire Systems Natura™ Inert Gas System (400, 469 & C60 Series) Nozzle Sound Reduction Devices

Product Name	Description	Orifice Size (mm)	LPCB Ref. No.
01-3470-0015	½" Nozzle Silencer (1)	3 – 10 (2)	273Br/01
01-3470-0020	¾" Nozzle Silencer (1)	7 – 13.5 (2)	273Br/02
01-3470-0025	1" Nozzle Silencer (1)	10 – 17 (2)	273Br/03
01-3470-1015	½" FSN 112 Nozzle Silencer (1)	3 – 10 (2)	273Br/04

Certificate No: 273Bs to EN12094-5

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Selector Valves

Product Name	Description	Working pressure, bar	LPCB Ref. No.
22-37140-025	1" Selector Valve	140	273Bs/01
22-37140-040	1 ½" Selector Valve	140	273Bs/02
22-37140-050	2" Selector Valve	140	273Bs/03
22-37140-080	3" Selector Valve	140	273Bs/04
22-37140-100	4" Selector Valve	140	273Bs/05

Certificate No: 273m to EN12094-13

Kidde Fire Systems Natura™ Inert Gas System (400 Series) Manifold Check Valve

Product Name	Description	Nominal bore, mm	Working pressure, bar	LPCB Ref. No.
38-400002-002	Manifold Check Valve	14	300	273Bm/01

Certificate No: 594Ba to

ARGONITE Hoses

Product Name	Description	Nominal bore (mm)	System pressure (bar)	LPCB Ref. No.
01-3260-0100/1000	Actuation Hose (5)	DN5	300	594Ba/03
01-3261-0100/1000	Actuation Hose (5)	DN5	300	594Ba/03
01-3271-1100/1200	Actuation Hose (5)	DN5	300	594Ba/03
01-3272-1100/1200	Actuation Hose (5)	DN5	300	594Ba/03
01-3273-1100/1200	Actuation Hose (5)	DN5	300	594Ba/03

Certificate No: 594Ba to

ARGONITE Pressure Monitoring Devices

Product Name	Description	System pressure (bar)	LPCB Ref. No.
01-7221-0300	Manifold Pressure Gauge (½")	300	594Ba/15
03-5713-0000	Discharge Pressure Switch	300	594Ba/15

Certificate No: 594Ba to

ARGONITE Pressure Relief Devices

Product Name	Description	System pressure (bar)	LPCB Ref. No.
01-6653-0003/0103	Pressure Relief Device	300	594Ba/17

Certificate No: 594Ba to

ARGONITE Pilot Line Equipment

Product Name	Description	Nominal Bore (mm)	System pressure (bar)	LPCB Ref. No.
01-6363-0000	¼" Pilot Line Check Valve	-	300	594Ba/18
01-3388-0000	Actuation Line Leak Bleeder Unit	-	300	594Ba/18
15-8685-0651	Actuation Line T-Piece	DN5	-	594Ba/18

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Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 41 bar CONTAINER ASSEMBLIES - TPED (WELDED)

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GASEOUS SYSTEM COMPONENTS

Product Name	Description	LPCB Ref. No.
303.207.030	8 litre container assembly (TPED)	587a/17
303.207.031	16 litre container assembly (TPED)	587a/17
303.207.032	32 litre container assembly (TPED)	587a/17
303.207.033	52 litre container assembly (TPED)	587a/17
303.207.034	106 litre container assembly (TPED)	587a/17
303.207.035	147 litre container assembly (TPED)	587a/17
303.207.036	180 litre container assembly (TPED)	587a/17

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

LPG Discharge Valves for Inert (200 bar) and Inert (300 bar)

Product Name	Description	LPCB Ref. No.
2000306V	128-60 container valve (200 bar)	587a/82
26512800	128-65 container valve (300 bar)	587a/82

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SELECTOR VALVE ACCESSORIES

Product Name	Description	LPCB Ref. No.
30650022	Bracket for 2x actuator for selector valves	587a/81
30650013	Bracket for 3x actuator for selector valves	587a/81
30650014	Bracket for 4x actuator for selector valves	587a/81
30116011	Selector Valve Microswitch	587a/81

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SELECTOR VALVES

Product Name	Description	LPCB Ref. No.
21100060V	1", Selector Valve (Shipping Assembly 445044)	587a/80
21100080V	1 1/2", Selector Valve (Shipping Assembly 445046)	587a/80
21100090V	2", Selector Valve (Shipping Assembly 445047)	587a/80
62116006V	2 1/2", Selector Valve (Shipping Assembly 445048)	587a/80
62116004V	3", Selector Valve (Shipping Assembly 445049)	587a/80
62116005V	4", Selector Valve (Shipping Assembly 445050)	587a/80

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

CONTAINER VALVES & ACTUATORS 25/41/70 bar

Product Name	Description	LPCB Ref. No.
304.205.001	Electrical actuator - standard (suppression diode) (25/41bar)	587a/31
304.209.001	Electrical actuator - standard (bridge rectifier UL) (25/41bar)	587a/31
304.205.002	Electrical actuator - flameproof (ATEX) (25bar)	587a/31
304.209.002	Local manual actuator (25/41bar)	587a/32
304.209.004	Pneumatic actuator	587a/32
304.209.011	ATEX electrical actuator - 25 mm valve support brackets (25bar)	587a/35
304.209.012	ATEX electrical actuator - 50 mm valve support brackets (25bar)	587a/35
302.209.001	25mm container valve (25bar)	587a/26
302.209.002	50mm container valve (25bar)	587a/26
302700001	25mm container valve (70bar)	587a/30
302700002	50mm container valve (70bar)	587a/30
304700001	Electrical actuator TLX (70bar)	587a/33
304700002	Electrical actuator Bambrook (70bar)	587a/33
304700003	Manual/Pneumatic actuator	587a/34
302.209.022	25mm container valve (alternative burst disc) (41bar)	587a/29
302.209.023	50mm container valve (alternative burst disc) (41bar)	587a/29
304.205.010	Electrical actuator - standard (suppression diode UL) (25/41bar)	587a/31
304205030	Electrical actuator (TLX) (25/41bar)	587a/31
304205040	Electrical actuator (TLX) (25/41bar)	587a/31
302.209.015	25mm container valve (25bar) (ATEX)	587a/27
302.209.016	50mm container valve (25bar) (ATEX)	587a/27
302.209.006	25mm container valve (42bar)	587a/28
302.209.007	50mm container valve (42bar)	587a/28
A1638150HY	Manual actuator (TLX)	587a/110

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

GASEOUS SYSTEM COMPONENTS

LPG Pneumatic Line Actuation for Inert 200 bar & Inert 300 bar

Product Name	Description	LPCB Ref. No.
30506014	PTFE hose ¼" x 580mm	587a/105
30522001	PTFE hose ¼" x 700mm	587a/105
29012804	128-90 pilot container valve with pressure gauge + switch	587a/106
29012804.SOL	128-90 pilot container valve with pressure gauge and std solenoid	587a/106
2901280B	128-90 pilot container valve with pressure gauge	587a/106
2901280B.SOL	128-90 pilot container valve with pressure gauge and std solenoid	587a/106
21114045	128-97 pilot container valve with pressure gauge + switch	587a/106
21114045.SOL	128-97 pilot container valve with pressure gauge + switch and std solenoid	587a/106
21114008	128-97 pilot container valve with pressure gauge	587a/106
21114008.SOL	128-97 pilot container valve with pressure gauge and std solenoid	587a/106

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

FM-200® DISCHARGE NOZZLES (Aluminium & Brass)

Product Name	Description	LPCB Ref. No.
310.205.201/202	Brass nozzle - 10mm 180°/360° (BSP)	587a/59
310.205.203/204	Brass nozzle - 15 mm 180°/360° (BSP)	587a/59
310.205.205/206	Brass nozzle - 20mm 180°/360° (BSP)	587a/59
310.205.207/208	Brass nozzle - 25mm 180°/360° (BSP)	587a/59
310.205.209/210	Brass nozzle - 32mm 180°/360° (BSP)	587a/59
301.205.211/212	Brass nozzle - 40mm 180°/360° (BSP)	587a/59
310.205.213/214	Brass nozzle - 50mm 180°/360° (BSP)	587a/59
310.205.215/216	Brass nozzle - 10mm 180°/360° (NPT)	587a/59
310.205.217/218	Brass nozzle - 15mm 180°/360° (NPT)	587a/59
310.205.219/220	Brass nozzle - 20mm 180°/360° (NPT)	587a/59
310.205.221/222	Brass nozzle - 25mm 180°/360° (NPT)	587a/59
310.205.223/224	Brass nozzle - 32mm 180°/360° (NPT)	587a/59
301.205.225/226	Brass nozzle - 40mm 180°/360° (NPT)	587a/59
310.205.227/228	Brass nozzle - 50mm 180°/360° (NPT)	587a/59

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) DISCHARGE NOZZLES (Aluminium & Brass)

Product Name	Description	LPCB Ref. No.
310.207.101/102	Aluminium nozzle - 15 mm 180°/360° (BSP)	587a/61
310.207.103/104	Aluminium nozzle - 20mm 180°/360° (BSP)	587a/61
310.207.105/106	Aluminium nozzle - 25mm 180°/360° (BSP)	587a/61
310.207.107/108	Aluminium nozzle - 32mm 180°/360° (BSP)	587a/61
310.207.109/110	Aluminium nozzle - 40mm 180°/360° (BSP)	587a/61
310.207.111/112	Aluminium nozzle - 50mm 180°/360° (BSP)	587a/61
310.207.113/114	Aluminium nozzle - 15mm 180°/360° (NPT)	587a/61
310.207.115/116	Aluminium nozzle - 20mm 180°/360° (NPT)	587a/61
310.207.117/118	Aluminium nozzle - 25mm 180°/360° (NPT)	587a/61
310.207.119/120	Aluminium nozzle - 32mm 180°/360° (NPT)	587a/61
310.207.121/122	Aluminium nozzle - 40mm 180°/360° (NPT)	587a/61
310.207.123/124	Aluminium nozzle - 50mm 180°/360° (NPT)	587a/61
310.207.201/202	Brass nozzle - 15 mm 180°/360° (BSP)	587a/62
310.207.203/204	Brass nozzle - 20mm 180°/360° (BSP)	587a/62
310.207.205/206	Brass nozzle - 25mm 180°/360° (BSP)	587a/62
310.207.207/208	Brass nozzle - 32mm 180°/360° (BSP)	587a/62
310.207.209/210	Brass nozzle - 40mm 180°/360° (BSP)	587a/62
310.207.211/212	Brass nozzle - 50mm 180°/360° (BSP)	587a/62
310.207.213/214	Brass nozzle - 15 mm 180°/360° (NPT)	587a/62
310.207.215/216	Brass nozzle - 20mm 180°/360° (NPT)	587a/62
310.207.217/218	Brass nozzle - 25mm 180°/360° (NPT)	587a/62
310.207.219/220	Brass nozzle - 32mm 180°/360° (NPT)	587a/62
301.207.221/222	Brass nozzle - 40mm 180°/360° (NPT)	587a/62
310.207.223/224	Brass nozzle - 50mm 180°/360° (NPT)	587a/62

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

FM-200® DISCHARGE NOZZLES (Stainless Steel)

Product Name	Description	LPCB Ref. No.
310.205.301/302	Stainless steel nozzle – 10mm 180°/360° (BSP)	587a/60
310.205.303/304	Stainless steel nozzle – 15mm 180°/360° (BSP)	587a/60

GASEOUS SYSTEM COMPONENTS

310.205.305/306	Stainless steel nozzle – 20mm 180°/360° (BSP)	587a/60
310.205.307/308	Stainless steel nozzle – 25mm 180°/360° (BSP)	587a/60
310.205.309/310	Stainless steel nozzle – 32mm 180°/360° (BSP)	587a/60
310.205.311/312	Stainless steel nozzle – 40mm 180°/360° (BSP)	587a/60
310.205.313/314	Stainless steel nozzle – 50mm 180°/360° (BSP)	587a/60
310.205.315/316	Stainless steel nozzle – 10mm 180°/360° (NPT)	587a/60
310.205.317/318	Stainless steel nozzle – 15mm 180°/360° (NPT)	587a/60
310.205.319/320	Stainless steel nozzle – 20mm 180°/360° (NPT)	587a/60
310.205.321/322	Stainless steel nozzle – 25mm 180°/360° (NPT)	587a/60
310.205.323/324	Stainless steel nozzle – 32mm 180°/360° (NPT)	587a/60
310.205.325/326	Stainless steel nozzle – 40mm 180°/360° (NPT)	587a/60
310.205.327/328	Stainless steel nozzle – 50mm 180°/360° (NPT)	587a/60

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) DISCHARGE NOZZLES (Stainless Steel)

Product Name	Description	LPCB Ref. No.
310.207.301/302	Stainless steel nozzle – 15mm 180°/360° (BSP)	587a/63
310.207.303/304	Stainless steel nozzle – 20mm 180°/360° (BSP)	587a/63
310.207.305/306	Stainless steel nozzle – 25mm 180°/360° (BSP)	587a/63
310.207.307/308	Stainless steel nozzle – 32mm 180°/360° (BSP)	587a/63
310.207.309/310	Stainless steel nozzle – 40mm 180°/360° (BSP)	587a/63
310.207.311/312	Stainless steel nozzle – 50mm 180°/360° (BSP)	587a/63
310.207.313/314	Stainless steel nozzle – 15mm 180°/360° (NPT)	587a/63
310.207.315/316	Stainless steel nozzle – 20mm 180°/360° (NPT)	587a/63
310.207.317/318	Stainless steel nozzle – 25mm 180°/360° (NPT)	587a/63
310.207.319/320	Stainless steel nozzle – 32mm 180°/360° (NPT)	587a/63
310.207.321/322	Stainless steel nozzle – 40mm 180°/360° (NPT)	587a/63
310.207.323/324	Stainless steel nozzle – 50mm 180°/360° (NPT)	587a/63

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

CHECK VALVES & ADJUSTABLE HEIGHT ADAPTORS

Product Name	Description	LPCB Ref. No.
302.209.004	25mm manifold check valve	587a/48
302.209.005	50mm manifold check valve	587a/48
306700003	25mm Adjustable height adaptor	587a/49
306700004	50mm Adjustable height adaptor	587a/49

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

PILOT CONTAINER AND ACCESSORIES 25 to 70bar

Product Name	Description	LPCB Ref. No.
13281	Manifold burst disc assembly (25bar)	587a/67
302.200.076	1/4" NPT female bleed valve (25/41/71bar)	587a/69
302700015	Non return valve 1/4" BSPP (70bar)	587a/65
302700014	Vent valve assembly 1/2" NPT (70bar)	587a/66
302.200.070	Manifold burst disc assembly (65.5 bar) (41bar)	587a/67
302700007	Manifold burst disc assembly (108 bar) (70bar)	587a/68
302.200.075	1/4" BSPP male bleed valve (70bar)	587a/69
30027301	Decompression Screw 1/4" BSPP (70bar)	587a/70
304700008	3L Pilot Container assembly	587a/71
20006025	Non return valve 1/4" BSPP	587a/64
304700016	13L Pilot Container assembly	587a/71
304700021	50L Pilot Container assembly	587a/71

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

VALVE UNION ADAPTORS

Product Name	Description	LPCB Ref. No.
309002016	25mm Valve Union Adaptor (BSPP X NPT)	587a/44
309002017	50mm Valve Union Adaptor (BSPP X NPT)	587a/44
309002018	25mm Valve Union Adaptor (BSPP X BSPT)	587a/44
309002019	50mm Valve Union Adaptor (BSPP X BSPT)	587a/44

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

GASEOUS SYSTEM COMPONENTS

MANIFOLD UNIONS

Product Name	Description	LPCB Ref. No.
30888001	Manifold union 3/4" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888002	Manifold union 1" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888003	Manifold union 1 1/4" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888004	Manifold union 1 1/2" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888005	Manifold union 2" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888006	Manifold union 2 1/2" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888007	Manifold union 3" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888008	Manifold union 4" NPT x NPT, 140bar WP (with no drilled plate)	587a/52
30888027	Manifold union 3/4" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888028	Manifold union 1" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888029	Manifold union 1 1/4" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888030	Manifold union 1 1/2" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888031	Manifold union 2" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888032	Manifold union 2 1/2" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888033	Manifold union 3" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52
30888034	Manifold union 4" NPT x BSPT, 140bar WP (with no drilled plate)	587a/52

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

VENT VALVE

Product Name	Description	LPCB Ref. No.
302700014	20mm Vent valve NPT threaded	587a/55

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

LPG Pneumatic Line Actuation for Inert 200 bar & Inert 300 bar

Product Name	Description	LPCB Ref. No.
30130250V	Selector Valve Pilot Line Actuator (Manual/Staiger Solenoid) (inc. in Shipping Assembly 452461)	587a/111
30130253V	Selector Valve Pilot Line Actuator (Manual/Flo Control Solenoid) (inc. in Shipping Assembly 448384)	587a/112

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

LPG Inerts Pressure Gauges for Inert (200 bar) and Inert (300 bar)

Product Name	Description	LPCB Ref. No.
30245003	0-400 gauge + switch set 270 bar	587a/89
30116035	0-315 gauge + switch set 180 bar	587a/89
30116043	0-450 bar pressure gauge	587a/89
3021316B	0-315 bar pressure gauge	587a/89

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

LPG Pressure Gauge for Inert (100 bar)

Product Name	Description	LPCB Ref. No.
30116054	0-160 pressure gauge + switch	587a/100

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

PRESSURE GAUGES and PRESSURE SWITCHES

Product Name	Description	LPCB Ref. No.
304.205.006	Supervisory pressure switch - standard (open on fall) (25bar)	587a/36
305.209.005	Supervisory pressure switch - special (close on fall) (25bar)	587a/36
305.209.007	Supervisory pressure switch - conduit (open or close on fall) (25bar)	587a/36
305.205.004	Supervisory pressure switch - ATEX (25bar)	587a/36
305.209.009	Discharge pressure switch - standard (25/41/70bar)	587a/37
305.205.003	Discharge pressure switch- ATEX (25bar)	587a/37
302.205.022	Pressure Gauge (50mm) FM-200® 0-60 bar (25bar)	587a/38
302.207.010	Pressure Gauge (50mm) Sapphire® (Novec 1230) 0-60 bar (25bar)	587a/38
302.207.011	Pressure Gauge (50mm) Sapphire® (Novec 1230) 0-100 bar (41bar)	587a/39
302.209.012	Pilot Pressure Gauge (50mm) 0-100 bar (50bar)	587a/39
302.209.027	Pressure Gauge (50mm) 0-40 bar (VdS dial) (25bar)	587a/40
302.209.026	Pressure Gauge (50mm) 0-60 bar (VdS dial) (41bar)	587a/40
302700003	Pressure Gauge (50mm) SAPPHIRE® PLUS (Novec 1230) 0-160bar (50C) (70bar)	587a/42
302700004	Contacted Pressure Gauge (50mm) SAPPHIRE® PLUS (Novec 1230) 0-160bar (50C) (70bar) open on fall 63bar	587a/42

GASEOUS SYSTEM COMPONENTS

302700005	Pressure Gauge (50mm) SAPPHIRE® PLUS (Novec 1230) 0-160bar (70bar) (50C) (with UL/FM 65C marking)	587a/42
302700006	Contacted Pressure Gauge (50mm) SAPPHIRE® PLUS (Novec 1230) 0-160bar (70bar) (50C) (with UL/FM 65C marking) open on fall 65bar	587a/42
30116054	Contacted Pressure Gauge (40mm) Pilot 0-160 bar (50C) (100bar) open on fall (90bar)	587a/43
305.207.001	Supervisory pressure switch - (open or close on fall) (41/42bar)	587a/36
302.205.026	Pressure Gauge (50mm) FM-200® 0-60 bar (25bar) UL/FM/CE - WIKA	587a/39
302.207.017	Pressure Gauge (50mm) SAPPHIRE® (Novec 1230) 0-60 bar (25bar) UL/FM/CE	587a/39
302209028	Contacted Pressure Gauge (50mm) SAPPHIRE® (Novec 1230) 0-60bar (41/42bar) open on fall 38bar	587a/41
302209029	Contacted Pressure Gauge (50mm) SAPPHIRE® (Novec 1230) 0-60bar (41/42bar) close on fall 38bar	587a/41
302207020	Pressure Gauge (50mm) SAPPHIRE® (FK-5-1-12) 0-60 bar (25bar) UL/FM/CE	587a/109
302700105	Pressure Gauge (50mm) SAPPHIRE® PLUS (FK-5-1-12) 0-160bar (70bar) (50C) (with UL/FM 65C marking)	587a/109
302700106	Contacted Pressure Gauge (50mm) SAPPHIRE® PLUS (FK-5-1-12) 0-160bar (70bar) (50C) (with UL/FM 65C marking) open on fall 65bar	587a/109
302700104	Contacted Pressure Gauge (50mm) SAPPHIRE® PLUS (FK-5-1-12) 0-160 bar (50C) (70bar) open on fall 63 bar	587a/109
302700103	Pressure Gauge (50mm) SAPPHIRE® PLUS (FK-5-1-12) 0-160 bar (50C) (70bar)	587a/109

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

Macron (WIKA) Pressure Gauge with Switch for Inert (200bar & 300bar) and Pilot (100bar)

Product Name	Description	LPCB Ref. No.
30245006	PGS21.040 Switch gauge T.270bar NO 0-400 (300bar Inert)	587a/108
30245007	PGS21.040 Switch gauge T.270bar NC 0-400 (300bar Inert)	587a/108
30245008	PGS21.040 Switch gauge T.180bar NO 0-315 (200bar Inert)	587a/108
30245009	PGS21.040 Switch gauge T.90bar NO 0-160 (100bar Pilot)	587a/108
30245010	PGS21.040 Switch gauge T.90bar NC 0-160 (100bar Pilot)	587a/108

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

PRESSURE GAUGES and PRESSURE SWITCHES

Product Name	Description	LPCB Ref. No.
302207020	PRESSURE GAUGE FK-5-1-12 25 BAR, 0-60BAR RANGE, UL/FM/CE	587a/109
302700103	SAPP PLUS -20C to 50C, (UL/FM & CE – non contacted PG – 70bar)	587a/109
302700104	SAPP PLUS -20C to 50C, (UL/FM & CE – contacted PG - 70bar)	587a/109
302700105	SAPP PLUS 0C to 65C, (UL/FM & CE – non contacted PG – 70 bar)	587a/109
302700106	SAPP PLUS 0C to 65C, (UL/FM & CE – contacted PG - 70bar)	587a/109

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

LPG Discharge Hoses for Inert (200 bar) and Inert (300 bar)

Product Name	Description	LPCB Ref. No.
30522010	¾" flexible hose	587a/86

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

DISCHARGE HOSES 25 to 42bar

Product Name	Description	LPCB Ref. No.
306.207.002	25 mm discharge hose	587a/46
306.207.003	50 mm discharge hose	587a/46

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

PILOT HOSES

Product Name	Description	LPCB Ref. No.
306.205.003	Flexible pilot/actuation hose x 710mm	587a/45
306205010	Flexible pilot/actuation hose x 815mm	587a/45
306205011	Flexible pilot/actuation hose x 1070mm	587a/45

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

DISCHARGE HOSES 70 bar

Product Name	Description	LPCB Ref. No.
306700001	25mm discharge hose	587a/47
306700002	50mm discharge hose	587a/47

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

GASEOUS SYSTEM COMPONENTS

CONTAINERS BRACKETS (WELDED CONTAINERS)

Product Name	Description	LPCB Ref. No.
311700013	4.5 litre container bracket (strap style)	587a/22
311700014	8/16/32 litre container bracket (strap style)	587a/22
311700006	52/106/147/180 litre container bracket (strap style)	587a/22

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

MANIFOLD BRACKET ASSEMBLIES

Product Name	Description	LPCB Ref. No.
311.205.015	65mm manifold bracket assembly	587a/56
311.205.010	80mm manifold bracket assembly	587a/56
311.205.011	100mm manifold bracket assembly	587a/56
311700001	150mm manifold bracket assembly 500mm centres	587a/57

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

CONTAINERS BRACKETS (PILOT CONTAINERS)

Product Name	Description	LPCB Ref. No.
30620310	3 litre PILOT container bracket 100mm diam.	587a/25
30621310	13 litre PILOT container bracket 140mm diam.	587a/25
30625010	50 litre PILOT container bracket 229mm diam.	587a/25

Certificate No: 587a to An LPCB Schedule of Requirements

FM-200® 25 bar CONTAINER ASSEMBLIES - DOT (WELDED)

Product Name	Description	LPCB Ref. No.
303.205.026	4.5 litre container assembly (DOT) (Welded)	587a/01
303.205.015	8 litre container assembly (DOT) (Welded)	587a/01
303.205.016	16 litre container assembly (DOT) (Welded)	587a/01
303.205.017	32 litre container assembly (DOT) (Welded)	587a/01
303.205.018	52 litre container assembly (DOT) (Welded)	587a/01
303.205.019	106 litre container assembly (DOT) (Welded)	587a/01
303.205.020	147 litre container assembly (DOT) (Welded)	587a/01
303.205.021	180 litre container assembly (DOT) (Welded)	587a/01
303.205.068	4.5 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.069	8 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.070	16 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.071	32 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.072	52 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.073	106 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.074	147 litre container assembly (DOT) (Welded) (ATEX)	587a/02
303.205.075	180 litre container assembly (DOT) (Welded) (ATEX)	587a/02

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 25 bar CONTAINER ASSEMBLIES - DOT (WELDED)

Product Name	Description	LPCB Ref. No.
303.207.010	4.5 litre container assembly (DOT) (Welded)	587a/09
303.207.001	8 litre container assembly (DOT) (Welded)	587a/09
303.207.002	16 litre container assembly (DOT) (Welded)	587a/09
303.207.003	32 litre container assembly (DOT) (Welded)	587a/09
303.207.004	52 litre container assembly (DOT) (Welded)	587a/09
303.207.005	106 litre container assembly (DOT) (Welded)	587a/09
303.207.006	147 litre container assembly (DOT) (Welded)	587a/09
303.207.007	180 litre container assembly (DOT) (Welded)	587a/09
303.207.051	4.5 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.052	8 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.053	16 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.054	32 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.055	52 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.056	106 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.057	147 litre container assembly (DOT) (Welded) (ATEX)	587a/10
303.207.058	180 litre container assembly (DOT) (Welded) (ATEX)	587a/10

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

GASEOUS SYSTEM COMPONENTS

FM-200® 25 bar CONTAINER ASSEMBLIES - TPED (WELDED)

Product Name	Description	LPCB Ref. No.
303.205.002	8 litre container assembly (TPED)	587a/03
303.205.003	16 litre container assembly (TPED)	587a/03
303.205.004	32 litre container assembly (TPED)	587a/03
303.205.012	52 litre container assembly (TPED)	587a/03
303.205.013	106 litre container assembly (TPED)	587a/03
303.205.014	147 litre container assembly (TPED)	587a/03
303.205.005	180 litre container assembly (TPED)	587a/03
303.205.076	8 litre container assembly (TPED) (ATEX)	587a/04
303.205.077	16 litre container assembly (TPED) (ATEX)	587a/04
303.205.078	32 litre container assembly (TPED) (ATEX)	587a/04
303.205.079	52 litre container assembly (TPED) (ATEX)	587a/04
303.205.080	106 litre container assembly (TPED) (ATEX)	587a/04
303.205.081	147 litre container assembly (TPED) (ATEX)	587a/04
303.205.082	180 litre container assembly (TPED) (ATEX)	587a/04

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 70 bar CONTAINER ASSEMBLIES - TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
452135	30 litre SAPPHIRE PLUS container assembly (TPED)	587a/116
452140	180 litre SAPPHIRE PLUS container assembly (TPED)	587a/116
452136	45 litre SAPPHIRE PLUS container assembly (TPED)	587a/116
452134	15 litre SAPPHIRE PLUS container assembly (TPED)	587a/116
452138	120 litre SAPPHIRE PLUS container assembly (TPED)	587a/116
452137	60 litre SAPPHIRE PLUS container assembly (TPED)	587a/116

Certificate No: 587a to An LPCB schedule of Requirements including, where appropriate, parts of EN12094

CONTAINER VALVES 25/42/70 bar

Product Name	Description	LPCB Ref. No.
A163813964	50mm container valve (25bar)	587a/113
A163813962	25mm container valve (25bar)	587a/113
A163813965	25mm container valve (42bar)	587a/114
A163813966	50mm container valve (42bar)	587a/114
A163813967	25mm container valve (70bar)	587a/115
A163813968	50mm container valve (70bar)	587a/115

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 25 bar CONTAINER ASSEMBLIES - TPED (WELDED)

Product Name	Description	LPCB Ref. No.
303.207.015	8 litre container assembly (TPED)	587a/11
303.207.016	16 litre container assembly (TPED)	587a/11
303.207.017	32 litre container assembly (TPED)	587a/11
303.207.012	52 litre container assembly (TPED)	587a/11
303.207.013	106 litre container assembly (TPED)	587a/11
303.207.014	147 litre container assembly (TPED)	587a/11
303.207.018	180 litre container assembly (TPED)	587a/11
303.207.059	8 litre container assembly (TPED) (ATEX)	587a/12
303.207.060	16 litre container assembly (TPED) (ATEX)	587a/12
303.207.061	32 litre container assembly (TPED) (ATEX)	587a/12
303.207.062	52 litre container assembly (TPED) (ATEX)	587a/12
303.207.063	106 litre container assembly (TPED) (ATEX)	587a/12
303.207.064	147 litre container assembly (TPED) (ATEX)	587a/12
303.207.065	180 litre container assembly (TPED) (ATEX)	587a/12

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

CONTAINER BRACKETS (SEAMLESS CONTAINERS)

Product Name	Description	LPCB Ref. No.
311700002	15 litre container bracket 204mm Dia. (strap style)	587a/23
311700003	30 litre container bracket 229mm Dia (strap style)	587a/23
311700004	45 & 60 litre container bracket 267mm Dia (strap style)	587a/23
311700005	120 litre container bracket 360mm Dia (strap style)	587a/23
311700006	180 litre container bracket 406mm Dia (strap style)	587a/23

GASEOUS SYSTEM COMPONENTS

311700007	120 & 150 litre container multi-bracket Assy x 4 360mm Dia (strap style)	587a/24
311700008	120 & 150 litre container multi-bracket Assy x 6 360mm Dia (strap style)	587a/24
311700009	120 & 150 litre container multi-bracket Assy x 8 360mm Dia (strap style)	587a/24
311700010	180 litre container multi-bracket Assy x 4 406mm Dia (strap style)	587a/24
311700011	180 litre container multi-bracket Assy x 6 406mm Dia (strap style)	587a/24
311700012	180 litre container multi-bracket Assy x 8 406mm Dia (strap style)	587a/24

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

FM-200® 25bar CONTAINER ASSEMBLIES - TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
303205300	15 litre container assembly (TPED)	587a/05
303205301	30 litre container assembly (TPED)	587a/05
303205302	45 litre container assembly (TPED)	587a/05
303205303	60 litre container assembly (TPED)	587a/05
303205304	120 litre container assembly (TPED)	587a/05
303205305	150 litre container assembly (TPED)	587a/05
303205306	180 litre container assembly (TPED)	587a/05
303205330	15 litre container assembly (TPED) (ATEX)	587a/06
303205331	30 litre container assembly (TPED) (ATEX)	587a/06
303205332	45 litre container assembly (TPED) (ATEX)	587a/06
303205333	60 litre container assembly (TPED) (ATEX)	587a/06
303205334	120 litre container assembly (TPED) (ATEX)	587a/06
303205335	150 litre container assembly (TPED) (ATEX)	587a/06
303205336	180 litre container assembly (TPED) (ATEX)	587a/06

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

FM-200® 25bar CONTAINER ASSEMBLIES – DOT/TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
303205310	15 litre container assembly (DOT/TPED)	587a/07
303205311	30 litre container assembly (DOT/TPED)	587a/07
303205312	45 litre container assembly (DOT/TPED)	587a/07
303205313	60 litre container assembly (DOT/TPED)	587a/07
303205314	120 litre container assembly (DOT/TPED)	587a/07
303205315	150 litre container assembly (DOT/TPED)	587a/07
303205316	180 litre container assembly (DOT/TPED)	587a/07
303205340	15 litre container assembly (DOT/TPED) (ATEX)	587a/08
303205341	30 litre container assembly (DOT/TPED) (ATEX)	587a/08
303205342	45 litre container assembly (DOT/TPED) (ATEX)	587a/08
303205343	60 litre container assembly (DOT/TPED) (ATEX)	587a/08
303205344	120 litre container assembly (DOT/TPED) (ATEX)	587a/08
303205345	303205345	587a/08
303205346	180 litre container assembly (DOT/TPED) (ATEX)	587a/08

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 25bar CONTAINER ASSEMBLIES - TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
303207300	15 litre container assembly (TPED)	587a/13
303207301	30 litre container assembly (TPED)	587a/13
303207302	45 litre container assembly (TPED)	587a/13
303207303	60 litre container assembly (TPED)	587a/13
303207304	120 litre container assembly (TPED)	587a/13
303207305	150 litre container assembly (TPED)	587a/13
303207306	180 litre container assembly (TPED)	587a/13
303207330	15 litre container assembly (TPED) (ATEX)	587a/14
303207331	30 litre container assembly (TPED) (ATEX)	587a/14
303207332	45 litre container assembly (TPED) (ATEX)	587a/14
303207333	60 litre container assembly (TPED) (ATEX)	587a/14
303207334	120 litre container assembly (TPED) (ATEX)	587a/14
303207335	150 litre container assembly (TPED) (ATEX)	587a/14
303207336	180 litre container assembly (TPED) (ATEX)	587a/14

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 25bar CONTAINER ASSEMBLIES – DOT/TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
303207310	15 litre container assembly (DOT/TPED)	587a/15

GASEOUS SYSTEM COMPONENTS

303207311	30 litre container assembly (DOT/TPED)	587a/15
303207312	45 litre container assembly (DOT/TPED)	587a/15
303207313	60 litre container assembly (DOT/TPED)	587a/15
303207314	120 litre container assembly (DOT/TPED)	587a/15
303207315	150 litre container assembly (DOT/TPED)	587a/15
303207316	180 litre container assembly (DOT/TPED)	587a/15
303207340	15 litre container assembly (DOT/TPED) (ATEX)	587a/16
303207341	30 litre container assembly (DOT/TPED) (ATEX)	587a/16
303207342	45 litre container assembly (DOT/TPED) (ATEX)	587a/16
303207343	60 litre container assembly (DOT/TPED) (ATEX)	587a/16
303207344	120 litre container assembly (DOT/TPED) (ATEX)	587a/16
303207345	150 litre container assembly (DOT/TPED) (ATEX)	587a/16
303207346	180 litre container assembly (DOT/TPED) (ATEX)	587a/16

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 42bar CONTAINER ASSEMBLIES - TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
303207400	15 litre container assembly (TPED)	587a/18
303207401	30 litre container assembly (TPED)	587a/18
303207402	45 litre container assembly (TPED)	587a/18
303207403	60 litre container assembly (TPED)	587a/18
303207404	120 litre container assembly (TPED)	587a/18
303207405	150 litre container assembly (TPED)	587a/18
303207406	180 litre container assembly (TPED)	587a/18

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 42bar CONTAINER ASSEMBLIES – DOT/TPED (SEAMLESS)

Product Name	Description	LPCB Ref. No.
303207410	15 litre container assembly (DOT/TPED)	587a/19
303207411	30 litre container assembly (DOT/TPED)	587a/19
303207412	45 litre container assembly (DOT/TPED)	587a/19
303207413	60 litre container assembly (DOT/TPED)	587a/19
303207414	120 litre container assembly (DOT/TPED)	587a/19
303207415	150 litre container assembly (DOT/TPED)	587a/19
303207416	180 litre container assembly (DOT/TPED)	587a/19

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

MANIFOLDS

Product Name	Description	LPCB Ref. No.
307.209.001-003	65 mm manifold NPT - 2 to 4 Port 4.5-45L	587a/50
307700004-008	80 mm manifold NPT - 2 to 6 Port 500mm centres 52-180L	587a/51
307700009-013	100 mm manifold NPT - 2 to 6 Port 500mm centres 52-180L	587a/51
307700014-021	150 mm manifold Flanged - 3 to 10 Port 500mm centres 60-180L (70bar)	587a/51
307209050 - 057	150 mm manifold Flanged - 3 to 10 Port 500mm centres 52-180L (25 to 42bar)	587a/51

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SELECTOR VALVE MANIFOLDS

Product Name	Description	LPCB Ref. No.
36266000	65mm selector valve manifold bracket NPT – 2 Port	587a/53
36366600	65mm selector valve manifold bracket NPT – 3 Port	587a/53
36466000	65mm selector valve manifold bracket NPT – 4 Port	587a/53
36566000	65mm selector valve manifold bracket NPT – 5 Port	587a/53
36666000	65mm selector valve manifold bracket NPT – 6 Port	587a/53
36277000	80mm selector valve manifold bracket NPT – 2 Port	587a/53
36377700	80mm selector valve manifold bracket NPT – 3 Port	587a/53
36477000	80mm selector valve manifold bracket NPT – 4 Port	587a/53
36577000	80mm selector valve manifold bracket NPT – 5 Port	587a/53
36677000	80mm selector valve manifold bracket NPT – 6 Port	587a/53
36288000	100mm selector valve manifold bracket NPT – 2 Port	587a/53
36388800	100mm selector valve manifold bracket NPT – 3 Port	587a/53
36488000	100mm selector valve manifold bracket NPT – 4 Port	587a/53
36588000	100mm selector valve manifold bracket NPT – 5 Port	587a/53
36688000	100mm selector valve manifold bracket NPT – 6 Port	587a/53

GASEOUS SYSTEM COMPONENTS

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

MANIFOLD DROP SECTIONS

Product Name	Description	LPCB Ref. No.
19263006	65mm manifold drop section – 900 mm centres	587a/54
19263014	65mm manifold drop section – 1500 mm centres	587a/54
19263007	80mm manifold drop section – 900 mm centres	587a/54
19263015	80mm manifold drop section – 1500 mm centres	587a/54
19263008	100mm manifold drop section – 900 mm centres	587a/54
19263016	100mm manifold drop section – 1500 mm centres	587a/54

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

FM-200® CONTAINER LABELS

Product Name	Description	LPCB Ref. No.
314.205.025	HYGOOD Container Label - 32, 106, 147, 180 & 343 litre	587a/73
314.205.026	HYGOOD Container Label - 4.5, 8, 16 & 52 litre	587a/73
314.205.029	TSP Container Label - 32, 106, 147, 180 & 343 litre	587a/73
314.205.030	TSP Container Label - 4.5, 8, 16 & 52 litre	587a/73
304.204.104	LPG Container Label 32, 106, 147, 180 & 343 litre	587a/74
304.204.105	LPG Container Label 4.5, 8, 16 & 52 litre	587a/74
304.204.114	LPG Container Label 32, 106, 147, 180 & 343 litre (ESP)	587a/74
304.204.115	LPG Container Label 4.5, 8, 16 & 52 litre (ESP)	587a/74

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 70 bar CONTAINER LABELS

Product Name	Description	LPCB Ref. No.
314700003	Cont. label GEM (European)	587a/77
314700009	Cont. label HYGOOD (European)	587a/77
314700012	Cont. label LPG (European)	587a/77
314700203	GEM Container Label (FK-5-1-12) (European)	587a/77
314700210	HYGOOD Container Label (FK-5-1-12) (European)	587a/77
314700213	LPG Container Label (FK-5-1-12) (European)	587a/77

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

FM-200® CONTAINER LABELS

Product Name	Description	LPCB Ref. No.
314205302	GEM Container Label – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/72
314205308	HYGOOD Container Label – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/72
314205311	LPG Container Label – 15, 30, 32, 45, 60, 106, & 180 litre (portrait)	587a/72
314205317	GEM Container Label – 4.5, 8, 16 & 52 litre (landscape)	587a/72
314205324	HYGOOD Container Label – 4.5, 8, 16 & 52 litre (landscape)	587a/72
314205327	LPG Container Label – 4.5, 8, 16 & 52 litre (landscape)	587a/72

Certificate No: 587a to An LPCB Schedule of Requirements including, where appropriate, parts of EN 12094

SAPPHIRE® (NOVEC 1230 & FK-5-1-12) 25/41/42bar CONTAINER LABELS

Product Name	Description	LPCB Ref. No.
314207302	GEM Container Label (Novec 1230) – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/75
314207308	HYGOOD Container Label (Novec 1230) – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/75
314207311	LPG Container Label (Novec 1230) – 15, 30, 32, 45, 60, 106, & 180 litre (portrait)	587a/75
314207332	GEM Container Label (Novec 1230) – 4.5, 8, 16 & 52 litre (landscape)	587a/75
314207339	HYGOOD Container Label (Novec 1230) – 4.5, 8, 16 & 52 litre (landscape)	587a/75
314207342	LPG Container Label (Novec 1230) – 4.5, 8, 16 & 52 litre (landscape)	587a/75
314207323	HYGOOD Container Label (FK-5-1-12) – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/75
314207317	GEM Container Label (FK-5-1-12) – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/75
314207326	LPG Container Label (FK-5-1-12) – 15, 30, 32, 45, 60, 106, 120, 147 & 180 litre (portrait)	587a/75
314207203	GEM Container Label (FK-5-1-12) – 4.5, 8, 16 & 52 litre (landscape)	587a/75
314207213	LPG Container Label (FK-5-1-12) – 4.5, 8, 16 & 52 litre (landscape)	587a/75
314207210	HYGOOD Container Label (FK-5-1-12) – 4.5, 8, 16 & 52 litre (landscape)	587a/75

GASEOUS SYSTEM COMPONENTS

RG Green Systems

P.I.Villalonquejar, Calle Merindad De Montija No.6, Burgos, 09001, Spain

Tel: +34.947.281.108 - 115

E-mail: jgonzalez@komtes.com

Certificate No: 1475a to EN 12094-4;2004

Constant Flow Container Valves

Product Name	Description	Max. Working Pressure, bar	Max. Outlet Pressure, bar	LPCB Ref. No.
RGS-MAM-RD9	max free cross sectional area 70.9 mm ²	360	60	1475a/01
RGS-MAM-RD11	max free cross sectional area 103.9 mm ²	360	60	1475a/02

Certificate No: 1475b to EN 12094-4;2004

Container Valve Actuators

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
RGS-MAM-03	Pilot cartridge valve adaptor	190	1475b/01
227 SOLR	Electrical (mounted on RGS-MAM-03)	65	1475b/02
227 SOLCR	Electrical (mounted on RGS-MAM-03)	200	1475b/03
227 DM	Manual (mounted on electrical actuator)	360	1475b/04
227 DMS	Manual (mounted on electrical actuator)	360	1475b/05

Certificate No: 1475c to EN 12094-4;2004

Pilot Cylinder Valves

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
RGS-MAM-11-4	max free cross sectional area 113 mm ²	190	1475c/01
RGS-MAM-12-4	max free cross sectional area 113 mm ²	190	1475c/02

Certificate No: 1475d to EN 12094-4;2004

Pilot Cylinder Valve Actuators

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
227 SOL	Electrical	65	1475d/01
227 SOLC	Electrical	200	1475d/02
227 CN	Pneumatic	360	1475d/03

Certificate No: 1475e to EN 12094-10:2003

Pressure Gauges & Pressure Gauges + Switch

Product Name	Description	Pressure ranges, bar	LPCB Ref. No.
PGS.11.040	Pressure gauge + switch 1/8" NPT	0-60, 0-100, 0-250, 0-315 and 0-400	1475e/01

Certificate No: 1475g to EN 12094-8:2006

Connectors

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
FH-15CO	Flexible discharge connector (type 1)	275	1475g/01
FH-20HC	Flexible discharge connector (type 1)	215	1475g/02
FH-20A	Flexible discharge connector (type 1)	360	1475g/03
FH-21A	Flexible discharge connector (type 1)	360	1475g/04
DH 21	Flexible discharge connector (type 1)	280	1475g/05
DH 21I	Flexible discharge connector (type 1)	280	1475g/06
FH-6PO	Flexible actuator hose (type 3)	224	1475g/07
FH-7PO	Flexible actuator hose (type 3)	360	1475g/08
DH 10	Flexible actuator hose (type 3)	280	1475g/09
DH 10I	Flexible actuator hose (type 3)	280	1475g/10
DH 11	Flexible actuator hose (type 3)	450	1475g/11
DH 11I	Flexible actuator hose (type 3)	450	1475g/12

GASEOUS SYSTEM COMPONENTS

Certificate No: 1475h to EN 12094-13:2001

Check Valves and Non-Return Valves

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
VALAN-15CO	Check valve ½"	240	1475h/01
VALAN-21A	Check valve ¾"	360	1475h/02
VALAN-22A	Check valve ¾"	360	1475h/03
VALAN-WFR8	Non-return valve ¼"	240	1475h/04
VALAN-WFR8-316	Non-return valve ¼"	240	1475h/05

Certificate No: 1475i to EN 12094-5:2006

Selector Valves for IG55 & IG541

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
SVD20	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/01
SVD25	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/02
SVD32	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/03
SVD40	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/04
SVD50	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/05
SVDA25	Selector Valve, inert gas	360	1475i/06
SVDA32	Selector Valve, inert gas	360	1475i/07
SVDA40	Selector Valve, inert gas	360	1475i/08
SVDA50	Selector Valve, inert gas	360	1475i/09
SVDA65	Selector Valve, inert gas	360	1475i/10
SVD65	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/11
SVD80	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/12
SVD100	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1475i/13

Certificate No: 1475j & 1475k to prEN 12094-7:2006

Nozzles

Product Name	Description	Size	LPCB Ref. No.
FEDR10	360° nozzle	G 3/8"	1475j/01
FEDR10A	360° nozzle	G 3/8"	1475j/02
FEDR15	360° nozzle	G 1/2"	1475j/03
FEDR15A	360° nozzle	G 3/4"	1475j/04
FEDR20	360° nozzle	G 3/4"	1475j/05
FEDR20A	360° nozzle	G 3/4"	1475j/06
FEDR25	360° nozzle	G 1"	1475j/07
FEDR25A	360° nozzle	G 1"	1475j/08
FEDR32	360° nozzle	G 1 1/4"	1475j/09
FEDR32A	360° nozzle	G 1 1/4"	1475j/10
FEDR40	360° nozzle	G 1 1/2"	1475j/11
FEDR40A	360° nozzle	G 1 1/2"	1475j/12
FEDR50	360° nozzle	G 2"	1475j/13
FEDR10180	180° nozzle	G 3/8"	1475k/01
FEDR10180A	180° nozzle	G 3/8"	1475k/02
FEDR15180	180° nozzle	G 1/2"	1475k/03
FEDR15180A	180° nozzle	G 1/2"	1475k/04
FEDR20180	180° nozzle	G 3/4"	1475k/05
FEDR20180A	180° nozzle	G 3/4"	1475k/06
FEDR25180	180° nozzle	G 1"	1475k/07
FEDR25180A	180° nozzle	G 1"	1475k/08
FEDR32180	180° nozzle	G 1 1/4"	1475k/09
FEDR32180A	180° nozzle	G 1 1/4"	1475k/10
FEDR40180	180° nozzle	G 1 1/2"	1475k/11
FEDR40180A	180° nozzle	G 1 1/2"	1475k/12
FEDR50180	180° nozzle	G 2"	1475k/13

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GASEOUS SYSTEM COMPONENTS

Other

Head Office - , Via degli Olmetti, 39/E – 00060 Formello (RM), Italy
Email: mail@safetyhitech.com

Certificate No: 969a to EN 12094-4;2004

SHTE® S 125, SHTE® S 227 & SHTE® 1230 Container Valves

Product Name	Description	Agent	LPCB Ref. No.
SH20025128	V20	SHTE® S 125	969a/01
SH20025145	V25	SHTE® S 125	969a/01
SH20025190	V40	SHTE® S 125	969a/01
SH20012128	V20-N2	Nitrogen	969a/01
SH20025129	V20	SHTE® S 227	969a/01
SH20025146	V25	SHTE® S 227	969a/01
SH20025191	V40	SHTE® S 227	969a/01
SHFK200V20	V20	SHTE® 1230	969a/01
SHFK200V25	V25	SHTE® 1230	969a/01
SHFK200V40	V40	SHTE® 1230	969a/01

Other

Head Office - , Via degli Olmetti, 39/E – 00060 Formello (RM), Italy
Email: mail@safetyhitech.com

Certificate No: 969a to EN 12094-8;2006

SHTE® S 125, SHTE® S 227 & SHTE® 1230 Discharge Connectors

Product Name	Description	LPCB Ref. No.
SH30506000	1" x 320 mm flexible connector type 1 (1)	969a/03
SH30502140	1" x 400 mm flexible connector type 1 (2)	969a/03
SH30506070	¾" x 400 mm flexible connector type 1 (3)	969a/03
SH30503290	1/8" x 160 mm PTFE flexible connector type 3 (4)	969a/03
SH30522001	¼" x 700 mm PTFE flexible connector type 3 (4)	969a/03
SH30508080	1 ½" rigid connector type 5 (4)	969a/03
SH30508000	1 ½" rigid connector type 5 (4)	969a/03
SH30506014	¼" x 580 mm PTFE flexible connector type 3 (4)	969a/03

Other

Head Office - , Via degli Olmetti, 39/E – 00060 Formello (RM), Italy
Email: mail@safetyhitech.com

Certificate No: 969a to EN 12094-13;2003

SHTE® S 125, SHTE® S 227 & SHTE® 1230 Check Valves

Product Name	Description	LPCB Ref. No.
SH20006060	1" Check Valve	969a/04
SH21006302	2" Check Valve	969a/04

Other

Head Office - , Via degli Olmetti, 39/E – 00060 Formello (RM), Italy
Email: mail@safetyhitech.com

Certificate No: 969a to EN 12094-4;2004

SHTE® S 125, SHTE® S 227 & SHTE® 1230 Container Valve Actuators

Product Name	Description	LPCB Ref. No.
SH31009401	Manual actuator	969a/02
SH30027303	2 way high pressure cone	969a/02
SH21006403	Solenoid actuator	969a/02
SH21006404	Solenoid actuator 1/8" connection	969a/02
SH30027302	1 way high pressure cone	969a/02
SH31009402	Manual / Pneumatic actuator	969a/02

GASEOUS SYSTEM COMPONENTS

Siemens Switzerland Ltd

Theilerstrasse 1a, Zug, CH-6300 , Switzerland

Website: www.siemens.com

Certificate No: 1239Fa to EN 12094-13

Siemens Check Valve

Product Name	Description	LPCB Ref. No.
CAR12-360	DN12 Inert Gas	1239Fa/02

Certificate No: 1239Fa to EN 12094-13

Siemens Non-Return Valve

Product Name	Description	LPCB Ref. No.
NRV4-360	DN 4 (360 bar) Non-Return Valve	1239Fa/03

Certificate No: 1239Fa to EN 12094-8

Siemens Pilot and Discharge Connectors

Product Name	Description	LPCB Ref. No.
FLEX5-xxx	Pilot hose (type 3) DN5, 300mm – 1100mm long	1239Fa/01
FLEX12-500	Discharge hose (type 1) DN12, - 500mm long	1239Fa/01
FLEX16-xxx	Discharge hose (type 1) DN16 - 550mm & 600mm long	1239Fa/01

Certificate No: 1239Ga to EN 12094-4

Siemens Constant Pressure Regulator – Manifold Installation

Product Name	Description	Container Pressure (bar)	Outlet Pressure (bar)	LPCB Ref. No.
REG-F212	Outlet Pressure Regulator	200 & 300	Static: 60 (+2/-6)	1239Ga/01

Certificate No: 126z to EN 12094

Siemens Sinorix™ Cerexen® - Actuators

Product Name	Description	LPCB Ref. No.
CX505131	Pneumatic Actuator	126z/09
CX505130	Pneumatic Actuator	126z/09
CX505132	Pneumatic/Manual Actuator	126z/09
CX505134	Electrical Actuator	126z/09

Certificate No: 126z to EN 12094-4

Container Valve Actuators For Use with DN12 F230xxxx Container Valves

Product Name	Description	LPCB Ref. No.
ACTF230-MANUAL	Manual actuator	126z/15
ACTF230-PNEUMX	Pneumatic actuator	126z/16
ACTF230-EL BM	Electrical actuator, with integrated blocking device with monitoring	126z/17
ACTF230-EL B	Electrical actuator, with integrated blocking device	126z/18
ACTF230-EL M	Electrical actuator with monitoring	126z/19
ACTF230-EL	Electrical actuator	126z/20
ACTF230-EL BM C	Electrical actuator, with integrated blocking device, for CO ₂ with monitoring	126z/21
ACTF230-EL B C	Electrical actuator, with integrated blocking device, for CO ₂	126z/22
ACTF230-PNEUMS	Pneumatic actuator	126z/23
ACTF230-PNEUMD	Pneumatic actuator	126z/24

Certificate No: 126z to EN 12094

Siemens Sinorix™ Cerexen® - CO₂ Container valves

Product Name	Description	LPCB Ref. No.
CX505127	CO ₂ Container Valve	126z/10

Certificate No: 126z to EN 12094

GASEOUS SYSTEM COMPONENTS

Siemens Sinorix™ Cerexen® - 200 bar Inert Container valves

Product Name	Description	LPCB Ref. No.
CX505120	200 bar Inert Container Valve	126z/07

Certificate No: 126z to EN 12094

Siemens Sinorix™ Cerexen® - 300 bar Inert Container valves

Product Name	Description	LPCB Ref. No.
CX505135	300 bar Inert Container Valve	126z/08

Certificate No: 126z to EN 12094-4

Container Valves DN12 For Use with Inert Gas & CO2

Product Name	Description	Working Pressure, bar	LPCB Ref. No.
F230-CO2-250	Container Valve 250 bar, CO ₂ (1)(4)	140	126z/11
F230-CO2-190	Container Valve 190 bar, CO ₂ (2)(4)	140	126z/12
F230-IG200	Container Valve 270 bar, Inert (3)	240	126z/13
F230-IG300	Container Valve 405 bar, Inert (3)	360	126z/14

Certificate No: 126z to EN 12094

Siemens Sinorix™ Cerexen® - Nozzles

Product Name	Description	LPCB Ref. No.
Cerexen Type Nozzle - 2 Hole	3/8" Nozzle	126z/02
Cerexen Type Nozzle - 2 Hole	1/2" Nozzle	126z/02
Cerexen Type Nozzle - 2 Hole	3/4" Nozzle	126z/02
Cerexen Type Nozzle - 2 Hole	1" Nozzle	126z/02
Cerexen Type Nozzle - 2 Hole	1 1/4" Nozzle	126z/02
Cerexen Type Nozzle - 2 Hole	1 1/2" Nozzle	126z/02
Cerexen Type Nozzle - 2 Hole	2" Nozzle	126z/02
Cerexen Type Nozzle - 4 Hole	3/8" Nozzle	126z/03
Cerexen Type Nozzle - 4 Hole	1/2" Nozzle	126z/03
Cerexen Type Nozzle - 4 Hole	3/4" Nozzle	126z/03
Cerexen Type Nozzle - 4 Hole	1" Nozzle	126z/03
Cerexen Type Nozzle - 4 Hole	1 1/4" Nozzle	126z/03
Cerexen Type Nozzle - 4 Hole	1 1/2" Nozzle	126z/03
Cerexen Type Nozzle - 4 Hole	2" Nozzle	126z/03

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Certificate No: 1802a to EN 12094-4;2004

Pilot Cylinder Valves

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
RGS-MAM-11-4	max free cross sectional area 113mm ²	190	1802a/08
RGS-MAM-12-4*	max free cross sectional area 113mm ²	190	1802a/09

Certificate No: 1802a to EN 12094-4;2004

Pilot Cylinder Valve Actuators

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
227 SOL	Electrical	75	1802a/10
227 SOLC	Electrical	240	1802a/11
227 CN	Pneumatic	360	1802a/12

Certificate No: 1802a to EN 12094-5:2006

Selector Valves for IG55 & IG541

GASEOUS SYSTEM COMPONENTS

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
SVD40	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/34
SVD20	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/31
SVD32	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/33
SVD25	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/32
SVD65	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/36
SVD50	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/35
SVD80	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/37
SVD100	Selector Valve, CO ₂ , HFC-125, HFC-227ea, FK-5-1-12	140	1802a/38
SVDA25	Selector Valve, inert gas	360	1802a/39
SVDA32	Selector Valve, inert gas	360	1802a/40
SVDA40	Selector Valve, inert gas	360	1802a/41
SVDA50	Selector Valve, inert gas	360	1802a/42
SVDA65	Selector Valve, inert gas	360	1802a/43

Certificate No: 1802a to EN 12094-4:2004

Constant Flow Container Valves

Product Name	Description	Max. Working Pressure, bar	Max. Outlet Pressure, bar	LPCB Ref. No.
RGS-MAM-RD9	max free cross sectional area 70.9 mm ²	360	60	1802a/01
RGS-MAM-RD11	max free cross sectional area 103.9 mm ²	360	60	1802a/02

Certificate No: 1802a to EN 12094-4:2004

Container Valve Actuators

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
RGS-MAM-03	Pilot cartridge valve adaptor	190	1802a/03
227 SOLR	Electrical (mounted on RGS-MAM-03)	75	1802a/04
227 SOLCR	Electrical (mounted on RGS-MAM-03)	200	1802a/05
227 DM	Manual (mounted on electrical actuator)	360	1802a/06
227 DMS	Manual (mounted on electrical actuator)	360	1802a/07

Certificate No: 1802a to prEN 12094-7:2006

Nozzles

Product Name	Description	Size	LPCB Ref. No.
FEDR10	360° nozzle	G 3/8"	1802a/44
FEDR10A	360° nozzle	G 3/8"	1802a/45
FEDR15	360° nozzle	G 1/2"	1802a/46
FEDR15A	360° nozzle	G 1/2"	1802a/47
FEDR20	360° nozzle	G 3/4"	1802a/48
FEDR20A	360° nozzle	G 3/4"	1802a/49
FEDR25	360° nozzle	G 1"	1802a/50
FEDR32	360° nozzle	G 1 1/4"	1802a/52
FEDR32A	360° nozzle	G 1 1/4"	1802a/53
FEDR40	360° nozzle	G 1 1/2"	1802a/54
FEDR50	360° nozzle	G 2"	1802a/56
FEDR40A	360° nozzle	G 1 1/2"	1802a/55
FEDR10180	180° nozzle	G 3/8"	1802a/57
FEDR15180	180° nozzle	G 1/2"	1802a/59
FEDR32180	180° nozzle	G 1 1/4"	1802a/65
FEDR10180A	180° nozzle	G 3/8"	1802a/58
FEDR25A	360° nozzle	G 1"	1802a/51
FEDR15180A	180° nozzle	G 1/2"	1802a/60
FEDR25180	180° nozzle	G 1"	1802a/63
FEDR40180	180° nozzle	G 1 1/2"	1802a/67
FEDR25180A	180° nozzle	G 1"	1802a/64
FEDR20180	180° nozzle	G 3/4"	1802a/61
FEDR50180	180° nozzle	G 2"	1802a/69
FEDR20180A	180° nozzle	G 3/4"	1802a/62
FEDR40180A	180° nozzle	G 1 1/2"	1802a/68
FEDR32180A	180° nozzle	G 1 1/4"	1802a/66

Certificate No: 1802a to EN 12094-10:2003

Pressure Gauges & Pressure Gauges + Switch

Product Name	Description	Pressure ranges, bar	LPCB Ref. No.
PGS.11.040	Pressure gauge + switch 1/8" NPT	0-60, 0-100, 0-250, 0-315 and 0-400	1802a/13

GASEOUS SYSTEM COMPONENTS

Certificate No: 1802a to EN 12094-13:2001

Check Valves and Non-Return Valves

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
VALAN-15CO	Check valve ½"	240	1802a/26
VALAN-21A	Check valve ¾"	360	1802a/27
VALAN-WFR8	Non-return valve ¼"	240	1802a/29
VALAN-22A	Check valve ¾"	360	1802a/28
VALAN-WFR8-316	Non-return valve ¼"	240	1802a/30

Certificate No: 1802a to EN 12094-8:2006

Connectors

Product Name	Description	Max. Working Pressure, bar	LPCB Ref. No.
FH-21A	Flexible discharge connector (type 1)	360	1802a/17
FH-20HC	Flexible discharge connector (type 1)	215	1802a/15
FH-15CO	Flexible discharge connector (type 1)	275	1802a/14
FH-20A	Flexible discharge connector (type 1)	360	1802a/16
FH-6PO	Flexible actuator hose (type 3)	224	1802a/20
FH-7PO	Flexible actuator hose (type 3)	360	1802a/21
DH 21I*	Flexible discharge connector (type 1)	280	1802a/19
DH 21	Flexible discharge connector (type 1)	280	1802a/18
DH 10	Flexible actuator hose (type 3)	280	1802a/22
DH 10I*	Flexible actuator hose (type 3)	280	1802a/23
DH 11	Flexible actuator hose (type 3)	450	1802a/24
DH 11I*	Flexible actuator hose (type 3)	450	1802a/25

WIKA Alexander Wiegand SE & Co. KG

Alexander Wiegand-Strasse 30, Klingenberg, 63911, Germany

Tel: +49 9372 132-5367

E-mail: christian.luley@wika.com • Website: www.wika.de

Certificate No: 980a to EN 12094-10

WIKI Pressure gauges with switch

Product Name	Description	LPCB Ref. No.
PGS 21.050	0-40 bar range	980a/01
PGS 21.050	0-60 bar range	980a/01
PGS 21.050	0-250 bar range	980a/01
PGS 21.050	0-315 bar range	980a/01
PGS 21.050	0-400 bar range	980a/01
PGS 21.050	0-100 bar range	980a/01
PGS 21.050	0-160 bar range	980a/01

GASEOUS SYSTEMS

- LPCB approval of system components (Gaseous System Components section);
- Assessment to the relevant parts of ISO 14520 - *Gaseous fire-extinguishing systems* or EN 15004 - *Fixed Firefighting Systems - Gas Extinguishing Systems*;
- Testing to LPS 1230: *Requirements for Fire Testing of Fixed Gaseous Fire Extinguishing Systems*; and
- Review of the system design manual, software programme and installation & maintenance manual specified in the system approval listing.

Notes:

1. Gases used for extinguishing fires are generally hazardous to health. In selecting a system, specifiers are advised to carry out proper risk assessments based on the latest health and safety datasheets.
2. LPCB strongly recommends that the design and installation of these systems be carried out by a Certificated LPS 1204 company (see section LPS 1204 Certificated Gas Extinguishing System Firms).

Ceasefire Industries Private Limited

E6, Selaqui Industrial Area, Dehradun, Uttarakhand, 248011, India

Tel: +911204223473

E-mail: amit@ceasefire.in

Certificate No: 1329e to LPS 1230

Ceasefire Fixed Gaseous Fire Extinguishing Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Ceasefire HFC227ea 25 bar and 42 bar Fixed Gaseous Fire Extinguishing System	Class A Standard (Solid fires e.g. Paper, wood, plastics)	7.8 %	Design concentration includes 30% safety factor	1329e/01
Ceasefire HFC227ea 25 bar and 42 bar Fixed Gaseous Fire Extinguishing System	Class A Cables (Solid fire risks including Cables)	8.2 %	Confirmation that minimum safety factor is adequate	1329e/01
Ceasefire HFC227ea 25 bar and 42 bar Fixed Gaseous Fire Extinguishing System	Class B (Liquid Fires e.g. heptane)	9.2 %	Design concentration includes 30% safety factor	1329e/01
Ceasefire FK 5-1-12 25 bar and 42 bar Fixed Gaseous Fire Extinguishing System	Class A Standard (Solid fires e.g. Paper, wood, plastics)	5.3 %	Design concentration includes 30% safety factor	1329e/02
Ceasefire FK 5-1-12 25 bar and 42 bar Fixed Gaseous Fire Extinguishing System	Class A Cables (Solid fire risks including Cables)	5.5 %	Confirmation that minimum safety factor is adequate	1329e/02
Ceasefire FK 5-1-12 25 bar and 42 bar Fixed Gaseous Fire Extinguishing System	Class B (Liquid Fires e.g. heptane)	6.0 %	Design concentration includes 30% safety factor	1329e/02

Eurotech Fire Protection Ltd, in collaboration with Firetec Systems Ltd

Unit 6, The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2QZ, United Kingdom

Tel: +44 118 989 7910

E-mail: jamie.morris@firetec-systems.com • Website: www.firetec-systems.com

Certificate No: 1222a to LPS 1230

Eurotech227 & Eurosafe227 - 25 bar & 42 bar HFC 227ea Gaseous Fire Suppression Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Eurotech227 & Eurosafe227	Class A Standard (Solid fires e.g. paper, wood, plastics)	7.8%	Design concentration includes 30% safety factor	1222a/01
Eurotech227 & Eurosafe227	Class A Cables (Solid fires risks including cables)	8.2%	Confirmation that 'minimum safety factor' is adequate	1222a/01
Eurotech227 & Eurosafe227	Class B (Liquid Fires e.g. heptane)	9.2%	Design concentration includes 30% safety factor	1222a/01

Certificate No: 1222a to LPS 1230

Eurotech1230 & Eurosafe1230 - 25 bar & 42 bar FK 5-1-12 (Novec™ 1230) Gaseous Fire Suppression Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Eurotech1230 & Eurosafe1230	Class A Standard (Solid fires e.g. paper, wood, plastics)	5.3%	Design concentration includes 30% safety factor	1222a/02
Eurotech1230 & Eurosafe1230	Class A Cables (Solid fires risks including cables)	5.5%	Confirmation that 'minimum safety factor' is adequate	1222a/02
Eurotech1230 & Eurosafe1230	Class B (Liquid Fires e.g. heptane)	6.5%	Design concentration includes 30% safety factor	1222a/02

GASEOUS SYSTEMS

Eurosafe1230

factor

Certificate No: 1222a to LPS 1230

Inertech IG-01 200 bar & 300 bar Gaseous Fire Suppression Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Inertech IG-01	Class A Standard (Solid fires e.g. paper, wood, plastics)	45.5%	Design concentration includes 30% safety factor	1222a/03
Inertech IG-01	Class A Cables (Solid fires risks including cables)	49.6%	Confirmation that 'minimum safety factor' is adequate	1222a/03
Inertech IG-01	Class B (Liquid Fires e.g.heptane)	52.7%	Design concentration includes 30% safety factor	1222a/03

Certificate No: 1222a to LPS 1230

Inertech IG-55 200 bar & 300 bar Gaseous Fire Suppression Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Inertech IG-55	Class A Standard (Solid fires e.g. paper, wood, plastics)	40.0%	Design concentration includes 30% safety factor	1222a/04
Inertech IG-55	Class A Cables (Solid fires risks including cables)	43.8%	Confirmation that 'minimum safety factor' is adequate	1222a/04
Inertech IG-55	Class B (Liquid Fires e.g.heptane)	47.1%	Design concentration includes 30% safety factor	1222a/04

Certificate No: 1222a to LPS 1230

Inertech IG-100 200 bar & 300 bar Gaseous Fire Suppression Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Inertech IG-100	Class A Standard (Solid fires e.g. paper, wood, plastics)	38.9%	Design concentration includes 30% safety factor	1222a/05
Inertech IG-100	Class A Cables (Solid fires risks including cables)	42.8%	Confirmation that 'minimum safety factor' is adequate	1222a/05
Inertech IG-100	Class B (Liquid Fires e.g.heptane)	46.3%	Design concentration includes 30% safety factor	1222a/05

Certificate No: 1222a to LPS 1230

Inertech IG-541 200 bar & 300 bar Gaseous Fire Suppression Systems

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Inertech IG-541	Class A Standard (Solid fires e.g. paper, wood, plastics)	38.5%	Design concentration includes 30% safety factor	1222a/06
Inertech IG-541	Class A Cables (Solid fires risks including cables)	45.7%	Confirmation that 'minimum safety factor' is adequate	1222a/06
Inertech IG-541	Class B (Liquid Fires e.g.heptane)	46.5%	Design concentration includes 30% safety factor	1222a/06

Fike Safety Technology Ltd

Unit 31, Springvale Industrial Estate, Cwmbran, Torfaen, NP44 5BD, United Kingdom

Tel: +44 (0)1633 865558

E-mail: fstinfo@fike.com • Website: www.fikesafetytechnology.co.uk

Certificate No: 331w to LPS 1230

Fike Proinert Fixed Gaseous Fire Extinguishing System

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Fike Proinert Fixed Gaseous Fire Extinguishing System	Class A Standard (Solid fires e.g. paper, wood, plastics)	39.7%	Design concentration includes 30% safety factor	331w/01
Fike Proinert Fixed Gaseous Fire Extinguishing System	Class A Cables (Solid fire risks including cables)	44.3%	Confirmation that minimum safety factor is adequate	331w/01
Fike Proinert Fixed Gaseous Fire Extinguishing System	Class B (Liquid Fires e.g. heptane)	46.0%	Design concentration includes 30% safety factor	331w/01

GASEOUS SYSTEMS

Fire Eater A/S

Vølundsvej 17, Hillerød, 3400, Denmark

Tel: +45 7022 2769

E-mail: go@fire-eater.dk • Website: www.fire-eater.com

Certificate No: 1287b to LPS 1230

Fire Eater IG541 200 bar & 300 bar

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Fire Eater Control Inert INERGEN	Class A Standard (Solid fires e.g. paper, wood, plastics)	37.2%	Design concentration includes 30% safety factor	1287b/01
Fire Eater Control Inert INERGEN	Class A Cables (Solid fires risks including cables)	42.6%	Confirmation that 'minimum safety factor' is adequate	1287b/01
Fire Eater Control Inert INERGEN	Class B (Liquid Fires e.g. heptane)	43.7%	Design concentration includes 30% safety factor	1287b/01

Kidde Fire Protection

KFI UK Ltd (T/A Kidde Fire Protection), Station Road, High Bentham, Lancaster, LA2 7NA, United Kingdom

Tel: +44 (0)1494 480 410

E-mail: general.enquiries.kiddeuk@carrier.com • Website: www.kfp.co.uk

Certificate No: 237t to LPS 1230: Issue 1.2

Kidde Fire Protection Natura™ (400 Series) Inert Gas System

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
IG-01	Class A Standard (Solid fires e.g. Paper, wood, plastics)	42.4 %	Design concentration includes 30% safety factor	273t/01
IG-01	Class A Cables (Solid fire risks including Cables)	50.2 %	Confirmation that minimum safety factor is adequate	273t/01
IG-01	Class B (Liquid Fires e.g. heptane)	51.6 %	Design concentration includes 30% safety factor	273t/01
IG-55	Class A Standard (Solid fires e.g. paper, wood, plastics)	38.9%	Design concentration includes 30% safety factor	273t/02
IG-55	Class B (Liquid Fires e.g. heptane)	45.9%	Design concentration includes 30% safety factor	273t/02
IG-55	Class A Cables (Solid fire risks including cables)	44.2%	Confirmation that minimum safety factor is adequate.	273t/02
IG-100	Class A Standard (Solid fires e.g. paper, wood, plastics)	38.9%	Design concentration includes 30% safety factor	273t/03
IG-100	Class B (Liquid Fires e.g. heptane)	46.0%	Design concentration includes 30% safety factor	273t/03
IG-100	Class A Cables (Solid fire risks including cables)	43.2%	Confirmation that minimum safety factor is adequate.	273t/03
IG-541	Class A Cables (Solid fire risks including cables)	42.1%	Confirmation that minimum safety factor is adequate.	273t/04
IG-541	Class A Standard (Solid fires e.g. paper, wood, plastics)	39.1%	Design concentration includes 30% safety factor	273t/04
IG-541	Class B (Liquid Fires e.g. heptane)	44.6%	Design concentration includes 30% safety factor	273t/04

Notes:

This system is suitable for storage in environmental conditions from -20°C to +50°C

Storage pressure is specified as 200 bar or 300 bar @ 15°C. System pressure is specified as 55 bar.

This System uses:

Components as listed in RedBookLive Gaseous System Components Section and as described in Kidde Fire Protection Natura™ (400 Series) Inert Gas System Design, Installation, Operation and Maintenance Manual (DIOM): P/N 06-237518-001, dated October 2021, Revision AC Which utilises the following Software Programme:

Kidde Fire Protection - Flow Calculation v 4.00, Licensed to Kidde Fenwal, Copyright: Jensen Hughes Inc, Design concentration Class A Standard and Class B = Extinguishing concentration x safety factor (minimum 1.3). Design concentration Class A Cables System test concentration. Where this value is lower than the Class A Standard value, the Class A Standard value should be used for design purposes. Design concentrations are as tested to LPS 1230 in BRE Test Report Number P102562-1002.

Certificate No: 273c to LPS 1230, LPS 1230: Issue 1.2

Kidde Fire Protection 469 Series - Argonite®(IG-55) 150, 200, 300 bar Fixed Gaseous Fire Extinguishing System

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Argonite®(IG-55) 150, 200, 300 bar Fixed Gaseous Fire Extinguishing System	Class A Standard (Solid fires e.g. paper, wood, plastics)	40.1%	Design concentration includes 30% safety factor	273c/01

GASEOUS SYSTEMS

Argonite®(IG-55) 150, 200, 300 bar Fixed Gaseous Fire Extinguishing System	Class A Cables (Solid fire risks including cables)	47.6%	Confirmation that minimum safety factor is adequate.	273c/01
Argonite®(IG-55) 150, 200, 300 bar Fixed Gaseous Fire Extinguishing System	Class B (Liquid Fires e.g. heptane)	47.1%	Design concentration includes 30% safety factor	273c/01

Notes:

Design concentration Class A Standard and Class B = Extinguishing concentration x safety factor (minimum 1.3).

Design concentration Class A Cables System test concentration. Where this value is lower than the Class A Standard value, the Class A Standard value should be used for design purposes.

Design concentrations are as tested to LPS 1230 in BRE Test Report Number 206880.

Extinguishing concentrations are as tested in BRE Test Report Numbers 206879 and 216485 (ISO 14520-1 tests).

This system uses:

Design, Installation, Maintenance and User Manual:

General Manual – Argonite System, MA-01-9006-0100, Revision 11 dated January 2015

Software Programme: VdS-Version 7.3 (2009)

a) This system is suitable for storage in environmental conditions from -20°C to +55°C

b) System pressure is specified as 150 bar, 200 bar and 300 bar @ 15°C

Kidde-Fenwal, LLC (T/A Kidde Fire Systems)

400 Main Street, Ashland, Massachusetts 01721, USA

Tel: +1 508 881 2000

Website: www.kiddefiresystems.com and www.fenwalfire.com

Certificate No: 594Be to LPS 1230: Issue 1.2

Kidde Fire Systems Natura™ Inert Gas System

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
IG-01	Class A Standard (Solid fires e.g. Paper, wood, plastics)	42.4 %	Design concentration includes 30% safety factor	594Be/01
IG-01	Class A Cables (Solid fire risks including Cables)	50.2 %	Confirmation that minimum safety factor is adequate	594Be/01
IG-01	Class B (Liquid Fires e.g. heptane)	51.6 %	Design concentration includes 30% safety factor	594Be/01
IG-55	Class A Standard (Solid fires e.g. Paper, wood, plastics)	38.9 %	Design concentration includes 30% safety factor	594Be/02
IG-55	Class A Cables (Solid fire risks including Cables)	44.2 %	Confirmation that minimum safety factor is adequate	594Be/02
IG-55	Class B (Liquid Fires e.g. heptane)	45.9 %	Design concentration includes 30% safety factor	594Be/02
IG-100	Class A Standard (Solid fires e.g. Paper, wood, plastics)	38.9 %	Design concentration includes 30% safety factor	594Be/03
IG-100	Class A Cables (Solid fire risks including Cables)	43.2 %	Confirmation that minimum safety factor is adequate	594Be/03
IG-100	Class B (Liquid Fires e.g. heptane)	46.0 %	Design concentration includes 30% safety factor	594Be/03
IG-541	Class A Standard (Solid fires e.g. Paper, wood, plastics)	39.1 %	Design concentration includes 30% safety factor	594Be/04
IG-541	Class A Cables (Solid fire risks including Cables)	42.1 %	Confirmation that minimum safety factor is adequate	594Be/04
IG-541	Class B (Liquid Fires e.g. heptane)	44.6 %	Design concentration includes 30% safety factor	594Be/04

Macron Safety Systems (UK) Ltd

Burlingham House, Hewett Road, Gapton Hall Industrial Estate, Great Yarmouth, Norfolk, NR31 0NN, United Kingdom

Tel: +44 (0)1493 417600

E-mail: info@tycoint.com • Website: www.macron-safety.com

Certificate No: 587b to LPS 1230: Issue 1.2

Fixed Gaseous Fire Extinguishing System

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Fixed Gaseous Fire Extinguishing System	Class A Standard (solid fires e.g. paper, wood, plastics)	6.3%	Design concentration includes 30% safety factor	587b/01
Fixed Gaseous Fire Extinguishing System	Class A Cables (solid fire risks including cables)	6.1%	Confirmation that minimum safety factor is adequate	587b/01
Fixed Gaseous Fire Extinguishing System	Class B (liquid fires e.g. heptane)	6.4%	Design concentration includes 30% safety factor	587b/01

Available as brand names Gem Sapphire, Hygood Sapphire and LPG Sapphire

GASEOUS SYSTEMS

Certificate No: 587d to LPS 1230

LPG 'Inert 55' 200 bar and 300 bar Inert Gaseous Fire Suppression System

Product Name	Risk	Design Concentration	Comments	LPCB Ref. No.
Inert 55	Class A Standard (Solid fires e.g. paper, wood, plastics)	41.0%	Design concentration includes 30% safety factor	587d/02
Inert 55	Class A Cables (Solid fires risks including cables)	45.6%	Confirmation that minimum safety factor is adequate	587d/02
Inert 55	Class B (Liquid Fires e.g.heptane)	45.2%	45.2%	587d/02

LPS 1204 CERTIFICATED GAS EXTINGUISHING SYSTEM FIRMS

The purpose of LPS 1204 scheme, *Requirements for firms engaged in the design, installation, commissioning and servicing of gas extinguishing systems*, is to provide an assurance that gas extinguishing systems perform correctly. It is recommended that the LPS 1204 Certificated Firm is given responsibility for the complete system, including the following aspects:

- Selection of appropriate gas type
- Extinguishing design concentration
- Check on enclosure leakage integrity
- Discharge and post discharge venting
- Electrical system integration

Certification of Fixed Systems and LPCB Certificates of Conformity

It is a requirement of the LPS 1204 scheme that Certificated Firms shall issue an LPCB Certificate of Conformity in respect of each completed system, extension and alteration. The issue of an LPCB Certificate of Conformity:

- (a) certifies that the gas extinguishing system, extension or alteration has been designed, installed and commissioned in accordance with the recognised standards identified in LPS 1204 and
- (b) ensures that the certificated system, extension and alteration is recorded by the LPCB.

LPCB Inspections

LPS 1204 Certificated Firms are regularly audited for their competence to design, install, commission and service gas extinguishing systems in accordance with recognised installation standards.

Additional Offices

Where a firm has additional offices, each office must meet the requirements of LPS 1204 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 1204 scheme. Their work is closely monitored by LPCB and when they have completed the requisite number of gas extinguishing systems contracts over a period of not less than two years, and subject to satisfactory performance, they will be given full approval and listed in this section of the Red Book.

Alberta Fire & Security Equipment Limited

Zone 3, Triq San Gwakkinn, Central Business District, Birkirkara, CBD 3030, Malta

Tel: +356 21 443538

E-mail: enquiries@alberta.com.mt • Website: www.alberta.com.mt

Certificate No: CFSI-017 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Allsaved Limited

Unit 3, Trade Park, Billingshurst, West Sussex, RH14 9HP, United Kingdom

Tel: 01798 812999

E-mail: kelli.timms@allsaveduk.com • Website: allsaveduk.com

Certificate No: CFSI-033 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Condensed Aerosol and issue LPCB Certificates of Conformity for these systems.

Argus Fire Protection Company Limited

Hendglade House, 46 New Road, Stourbridge, West Midlands, DY8 1PA, United Kingdom

Tel: +44 (0)1384 376256

E-mail: info@argusfire.co.uk • Website: www.argusfire.co.uk

Certificate No: CFSI-032 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Aspect Fire Solutions Limited

Saddleworth Business Centre, Huddersfield Road, Delph, Oldham, OL3 5DF, United Kingdom

Tel: +44 (0)1457 875605

E-mail: sales-north@aspectfire.co.uk • Website: www.aspectfire.co.uk

Certificate No: CFSI-031 to LPS 1204

Certificated to design, install, commission and service Carbon dioxide & Non-liquefied inert gases and issue LPCB Certificates of Conformity for these systems.

Chubb Fire & Security Ltd t/a Chubb Mechanical

Chubb House, Shadsworth Road, Blackburn, Lancashire, BB1 2PR, United Kingdom

Tel: +44 (0)1254 298706 / 298472

E-mail: UK_QEHS@chubbfs.com • Website: www.chubb.co.uk

Certificate No: CFSI-026 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Chubb Fire and Security Limited trading as Vipond Fire Protection

10-12 Glenfield Road, Kelvin Industrial Estate, East Kilbride, Lanarkshire, G75 0RA, United Kingdom

Tel: +44 (0)1355 2375 25/80/88

E-mail: uk_vipondadmin@vipond.co.uk • Website: www.vipondfire.co.uk

Certificate No: CFSI-027 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases and Carbon dioxide and issue LPCB Certificates of Conformity for these systems.

Clymac Limited

Cloudway Court, Belton Road, Loughborough, LE11 1LW, United Kingdom

Tel: +44 (0)1509 232651

E-mail: sales@clymac.co.uk • Website: www.clymac.co.uk

Certificate No: CFSI-018 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

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: CFSI-021 to LPS 1204

LPS 1204 CERTIFICATED GAS EXTINGUISHING SYSTEM FIRMS

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Firecheck Contracts Limited

53 Huntercombe Lane North, Burnham, SL1 6DX, United Kingdom
Tel: +44 (0)1628 660999
E-mail: info@firecheckltd.co.uk • Website: www.firecheckltd.co.uk

Certificate No: CFSI-019 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases and Carbon dioxide and issue LPCB Certificates of Conformity for these systems.

G.B. Electronics Limited trading as GBE Converge

GBEC House, 31 Barnett Way, Barnwood, Gloucester, GL4 3RT, United Kingdom
Tel: +44 (0)8451 220884
E-mail: info@gbeconverge.com • Website: www.gbeconverge.com

Certificate No: CFSI-029 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Hall and 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
E-mail: ascot@hkfire.co.uk • Website: www.hkfire.co.uk

Certificate No: CFSI-009 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Mercury Engineering

Mercury House, Sandyford Industrial Estate, Foxrock, Dublin 18, D18 XH79, Ireland
Tel: +353 1 216 3000
E-mail: fireprotection@mercuryeng.com • Website: www.mercuryeng.com

Certificate No: CFSI-016 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases and Carbon dioxide and issue LPCB Certificates of Conformity for these systems.

Protec Camerfield Limited

5 Churchill Way, Nelson, Lancashire, BB9 6RT, United Kingdom
Tel: +44 (0)1282 717474
E-mail: camerfield@protec.co.uk • Website: www.protec.co.uk

Certificate No: CFSI-015 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases and Carbon dioxide and issue LPCB Certificates of Conformity for these systems.

Siemens Plc, Smart Infrastructure (Regional Solutions & Service)

Pinehurst 2, Pinehurst Road, Farnborough, Hampshire, GU14 7BF, United Kingdom

Tel: +44 (0)1276 696111

E-mail: sales.uk.sbt@siemens.com • Website: www.siemens.co.uk/buildingtechnologies

Certificate No: CFSI-004 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases and Carbon dioxide and issue LPCB Certificates of Conformity for these systems.

Spectrum Fire Protection (UK) Limited

Middlemore Lane, Aldridge, Walsall, West Midlands, WS9 8SP, United Kingdom

E-mail: enquiries@spectrumfire.co.uk • Website: www.spectrumfire.co.uk

Certificate No: CFSI-028 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases, Carbon dioxide and Condensed Aerosol and issue LPCB Certificates of Conformity for these systems.

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

E-mail: info@trinitypro.co.uk • Website: www.trinityfireandsecurity.com

Certificate No: CFSI-024 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases, Liquefied halocarbon gases & Condensed Aerosol and issue LPCB Certificates of Conformity for these systems.

All offices listed on Trinity Fire and Security Systems Ltd's website as shown above are covered by this certificate.

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

Website: www.tycofis.com

Certificate No: CFSI-011 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

Tyco Fire and Integrated Solutions (the trading company for Tyco Fire and Integrated Solutions (UK) Limited and Tyco Fire and Integrated Solutions (Ireland) Limited)

Unit 1 West Point Row (Ground Floor), Great Park Road, Bristol, BS32 4QG, United Kingdom

Tel: +44 (0)1454 240071

E-mail: susan.bambridge@jci.com • Website: www.tycofis.com

Certificate No: CFSI-013 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.

LPS 1204 CERTIFICATED GAS EXTINGUISHING 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)

Building 8, Quinton Business Park, Birmingham, West Midlands, B32 1AF, United Kingdom

Tel: +44 (0)121 255 6000

Website: www.tycofis.com

Certificate No: CFSI-005 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Carbon dioxide and issue LPCB Certificates of Conformity for these systems.

Tyco Fire and Integrated Solutions (the trading company for Tyco Fire and Integrated Solutions (UK) Limited and Tyco Fire and Integrated Solutions (Ireland) Limited)

Tyco Park, Grimshaw Lane, Newton Heath, Manchester, M40 2WL, United Kingdom

Tel: +44 (0)161 205 2321

Website: www.tycofis.com

Certificate No: CFSI-002 to LPS 1204

Certificated to design, install, commission and service Non-liquefied inert gases and Liquefied halocarbon gases and issue LPCB Certificates of Conformity for these systems.
