

## Product Catalogue

## Apollo Accreditation

Apollo products are certified in a global arena to meet the most exacting standards set by both our customers, and the dynamic and challenging environments in which they are designed to operate. We hold in excess of 3,000 product approvals worldwide and our products are stringently tested to international land and marine-based standards.

Apollo is quality certified by LPCB to ISO9001:2008 and ISO14001:2004 for our Environment Management System. The continuous improvement of the Apollo programme ensures that our products will always be designed to meet the everevolving criteria set by our worldwide approval bodies.













































































Need information? Visit www.apollo-fire.co.uk/certificates

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# An introduction to Apollo

#### PARTNER OF CHOICE

Apollo Fire Detectors has specialised in the design and manufacturing of high quality fire detection products since 1980. In that time, we have broadened our capability from a straightforward focus on conventional fire detectors, to the manufacture of sophisticated analogue addressable detectors and interfaces.

We apply the most modern production techniques and have invested in sophisticated manufacturing equipment to ensure consistent high quality products and fast response to customer requirements. Through planned expansion, Apollo has reached a leading global position in the market for professional fire detection. With over 3,000 international approvals, regional offices in the UK, America, China, Dubai, Germany and India along with direct trade into more than 100 countries, we have cemented our position as a world-class fire solutions provider.

Apollo is part of the Halma group of companies. Halma is a FTSE top 250 listed PLC with over 40 subsidiaries worldwide, all engaged in specialist engineering activities.

#### WHY CHOOSE APOLLO?

Largest independent smoke detector manufacturer

Certified to all key international approvals

Product Lifetime Guarantee

Trust, integrity & support

Localised customer service worldwide

Ex-stock delivery

100% tested

Open, digital communication protocol

 $Forwards\ and\ backwards\ product\ compatibility$ 



#### **WORLD-CLASS FACILITIES**

Our on-site manufacturing facility is capable of producing over 50,000 detectors a day and a great deal of care is taken to ensure that each and every detector meets the very highest of standards.

As part of our commitment to continue to meet the required high standards and remain a world leader, we have invested heavily in extensive product testing facilities, where a suite of tests are carried out to ensure our products will withstand even the most rigorous of real-life situations.

An anechoic chamber and validation laboratory are included as part of our testing facilities. An anechoic chamber is a room designed to absorb ambient noise and stop reflections of sound, so that accurate sound testing can take place inside it. A validation laboratory is the final step in the development of fire detection technology, to ensure that devices will work in every environment and scenario that they might face.

#### PRODUCT LIFETIME GUARANTEE

Our products save lives and protect property around the world from the risk of fire, a huge responsibility and one we take very seriously. Our Product Lifetime Guarantee provides a warranty on our products, which for detectors is 10 years (CO detectors is five years). The guarantee supports our recommended working life of the product and further endorses our commitment to our customers in providing them with reliable, quality fire detection products.

Apollo acknowledges the importance of life safety and system integrity and recommends the routine replacement of detectors after 10 years (CO detectors, 5 years).

The Product Lifetime Guarantee is subject to terms and conditions. For further information, please refer to the Apollo General Conditions of Sale which can be found on pages 178-179 or on the Apollo website.

Outside the United Kingdom, this is known as a 10 Year Product Guarantee.





### Additional services

#### **SERVICING & DISPOSAL**

We offer a service facility for Apollo detectors and ancillary products, such as Interfaces and Manual Call Points. This means that older models of our detectors can be serviced (subject to being within their recommended working life).

#### THE FOLLOWING SERVICES ARE OFFERED:

Detectors can be returned for a full clean and recalibration so they work within the same limits as newly-manufactured detectors

Manual Call Points, Interfaces and Audio Visual products can be returned for cleaning and testing to ensure they are still functioning within manufacturing limits

Equipment which is found to be beyond economical repair (BER) or is older than the recommended working life can be disposed of

For more information on the services and disposal of products and their associated charges, contact **returns@apollo-fire.com** 

#### LOOP CALCULATOR

The Apollo Loop Calculator is a free computer programme used to establish the viability of a design. It enables Engineers to calculate the total loop loading in a proposed SOTERIA®, Discovery or XP95 fire detection system by inputting relevant variables. This may include control equipment, loop devices and cable length and type. Parameters are included for Apollo protocol compatible panels.

Please see the Apollo website for more details:

www.apollo-fire.co.uk/loop-calc

#### **SIMSYSTEM**

SimSystem (29600-164) is a tool for simulating loops of detectors and interfaces in order to demonstrate a system and approve the design without having to connect actual products to a fire control panel. SimSystem consists of a software programme which features an intuitive graphical display and an interface which runs up to four loops. A maximum of two interfaces can be connected, allowing a system of up to eight loops to be simulated.

#### **APOLLO APP**

This app provides you with a version of the BS 5839-1 Guide to help you stay within the rules and regulations when installing fire detectors and devices.

Find out more information at: apollo-fire.co.uk/app



#### **APOLLO TRAINING COURSES**

Apollo offers a series of one-day training courses for our customers.

In addition to the standard training courses, we can offer tailor-made courses if required. The majority of courses are held at the Apollo International office in Havant, UK, but on-site training is also available.

You can find out more about Apollo's training days and book your place by visiting

www.apollo-fire.co.uk/training-courses



#### **COURSE A - CPD APPROVED**

Detection Principles and Device Selection

Conventional Detector Operation

Analogue Addressable Principles

XP95

Alarm Devices

#### COURSE B

Carbon Monoxide (CO) Fire Detection

AlarmSense

Orbis

OpenConnect

Discovery

#### **COURSE C - CPD APPROVED**

XPander – for commissioning and installation Engineers

#### COURSE D - CPD APPROVED

Service, Test and Maintenance

#### **COURSE E – CPD APPROVED**

What is intrinsic safety?

BASSEEFA classification ATEX E Ex ia 11c T5

Orbis I.S. smoke and heat detectors

Conventional barriers and I.S. circuits

XP95 I.S. manual call points, smoke and heat detectors

XP95 protocol translators and barriers

XP95 I.S. circuit design

#### COURSE S

SOTERIA®

CoreProtocol®

EN 54-23

Factory tour

SOTERIA DIMENSION

This course explains to attendees the device features and benefits of the new Apollo collection of SOTERIA® addressable detectors. It also details the new Apollo enhanced protocol, CoreProtocol®, and will offer guidance on standard EN 54-23 for Visual Alarm Devices (VADs).

#### **CPD SEMINARS**

Apollo offers training seminars that will count towards your Continuing Professional Development (CPD). These free sessions on fire industry-related topics allow you and your company to stay up to date with the latest developments.

For a list of our CPD approved training courses and to find out more email marketing@apollo-fire.com or visit www.apollo-fire.co.uk



## Analogue Addressable

Apollo offers three ranges of analogue addressable systems – SOTERIA®, Discovery and XP95.

Apollo has been using an open, digital communication protocol since 1986 and has ensured backward compatibility when developing new products. An open protocol allows freedom of choice for the fire system specifier, installer and end user. A system using a digital communication protocol has a high immunity from corruption and is therefore often preferred in a system which is life-critical.

#### CHOICE OF DETECTOR TYPE

The choice of detector from the analogue addressable range follows the well-established principles of system design. That is, the optimum detector type will depend on the type of fire risk and fire load, and the type of environment in which the detector is sited.

For general use, smoke detectors are recommended since these give the highest level of protection. Smoke detectors from the analogue addressable range may be ionisation, optical or multisensor types. The most widely used single-sensor detector is the optical smoke detector. For the greatest versatility in designing fire detection systems, the optical/heat multisensor is the detector of choice.



ANALOGUE
ADDRESSABLE RANGE

Find out more information at:

apollo-fire.co.uk/analogueaddressable



### SOTERIA®





There are two types of analogue addressable systems – those with 'distributed intelligence' and those with 'centralised intelligence'.

In systems with 'distributed intelligence', the detectors incorporate processors which can determine whether alarm levels of smoke or heat exist and can initiate action accordingly.

Detectors in systems with 'centralised intelligence' monitor the air around them for smoke or heat and transmit the data to the fire control panel on interrogation. The processor in the panel compares the values with stored values and determines whether a pre-alarm or alarm should be signalled.

The advantages of 'distributed intelligence' are local adaptation to the environment and reduction of traffic on the supply and data wires.



## SOTERIA®

Powered by



The Soteria detector range offers fire detection to meet the demands of ever increasing complex systems. Soteria includes the optical smoke sensing technology, PureLight®, to help reduce unwanted alarms. The Soteria range incorporates fast and clear status reporting and maintains loop integrity via a smart isolator in the detector head.

SOTERIA optical smoke sensing technology, PureLight, incorporates a host of innovative features including:

#### **SERPENTINE**

Smoke entry path which provides a wide degree of separation of smoke and dust, enables smoke to enter the chamber whilst acting as a barrier against dust and insect ingress.

#### ADVANCED CHIP SENSOR

Applying the latest in electronics, advanced technology significantly improves the detection of smoke.

#### **CONE TECHNOLOGY**

Reduces stray reflections of light to produce an ultradark chamber which enables sophisticated management of contaminates within the sensing chamber.





#### Optical Smoke Detector



The Soteria Optical Smoke Detector uses optical sensing technology, PureLight, to detect smoke particles entering the chamber. PureLight marks a new stage in the development of Apollo optical technology and aims to reduce the possibility of false alarms and increase the reliability of detection of a real fire.

PureLight optical technology reduces false alarms and enhances smoke recognition

Utilises CoreProtocol digital communication

Compatible with XP95 and Discovery systems

Mechanically compatible with existing bases

Available with or without integrated switchable isolator

Drift compensation

Tri-coloured LED status indicator

5 response modes approved to EN 54

Comprehensively tested to exceed EN54 and EN54-17 standards

 ${\sf FasTest} \ {\sf for} \ {\sf quicker} \ {\sf testing} \ {\sf of} \ {\sf detectors}$ 

XPERT 8 Card addressing

Locking mechanism (grub screw)

#### SA5000-600

Soteria Optical Smoke Detector (non-isolated)

#### SA5100-600

Soteria Optical Smoke

## Optical/Heat Multisensor Detector



The Soteria Optical/Heat Multisensor Detector uses optical sensing technology, PureLight, to detect smoke particles entering the chamber and is fitted with two thermistors for detecting heat. It can be switched to detect smoke, heat or a combination of both, offering greater flexibility.

#### Dual heat sensors

PureLight optical technology reduces false alarms and enhances smoke recognition

Utilises CoreProtocol digital communication

Compatible with XP95 and Discovery systems

Mechanically compatible with existing bases

Available with or without integrated switchable isolator

Drift compensation

Tri-coloured LED status indicator

5 response modes approved to EN 54

Comprehensively tested to exceed EN54-5, EN54-7 and EN54-17 standards

FasTest for quicker testing of detectors

XPERT 8 Card addressing

Locking mechanism (grub screw)

#### SA5000-700

Soteria Optical/Heat Multisensor Detector (non-isolated)

#### SA5100-700

Soteria Optical/Heat Multisensor Detector (isolated)

#### Heat Detector



The Soteria Heat Detector features two heat sensors located laterally to ensure accurate heat detection in all orientations.

#### Dual heat sensors

Utilises CoreProtocol digital communication

Compatible with XP95 and Discovery systems

Mechanically compatible with existing bases

Available with or without integrated switchable isolator

Tri-coloured LED status indicator

Seven response modes approved to EN 54

Comprehensively tested to exceed EN 54-5 standard

FasTest for quicker testing of detectors

XPERT 8 Card addressing

Locking mechanism (grub screw)

#### SA5000-400

Soteria Heat Detector (non-isolated)

#### SA5100-400

Soteria Heat Detector (isolated)

#### XPERT 8 Intelligent Mounting Base



All detectors in the Soteria, Discovery and XP95 ranges fit into the XPERT 8 Intelligent Mounting Base. The base has a wide interior diameter for ease of access to cables and terminals. Additionally, the detector can be locked into the base for increased security, with a grub screw using a 1.5mm hexagonal driver. The XPERT 8 card, part number 38532-064, supplied with the base, has pre-punched pips to remove to set the address.

Compatibility with Soteria, XP95 and Discovery detectors

Isolated and non-isolated devices supported

Isolated wiper maintains loop connectivity during temporary removal of devices

XPERT 8 Card addressing for 254 address capability

'E-Z Fit' allows for simple mounting of the detector base after wiring

Keyed to accept only addressable devices

Base mark allows for LED detector alignment

#### SA5000-200

XPERT 8 Intelligent Mounting Base

#### XPERT 8 Card



XPERT 8 Cards are supplied with all XPERT 8 Mounting Bases. Using a coding guide pips are removed to set the address of the inserted detector.

Uses patented, proven technology

Address remains the same, no matter how often detectors are replaced

Flexibility to create any address

#### 38532-064

Blank XPERT 8 Card



## SOTERIA\* DIMENSION

Powered by



SOTERIA Dimension® Optical Smoke detectors are the new unique low-profile detectors designed to blend seamlessly with any environment. The new chamberless and flush-fitting optical detectors use new patented optical sensing technology in the form of a 'virtual sensing chamber', combining functionality and style with innovation. A specialist version is available for use in custodial and care environments which has been designed to meet the requirements of STD/E/SPEC/038 and independently certified to DHF TS001 for anti-ligature use in specialist areas.

Approved to EN54-7, the chamberless design of SOTERIA Dimension results in several benefits to the end user. As it senses smoke outside of the detector, it has the potential to detect smoke earlier without the added delay of smoke entering the chamber as in standard detection devices. The lack of a chamber is also beneficial in terms of reducing dust which affects the sensitivity of a device, and the ingress of insects and foreign matter. Finally, the device is less sensitive to artificial light source variations and provides a highly consistent test result because air disturbance doesn't affect the device's operation. These factors lead to a reduction in the potential for false alarms: the device automatically enters fault mode if any factors which usually cause false alarms are detected.





#### SOTERIA RANGE

Find out more information at: soteria.apollo-fire.co.uk







#### Optical Detector



The innovative design of the Soteria Dimension Optical Detector differs from standard fire detectors, having no chamber and being flush mounted. A new optical sensing technology is used to detect smoke particles outside the detector housing. A combination of Infra-Red (IR) LEDs and photo-diodes identify smoke particles, detected just below the detector housing and initiates an alarm

#### Low profile design

Utilises digital CoreProtocol communications

Compatible with XP95 and Discovery systems\*

Integrated switchable isolator as standard

8-way DIL switch addressing

Drift compensation

FasTest® for quicker testing

Tricoloured LED status indicator

Polycarbonate moulding for colour stability and strength

Comprehensively tested to exceed EN 54-7 and EN 54-17 standards

Locking mechanism (grub screw)

#### FL5100-600APO

Soteria Dimension Optical Detector

## Specialist Optical Detector



Soteria Dimension® Specialist Optical
Detector The innovative design of the Soteria
Dimension Specialist Optical Detector
differs from standard fire detectors, having
no chamber and is flush mounted. A new
optical sensing technology is used to
detect smoke particles outside the detector
housing. A combination of Infra-Red (IR)
LEDs and photo-diodes identify smoke
particles, detected just below the detector
housing and initiates an alarm. The metal
faceplate is secured in position using antitamper screws and makes this an ideal
choice for specialist areas such as custodial
suites or mental health applications.

#### Low profile design

Utilises digital CoreProtocol communications

Compatible with XP95 and Discovery systems\*

Integrated switchable isolator as standard

8-way DIL switch addressing

Drift compensation

FasTest® for quicker testing

Tricoloured LED status indicator

Comprehensively tested to exceed EN 54-7 and EN 54-17 standards

Ruggedized metal face plate which is secured with anti-tamper screws

Designed and tested to meet the requirements of Ministry of Justice specification STD/E/SPEC/038

Independently certified to DHF TS001 for anti-ligature use in specialist area

#### FL6100-600APO

Soteria Dimension Specialist Optical Detector

#### Mounting Box



A polycarbonate mounting box for installing the Soteria Dimension detectors. This mounting box is installed into the ceiling void or pre-set in a solid ceiling. The loop is wired to this mounting box which contains the connectors for the Soteria Dimension detectors.

#### FL5000-200APO

Soteria Dimension mounting box (non-isolated)

<sup>\*</sup>Note: Not all features may be available when Soteria devices are connected to an XP95 or Discovery fire control panel







Discovery is a range of high specification, analogue addressable fire detectors. Discovery detectors offer reliable detection and false alarm management through a combination of EN 54 approved operating modes and sophisticated algorithms. Discovery has a 'distributed intelligence' system, where decisions are made in the detector head as well as the fire control panel. Drift compensation is also incorporated into the detector, allowing it to adapt to dirty or dusty environments which reduces false alarms.

Each detector in the Discovery range can operate in one of five approved response modes which can be selected from the fire control panel or hand-held programmer. The response characteristics have been carefully set so that the detectors comply with the requirements of the relevant part of EN 54 in all response modes. Mode One will give a higher sensitivity to fire than Mode Five.

Designed for use in medium to large applications with specific system requirements, Discovery gives you total reassurance in installations where adaptability to changing conditions and protection against unwanted alarms is paramount.





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#### Optical Smoke Detector



The Discovery Optical Smoke Detector operates using the light scatter principle and is ideal for applications where slow-burning or smouldering fires pose a potential risk.

Responds well to slow-burning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by wind or atmospheric pressure

Five response modes approved to EN 54

Remote test feature

Comprehensively tested to the EN54 standard

#### 58000-600

Discovery Optical Smoke Detector

#### Optical/Heat Multisensor Detector



The Discovery Multisensor Detector comprises optical smoke and thermistor temperature sensors, which give both a combined signal as well as a separate heat signal for improved false alarm management.

Ideal for a wide range of applications

Enhanced false alarm management

Recommended, in specific modes, for hotel bedrooms and hospital wards

Unaffected by wind or atmospheric pressure

Well-suited to sensitive environments

Five response modes approved to EN 54

Heat only and optical only options

Remote test feature

Comprehensively tested to the EN54 standard

#### 58000-700

Discovery Multisensor Detector

#### Heat Detector



The Discovery Heat Detector uses a single thermistor to sense the air temperature around the detector.

Ideal in environments that are dirty or smoky under normal conditions

Well-suited to warehouses, loading bays and car parks

Unaffected by wind or atmospheric pressure

Five response modes approved to EN 54

Remote test feature

Comprehensively tested to the EN54 standard

#### 58000-400

Discovery Heat Detector



#### Ionisation Smoke Detector



The Discovery Ionisation Smoke Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chambers and causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fastburning, flaming fires

Designed to operate in a variety of environments

Resilient to dust

Five response modes approved to EN 54

Remote test feature

Comprehensively tested to the EN54 standard

#### 58000-500

Discovery Ionisation Smoke Detector

#### Carbon Monoxide Detector



The Discovery Carbon Monoxide Detector is good at detecting deep-seated fires.

Please note that CO detectors do not detect smoke particles or heat and are not universal replacements for smoke detectors.

Enhanced detection capability

Ideal for smouldering fires

Less susceptible to false alarms caused by steam than smoke detectors

Five response modes approved to EN 54

Remote test feature

Comprehensively tested to the EN54 standard

#### 58000-300

Discovery Carbon Monoxide Detector

#### CO/Heat Multisensor Detector



The Discovery CO/Heat
Multisensor Detector is good
at detecting deep-seated
smouldering fires which
produce a lot of CO as well as
flaming fires. They are ideal
for use in hotel bedrooms
where steam may be present,
dusty environments or even
locations where simulated
smoke may be present.

Responds to smouldering and flaming fires

Less susceptible to false alarms caused by steam and dust

Five response modes approved to EN 54

Remote test feature

Comprehensively tested to the EN54 standard

#### 58000-305

Discovery CO/Heat Multisensor Detector

#### Intelligent Mounting Base



All detectors in the Discovery range fit the Intelligent Mounting Base. The mounting base is a low insertion force base with stainless steel contacts for the detector terminals. XPERT 7 Cards are supplied with all Mounting Bases.

XPERT 7 Card addressing

One-way fit of detector

Locking feature to prevent unauthorised detector removal

#### 45681-210

Intelligent Mounting Base



#### Intelligent Deep Base



The Intelligent Deep Base is a mounting base for Discovery products which has an increased depth allowing for cables to be inserted from the side.

Enables surface wiring

XPERT 7 Card addressing

Locking feature to prevent unauthorised detector removal

45681-209

Intelligent Deep Base

#### Intelligent Low Power Relay Base



The Intelligent Low Power Relay Base incorporates a low power relay to control field equipment.

Provides a set of voltage-free contacts controlled by the remote output of a detector

Draws negligible current

Capable of switching up to 30V at 1A

45681-242

Intelligent Low Power Relay Base

#### Intelligent Heater Base



The Intelligent Heater Base is designed to be used in cold climates where environmental conditions could result in either icing or condensation affecting the operation of detectors. It is recommended that the heater base be used in conjunction with either a Waterproof Base Cover or Deckhead Mounting Box to minimise moisture ingress.

Raises the ambient temperature of a detector chamber by approximately 10°C

Limits the risks or potential for losses of functionality of detectors installed in cold conditions

45681-219

Intelligent Heater Base

45681-519

Waterproof Base Cover

45681-217

Deckhead Mounting Box

#### Isolating Base



The Isolating Base senses and detects short-circuit faults on Discovery loops and spurs.

Up to 20 detectors or their equivalent load, may be installed between isolating bases

High-brightness LED

Detects wiring short-circuits

Minimises disruption from short-circuits

**45681-284** Isolating Bas



#### Isolator



The Isolator is placed at intervals on the loop and ensures that, in the case of a short-circuit, only the section between the isolators will be affected. When the short-circuit is removed, the isolators automatically restore power and data to the isolated section.

#### Detects wiring short-circuits

Minimises disruption from short-circuits

Automatic deisolation on short-circuit removal

Up to 20 detectors or their equivalent load, may be installed between isolators

55000-720

#### Isolator Base



The Isolator Base is unique and designed to only accept the Isolator 55000-720.

45681-211

#### MiniDisc Remote Indicator



The MiniDisc Remote Indicator is a light weight, compact red LED indicator for use in fire detection systems.

Can be used across the entire Apollo range

Small and discreet

Anti-tamper screw to protect against unauthorised removal

53832-070 MiniDisc Remote Indicator

#### XPERT 7 Card



XPERT 7 Cards are supplied with all XPERT 7 Mounting Bases. Using a coding guide pips are removed to set the address of the inserted detector.

Simplifies and speeds-up installation and commissioning

Uses patented, proven technology

Address remains the same, no matter how often detectors are replaced

Flexibility to create any address

38531-771

Blank XPERT 7 Card

45682-127

Pre-Addressed XPERT 7 Cards





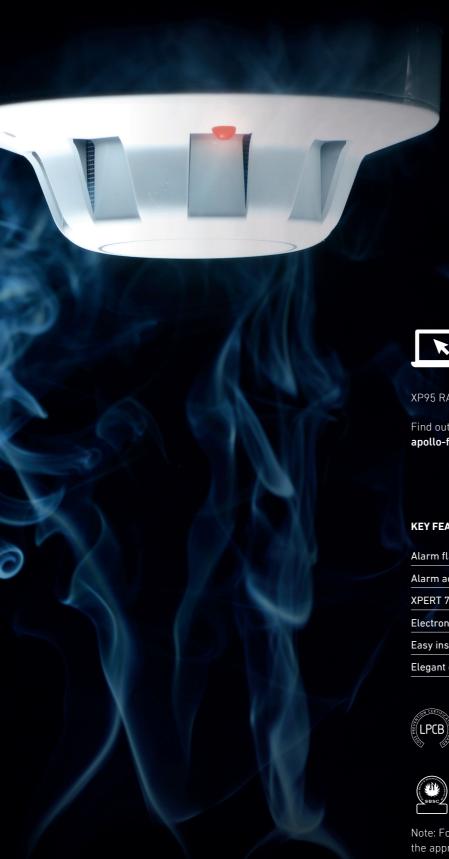
The XP95 range of analogue addressable fire detectors combines proven design with performance resulting in unique features that benefit the installer and end user.

The range features smoke detectors (optical and ionisation), standard and high temperature heat detectors and a multisensor.

Beam detectors, flame detectors, manual call points, audio visual signalling devices, interface units and isolators complete the range. XP95 has a 'central intelligence' system where all the decisions are made by the fire control panel. Apollo has used an open protocol since 1986 and has

ensured backward compatibility when developing new products. An open protocol system allows freedom of choice for the fire system specifier, installer and end user. A system using a digital communication protocol has a high immunity from corruption and is therefore often preferred in a large system where life safety is critical. XP95 is suitable for medium to large applications with simple installation requirements.







XP95 RANGE

Find out more information at: apollo-fire.co.uk/xp95

#### **KEY FEATURES OF XP95 INCLUDE:**

Alarm flag for fast alarm reporting

Alarm address for fast location of alarm

XPERT 7 Card addressing

Electronics-free base

Easy installation

Elegant design













Note: For approvals of individual detectors refer to the appropriate data sheet.



#### Optical Smoke Detector



The XP95 Optical Smoke Detector works using the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely.

Responds well to slowburning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by wind or atmospheric pressure

#### 55000-600

XP95 Optical Smoke Detector

#### 55000-620

XP95 Optical Smoke Detector (VdS)

#### 55000-660

XP95 Optical Smoke Detector (black)

#### Optical/Heat Multisensor Detector



The XP95 Optical/Heat Multisensor Detector contains an optical smoke sensor and a thermistor temperature sensor whose outputs are combined to give the final analogue value.

Sensitive to a wide range of fires

Well-suited to environments such as hotel bedrooms

Unaffected by wind or atmospheric pressure

#### 55000-885

XP95 Optical/Heat Multisensor Detector

#### Heat Detector



The XP95 Heat Detector monitors temperature by using a single thermistor which provides a count output proportional to the external air temperature. The XP95 range features two heat detectors, standard and high temperature. The standard heat detector is classified as an A2S device and will report an alarm at 55°C. The high temperature detector, classified as a CS device, will report an alarm at 90°C.

Ideal in environments that are dirty or smoky under normal conditions

Well-suited to warehouses, loading bays and car parks

Unaffected by wind or atmospheric pressure

#### 55000-400

XP95 Heat Detector A2S

#### 55000-420

XP95 Heat Detector A2S (VdS)

#### 55000-401

XP95 Heat Detector CS

#### Ionisation Smoke Detector



The XP95 Ionisation Smoke Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chambers and causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fastburning, flaming fires

Designed to operate in a variety of environments

Minimal effects from temperature, humidity, atmospheric pressure

Well-protected against electromagnetic interference over a wide frequency range

#### 55000-500

XP95 Ionisation Smoke Detector

#### 55000-520

XP95 Ionisation Smoke Detector (VdS)



#### Intelligent Mounting Base



All detectors in the XP95 range fit the Intelligent Mounting Base. The mounting base is a low insertion force base with stainless steel contacts for the detector terminals. Cards are supplied with all XPERT 7 Mounting Bases.

XPERT 7 Card addressing

One-way fit of detector

Locking feature to prevent unauthorised removal

#### 45681-210

Intelligent Mounting Base

#### 45681-361

Intelligent Mounting Base (black)

#### Intelligent Deep Base



The Intelligent Deep Base is a mounting base for XP95 products which has an increased depth allowing for cables to be inserted from the side.

Enables surface wiring

XPERT 7 Card addressing

Locking feature to prevent unauthorised detector removal

#### 45681-209

Intelligent Deep Base

#### Intelligent Low Power Relay Base



The Intelligent Low Power Relay Base incorporates a low power relay to control field equipment.

Provides a set of voltage-free contracts controlled by the remote output of a detector

Draws negligible current

Capable to switching up to 30V at 1A

#### 45681-242

Intelligent Low Power Relay Base

#### Intelligent Heater Base



The Intelligent Heater Base is designed to be used in cold climates where environmental conditions could result in either icing or condensation affecting the operation of detectors. It is recommended that the heater base be used in conjunction with either a Waterproof Base Cover or Deckhead Mounting Box to minimise moisture ingress.

Raises the ambient temperature of a detector chamber by approximately 10°C

Limits the risk for loss of functionality caused to detectors installed in cold conditions

#### 45681-219

Intelligent Heater Base

#### 45681-519

Waterproof Base Cover

#### 45681-217

Deckhead Mounting Box



#### Isolating Base



The new style Isolating Base senses and detects short-circuit faults on XP95 loops and spurs.

Up to 20 detectors, or their equivalent load, may be installed between isolating bases

High-brightness LED

45681-284 Isolating Base

#### Isolator



The Isolator is placed at intervals on the loop and ensures that, in the case of a short-circuit, only the section between the isolators will be affected. When the short-circuit is removed, the isolators automatically restore power and data to the isolated section.

Detects wiring short-circuits using patented technology

Minimises disruption from short-circuits

Automatic deisolation on short-circuit removal

Up to 20 detectors, or their equivalent load, may be installed between isolators

55000-720

Isolator

#### Isolator Base



The Isolator Base is unique and designed to only accept the Isolator 55000-720.

**45681-211** Isolator Base



## MiniDisc Remote Indicator



The MiniDisc Remote Indicator is a lightweight, compact red LED indicator for use in fire detection systems.

Can be used across the entire Apollo range

Small and discreet

Anti-tamper screw to protect against unauthorised removal

53832-070

MiniDisc Remote Indicator

#### XPERT 7 Card



XPERT 7 Cards are supplied with all XPERT 7 Mounting Bases. Using a coding guide pips are removed to set the address of the inserted detector.

Simplifies and speeds up installation and commissioning

Uses patented, proven technology

Address remains the same, no matter how often detectors are replaced

Flexibility to create any address

38531-771

Blank XPERT 7 Card

45682-127

Pre-Addressed XPERT 7 Cards

## Conventional

In conventional systems, detectors are wired as a circuit or zone. They signal fire conditions to a fire control panel by changing from a high to low impedance. The panel detects this impedance change by current monitoring and identifies the zone.

#### ORBIS AND SERIES 65 CONVENTIONAL DETECTORS ARE RECOMMENDED FOR A NUMBER OF APPLICATIONS INCLUDING:

Cleanroom and EDP suites

Hotel rooms, studio apartments and small flats

Offices, long corridors, hospital wards and light industrial factories

Warehouses and bars

Loading bays and car parks

Kitchens and laundry rooms

Boiler rooms



#### **CONVENTIONAL RANGE**

Find out more information at:

apollo-fire.co.uk/conventional







#### **HOTEL ROOMS**

For hotel rooms, studio apartments and small flats (up to 50 sq m) multisensor Orbis detectors and Series 65 optical detectors are recommended.

#### KITCHENS

A range of Orbis detectors including heat A1S, A2S, BS and CS as well as Series 65 CS detectors are recommended for kitchens and laundry rooms.

#### **CAR PARKS**

Orbis multisensor detectors, Series 65 heat A1R and BR detectors are recommended for car parks (enclosed and ventilated) and loading bays.





Orbis is a modern and stylish conventional range developed with sophisticated technology previously only found in analogue addressable detectors. Orbis has been designed to make installation, commissioning and maintenance fast and simple.

Orbis comprises of optical smoke and multisensor detectors, seven grades of heat detector and a range of bases.

#### **EACH TYPE OF DETECTOR IS AVAILABLE IN TWO VERSIONS:**

- STANDARD
- FLASHING LED

32







#### Optical Smoke Detector



The Orbis Optical Smoke Detector operates on the well-established light scatter principle. The sensing technology used is radically different from previous optical detectors and significantly reduces false alarms.

Responds well to slow-burning, smouldering fires

Good performance in both black and white smoke

Transient rejection algorithms reduce false alarms

Automatic drift compensation with DirtAlert\*, a yellow flashing LED, to easily identify dirty detectors

Red flashing LED at StartUp confirms the device is operating. SensAlert\*, yellow flashing LED indicates faulty operation

FasTest\* takes just four seconds to test and confirm detectors are functioning correctly

DustDefy system prevents dust ingress while maintaining airflow

#### ORB-OP-12001-APO

Orbis Optical Smoke Detector

#### ORB-OP-12003-APO

Orbis Optical Smoke Detector with flashing LED

## Optical/Heat Multisensor Detector



The Orbis Optical/Heat Multisensor Detector benefits from the same false alarm reduction technology as the optical detector, enhanced by the addition of a thermal sensing element.

Responds well to fast-burning, flaming fires

Transient rejection algorithms reduce false alarms

Automatic drift compensation with DirtAlert\*, a yellow flashing LED, to easily identify dirty detectors

Red flashing LED at StartUp confirms the device is operating. SensAlert\*, yellow flashing LED indicates faulty operation

FasTest\* takes just four seconds to test and confirm detectors are functioning correctly

DustDefy system prevents dust ingress while maintaining airflow

#### ORB-OH-13001-APO

Orbis Multisensor Detector

#### ORB-OH-13003-APO

Orbis Multisensor Detector with flashing LED

#### Heat Detector



The Orbis Heat Detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature.

Can be used for applications where smoke detectors are unsuitable

Ideal in environments that are dirty or smoky under normal conditions

Red flashing LED at StartUp confirms the device is operating. SensAlert\*, yellow flashing LED indicates faulty operation

FasTest® takes just four seconds to test and confirm detectors are functioning correctly

#### Standard:

ORB-HT-11001-APO A1R ORB-HT-11002-APO A2S

ORB-HT-11003-APO BR

ODD LIT 11004-AFO 65

**ORB-HT-11005-APO** CR

**ORB-HT-11006-AP0** CS

**ORB-HT-11166-APO** A1S

#### With flashing LED:

**ORB-HT-11013-APO** A1R

ORB-HT-11014-APO A2S

ORB-HT-11015-APO BR

**ORB-HT-11016-APO** BS **ORB-HT-11017-APO** CR

**ORB-HT-11018-APO** CS

ORB-HT-11167-APO A1S



#### LX Base



The Orbis LX Base has two slots for fixing screws at a spacing of 51mm to 69mm. Detectors fit into the base one-way only and require clockwise rotation without force to be plugged in.

One-way fit

Detector locking mechanism

ORB-MB-00012-APO

Orbis LX Base

#### TimeSaver® Base



The TimeSaver® Base is a design that provides installers with an open working area with fixing holes shaped to allow a fast mounting procedure.

Grouped terminals to make wiring easy

Two fixing centres

LED alignment mark

Cable stripping guide

Detector locking mechanism

#### ORB-MB-00001-APO

TimeSaver® Base with continuity switch

#### ORB-MB-00002-APO

TimeSaver® Base LX without continuity switch

#### TimeSaver® Diode Base



The TimeSaver® Diode Base has the same design as the standard TimeSaver® Base with the addition of a diode. It is used in systems which use active EOL monitoring for head removal.

Grouped terminals to make wiring easy

Two fixing centres

LED alignment mark

Cable stripping guide

Detector locking mechanism

Continuity link for voltage testing of zone wiring prior to commissioning

Other devices continue to work during unauthorised removal of detectors

#### ORB-DB-00003-APO

TimeSaver® Diode Base



For our range of Orbis Marine products see page 120



#### TimeSaver® Relay Base



The TimeSaver® Relay Base incorporates a single-pole voltage-free changeover contact for switching external equipment. When the detector changes to the alarm state, the relay is energised, causing the contact to change state. The contact will remain in this condition until the detector is reset.

Grouped terminals to make wiring easy

Two fixing centres

LED alignment mark

Cable stripping guide

Detector locking mechanism

Continuity link for voltage testing of zone wiring prior to commissioning

Capable of switching up to 30V at 1A

ORB-RB-10004-APO

TimeSaver® Relay Base

#### Sav-Wire Base



The Sav-Wire Base is designed to allow Orbis detectors to be used in Sav-Wire detection and alarm systems.

Grouped terminals to make wiring easy

Two fixing centres

LED alignment mark

Cable stripping guide

Detector locking mechanism

Used in Sav-Wire systems

ORB-SW-10005-AP0

Sav-Wire Base

#### TimeSaver® Deep Base



The TimeSaver® Deep Base is a mounting base for Orbis products which has an increased depth allowing for cables to be inserted into the side of the product.

Grouped terminals to make wiring easy

Two fixing centres

LED alignment mark

Cable stripping guide

Detector locking mechanism

Enables surface wiring

ORB-MB-00019-APO

TimeSaver® Deep Base



#### Heater Base



The Orbis Heater Base is designed to be used in cold climates where environmental conditions could result in either icing or condensation affecting the operation of detectors. It is recommended that the heater base be used in conjunction with either a Waterproof Base Cover or Deckhead Mounting Box to minimise moisture ingress.

Raises the ambient temperature of a detector chamber by approximately 10°C

Limits the risk or potential for loss of functionality to detectors installed in cold conditions

#### ORB-HB-00020-AP0

Orbis Heater Base

#### 45681-519

Waterproof Base Cover

#### 45681-217

Deckhead Mounting Box

# MiniDisc Remote Indicator



The MiniDisc Remote Indicator is a light-weight, compact red LED indicator for use in fire detection systems.

Can be used across the entire Apollo range

Small and discreet

Anti-tamper screw to protect against unauthorised removal

#### 53832-070

MiniDisc Remote Indicator

† Non-standard variants of the Manual Call Point are not EN 54-11 compliant and therefore cannot be used to signal fire.





Series 65 incorporates well-proven sensing technologies together with advances in materials and electronics.

Having a wide-operating voltage of 9-33 V, Series 65 detectors can be integrated into security systems when used with a relay base. The range consists of ionisation, integrating ionisation and optical smoke detectors, four grades of heat detector and a range of bases.

#### EACH TYPE OF DETECTOR IS AVAILABLE IN THREE VERSIONS:

- STANDARD
- FLASHING LED
- FLASHING LED AND MAGNET-OPERATED TEST SWITCH







## Optical Smoke Detector



The Series 65 Optical Smoke Detector incorporates a pulsing LED located within the housing of the detector. The external detector moulding is identical to that of the ionisation detector, and has an indicator LED which is clear in quiescent state but produces a red light in alarm.

Responds well to slow-burning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by wind or atmospheric pressure

Flashing LED and magnet operated test switch option

#### 55000-317

Series 65 Optical Smoke Detector

#### 55000-316

Series 65 Optical Smoke Detector with flashing LED

#### 55000-315

Series 65 Optical Smoke Detector with flashing LED and magnetic test

#### 55000-308FRA

Series 65 Optical Smoke Detector (French market)

## Heat Detector



The Series 65 Heat Detector monitors temperature by using a dual thermistor network which provides a voltage output proportional to the external air temperature.

Can be used for applications where smoke detectors are unsuitable

Ideal environments that are dirty or smoky under normal conditions

Wide-operating voltage

**55000-122** A1R standard

55000-121 A1R with flashing LED

**55000-120** A1R with flashing LED and magnetic test

55000-126 BR with flashing LED

**55000-125** BR with flashing LED and magnetic test

**55000-132** CR standard

55000-131 CR with flashing LED

**55000-120** A1R with flashing LED and magnetic test

**55000-130** CR with flashing LED and magnetic test

55000-137 CS standard

55000-136 CS with flashing LED

**55000-135** CS with flashing LED and magnetic test

# Ionisation Smoke Detector



The Series 65 Ionisation Smoke
Detector uses a low activity radioactive
foil to detect fires by irradiating
the air in the smoke chamber and
causing a current flow. If smoke
enters the chamber, the current flow
is reduced leading to an alarm.

Responds well to fast burning, flaming fires

Designed to operate in a variety of environments

Flashing LED and magnet operated test switch option

#### 55000-217

Series 65 Ionisation Smoke Detector

#### 55000-216

Series 65 Ionisation Smoke Detector with

#### 55000-215

Series 65 Ionisation Smoke Detector with flashing LED and magnetic test



## Integrating Ionisation Smoke Detector



Ionisation detectors use a low activity radioactive foil to detect fires by irradiating the air in the smoke chamber and causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm. Circuitry in the Integrating Ionisation Smoke Detector protects against transient levels of smoke above the normal threshold for up to 20 seconds.

#### Responds well to fast burning, flaming fires

Designed to operate in environments where transient levels of smoke may be expected

Wide-operating voltage

Flashing LED and magnet operated test switch option

**55000-122** A1R standard

Standard Base



The Series 65 Standard Base has been designed to enable detectors to be fitted without the need of force – particularly useful when fitting to suspended ceilings. All Series 65 bases have a one-way only fit. Detectors can be locked into place by a grub screw using a 1.5mm hexagonal screwdriver.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

Contains no electrical parts

Terminal for remote indicator

45681-200

Series 65 Standard Base

Diode Base



The Series 65 Diode Base is designed for use with conventional systems that have manual call points and detector bases on the same circuit. The base is fitted with a schottky diode on the 'L1 IN' and 'L1 OUT' wiring terminals. This base can only be used with compatible control equipment.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

Continues to work during unauthorised removal of detectors

45681-201

Series 65 Diode Base



## Sav-Wire Base



The Series 65 Sav-Wire Base is designed to allow Series 65 detectors to be used in Sav-Wire detection and alarm systems.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

45681-206

Series 65 Sav-Wire Base

# Standard Relay Base



The Series 65 Standard Relay Base provides one set of volt-free, changeover (form C) contacts that change state when the detector signals an alarm.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

45681-245

Series 65 Standard Relay Base

# Auxiliary Relay Base



The Series 65 Auxiliary Relay Base provides two sets of volt-free changeover contacts to facilitate the switching of a remote LED or other auxiliary device.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

45681-246

Series 65 Auxiliary Relay Base



## End-of-Line Relay Base



The Series 65 End-of-Line (EOL) Relay Base is intended for use with four-wire circuits and features two sets of changeover contacts and a power supervision relay.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

#### 45681-247

Series 65 End-of-Line Relay Base (12V)

#### 45681-248

Series 65 End-of-Line Relay Base (24V)

## Relay Base 12V



The Series 65 12V Relay Base is designed for use in both fire and security systems. For fire systems a jumper on the PCB is fitted to a 'latching' position. For security systems the jumper is moved to another position so that the base is 'non-latching'.

Detector locking mechanism

One-way fit

Easy to wire

Contains an earth connector

Can be used in fire and security systems

#### 45681-508

Series 65 Relay Base (12V)

# MiniDisc Remote Indicator



The MiniDisc Remote Indicator is a light-weight, compact red LED indicator for use in fire detection systems.

Can be used across the entire Apollo range

Small and discrete

Anti-tamper screw to protect against unauthorised removal

#### 53832-070

MiniDisc Remote Indicator

† Non-standard variants of the Manual Call Point are not EN 54-11 compliant and therefore cannot be used to signal fire.



Two-Wire AlarmSense® has been developed to make the design and installation of a fire detection and alarm system easier and more cost-effective for small to medium sized buildings. The range also allows an existing system to be extended or modified if necessary. This flexibility makes AlarmSense an excellent choice for use in Houses in Multiple Occupation (HMO).

#### **B&Bs AND HOTELS**

The entire AlarmSense range has been designed to be compliant with BS 5839-1 and BS 5839-6 in addition to EN 54 standards. AlarmSense is also compliant with the Construction Products Regulation (CPR).

#### **FLATS AND BEDSITS**

Reduced wiring costs, quick and simple installation and false alarm reduction with 'non-priority' signalling makes AlarmSense perfectly suited to small residential projects.

#### HALLS OF RESIDENCE

The Two-Wire AlarmSense range incorporates a number of technologically advanced features such as the patented RemovAlert $^{\text{TM}}$  which alerts the fire control panel if a detector has been removed without authorisation.

#### **KEY FEATURES OF ALARMSENSE INCLUDE:**

Patented RemovAlert  $^{\scriptscriptstyle{\text{TM}}}$  head removal monitoring

Local and general alarm switching

Reduced wiring costs

Quick and simple installation

False alarm reduction with 'non-priority' signalling

Flexible system design

Detectors and call point alarms identifiable separately



CE



Note: For approvals of individual detectors refer to the appropriate data sheet.

www.apollo-fire.co.uk | +44 (0)23 9249 2412



## Optical Smoke Detector



The AlarmSense Optical Smoke Detector works using the light scatter principle. The detector changes to alarm state at a pre-set threshold of smoke penetration into the sensing chamber.

Responds well to slow-burning, smouldering fires

Well-suited to bedrooms and escape routes

360° visibility of LEDs

Reduces false alarms

Quick and simple installation

#### 55000-390

AlarmSense Optical Smoke Detector

## Integrating Optical Smoke Detector



The AlarmSense Integrating Optical Smoke Detector works using the light scatter principle. The detector has the ability to monitor and discard transient sources of smoke.

Responds well to slow-burning, smouldering fires

Well-suited to bedrooms and escape routes

360° visibility of LEDs

Reduces false alarms

Quick and simple installation

Designed to operate in environments where transient levels of smoke may be expected

20 second delay

#### 55000-391

AlarmSense Integrating Optical Smoke Detector

#### Heat Detector



There are two heat detectors in the AlarmSense range designed to suit a wide variety of operating conditions. A static heat detector (CS) which responds only when a fixed temperature has been reached and a rate-of-rise detector (A1R) which has a fixed upper limit, but in addition, measures the rate of increase in temperature.

Can be used for applications where smoke detectors are unsuitable

Ideal for environments that are dirty or smoky under normal conditions

CS detectors are ideal for use in environments with rapid temperature fluctuations such as boiler rooms

Reduction of false alarms

Quick and simple installation

360° visibility of LEDs

#### 55000-190

AlarmSense Heat Detector A1R

#### 55000-193

AlarmSense Heat Detector CS

AlarmSense packages  Sounder Base combinations		
AlarmSense Integrating Optical Smoke Detector with Sounder Base	55000-393	
AlarmSense A1R Heat Detector with Sounder Base	55000-196	
AlarmSense CS Heat Detector with Sounder Base	55000-197	



#### Base



AlarmSense detectors can only be mounted into an AlarmSense Base. The base is used for installing detectors that do not require an integral sounder or sounder visual indicator.

Detects the removal of a detector head and reports a fault

Continues to work during unauthorised removal of detectors

Quick and simple installation

45681-244

AlarmSense Base

# Sounder Visual Indicator Base



The AlarmSense Sounder Visual Indicator Base is designed to be used with AlarmSense systems only. It is supplied with high and low volume settings. White base caps are available for stand-alone installation.

Sounder range between 70dB(A) and 87dB(A)

Detects the removal of a detector head and reports a fault

Continues to work during unauthorised removal of detectors

Quick and simple installation

#### 45681-509

AlarmSense Sounder Visual Indicator Base

#### 45681-294

Base Cap (white)

## Sounder Base



The AlarmSense Sounder Base can only be used with AlarmSense systems. It is fitted with electronic circuitry to monitor the presence of detectors, and signals any unauthorised removal of detector heads. It is supplied with high and low volume settings. White base caps are available for stand-alone installation.

Sounder range between 70dB(A) and 87dB(A)

AlarmSense priority/non priority signal recognition

Detects the removal of a detector head and reports a fault

Continues to work during unauthorised removal of detectors

Quick and simple installation

Provides audible signal and detection at one point

High and low volume ranges

#### 45681-510

AlarmSense Sounder Base

#### 45681-294

Base Cap (white)

AlarmSense packages		
Sounder Visual Indicator Base combinations		
AlarmSense Optical Smoke Detector with Sounder Visual Indicator Base	55000-394	
AlarmSense Integrating Optical Smoke Detector with Sounder Visual Indicator Base	55000-395	
AlarmSense A1R Heat Detector with Sounder Visual Indicator Base	55000-198	
AlarmSense CS Heat Detector with Sounder Visual Indicator Base	55000-199	



# Open-Area Sounder Visual Indicator



The AlarmSense Open-Area Sounder Visual Indicator is designed for use in open areas.

Apollo tone – synchronised with AlarmSense sounders and sounder visual indicator bases

Synchronised flashing red LED on sounder visual indicators and visual indicators

Polarity-insensitive

IP65 rated

#### 55000-017

AlarmSense Open-Area Sounder Visual Indicator

## Open-Area Sounder



The AlarmSense Open-Area Sounder is designed for use in open areas.

Apollo tone – synchronised with AlarmSense sounders and sounder visual indicator bases

Polarity-insensitive

IP65 rated

#### 55000-018

AlarmSense Open-Area Sounder

# Alarm Relay



The AlarmSense Alarm Relay enables devices such as Visual Indicator, pillow/bed alarms and radio vibrating or paging devices to be connected to the fire detection system. This enables the system to comply with the Equality Act

Ensures Equality Act compliance

#### 55000-835

AlarmSense Alarm Relay



For information on AlarmSense Compatible Control Panels, go to www.apollo-fire.co.uk/alarmsensepanels



#### Remote Indicator



The MiniDisc Remote Indicator is a light-weight, compact red LED indicator for use in fire detection systems.

Can be used across the entire Apollo range

Small and discreet

Anti-tamper screw to protect against unauthorised removal

53832-070

MiniDisc Remote Indicator

#### Manual Call Point



The AlarmSense Manual Call Point has been specifically designed to operate solely with the Apollo two-wire range. The Manual Call Point has a highly visible alarm indicator which is combined with the front reset mechanism allowing a quick and simple reset. The LED can be seen from up to 10 metres away.

#### Resettable operating element

Easy access, front resent mechanism

Ergonomic reset key

EN 54-11 Certified

Front-facing LED

Suitable for semi-flush or surface mounting

#### 55400-894

AlarmSense Manual Call Point

#### Manual Call Point



The AlarmSense Manual Call Point is different from other conventional call points in that it can be detected as an operated call point rather than a detector that has changed to the alarm state.

#### Red LED indicator

'Plug and Play' terminal connections for fast wiring

Resettable element

#### 55100-894

AlarmSense Manual Call Point

# Wireless Technology

Traditionally, fire detection systems in industrial and commercial applications have used hard wired installations. These systems are generally installed at the time of construction or refurbishment, making the laying of cables less of an issue. Certain applications do not lend themselves to this approach, such as occupied buildings and heritage sites, palaces, annexes etc. – situations where wireless systems provide the ideal solution.



WIRELESS
TECHNOLOGY RANGE

Find out more information at: apollo-fire.co.uk/xpander





apollo



#### COMMERCIAL

It is sometimes challenging to introduce cable runs into buildings which were not designed for the modern age. It may also be that a collection of buildings, such as an open air museum, requires fire protection but is not suitable for normal wired systems. It is for commercial buildings of this kind, that XPander has been developed.

#### **ARCHITECTURALLY SENSITIVE**

XPander can be incorporated into fire detection systems in buildings where, the use of cables is either impractical or undesirable, such as palaces, stately homes and listed buildings.

#### **ANNEXES**

A collection of buildings may also require fire protection, but are not suitable for normal wired systems.

#### TEMPORARY STRUCTURES

XPander may also be used in sites with temporary buildings which need to be connected to a central fire control panel, but where wiring might present problems.







XPander is a range of wireless products where individual detectors, call points, alarm devices and interfaces communicate through a Loop Interface with an Apollo addressable system, using radio signals.

Radio communication of the XPander range of products is bi-directional and it is certified to the radio standard, EN 54-25. The XPander Diversity Loop Interface Unit is connected to the loop in the same way as any other device, such as an input/output unit.

Every XPander product is assigned an address which is recognised by the fire control panel in the same way as any hard wired device. The XPander range benefits from the patented XPERT card technology that is also used in Discovery and XP95.

XPander can be incorporated into fire detection systems where the use of fire cables is either impractical or undesirable, including stately homes and architecturally sensitive buildings.







# Optical Smoke Detector and Mounting Base



The XPander Optical Smoke Detector works on the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely.

#### Wireless

Performs well in black and white smoke

Bi-directional (monitored radio platform)

XPERT card addressing system

Five year battery life using standard AA alkaline batteries

#### XPA-CB-12034-APO

XPander Optical Smoke Detector and Mounting Base

# Heat Detector and Mounting Base



There are two heat detectors in the XPander range, designed to suit a wide variety of operating conditions. A Static Heat Detector (CS) which responds only when a fixed temperature has been reached and a Rate-of-Rise Detector (A1R) which has a fixed upper limit, but in addition, measures the rate of increase in temperature.

#### Wireless

Can be used in applications where smoke detectors are unsuitable

Ideal for environments that are dirty or smoky under normal conditions

CS detectors are ideal for use in environments with rapid temperature fluctuations such as boiler rooms

Bi-directional (monitored) radio platform

Five-year battery life using standard AA alkaline batteries

#### XPA-CB-11170-APO

XPander Heat detector A1R and Mounting Base (Rate-of-Rise 57°C)

#### XPA-CB-11171-AP0

XPander Heat detector CS and Mounting Base (Static 90°C)

## Diversity Loop Interface Unit



The XPander Diversity Loop Interface Unit can monitor up to 31 XPander devices and report each device's status to an intelligent fire control panel.

Connects up to 31 XPander devices to an Apollo Addressable loop

Translates radio signals from XPander detectors to the fire control panel

Built-in loop isolator

Loop-powered

Diversity aerial design for improved signal integrity

#### XPA-IN-14050-APO

XPander Diversity Loop Interface Unit



# Combined Sounder and Detector



The XPander Combined Sounder and Detector is wireless and designed to provide one point detection and notification.

#### Wireless

Available with a choice of XPander detectors

Bi-directional (monitored) radio platform

A choice of four tone pairs

Certified to EN 54-25

#### XPA-CB-14016-APO

XPander Combined Sounder and Optical Smoke Detector

#### XPA-CB-14017-APO

XPander Combined Sounder and Heat Detector A1R

#### XPA-CB-14018-APO

XPander Combined Sounder and Heat Detector CS

# Combined Sounder Visual Indicator (red) and Detector



The XPander Combined Sounder Visual Indicator (red) and Detector is wireless and designed to provide a one point detection and notification.

#### Wireless

Available with a choice of XPander detectors

Bi-directional (monitored) radio platform

A choice of four tone pairs

Certified to EN 54-25

#### XPA-CB-14020-APO

XPander Combined Sounder Visual Indicator (red) and Optical Smoke Detector

#### XPA-CB-14021-APO

XPander Combined Sounder Visual Indicator (red) and Heat Detector A1R

#### XPA-CB-14022-APO

XPander Combined Sounder Visual Indicator (red) and Heat Detector CS

# Combined Sounder Visual Indicator (white) and Detector



The XPander Combined Sounder Visual Indicator (white) and Detector is wireless and designed to provide a one point detection and notification.

#### Wireless

Available with a choice of XPander detectors

Bi-directional (monitored) radio platform

A choice of four tone pairs

Certified to EN 54-25

#### XPA-CB-14024-AP0

XPander Combined Sounder Visual Indicator (white) and Optical Smoke Detector

#### XPA-CB-14025-APO

XPander Combined Sounder Visual Indicator (white) and Heat Detector A1R

#### XPA-CB-14026-APO

XPander Combined Sounder Visual Indicator (white) and Heat Detector CS

#### Accessories

XPander Combined Sounder and Sounder Visual Indicator Bases can be purchased as accessories:

#### XPA-WB-14036-AP0

XPander Combined Sounder and Detector Base

#### XPA-WB-14037-AP0

XPander Combined Sounder Visual Indicator (red) and Detector Base

#### XPA-WB-14038-AP0

XPander Combined Sounder Visual Indicator (white) and Detector Base



# Sounder and Sounder Base



The XPander Sounder and Sounder Base is wireless and designed to be used with XPander detectors and manual call points.

#### Wireless

Bi-directional (monitored) radio platform

Choice of 32 selectable tones

Audible self-test available

Output is between 92dB(A) and 106db(A) at 1m – dependent on tone setting

#### XPA-CB-14001-APO

XPander Sounder and Sounder Base (red)

#### XPA-CB-14002-APO

XPander Sounder and Sounder Base (white)

# Sounder Visual Indicator and Sounder Base



The XPander Sounder Visual Indicator and Sounder Base is wireless and designed to be used with XPander detectors and manual call points.

#### Wireless

Bi-directional (monitored) radio platform

Choice of 32 selectable tones

Audible self-test available

Output is between 92dB(A) and 106dB(A) at 1m – dependent on tone setting

#### XPA-CB-14003-APO

XPander Sounder Visual Indicator (red) and Sounder Base (red)

#### XPA-CB-14004-APO

XPander Sounder Visual Indicator (amber) and Sounder Base (white)

#### XPA-CB-14005-APO

XPander Sounder Visual Indicator (white) and Sounder Base (white)

## Input/Output Unit



The XPander Input/Output Unit is a radio based interface and offers two monitored input circuits and two relay outputs. It can be used for controlling fire doors, fire dampers, smoke vents and other fire engineering applications.

#### Wireless

Monitored switch circuit

Voltage-free contacts

Capable of switching up to 30V at 1A

Five year battery life using standard AA alkaline batteries

#### XPA-IN-14011-APO

XPander Input/Output Single Unit

#### XPA-IN-14012-APO

XPander Input/Output Dual Unit



Apollo offer a series of one day training courses. See page 7 for more information.



# Diversity Survey Kit



The XPander Diversity Survey Kit is used at the site survey stage to ascertain if a site is suitable for an XPander installation. A site survey must be carried out before XPander can be installed. The Diversity Survey Kit is compliant to BS 5839-1.

Indicates the suitability of proposed device location

XPA-TE-14075-APO

XPander Diversity Survey Kit

# Manual Call Point



The XPander Manual Call Point is compliant with EN 54-11. It is wireless and is powered by two independent packs of three AA alkaline batteries with a typical five-year life.

#### Wireless

XPander XPERT Card addressing

Resettable element

Fast response reports an alarm in under one second

LED to indicate operation

XPA-MC-14006-APO

XPander Manual Call Point

# XPander Remote Indicator Module



Designed and manufactured using the latest technology the XPander Remote Indicator Module is used to indicate the activation of an individual device or zone.

#### XPA-IN-14102-APO

XPander Remote Indicator Module

#### **XPERT Card**



Address card supplied with all bases. Using a coding guide, pips are removed to set the address of the inserted device.

Simplifies and speeds up installation and commissioning

Address remains the same, no matter how often detectors are replaced

Uses patented, proven technology

Flexibility to create any address

#### 29600-413

Blank XPander XPERT Card (white)

#### 29600-399

Blank XPander XPERT Card (red)

# Specialist Detectors

Apollo offers several types of detector for specialist applications, including Duct Detectors, Flame Detectors, Beam Detectors and Aspirating Smoke Detectors.

These are all designed for very specific circumstances covering commercial heating and ventilation ducts, dirtier environments where flaming fires may be expected, and protection of large, open spaces.







# SPECIALIST DETECTOR RANGE

Find out more information at:

#### apollo-fire.co.uk/specialistdetectors

There are many important factors to consider when deciding on a specialist detector. If you have specialised needs for fire detection, please contact our Product Support Department, details of which can be found on the Apollo website.

#### **HEATING & VENTILATION DUCTS**

Duct detectors will detect smoke within the heating and ventilation ducts of large commercial and industrial buildings.

#### **MANUFACTURING, PRINTING & WASTE**

Infa-red (IR) Flame Detectors will tolerate dirtier environments such as waste handling plants, colour printing facilities and paper manufacturers.

#### **THEATRES & SPORTS CENTRES**

Beam detectors can project an infra-red light up to 100m and a height of 25m, making them perfect for large open spaces such as theatres and sports facilities.

# Duct Detectors & Aspirating Smoke Detectors

Duct detectors are designed for detecting smoke in the air moving through heating, ventilation and air conditioning ducts (HVAC) in commercial and industrial applications.

They comprise of a purpose-built housing complete with integral tubing, which samples the fast-moving air so that the detector can operate in the normal way.

Aspirating Smoke Detectors are a professional air-sampling unit, designed to complement analogue addressable system technology by combining standard field-serviceable smoke detectors with a stand-alone air sampling solution.

They are ideal for the protection of difficult to access, environmentally demanding, aesthetic or architecturally restricted areas.

Apollo's range of Aspirating Smoke Detectors are approved to EN 54-20.



DUCT DETECTORS &
ASPIRATING SMOKE DETECTORS RANGE

Find out more information at:

apollo-fire.co.uk/specialistdetectors



# Intelligent Duct Smoke Detector



The Intelligent Duct Smoke Detector provides early detection of smoke in the air moving through heating and ventilation (HVAC) ducts in commercial and industrial premises. Its purpose is to prevent the re-circulation of smoke from an area on fire to areas unaffected by the fire when used with a XP95 or Discovery detector.

Operates in air speeds of 0.5m/s to 20m/s

Transparent cover to view detector head LED

Integral smoke test port

#### 53546-022

Intelligent Duct Smoke Detector

# Conventional Duct Smoke Detector





The Conventional Duct Smoke Detector provides early detection of smoke in the air moving through heating and ventilation (HVAC) ducts in commercial and industrial premises. Its purpose is to prevent the re-circulation of smoke from an area on fire to areas unaffected by the fire when used with a Series 65 or Orbis detector. It provides a volt-free changeover relay rated at 30V, 1A.

For use with Series 65 or Orbis detectors

Operates in air speeds of 0.5m/s to 20m/s

Transparent cover to view detector head LED

Integral smoke test port

Volt-free contacts

#### 53546-021

Series 65 Duct Smoke Detector

#### 53546-023

Orbis Duct Detector

# Aspirating Smoke Detector (ASD)



The Discovery Aspirating Smoke
Detector (ASD) is a point based
professional air-sampling unit, designed
to complement analogue addressable
system technology. It combines standard
field serviceable smoke detectors with
a stand-alone air sampling solution to
provide protection of difficult to access,
environmentally demanding, aesthetic
or architecturally restricted areas.

#### EN 54-20 approved

Available as a single (ASD-1) sampling unit or dual (ASD-2) sampling unit

Uses the Discovery Optical Analogue Addressable Detector

Addressable monitoring of fail-safe fault relays

The ASD can be installed up to 50m away from the sampling point

IP65 rated enclosure

#### 29650-081

Discovery ASD-1

#### 29650-082

Discovery ASD-2

\*ASD-1 pictured

#### Extension tubes

The duct smoke detector is designed to operate in ducts with a width of between 300mm and 3000mm. A sampling tube of 360mm, suitable for duct widths up to 540mm, is supplied as standard. Longer sampling tubes may be ordered separately:

Duct width	
300-750 mm	53541-170
750-1500 mm	53541-171
1500-3000 mm	53541-172

# Flame Detectors

Flame detectors are effective in protecting areas where flaming fires may be expected.

THERE IS A CHOICE OF DETECTION TECHNIQUES – ULTRAVIOLET (UV), INFRA-RED (IR) OR A COMBINATION OF BOTH:

IR<sup>2</sup>: high immunity to false sources (indoor areas)

IR<sup>3</sup>: excellent immunity to false sources (indoor or outdoor areas)

UV/IR<sup>2</sup>: highest immunity to false sources (indoor or outdoor areas)

UV flame detectors are generally used in engine room, factory and warehouse applications.

IR flame detectors are able to tolerate dirtier environments which may block UV radiation and are generally used in applications such as waste handling, colour printing and paper manufacturing.

Apollo's range of flame detectors comply with EN 54-10.



#### **FLAME DETECTORS**

Find out more information at: apollo-fire.co.uk/specialistdetectors







# Intelligent IR<sup>2</sup> Flame Detector



The Intelligent IR² Flame Detector is designed for harsh environments in indoor applications. The detector has two sensors which respond to different IR wavelengths to distinguish between flames and spurious sources of radiation.

#### Loop-powered

Detects through films of oil, dust, water and ice

Responds to flickering flames, including those invisible to the naked eye

Compatible with Discovery and XP95 protocols

Remote optical self-test function

90° field of view

Up to 40m coverage

IP65 rated

#### 55000-280

Intelligent IR<sup>2</sup> Flame Detector

# Intelligent IR<sup>3</sup> Flame Detector



The Intelligent IR<sup>3</sup> Flame Detector is designed for harsh environments in either indoor or outdoor applications. It is sensitive to low-frequency, flickering infra-red radiation emitted by flames during combustion.

#### Loop-powered

Detects through films of oil, dust, water and ice

Responds to flickering flames, including those invisible to the naked eye

False alarms due to lighting or flickering sunlight are minimised

Compatible with Discovery and XP95 protocols

90° field of view

Up to 40m coverage

IP65 rated

#### 55000-020

Intelligent IR<sup>3</sup> Flame Detector

## Stainless Steel Intelligent IR<sup>3</sup> Flame Detector



The Stainless Steel Intelligent IR<sup>3</sup> Flame Detector combines high performance with added protection against the effects of salt corrosion, making it ideal for most marine applications. The protection from salt corrosion, is provided by a tough, heavy-duty housing made from stainless steel material. It can rapidly detect all types of flames, including hydrogen, which is invisible to the human eye.

Operation with control equipment using Apollo's class leading XP95 or Discovery protocol

Quick and easy stainless steel 2 axis adjustable mounting bracket

#### 55000-034MAR

Stainless Steel Intelligent IR<sup>3</sup> Flame Detector

t For details of mounting brackets, refer to page 69.

# Intelligent Base Mounted UV Flame Detector



The Intelligent Base Mounted UV Flame Detector is designed to protect enclosed indoor areas where open fires may be expected. The detector has a fast-acting response to flames up to 25m away and is equipped with a single UV sensor with a narrow spectral response in order to discriminate between flames and most spurious sources of radiation.

Responds to stationary flames with no flicker

Sensitive to UV radiation emitted by flames during combustion

Compact flame detector which fits into Discovery or XP95 bases

Loop-powered

#### 55000-022

Intelligent Base Mounted UV Flame Detector

# Intelligent Base Mounted UV/IR<sup>2</sup> Flame Detector



The Intelligent Base Mounted UV IR<sup>2</sup> Flame Detector is designed to protect open indoor areas such as aircraft hangers, generator rooms and paint works where open flaming fires may be expected. The detector has UV and dual IR sensors responding to different wavelengths in order to discriminate between flames and spurious sources of radiation.

Sensitive to UV and low-frequency flickering IR radiation emitted by flames during combustion

Compact flame detector which fits into Discovery or XP95 bases

Loop-powered

False alarms due to electrical discharges from lightning or arc welding and flickering sunlight are minimised

#### 55000-023

Intelligent Base Mounted UV IR<sup>2</sup> Flame Detector

# Intelligent Base Mounted IR<sup>3</sup> Flame Detector



The Intelligent Base Mounted IR³ Flame Detector is designed to protect all indoor areas, even in dirty or smoky conditions, where open flaming fires may be expected. The detector has three IR sensors that respond to different IR wavelengths in order to discriminate between flames and spurious sources of radiation.

Sensitive to low-frequency flickering IR radiation emitted by flames during combustion.

Compact flame detector which fits into Discovery or XP95 bases

Loop-powered

False alarms due to factors such as flickering sunlight are avoided by a combination of filters and signal processing techniques

#### 55000-024

Intelligent Base Mounted IR<sup>3</sup> Flame Detector

t For details of mounting brackets, refer to page 69.

# Intelligent Flameproof IR<sup>2</sup> Flame Detector



The Intelligent Flameproof IR² Flame Detector is designed for hazardous environments in indoor applications. The detector has two sensors which respond to different IR wavelengths to distinguish between flames and spurious sources of radiation. These detectors are BASEEFA approved and meet the requirements of ATEX Directive 94/9/EC.

#### Sensitive to flickering IR radiation

Detects through films of oil, dust, water and ice

Responds to flickering flames, including those invisible to the naked eye

Compatible with Discovery and XP95 protocols

Remote optical self-test function

90° field of view

Up to 40m coverage

IP66 rated

Ex d IIC T4 Gb Ex tb IIIC T135oC Db IP66A21 (Tamb -40C to + 125C)

#### 55000-295

Intelligent Flameproof IR<sup>2</sup> Flame Detector

# Intelligent Flameproof IR<sup>3</sup> Flame Detector



The Intelligent Flameproof IR³ Flame Detector is designed for hazardous environments in either indoor or outdoor applications. It is sensitive to low-frequency, flickering infra-red radiation emitted by flames during combustion. These detectors are BASEEFA approved and meet the requirements of ATEX Directive 94/9/EC.

#### Loop-powered

Detects through films of oil, dust, water and ice

Responds to flickering flames, including those invisible to the naked eye

Compatible with Discovery and XP95 protocols

90° field of view

Up to 40m coverage

IP66 rated

Ex d IIC T4 Gb Ex tb IIIC T135oC Db IP66A21 (Tamb -40C to + 125C)

#### 55000-021

Intelligent Flameproof IR³ Flame Detector

t For details of mounting brackets, refer to page 69.

# Conventional IR<sup>2</sup> Flame Detector



The IR2 flame detector is designed for harsh environments in indoor applications. The detector has two sensors which respond to different IR wavelengths to discriminate between flames and spurious sources of radiation.

Selectable output options: Conventional two-wire, 4-20mA, Latching or Non-latching, Relay Contacts – Fire/Fault, Pre-alarm

Class 1 sensitivity to EN 54-10 detects 0.1m² fire at 25m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP65 rated

Supply voltage 14 to 28V dc  $\,$ 

Operating temperature -10°C to +55°C

#### 55000-060

Conventional IR<sup>2</sup> Flame Detector

# Conventional UV/IR<sup>2</sup> Flame Detector



The combination of UV and IR² detection, plus signal processing allows the sensor to be used without risk of false alarms in difficult situations characterised by factors such as flickering blackbody by radiation or arc welding.

Selectable output options: Conventional two-wire, 4-20mA, Latching or Non-latching, Relay Contacts – Fire/Fault, Pre-alarm

Class 1 sensitivity to EN 54-10 detects  $0.1 \text{m}^2$  fire at 25m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP65 rated

Supply voltage 14 to 30V dc

Operating temperature -10°C to +55°C

#### 55000-064

Conventional UV/IR<sup>2</sup> Flame Detector

## Conventional IR<sup>3</sup> Flame Detector



The IR3 flame detector is designed for harsh environments in indoor applications. The detector has three sensors which respond to different IR wavelengths to discriminate between flames and spurious sources of radiation.

Selectable output options: Conventional two-wire, 4-20mA, Latching or Non-latching, Relay Contacts – Fire/Fault, Pre-alarm

Class 1 sensitivity to EN 54-10 detects 0.1 m<sup>2</sup> fire at 25 m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP65 rated

Supply voltage 14 to 28V dc

Operating temperature -10°C to +55°C

#### 55000-019

Conventional IR<sup>3</sup> Flame Detector

t For details of mounting brackets, refer to page 69.

# Conventional I.S. IR<sup>3</sup> Flame Detector



The Conventional I.S. IR3 Flame Detector is designed for harsh environments in either indoor or outdoor applications. It is sensitive to low-frequency flickering IR radiation emitted from flames during combustion. The sensor operates even through a layer of oil, water vapour or ice. These detectors have been approved by BASEEFA to EN 50014, EN50020 and EN50284. The requirements of the ATEX Directive 2014/34/EU have also been met.

#### ATEX certified: II 1 G

CENELEC/IEC certified: Ga Ex ia IIC T4

Selectable output options: Conventional two-wire, 4-20 mA, latching or non-latching, relay contacts, fire/fault, pre-alarm

Class 1 sensitivity to EN54-10 detects 0.1 m2 fire at 25 m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP65 rated

Supply voltage 14 to 30  $\rm V \, dc$ 

Operating temperature -100C to +400C (T4)

#### 55000-063

Conventional I.S. IR<sup>3</sup> Flame Detector

# Conventional Base Mounted UV Flame Detector



The Conventional Base Mounted UV Flame Detector is designed to protect enclosed indoor areas where open flaming fires may be expected. The detector has a fast-acting response to flames up to 25m away and is equipped with a single UV sensor with a narrow spectral response in order to discriminate between flames and most spurious sources of radiation..

Responds to stationary flames with no flicker

Sensitive to UV radiation emitted by flames during combustion

Compact flame detector which fits into Series 65 bases

Zone-powered

Can be used with either Series 65 or Orbis Systems

#### 55000-025

Conventional Base Mounted UV Flame Detector

t For details of mounting brackets, refer to page 69.

## Conventional Flameproof (Exd) IR<sup>2</sup> Flame Detector



The Flameproof IR² Flame Detector is designed for use in hazardous environments in indoor applications. The combination of filters and signal processing allows the sensor to be used with a very low risk of false alarms in difficult situations characterised by factors such as flickering lights. BASEEFA has certified the detector for compliance to standards EN 60079-0, EN 60079-1 and EN 61241-1.

ATEX & IECEx certified: II 2GD Ex d IIC T4 Gb Ex tb IIIC T135°C Db IP66 A21 [Zones 1, 21, 2 and 22]

Selectable output options: Conventional 2 wire, 4-20mA, Latching or Non-Latching, Relay Contacts – Fire/Fault, Pre-alarm

Class 1 sensitivity to EN 54-10 detects  $0.1 \text{m}^2$  fire at 25m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP66 rated

Supply voltage 14 to 30V dc  $\,$ 

Operating temperature -10°C to +55°C

#### 55000-061

Conventional Flameproof (Exd) IR<sup>2</sup> Flame Detector

# Conventional Flameproof (Exd) UV/ IR<sup>2</sup> Flame Detector



The Flameproof UV/IR² Flame Detector is designed for hazardous environments in either indoor or outdoor applications where open fires may be expected. False alarms from flickering sunlight, arc welding or lightning are avoided by the combination of UV and dual IR signal processing techniques. It detects almost all flames, including those invisible to the naked eye, e.g. hydrogen fires. Certified by ISSOP for compliance with standards EN 50014, EN 50018 and EN 50281.

#### ATEX certified: II 2 G D

CENELEC/IEC certified: EEx d – IIC T6- [Zones 1, 21, 2 and 22]

Class 1 sensitivity to EN 54-10 detects 0.1 m<sup>2</sup> fire at 25 m

Highest optical interference immunity

Selectable output options: Conventional two-wire, 4-20mA, Relay Contacts — Fire/Fault, Pre-alarm, Latching or Non-Latching

Selectable response speed

Remote control self-test

Low power consumption

IP66 rated

Supply voltage 14 to 30V dc

Operating temperature -10°C to +55°C

#### 55000-065

Conventional Flameproof (Exd) UV/IR<sup>2</sup> Flame Detector

# Conventional Flameproof (Exd) IR<sup>3</sup> Flame Detector



The Flameproof IR³ Flame Detector is designed for use in hazardous environments in indoor and outdoor applications. It is sensitive to low-frequency flickering infra-red radiation emitted by flames during combustion. The sensor operates even through a layer of oil, dust, water vapour or ice. BASEEFA has certified the detector for compliance to standards EN 60079-0, EN 60079-1 and EN 61241-1.

ATEX & IECEx certified: II 2GD Ex d IIC T4 Gb Ex tb IIIC T135°C Db IP66 A21 [Zones 1, 21, 2 and 22]

Selectable output options: Conventional 2 wire, 4-20mA, Latching or Non-latching, Relay Contacts – Fire/Fault, Pre-alarm

Class 1 sensitivity to EN 54-10 detects 0.1m<sup>2</sup> fire at 25m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP66 rated

Supply voltage 14 to 30V dc

Operating temperature -10°C to +55°C

#### 55000-062

Conventional Flameproof (Exd) IR<sup>3</sup> Flame Detector

t For details of mounting brackets, refer to page 69.

## Flame Detector Bracket



The Flame Detector Bracket is an optional accessory for Flame Detectors. It is a stainless steel mounting bracket adjustable in two axis. Not suitable for Base Mounted Flame Detectors.

Allows flame detector to be mounted in any orientation

#### 29600-203

Flame Detector Bracket

# Flame Detector Weather Shield



The Flame Detector Weather Shield protects the device from inclement conditions.

Protects against water ingress

Protects sensor from direct sunlight

#### 29600-206

Flame Detector Weather Shield

#### 29600-228

Flame Detector Weather Shield for flameproof version

# Base Mounted Flame Detector Bracket



The Base Mounted Flame Detector Bracket combines a bracket and Deckhead Mounting Box (45681-217).

#### 29600-458

Base Mounted Flame Detector Bracket (base shown not included)

#### 29600-226

Flame Detector Tester

# Beam Detectors

Beam Detectors offer a cost-effective solution for protecting large open spaces. One single unit installed on a wall can detect smoke over an area up to 1500m² (BS 5839), which is beyond that of traditional point detectors. Beams are therefore ideal for protecting areas such as warehouses, theatres and sports centres.



Auto-Aligning: comprises a combined transmitter/ receiver which is operated through a low-level, easyaccess control console. As the name suggests the detector compensates for building movement.

Reflective: the combined transmitter/receiver projects a beam to a prism mounted on an opposite wall.

End-to-End: consists of a separate transmitter, receiver and interface.

There are many important factors to be considered when deciding which beam detector to select. For assistance, please contact our Product Support Department, details of which can be found on the Apollo website.



#### **BEAM DETECTORS**

Find out more information at: apollo-fire.co.uk/specialistdetectors







# Intelligent Auto-Aligning Beam Detector



The high-performance Auto-Aligning Beam Detector comprises of a ground level controller, detector head with auto-aligning feature, integral laser for rapid initial alignment and single prism. An additional detector head can be added to the controller. Auto-Aligning Beam Detector is compatible with XP95 and Discovery, CoreProtocols®.

Auto-compensates for building movement and contamination

Compatible with XP95, Discovery protocols and CoreProtocols\*

Integral laser and auto-align enable quicker installation

Low-level system controller with LCD display and user friendly interface

#### SA7100-100

Intelligent Auto-Aligning Beam Detector 8-50m

#### 29650-070

Additional Detector Head 8-50m

#### 29600-526

Extension Kit 100m

#### 29600-527

Universal Bracket (for use with detector head and prism mounting plates)

#### 29600-528

Surface Mounting Plate for prisms

#### 29600-529

Prism Mounting Plate (4 prisms 100m)

#### 29600-530

Prism Mounting Plate (1 prism 8-50m)

## Intelligent Reflective Beam Detector



The Intelligent Reflective Beam Detector differs from a traditional beam detector in that it is a single unit which houses a transmitter, a receiver and the control electronics. The beam detector is available in two versions: a single reflector model for distances of 5-50m and a more powerful four-reflector unit for distances of 50-100m.

#### Loop-powered

Compatible with XP95 and Discovery protocols

Incorporates a short-circuit isolator

Automatic drift compensation

Automatic reset following alarm or fault condition

#### 55000-268

Intelligent Reflective Beam Detector 5-50m

#### 55000-273

Intelligent Reflective Beam Detector 50-100m

## Reflective Beam Detector Backbox



The Reflective Beam Detector Backbox allows easy first fixing of the cabling and terminations to the Intelligent Reflective Beam Detector (55000-268 & 55000-273). The backbox can be surface or flush mounted.

#### Aesthetically pleasing

#### 29600-241

Reflective Beam Detector Backbox

# Conventional Auto-Aligning Beam Detector with laser alignment



The high-performance Auto-Aligning Beam Detector comprises of a ground level controller, detector head with auto-aligning feature, integral laser for rapid initial alignment and single prism. An additional detector head can be added to the controller.

Auto-compensates for building movement and contamination

Integral laser and auto-align enable quicker installation

Low-level system controller with LCD display and user friendly interface

#### 29650-069

Conventional Auto-Aligning Beam Detector 8-50m

#### 29650-070

Additional Detector Head 8-50m

#### 29600-526

Extension Kit 100m

#### 29600-527

Universal Bracket (for use with detector head and prism mounting plates)

#### 29600-528

Surface Mounting Plate for prisms

#### 29600-529

Prism Mounting Plate (4 prisms 100m)

#### 29600-530

Prism Mounting Plate (1 prism 8-50m)

# Conventional End-to-End Optical Beam Detector



This Conventional End-to-End Optical Beam Detector has been designed using the latest optical technology. It is ideal for applications where line of sight for the IR (infra-red) detection path is narrow, and where the building structure uses reflective surfaces.

Full icon-based, easy-to-use LCD display on the low level controller for ease of commissioning, testing and maintenance

Aesthetically-pleasing to suit modern architectural buildings and heritage sites

Range 5 to 120 metres

Laser-assisted alignment combined with easy-to-use alignment LED's enables installation by one operator

Separate Fire/Fault Relays per Detector

Selectable sensitivity/threshold levels

Automatic Gain Control (AGC) for drift compensation

#### 29600-929

Conventional End-to-End Optical Beam

# Audio Visual

Apollo offers a wide range of Audio Visual (AV) signalling devices – sounders, visual indicators, sounder visual indicators and sounder visual indicator bases - for use in conjunction with our range of conventional and intelligent detectors.









AUDIO VISUAL RANGE

Find out more information at: apollo-fire.co.uk/audio-visual-signalling

## Intelligent Open-Area Sounder



The Intelligent Open-Area Sounder has been designed for use in open areas and can be connected to an XP95/Discovery system.

Self-test fault monitoring

Choice of tones on standard device: Apollo, Slow Whoop and DIN

Two volume settings 92dB(A) and 100dB(A)

Synchronisation of tones

Individual and group addressing

Built-in isolator

Red or white options

Loop-powered

IP65 rated

EN 54-3 Certified

55000-001

Intelligent Open-Area Sounder (red)

55000-002

Intelligent Open-Area Sounder (white)

31523-001

Replacement O-Ring

## Intelligent Open-Area Visual Indicator



The Intelligent Open-Area Visual Indicator has been developed for use in situations where there is a risk that sounders will not be heard.

For use on an XP95/Discovery systems

Self-test fault monitoring

IP65 rated

Individual and group addressing

Synchronisation of flashes

Comes with isolating base as standard

Loop-powered

Red and clear lens options

Flash rate 1Hz (red)

55000-009

Intelligent Open-Area Visual Indicator (red)

55000-010

Intelligent Open-Area Visual Indicator (clear)

## Intelligent Open-Area Sounder Visual Indicator



The Intelligent Open-Area Sounder Visual Indicator is designed for use in open areas and can be connected to an XP95/Discovery system.

Self-test monitoring

Choice of tones on standard device: Apollo, Slow Whoop and DIN

Two volume settings 92dB(A) and 100dB(A)

Individual and group addressing

Synchronisation of tones and flashes

Built-in isolator

Loop-powered

IP65 rated

Red and clear lens options

Flash rate 1Hz (red)

EN 54-3 and EN 54-17 Certified

55000-005

Intelligent Open-Area Sounder Visual Indicator (red)

55000-006

Intelligent Open-Area Sounder Visual Indicator (white)

## Multi-Tone Open-Area Sounder



The Multi-Tone Open-Area Sounder is designed for use in open areas and can be connected to an XP95/Discovery system.

Updated to include choice of tones: Apollo, Slow Whoop and DIN

Two volume settings 92dB(A) and 100dB(A)

Synchronisation of tones

Individual and group addressing

Loop-powered

Red or white options

IP21C rated

EN 54-3 Certified

#### 55000-278

Multi-Tone Open-Area Sounder (red)

#### 55000-279

Multi-Tone Open-Area Sounder (white)

## Multi-Tone Weatherproof Open-Area Sounder



The Multi-Tone Weatherproof Open-Area Sounder is designed for use in open areas and can be connected to an XP95/Discovery system. The sounder comprises a backbox and sounder unit supplied together.

Updated to include choice of tones: Apollo, Slow Whoop and DIN

IP66 rated

Synchronisation of tones

Individual and group addressing

Non-isolated

Loop-powered

Red or white options

Output 100dB(A)

EN 54-3 Certified

#### 55000-274

Multi-Tone Weatherproof Open-Area Sounder (red)

#### 55000-275

Multi-Tone Weatherproof Open-Area Sounder (white)

## Multi-Tone Open-Area Sounder Visual Indicator



The Multi-Tone Open-Area Sounder Visual Indicator is designed for use in indoor open areas and can be connected to an XP95/Discovery system. The sounder visual indicator complements Apollo's intelligent and integrated base sounders as well as the multi-tone open-area sounder.

Choice of tones on standard device: Apollo, Slow Whoop and DIN

Two volume settings 92dB(A) and 100dB(A)

Synchronisation of 'alert'and evacuate'tones

Individual and group addressing

Built-in isolator

IP21C rated

Flash rate 1Hz (red)

EN 54-3 and EN 54-17 Certified

#### 55000-293

Multi-Tone Open-Area Sounder Visual Indicator (red)

#### 55000-294

Multi-Tone Open-Area Sounder Visual Indicator (white)

# Weatherproof Multi-Tone Open-Area Sounder Visual Indicator



The Weatherproof Multi-Tone Open-Area Sounder Visual Indicator is designed for use in outdoor open areas and can be connected to an XP95/Discovery system. The sounder visual indicator complements Apollo's intelligent and integrated base sounders as well as the multi-tone open-area sounder.

Choice of tones on standard device: Apollo, Slow Whoop and DIN

IP66 rated

Two volume settings 92dB(A) and 100dB(A)

Synchronisation of 'alert' and 'evacuate' tones

Individual and group addressing

Built-in isolator

Flash rate 1Hz (red)

EN 54-3 and EN 54-17 Certified

#### 55000-298

Weatherproof Multi-Tone Open-Area Sounder Visual Indicator with Isolator (red)

55000-299

Weatherproof Multi-Tone Open-Area Sounder Visual Indicator with Isolator (white)

## Discovery Open-Area Sounder Visual Indicator



The Discovery Open-Area Sounder Visual Indicator makes full use of the Discovery protocol and has been designed for use in indoor and open areas. When the fire system is being commissioned, a 'Magnetic Wand' can be used to adjust and test each sounder locally.

Acoustic and visual indicator self-test

15 tone pairs

Flexibility to set individual control of the sounder and visual indicator

Volume and tone settings can be selected from the control panel

Tones can be used for other purposes in addition to warning of fire, making the device ideal for use in schools etc.

Soft start option

IP65 rated

Flash rate 1Hz (red)

EN 54-3 Certified

#### 58000-005

Discovery Open-Area Sounder Visual Indicator (red)

#### 58000-007

Discovery Open-Area Sounder Visual Indicator (white)

29650-001

Magnetic Wand

# Discovery Open-Area Voice Sounder and Sounder Visual Indicator



The Discovery Open-Area Voice Alarm devices comprise a sounder and a sounder visual indicator that have been designed to provide clear instructional messages through the Discovery protocol. They are looppowered wall-mounted devices.

Four pre-set message pairs, capable of up to 15 tone message pairs

Low-current and high-volume

Fully synchronised

Set-up and test at point of installation

IP21C rated

Flash rate 1Hz (red)

EN 54-3 Certified

Available in English, Dutch and German language versions

#### 58000-010

Discovery Open-Area Voice Sounder (red)

#### 58000-020

Discovery Open-Area Voice Sounder (white)

#### 58000-030

Discovery Open-Area Voice Sounder Visual Indicator (red)

#### 58000-040

Discovery Open-Area Voice Sounder Visual Indicator (white)

# Conventional Sounder



The Sonos Sounder is a conventional sounder which makes use of the TimeSaver® base resulting in a faster and more reliable installation.

For use with conventional systems

A choice of 32 tones including all the major international standards

Simple 'First Fix' installation

Volume control - typical 8dB

#### 29600-322

Conventional Sounder head (red)

#### 29600-320

Conventional TimeSaver® Shallow Base

#### 29600-321

Conventional TimeSaver® Deep Base

# Conventional Sounder Visual Indicator



The Sonos Sounder Visual Indicator is a conventional sounder visual indicator which makes use of the TimeSaver® base, resulting in a faster and more reliable installation.

For use with conventional systems

A choice of 32 tones including all the major international standards

Simple 'First Fix' installation

#### 29600-323

Conventional Sounder Visual Indicator head (red)

#### 29600-320

Conventional TimeSaver® Shallow Base

#### 29600-321

Conventional TimeSaver® Deep Base

## Integrated Base Sounder



The Integrated Base Sounder comprises a base sounder with integral mounting base, and is for use with Discovery or XP95 detectors. It is designed for indoor use.

For use on an XP95/Discovery systems

Two tones

Two volume ranges 55-75dB(A) and 75-91dB(A)

Individual and group addressing

Unique acoustic self-test

Built-in isolator

IP21D rated

EN 54-17 Certified

45681-277

Integrated Base Sounder

45681-290

Integrated Base Sounder slow whoop

45481<u>-</u>300

Integrated Base Sounder DIN-tone

45681-292 Base Cap (white)

45681-293 Base Cap (red)

## Ancillary Base Sounder



The Ancillary Base Sounder is a local-area sounder designed for indoor use. It can only be connected to detection systems using Discovery or XP95 detectors and control panels with appropriate software.

For use on an XP95/Discovery systems

Sound output of 85dB(A) at 1 metre

Current consumption of only 3mA

Loop-powered

Responds to signals from the associated detector – does not have an address of its own

Adjustable volume control

IP23D rated

45681-276

Ancillary Base Sounder

# Loop-Powered Visual Indicator Base



The Visual Indicator Base is a loop-powered visual indicator combined with a standard intelligent mounting base. It is used to signal a fire alarm in enclosed areas.

For use on an XP95/Discovery systems

Flash rate 1Hz (red)

Synchronisation of visual indicator flash

Individual and group addressing

Unique visual indicator self-test

Loop-powered

Built-in Isolator

IP21D rated

EN 54-17 Certified

45681-333

Loop-powered Visual Indicator Base

45681-292

Base Cap (white)

45681-293

Base Cap (red

# Loop-Powered Visual Indicator



The Loop-Powered Visual Indicator is a local-area visual indicator designed for indoor use. The visual indicator has been developed as a supplement to sounders for use in situations where there is a risk that sounders will not be heard.

For use on an XP95/Discovery systems

Self-test indicator

High intensity LEDs

Automatic LED check

Lockable

Wide angle of visibility

Enables compliance with the Equality Act

Synchronised flash

Flash rate 1Hz

IP23D rated

#### 55000-877

Loop-Powered Visual Indicator (red)

#### 55000-879

Loop-Powered Visual Indicator (amber)

#### 55000-878

Loop-Powered Visual Indicator (clear lens/red flash)

#### Fire Bell 6"



The conventional 62 Fire Bell is a motorised bell designed for fire alarm applications. Its low current consumption and universally recognisable alarm sound makes it an ideal choice for many alarm systems. Designed for ease of installation, it features a robust steel gong.

Low current consumption

Universally-recognisable sound

EN54-3 certified

29600-400

6" Fire Bell



These products can either be used with a detector fitted or a cap as a stand-alone device.

# Intelligent Sounder Visual Indicator Base



The Sounder Visual Indicator Base is a loop-powered sounder and visual indicator, combined with a standard intelligent mounting base. It is used to signal a fire alarm in enclosed areas.

For use on an XP95/Discovery systems

Two volume ranges 55-75dB(A) and 75-91dB(A)

Flash rate 1Hz (red)

Synchronisation of 'alert' and 'evacuate' tones

Synchronisation of visual indicator flash

Individual and group addressing

Unique acoustic and visual indicator self-test

Built-in isolator

EN 54-17 Certified

45681-330

Sounder Visual Indicator Base

45681-332

Sounder Visual Indicator Base Slow Whoop

45681-292

Base Cap (white)

45681-293 Base Cap (red)

# Discovery Sounder Visual Indicator Base



The Discovery Sounder Visual Indicator Base makes full use of the Discovery protocol. For ease of commissioning, a 'Magnetic Wand' can be used to test and adjust each sounder locally.

Flash rate 1Hz (red)

Flexibility to set individual control of the sounder and visual indicator

Volume and tone settings can be selected from the control panel

Tones can be used for other purposes in addition to warning of fire, ideal for schools

Enables soft start option, ideal for hospitals and nursing homes

Electronic bell tone

Unique acoustic and visual indicator self-test

/5/81\_393

Discovery Sounder Visual Indicator Base

29650-001

Magnetic Wand

# Discovery Sounder Base with Isolator



The Discovery Sounder Base makes the full use of the Discovery protocol. For ease of commissioning, a 'Magnetic Wand' can be used to test and adjust each sounder locally.

15 pairs of tones

Flexibility to set individual volume of the sounder from the panel

Tones can be used for other purposes in addition to warning of fire, ideal for schools

Enables soft start option, ideal for hospitals and nursing homes

Unique acoustic and visual indicator self-test

45681-702

Discovery Sounder Base with Isolator

Non-isolated products	
Multi-Tone Open-Area Sounder Visual Indicator (red)*	55000-291
Multi-Tone Open-Area Sounder Visual Indicator (white)*	55000-292
Weatherproof Multi-Tone Open-Area Sounder Visual Indicator (red)*	55000-296
Integrated Base Sounder*	45681-278
Integrated Base Sounder Slow Whoop*	45681-291
Loop-powered Visual Indicator Base with Standard Flash	45681-335
Sounder Visual Indicator Base*	45681-331



 $^*$ For information about UL sounder visual indicator and bases go to the UL/ULC/FM section on page 143

# EN 54-23 Approved Visual Alarm Devices

In the event of a fire, the most effective way to signal an alarm for people who are deaf, hard of hearing or who work in noisy environments is to supplement audible alarms with Visual Alarm Devices (VADs).

EN 54-23 is the European standard which specifies the light output performance requirements and test criteria for VADs. Apollo has designed and manufactured a range of devices, which are approved to the EN 54-23 standard and we are continuing to develop additional approved devices.



EN 54-23 APPROVED VISUAL ALARM DEVICE RANGE

Find out more information at: apollo-fire.co.uk/vad



### Conventional Open-Area Wall Sounder VAD



The Conventional Open-Area Wall Sounder VAD is used to provide audible and visual warning of a fire. Combining an EN 54-3 compliant sounder with an EN 54-23 compliant VAD enables this device to be used in areas that require the use of both an audible and a visual alarm.

EN 54-3 compliant Category W VAD

EN 54-23 compliant sounder

Red and white flash variants with switchable flash rate of 0.5 Hz

Synchronisation of VAD flash

Coverage volume of 7.5 m

Sounder output up to 100 dB(A)

Low current consumption

#### 29600-661

Conventional Category W Open-Area Sounder Visual Alarm Device – Red body with white flash

#### 29600-662

Conventional Category W Open-Area Sounder Visual Alarm Device – Red body with red flash

### Conventional Open-Area Wall Sounder VAD



The Conventional Open-Area Wall Sounder VAD is used to provide audible and visual warning of a fire. Combining an EN 54-3 compliant sounder with an EN 54-23 compliant VAD enables this device to be used in areas that require the use of both an audible and a visual alarm.

EN 54-3 compliant Category W VAD

EN 54-23 compliant sounder

Red and white flash variants with switchable flash rate of 0.5 Hz

Synchronisation of VAD flash

Coverage volume of 7.5 m

Sounder output up to 100 dB(A)

Low current consumption

#### 20400 442

Conventional Category W IP66 Open-Area Sounder Visual Alarm Device – Red body with white flash

#### 29600-664

Conventional Category W IP66 Open-Area Sounder Visual Alarm Device – Red body with red flash

# Conventional Ceiling VAD



Conventional ceiling mounted Visual Alarm Devices are available with a white and red flash colour. The white flash variant has an EN 54-23 approved coverage pattern of C-3-15, whereas the red flash variant has a coverage pattern of C-3-8.9.

EN 54-23 approved

Flash Colour: Red or White

Synchronised Flash

IP21 (shallow base)

#### 29600-802

Conventional Ceiling VAD, Shallow Base, White Body, White Flash (C-3-15)

#### 9600-803

Conventional Ceiling VAD, Shallow Base, White Body, Red Flash (C-3-8.9)

# Conventional Wall VAD



Conventional wall mounted Visual Alarm Devices are available with a white and red flash colour. The white flash variant has an EN 54-23 approved coverage pattern of W-3.1-11.3, whereas the red flash variant has a coverage pattern of W-2.4-7.5.

EN 54-23 approved

Flash Colour: Red or White

Synchronised Flash

IP65 (deep base)

#### 29600-800

Conventional Wall VAD, Deep Base, Red Body, White Flash (W-3.1-11.3)

#### 29600-801

Conventional Wall VAD, Deep Base, Red Body, Red Flash (W-2.4-7.5)

# Conventional Wall Sounder VAD



Conventional wall mounted Sounder Visual Alarm Devices are available with a white and red flash colour. The white flash variant has an EN 54-23 approved coverage pattern of W-3.1-11.3, whereas the red flash variant has a coverage pattern of W-2.4-7.5. The sounder has an a SPL of up to 97dB.

EN 54-23 approved

Flash Colour: Red or White

Synchronised Flash

IP21 (shallow base) or IP65 (deep base)

#### 29600-804

Conventional Wall Sounder VAD, Shallow Base, Red Body, White Flash (W-3.1-11.3)

#### 29600-805

Conventional Wall Sounder VAD, Shallow Base, Red Body, Red Flash (W-2.4-7.5)

#### 29600-806

Conventional Wall Sounder VAD, Deep Base, Red Body, White Flash (W-3.1-11.3)

#### 29600-807

Conventional Wall Sounder VAD, Deep Base, Red Body, Red Flash (W-2.4-7.5)

# Loop-Powered Ceiling VAD



The Loop Powered VAD is designed for indoor use. The Ceiling VAD is specifically designed for use on a ceiling and comes in two different coverage classes. The two EN 54-23 coverage classes are C-3-8.5 and C-3 15. These devices are to supplement sounders in areas which carry the risk that sounders will not be heard.

EN 54-23 approved

High-intensity LED

Lockable

Available in red and white body

White flash only

#### 55000-740

Loop Powered Ceiling VAD 15m (red)

55000-742

Loop Powered Ceiling VAD 8.5m (red)

55000-743

Loop Powered Ceiling VAD 15m (white)

55000-745

Loop Powered Ceiling VAD 8.5m (white)

# Loop-Powered Wall VAD



The Loop Powered VAD is designed for indoor use. The Wall VAD is specifically designed for use on the wall. The EN 54-23 coverage class for this device is W-2.5-7. These devices are to supplement sounders in areas which carry the risk that sounders will not be heard.

EN 54-23 approved

High-intensity LED

Lockable

Available in red and white body

White flash only

55000-741

Loop Powered Wall VAD 7m (red)

55000-744

Loop Powered Wall VAD 7m (white)

# Discovery Sounder VAD Base with Isolator



The Discovery Sounder VAD Base makes full use of the Discovery protocol. For ease of commissioning, a 'Magnetic Wand' can be used to test and adjust each sounder VAD locally.

EN 54-23 Certified Category O. VAD

0.5Hz Flash Rate (white)

Volume control from the panel

15 pairs of tones

Built-in isolator

Unique acoustic and VAD self-test

EN 54-3 Certified Sounder

45681-700

Discovery Sounder VAD Base with Isolator

## XP95 Sounder VAD Base with Isolator



The XP95 Sounder VAD Base is a loop-powered sounder and VAD combined with a standard intelligent mounting base. It is used to signal a fire alarm in enclosed areas.

EN 54-23 Certified Category O. VAD

0.5Hz Flash Rate (white)

Synchronisation of 'alert' and 'evacuate' tones

Synchronisation of visual indicator flash

Individual and group addressing

Unique acoustic and VAD self-test

Built-in isolator

EN 54-3 Certified Sounder

45681-705

XP95 Sounder VAD Base with Isolator

45681-706

XP95 Sounder VAD Base Slow Whoop with Isolator

45681-707

XP95 Sounder VAD
Base DIN with Isolator

# XP95 VAD Base with Isolator



The XP95 VAD Base is a loop-powered VAD combined with a standard intelligent mounting base. It is used to signal a fire alarm in enclosed areas.

EN 54-23 Certified Category O. VAD

0.5Hz Flash Rate (white)

Synchronisation of VAD flash

Individual and group addressing

Unique VAD self-test

Loop-powered

Built-in isolator

45681-709 XP95 VAD Base with Isolator



The VAD bases can be used with either a detector fitted or with a cap as a stand-alone alarm device.

# Interfaces

Apollo manufactures a comprehensive range of interfaces for systems which enable fire protection solutions to be engineered simply and effectively without the need for custom-designed equipment. There are a variety of interfaces available to suit a number of individual applications.

Interfaces Range			
	Standard Enclosure	DIN-Rail Enclosure	Miniature Enclosure
Mini Switch Monitor		•	•
Switch Monitor	•	•	
Zone Monitor	•	•	
Sounder Control Unit	•		
Input/Output Unit	•	•	
Sounder Controller (5 Amperes)		•	
Dual Isolator		•	
Main Switching Input/Output Unit	•	•	
Twin Input/Output Unit	•		
Twin Switch Monitor	•		



#### **INTERFACE RANGE**

Find out more information at: apollo-fire.co.uk/interfaces

















# Intelligent Standard Interfaces

Intelligent Standard interfaces are fitted with bi-directional short-circuit isolators so that they are unaffected by a single short-circuit on either loop input or output.



# STANDARD INTERFACE RANGE

Find out more information at: apollo-fire.co.uk/interfaces

#### **KEY FEATURES OF APOLLO INTERFACES:**

Easy to install

Well-protected

Modular design

















# Intelligent Input/Output Unit



The Intelligent Input/Output Unit provides supervision of one or more normally open contacts connected to a single pair of cables and a set of changeover relay output contacts.

Improved design for ease of wiring meaning faster installation

Controllable isolator\*

Address range 1 -254\*

Nine-pre-configured modes, including compatibility mode from XP95/ Discovery to CoreProtocol systems\*

Failsafe mode (meets the requirements of BS7273-4)

Configurable input styles\*

Earth fault monitoring\*

#### SA4700-102

Intelligent Twin Input/Output Unit

\*Note: CoreProtocol enabled systems only – please check with your system partner for availability

# Intelligent Mains Switching Input/Output Unit



The Mains Switching Input/Output Unit provides a voltage-free, single pole changeover relay output and a monitored switch input.

Improved design for ease of wiring meaning faster installation

Controllable isolator\*

Address range 1 -254\*

Nine-pre-configured modes, including compatibility mode from XP95/ Discovery to CoreProtocol systems\*

Two input channels

Failsafe mode (meets the requirements of BS7273-4)

Configurable input styles\*

Earth fault monitoring\*

#### 6A4700-103

Intelligent Mains Switching Input/Output

\*Note: CoreProtocol enabled systems only – please check with your system partner for availability

# Intelligent Twin Input/ Output Unit



The Intelligent Twin Input/Output Unit provides the function of two Input/Output Units within one enclosure. The two units are electrically independent of each other. There is a DIL switch on each unit to set the address.

Both input/output units in the enclosure provide supervision of one or more normally open volt free contacts connected to a single pair of cables and a set of changeover relay output contacts.

Improved design for ease of wiring meaning faster installation

Contains controllable isolator\*

Address range 1 -254\*

Nine pre-configured modes, including compatibility mode from XP95/ Discovery to CoreProtocol systems\*

Failsafe mode (meets BS 7273-4 requirements)

Configurable input styles\*

Earth fault monitoring\*

#### SA4700-104

Intelligent Twin Input/Output Unit

\*Note: CoreProtocol enabled systems only – please check with your system partner for availability

# Intelligent Twin Switch Monitor



The Intelligent Twin Switch Monitor provides the function of two Switch Monitor units within one enclosure. The two units are electrically independent of each other. There is a DIL-switch on each unit to set the address.

Both Switch Monitor units in the enclosure are designed to monitor the state of one or more single pole, voltfree contacts connected on a pair of cables to report the status. It has a selectable status reporting delay making it suitable for monitoring flow switches.

Improved design for ease of wiring meaning faster installation

Controllable isolator\*

Address range 1 -254\*

Nine-pre-configured modes, including compatibility mode from XP95/Discovery to CoreProtocol systems\*

Priority mode for first response

Configurable input styles\*

Earth fault monitoring\*

#### SA6700-100

Intelligent Twin Switch Monitor

\*Note: CoreProtocol enabled systems only – please check with your system partner for availability

# Intelligent Switch Monitor



The Switch Monitor is designed to monitor the state of one or more single pole, volt-free contacts connected on a single pair of cables and to report their status' to Apollo-compatible analogue control equipment.

Improved design for ease of wiring meaning faster installation

Controllable isolator\*

Address range 1 -254\*

Nine-pre-configured modes, including compatibility mode from XP95/Discovery to CoreProtocol systems\*

Priority mode for fast response

Configurable input styles\*

Earth fault monitoring\*

SA4700-100 Intelligent Switch Monitor

\*Note: CoreProtocol enabled systems only – please check with your system partner for availability

### Sounder Control Unit



The Sounder Control Unit is used to control the operation of a zone of conventional sounders and report their status' to the control panel.

Allows sounders to be operated continuously or be pulsed, 1 second on, 1 second off

May be synchronised with loop sounders

Built-in isolator

55000-852 Sounder Control Unit

### Zone Monitor



The Zone Monitor powers and controls a zone of up to 20 Apollo Series 65 or Orbis fire detectors from a Discovery or XP95 loop.

Loop-powered

LED alarm indication

Built-in isolator

55000-845 Zone Monitor

# Intelligent DIN-Rail Interfaces

DIN-Rail interfaces feature enclosures that clip to a standard 35mm DIN-Rail or are screwed to the base of a larger enclosure. They enable fire system designers to create multipurpose interfaces for individual sites.



DIN-RAIL
INTERFACE RANGE

Find out more information at: apollo-fire.co.uk/interfaces



















# Intelligent DIN-Rail Input/Output Unit



The Intelligent DIN-Rail Input/Output Unit provides supervision of one or more normally open volt-free contacts connected to a single pair of cables and a set of changeover relay output contacts.

Improved design for ease of wiring meaning faster installation

Controllable isolator\*

Address range 1 -254\*

Nine-pre-configured modes, including compatibility mode from XP95/ Discovery to CoreProtocol systems\*

Failsafe mode (meets the requirements of BS7273-4)

Configurable input styles\*

Earth fault monitoring\*

SA4700-302 Intelligent DIN-Rail Input/Output Unit

\*CoreProtocol enabled systems only – please check with your system partner for availability

### Intelligent DIN-Rail Switch Monitor



The Intelligent DIN-Rail Switch Monitor is designed to monitor the state of one or more single pole, volt-free contacts connected on a single pair of cables to report the status. It has a selectable status reporting delay making it suitable for monitoring flow switches.

Faster installation due to improved design for ease of wiring

In-built controllable isolator\*

Address range 1 – 254\*

Five pre-configured modes, including compatibility mode from XP95/ Discovery to CoreProtocol systems\*

Priority mode for fast response\*

Configurable input styles\*

Earth fault monitoring\*

SA4700-300-APO Intelligent DIN-Rail Switch Monitor

## Mini Switch Monitor



The Mini Switch Monitor is an interface within an entirely new housing. This allows the unit to be fitted onto a standard 35mm DIN-Rail (using a twist-click motion) or mounted within an enclosure for example, a manual call point. It is designed to monitor the state of one or more single pole, volt-free contacts connected on a single pair of cables and to report this status to Apollo-compatible analogue addressable control equipment.

Designed for use where space is limited

Isolated as standard

Interrupt/non interrupt in one unit

'Pre-alarm' status available

Three coloured LEDs giving clear status indication

55000-760 Mini Switch Monitor

# DIN-Rail Mains Input/ Output Unit



The DIN-Rail Mains Input/Output Unit provides a voltage-free, single pole changeover relay output and a monitored switch input. The unit supervises one or more normally-open switches connected to a single pair of cables.

Three visible LEDs

Capable of switching up to 8A at 250V AC

55000-797

DIN-Rail Mains Input/Output Unit

# DIN-Rail Sounder Controller (5 Amperes)



The DIN-Rail Sounder Controller (5 Amperes) is used to control the operation of a zone of externally powered sounders and report their status to the control panel.

Allows sounders to be operated continuously or be pulsed, one second on, one second off

May be synchronised with loop sounders

An opto-coupled input is provided to monitor the state of the external power supply

Features group addressing

Will accept a load of up to 5A

55000-182 DIN-Rail Sounder Controller (5 Amperes)

## DIN-Rail Zone Monitor with Isolator



The DIN-Rail Zone Monitor with Isolator powers and controls a zone of up to 20 Apollo Series 65 or Orbis fire detectors in a Discovery or XP95 loop.

Loop-powered

Visible short-circuit and alarm LEDs

Built-in Isolator

55000-812

DIN-Rail Zone Monitor with Isolator

# DIN-Rail Dual Isolator



The DIN-Rail Dual Isolator provides two independent isolators which sense and isolate short-circuits on Discovery or XP95 loops and spurs.

Loop-powered

Polarity sensitive

Up to 20 detectors can be installed between isolators

Allows fully-isolated spurs

55000-802 DIN-Rail Dual Isolator

# Apollo Manufactured Manual Call Points

Apollo's Manufactured Manual Call Points comply with European Standard EN 54-11 and have been designed to make installation and testing quick, easy and cost effective.

Our extensive collection of Manual Call Points complements the variety of products available in our product ranges. As standard, every Manual Call Point is available with a resettable element, front LED indicator and a backbox for surface mounting.



'Plug and Play' terminal connections allow for fast, easy and cost effective installation in a variety of environments where time and access may be critical.

#### SPECIALIST ENVIRONMENTS

Details such as a selection of differently coloured call points, flashing LED option and a resettable element for fast testing and resetting of the device mean that Apollo's Manual Call Points are suited to a number of specialist environments.



APOLLO MANUFACTURED
MANUAL CALL POINT RANGE

Find out more information at: apollo-fire.co.uk/mcp











# KEY FEATURES OF APOLLO'S MANUAL CALL POINTS INCLUDE:

Flashing LED option to indicate polling (Discovery systems only)

Easy access, front reset mechanism

Front-facing addressing

E-Z Fit connectors

Ergonomically-designed key-shape

EN 54-11 approved (red only)

Continuity link

Highly visible alarm

Backward compatibility and retro-fit

Flush-mount and back-box installs

Reports an activation in under 0.2 seconds

Resettable element

Anti-tamper front face

Captive screws on all waterproof versions



# Intelligent Manual Call Point



The Apollo range of Intelligent Manual Call Points has been designed to comply with European standard EN 54-11. In addition, the call points include a number of features designed to make installation and testing quick, easy and cost effective. They can be used on XP95, Discovery and CoreProtocol® systems.

#### Resettable operating element

Easy access, front reset mechanism

E-Z fit connector system for installation

EN 54-11 & EN 54-17 Certified

Front-facing LED

Continuity link for cable insulation testing

Suitable for Semi-flush or surface mounting

SA5900-908 Intelligent Manual Call Point

# Intelligent Manual Call Point (Non-Standard)



Apollo Intelligent Manual Call Points (Non-Standard) are intended for indoor applications and are available in a variety of different colours for different applications such as initiating a hazard rather than a fire alarm. They can be used on XP95, Discovery and CoreProtocol® systems.

#### Resettable element for testing

Easy access, front reset mechanism

Variety of colours for different applications

Intelligent Manual Call Point (Non-Standard):

SA5900-903 White † SA5900-904 Yellow † SA5900-905 Blue † SA5900-906 Green † SA5900-907 Orange †

## Intelligent Marine Manual Call Point



Intelligent Marine Manual Call Points have been approved to EN 54-11 and the Marine Equipment Directive 2014/90/EU.

#### Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed

Key for resetting and front cover removal

SA5900-928MAR Intelligent Marine Manual Call Point

Intelligent Marine Manual Call Points have been approved to EN 54-11 and the Marine Equipment Directive 2014/90/EU.

† Non-standard variants of the Manual Call Point are not EN 54-11 compliant and therefore cannot be used to signal fire.

## Apollo Waterproof Manual Call Point



The Apollo Waterproof
Manual Call Point has a
highly visible alarm indicator
which can be seen from
up to 10 metres away. The
manual call point interrupts
the polling cycle for a fast
response, when activated.
A combined LED indicator
and front reset mechanism
allows for a simple reset.

EN 54-11 approved (EN 54-17 approved for Isolator version)

A unique, ergonomically designed key for resetting and front cover removal

Captive screws

#### 58200-950

Apollo Waterproof Manual Call Point

#### 58200-951

Apollo Waterproof Manual Call Point with Isolator

# Apollo Discovery Marine Waterproof Manual Call Point



Discovery Marine Waterproof Manual Call Points have been approved to EN 54-11 and the Marine Equipment Directive 2014/90/EU.

Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed key for resetting and front cover removal

#### 58200-975MAR

Apollo Discovery Marine Waterproof Manual Call Point

#### 58200-976MAF

Apollo Discovery Marine Waterproof Manual Call Point with Isolator

### Apollo XP95 I.S.Manual Call Point



The Apollo XP95 I.S. Manual Call Point has been designed to be used in atmospheres in which explosive mixtures may be present. The device is rated to be used in Zones 2, 1 & 0.

Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed key for resetting and front cover removal

#### 55200-940

Apollo XP95 I.S. Manual Call Point

## Dual Switch Manual Call Point



The Dual Switch Manual Call Point provides volt free, double pole changeover contacts suitable for normally open or normally closed multiple switching from a single activation point. A device is activated by pressing the resettable element. An activation status is indicated through the rotation of the resettable element, displaying yellow and black indication bars. The manual call point can be easily reset from the front using the supplied reset key.

# Resettable operating element

Easy access, front reset mechanism

Ergonomic reset key

Double pole change-over contacts

Suitable for semi-flush or surface mounting

Optional transparent hinged cover

#### 6A5900-011

Dual Switch Manual Call Point

# Apollo Transparent Hinged Cover



The Apollo Transparent Hinged Cover has been designed to fit all Apollo Manufactured Manual Call Points to provide protection against accidental operation.

Reduces risk of malicious activations

44251-175

Pack of 10 Transparent Hinged Cover

44251-189

Single Transparent Hinged Cover

# Manual Call Point Reset Key



Manual Call Point Reset Keys can be used for the reset and removal of all Apollo manufactured Manual Call Points.

Ergonomically designed

44251-176 Pack of 10 Manual Call Point Reset Keys

# Manual Call Points

#### **KEY FEATURES OF APOLLO'S MCPS INCLUDE:**

Resettable element for fast testing and resetting of the device

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before call points are commissioned

Supplied with back box for surface mounting

Optional transparent cover to prevent accidental operation



#### MANUAL CALL POINT RANGE

Find out more information at: apollo-fire.co.uk/mcp



### Discovery Manual Call Point



A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

Flashing LED option to indicate polling (Discovery systems only)

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

58100-910

Discovery Manual Call Point

58100-908

Discovery Manual Call Point with Isolator

# Discovery Manual Call Point (Non-Standard)



Apollo offers a selection of differently coloured call points suitable for a variety of applications such as initiating a hazard rather than a fire alarm. They can be used on XP95 and Discovery systems.

Flashing LED option to indicate polling (Discovery systems only)

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an activation in under 0.2 seconds

Resettable element

Discovery Manual Call Point (Non-Standard):

58100-926 White †

58100-927 Yellow †

58100-928 Blue †

# Discovery Marine Manual Call Point



The Discovery Marine Manual Call Point has been approved for use in indoor marine applications. A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

Flashing LED option to indicate polling (Discovery systems only)

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

#### 58100-970MAR

Discovery Marine Manual Call Point

#### 58100-971MAR

Discovery Marine Manual Call Point with

† Non-standard variants of the Manual Call Point are not EN 54-11 compliant and therefore cannot be used to signal fire.

# Discovery Marine Waterproof Manual Call Point



The Discovery Marine Manual Call Point has been approved for use in outdoor marine applications. A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

#### 58100-975MAR

Discovery Marine Waterproof Manual Call Point

#### 58100-976MAR

Discovery Marine Waterproof Manual Call Point with Isolator

### XP95 Manual Call Point



A seven-segment DIL switch enables the addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

#### 55100-905

XP95 Manual Call Point

#### 55100-908

XP95 Manual Call Point with Isolator

### XP95 I.S. Manual Call Point



The XP95 I.S. Manual Call Point is based on the standard waterproof model. It has been designed to operate on XP95 Intrinsically Safe fire detection systems, specifically atmospheres where explosive mixtures are, or may be, present.

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

#### 55100-940

XP95 I.S. Manual Call Point

#### 55100-942

XP95 I.S. Manual Call Point (Non-Standard) yellow

† Non-standard variants of the Manual Call Point are not EN 54-11 compliant and therefore cannot be used to signal fire.

# XP95 I.S. Manual Call Point – MEDC Style



The XP95 Manual Call Point MEDC style is recommended for heavy duty applications. This model is made of glass-reinforced polyester and is available as break-glass or push-button style.

#### Robust design

#### Waterproof

Reports an alarm in under 0.2 seconds

Break-glass:

55000-960

Red

55000-962

Yellow

55000-964

Blue

Break-glass with flap:

55000-96 Red

# Conventional Manual Call Point



Apollo's Conventional Manual Call Points comply with EN 54-11 and are available in both indoor and outdoor variants.

Apollo also offers a yellow variant suitable for alternative applications.

'Plug and Play' terminal connections for fast wiring

Resettable element

#### 55100-00

Conventional Manual Call Point without LED

#### 55100-002

Conventional Call Point without LED (Non-Standard) yellow †

#### 55100-003

Conventional Waterproof Manual Call Point without LED

#### 55100-004

Conventional Waterproof Call Point without LED (Non-Standard) yellow †

## Waterproof Conventional Manual Call Point



The Waterproof Manual Call Point has been designed for use outdoors and in places where moisture can occur. A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

#### 58100-950

Waterproof Manual Call Point

#### 58100-951

Waterproof Manual Call Point with Isolator

#### 58100-953

Waterproof Manual Call Point with Isolator (yellow) †

### Conventional Marine Manual Call Point



The Conventional Marine Manual Call Point has been designed to operate on conventional marine fire detection systems. It is compliant with EN 54-11 and Marine Equipment Directive 2014/90/EU and is available in both indoor and outdoor variants.

#### Red LED indicator

'Plug and Play' terminal connections for fast wiring

Resettable element

#### 55100-021MAR

Conventional Marine Manual Call Point

#### 55100-022MAR

Conventional Marine Waterproof Manual Call Point

# Conventional I.S. Manual Call Point



The Conventional I.S. Manual Call Point has been designed to operate on conventional Intrinsically Safe fire detection systems. Designed specifically for use in atmospheres in which explosive mixtures are or may be present.

'Plug and Play' terminal connections for fast wiring

Resettable element

#### 55100-031

Conventional I.S. Manual Call Point

#### 55100-033

Conventional I.S. Waterproof Manual Call Point

# Transparent Hinged Cover



The Transparent Hinged Cover can be fitted to all call points excluding MEDC style to add further protection against accidental operation.

Breakable cover seal

Reduces risk of malicious activations

26729-152

Transparent Hinged Cover

26729-179

Breakable Cover Seal

† Non-standard variants of the Manual Call Point are not EN 54-11 compliant and therefore cannot be used to signal fire.

# Mounting Accessories

Apollo offers a selection of accessories that can be used when installing our detectors, sounders and interfaces. These include backplates providing a high degree of protection from dust or water ingress, weatherproof visual indicator enclosures for installations outside and in high-moisture environments such as swimming pools, and ceiling tile mounting boxes which make installation easy prior to the fitting of a false ceiling.



MOUNTING
ACCESSORIES RANGE

Find out more information at: apollo-fire.co.uk/accessories



# cessories

## Backplate



The Backplate provides a high degree of protection against the ingress of water or dust into the back of a detector mounted directly onto a mounting box. When the backplate is used with an XP95 device, the number tab of the XPERT card must be snapped off and placed in one of the knockout slots provided in the backplate.

Protects against dust and dirt ingress

Improved performance

Fits Discovery, XP95, Orbis, Series 65 and AlarmSense bases

> 45681-233 Backplate

### Base Cover



Base Covers are available as part of the Series 65 and XP95 ranges.

Protects base when detector not in place

Aesthetically pleasing

45681-370 Series 65 Base Cover

45681-380 XP95 Base Cover

## Conduit Box



The Conduit Box is a versatile accessory for surface mounting Apollo bases. The box has knockouts to accept PG16 or M20 cable glands, conduit or mini-trunking. Self-tapping screws are included to fit the detector base to the conduit box.

Easy to install

Aesthetically pleasing

Colour matched to detector and base

45681-204 Conduit Box

## Sounder Ceiling Plate



The Sounder Ceiling Plate allows surface-mounted cabling to be fitted to a loop-powered sounder base.

Ease of installation

45681-311 Sounder Ceiling Plate

### Module Base



The Module Base is an accessory which can be secured to a standard base, allowing customers to fit their own electronics.

5mm in depth

38531-822 Module Base

## Deckhead Mounting Box



The Deckhead Mounting Box gives extra protection to devices to be fitted in areas where there is the possibility of moisture or condensation ingressing through the rear of the base.

#### Protects against water ingress

Polycarbonate deckhead mounting box (45681-217) also fits Apollo audio visual bases when used with the accessory kit (45681-218)

#### 45681-217

Deckhead Mounting Box

#### 29400-131

Metal Deckhead Mounting Box (has access ports threaded to fit PG16 glands)

#### 45681-218

Deckhead Mounting Box Accessory Kit

#### 29600-139

Metal Deckhead Mounting Box (has access ports threaded to fit M20 components)

#### 27249-005

Deckhead Adaptor (for use with 29600-196 converts cable glands from PG16 to M20)

#### 31523-857

O'Ring

# Ceiling Tile Mounting Box



The Ceiling Tile Mounting Box has been designed to make the installation of detectors and sounders quick and easy prior to the fitting of a false ceiling. Detector and sounder bases can be fitted, wired and if necessary, tested and commissioned before the installation of a false ceiling.

No need for separate backbox

Can be used with tiles up to 25mm thick

Quick and easy installation

#### 45681-309

Detector Ceiling Tile Mounting Box

#### 45681-310

Sounder Ceiling Tile Mounting Box

# 6" Mounting Plate



The 6" Mounting Plate is an accessory that allows sounder bases to be surface mounted.

Can be surface mounted

Aesthetically pleasing

Disguises any blemishes or marks left beneath

45681-600 6" Mounting Plate

### Visual Indicator Enclosure



The Visual Indicator
Enclosure is weatherproof,
allowing a loop-powered
visual indicator to be
installed outside and in high
moisture environments such
as swimming pools. The
enclosure is supplied with a
mounting bracket to accept
an Intelligent Mounting Base.

Protects against water ingress

Allows visual indicators to be used outdoors

Accepts MiniDisc remote indicator

IP67 rated

29600-318 Visual Indicator Enclosure

# DIN-Rail Interface Enclosures



DIN-Rail Interface Enclosures are available in two sizes and can be used for housing Intrinsically Safe (I.S.) barriers or DIN-Rail mounted interfaces. A multi-purpose label that features a section for use with I.S. systems is supplied. For non-I.S. systems, the part referring to I.S. can simply be removed.

Allows multiple interfaces to be housed together

IP67 rated

#### 29600-239

DIN-Rail Interface Enclosure (4 units)

#### 9600-240

DIN-Rail Interface Enclosure (10 units)

# Series 90 to XP95 Base Adaptor



The Series 90 to XP95 Base Adaptor is designed to allow XP95 detectors to be fitted to an existing Series 90 base. The adaptor eliminates the need to rewire an existing Apollo intelligent system.

Allows an existing range to be updated with ease

Eliminates the need for re-wiring

45681-238 Series 90 to XP95 Base Adaptor

# Series 65 to Orbis Base Adaptor



The Series 65 to Orbis Base Adaptor is designed to allow Orbis detectors to be fitted to an existing Series 60 or Series 65 base. The adaptor eliminates the need to rewire an existing Apollo conventional system.

Allows an existing range to be updated with ease

Eliminates the need for re-wiring

ORB-BA-10008-APO Series 65 to Orbis Base Adaptor

# Marine

Apollo offers both analogue addressable and conventional ranges of smoke and heat detectors which are approved for use in the marine environment. These detectors operate in the same way and carry the same approvals as standard detectors, but are subject to additional approvals tests, specific to the marine environment.



#### MARINE RANGE

Find out more information at: apollo-fire.co.uk/marine



## THE MARINE DETECTORS COMPLY WITH MED AND ARE APPROVED BY THE FOLLOWING BODIES:

American Bureau of Shipping

Bureau Veritas

China Classification Society

Croatian Register of Shipping

Det Norske Veritas – Germanischer Lloyd

Korean Register of Shipping

Lloyd's Register of Shipping

Registro Italiano Navale



























Discovery Marine analogue addressable fire detectors are suitable for larger vessels. The high-specification range has been developed to meet the requirements of sophisticated systems. Discovery gives you total reassurance in installations where it is necessary to adapt detection to different operating environments and where protection against unwanted alarms is paramount.





**KEY FEATURES OF DISCOVERY MARINE INCLUDE:** 

Approved for use in the marine environment

Five approved response modes for environmental adaptation

Day/night switching for increased flexibility

Drift compensation for false alarm reduction

XPERT 7 Card addressing for increased security



### Marine Optical Smoke Detector



The Discovery Marine Optical Smoke Detector operates using the light scatter principle and is ideal for applications where slow-burning or smouldering fires pose a potential risk.

Responds well to slowburning, smouldering fires

Suitable for bedrooms and escape routes

Unaffected by wind or atmospheric pressure

Remote test feature

Rejection of transient signals

58000-600MAR
Discovery Marine
Optical Smoke Detector

### Marine Optical/ Heat Multisensor Detector



The Discovery Marine
Optical/Heat Multisensor
Detector comprises optical
smoke and thermistor
temperature sensors which
give both a combined signal
as well as a separate heat
signal for improved false
alarm management.

Ideal for a wide range of applications

High immunity to false alarms

Unaffected by wind or atmospheric pressure

Remote test feature

Rejection of transient signals

58000-700MAR Discovery Marine Multisensor Detector

### Marine Heat Detector



The Discovery Marine Heat Detector, distinguishable by the low airflow resistant case, uses a single thermistor to sense the air temperature around the detector.

Ideal in environments that are dirty or smoky

Unaffected by wind or atmospheric pressure

Remote test feature

58000-400MAR Discovery Marine Heat Detector

### Marine Ionisation Smoke Detector



The Discovery Marine Ionisation Smoke Detector uses a low-activity radioactive foil to detect fires by irradiating the air in the smoke chamber and causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fastburning, flaming fires

Designed to operate in a variety of environments

Remote test feature

Rejection of transient signals

58000-500MAR
Discovery Marine
Ionisation Smoke Detector



### Marine Mounting Base



All detectors in the Discovery Marine range are for use with the Marine Mounting Base. The mounting base is a low insertion force base with stainless steel contacts for the detector terminals. XPERT 7 Cards are supplied with all Discovery bases.

XPERT 7 Card addressing

One-way fit

Locking feature to prevent unauthorised removal

45681-210MAR Discovery Marine Mounting Base

### Marine Isolating Base



The Marine Isolating Base senses and detects short-circuit faults on Discovery loops and spurs.

Up to 20 detectors or their equivalent load, may be installed between isolating bases

High-brightness LED

Detects wiring short-circuits

Minimises disruption from short-circuits

45681-286 Marine Isolating Base

### Marine Sounder Visual Indicator Base



The Discovery Marine
Sounder Visual Indicator
Base makes full use of the
Discovery protocol. For ease
of commissioning, a 'Magnetic
Wand' can be used to test and
adjust each sounder locally.

It is possible to set individual control of the sounder and visual indicator

Volume and tone settings can be selected from the control panel

Electronic bell tone

IMO 1A tone included

45681-394MAR Discovery Marine Sounder Visual Indicator Base

29650-001 Magnetic Wand

### Marine Isolator



The Discovery Marine Isolator is placed at intervals on the loop and ensures that, in the case of a short-circuit, only the section between the isolators will be affected. When the short-circuit is removed, the isolators automatically restore power and data to the isolated section.

Detects wiring short- circuits using patented technology

Minimises disruption from short-circuits

Automatic de-isolation on short-circuit removal

Up to 20 detectors or equivalent load may be installed between isolators

55000-721MAR Discovery Marine Isolator (uses 45681-211MAR Isolator Base)

45681-211MAR
Discovery Marine



### Deckhead Mounting Box



The Deckhead Mounting Box gives extra protection to devices fitted in areas where there is the possibility of moisture or condensation ingressing through the rear of the base.

Protects against water ingress

Polycarbonate deckhead mounting box (45681-217) also fits Apollo audio visual bases when used with the accessory kit (45681-218)

45681-217 Deckhead Mounting Box

29600-131

Metal Deckhead Mounting Box (has access ports threaded to fit PG16 glands)

45681-218 Deckhead Mounting Box Accessory Kit

29600-139

Metal Deckhead Mounting Box (has access ports threaded to fit M20 components)

27249-005 Deckhead Adaptor (for use with 29600-196 – converts cable glands from PG16 to M20)

31523-85 O'Ring

# Marine DIN-Rail Dual Isolator



The Marine DIN-Rail Dual Isolator provides two independent isolators which sense and isolate short-circuits on loops and spurs.

Loop-powered

Up to 20 detectors can be installed between isolators

Allows fully isolated spurs

55000-770MAR Marine DIN-Rail

### Marine DIN-Rail SounderController (8 Amperes)



The Marine DIN-Rail Sounder Controller (8 Amperes) is used to control the operation of a zone of externally powered sounders and report their status to the control panel.

Allows sounders to be operated continuously or be pulsed, one second on, one second off

May be synchronised when in pulsed operation

External supply monitoring

Will accept a load of 8A

55000-181MAR Marine DIN-Rail Sounder Controller (8 Amperes)



### Marine DIN-Rail Zone Monitor



The Marine DIN-Rail Zone Monitor with isolator controls the operation of a zone of up to 20 Apollo Orbis Marine fire detectors in a loop.

Loop-powered

Visible short-circuit LED

Built-in isolator

55000-773MAR Marine DIN-Rail Zone Monitor

### Marine Mini Switch Monitor



The Marine Mini Switch Monitor is an interface within an entirely new housing. Designed in response to customer feedback, the smaller Mini Switch Monitor can be fitted onto a 35mm DIN-Rail with a twist-click motion or mounted in an enclosure such as a manual call point. It is designed to monitor the state of one or more single pole, volt-free contacts connected to a single pair of cables and to report this status to Apollo-compatible control equipment.

Designed for use where space is limited

Isolated as standard

Interrupt/non interrupt in one unit

'Pre-alarm' status available

Three coloured LEDs giving clear status indication

55000-775MAR Marine Mini Switch Monitor



### Intelligent Marine Manual Call Point



Intelligent Marine Manual Call Points have been approved to EN 54-11 and the Marine Equipment Directive 96/98/EC.

Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed key for resetting and front cover removal

Intelligent Marine Manual Call Point

### Discovery Marine Manual Call Point



The Discovery Marine Manual Call Point has been approved for use in indoor marine applications. A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

Flashing LED option to indicate polling (Discovery

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

58100-970MAR Discovery Marine Manual Call Point

58100-971MAR Discovery Marine Manual Call Point with Isolator

### Apollo Discovery | Discovery Marine Marine Waterproof Manual Call Point



Discovery Marine Waterproof Manual Call Points have been approved to EN 54-11 and the Marine Equipment Directive 96/98/EC. The Marine Manual Call Points boasts a IP67 rating to meet the demands of marine and offshore environments.

Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed key for resetting

58200-975MAR Apollo Discovery Marine Waterproof Manual Call Point

58200-976MAR Apollo Discovery Marine Waterproof Manual Call Point with Isolator

## Waterproof Manual Call Point



The Discovery Marine Waterproof Manual Call Point has been approved for use in outdoor marine applications. A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

IP67 rated

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

58100-975MAR Discovery Marine Waterproof Manual Call Point

58100-976MAR Discovery Marine Waterproof Manual Call Point with



### Stainless Steel Intelligent IR<sup>3</sup> Flame Detector



The Stainless Steel Intelligent IR³ Flame Detector combines high performance with added protection against the effects of salt corrosion, making it ideal for most marine applications. The protection from salt corrosion, is provided by a tough, heavy-duty housing made from stainless steel material. It can rapidly detect all types of flames, including hydrogen, which is invisible to the human eye.

Operation with control equipment using Apollo's class leading XP95 or Discovery protocol

Quick and easy stainless steel 2 axis adjustable mounting bracket

#### 55000-034MAR

Stainless Steel Intelligent IR<sup>3</sup> Flame Detector

### Marine Intelligent Base Mounted UV Flame Detector



The Marine Intelligent Base Mounted UV Flame Detector is designed to protect enclosed indoor areas where open fires may be expected. The detector has a fast-acting response to flames up to 25m away and is equipped with a single UV sensor with a narrow spectral response to discriminate between flames and most spurious sources of radiation.

Responds to stationary flames with no flicker

Sensitive to UV radiation emitted by flames during combustion

Compact flame detector which fits into a Discovery Marine Base

Loop-powered

55000-027MAR Marine Intelligent Base Mounted UV Flame Detector

# Marine Intelligent Base Mounted UV IR<sup>2</sup> Flame Detector



The Marine Intelligent Base Mounted UV IR² Flame Detector is designed to protect open indoor areas where open flaming fires may be expected. The detector has UV and dual IR sensors responding to different wavelengths to discriminate between flames and spurious sources of radiation.

Sensitive to UV and lowfrequency flickering IR radiation emitted by flames during combustion

Compact flame detector which fits into Discovery Marine mounting bases

Loop-powered

False alarms due to electrical discharges from lightning or arc welding and flickering sunlight are minimised

55000-028MAR Marine Intelligent Base Mounted UV IR<sup>2</sup> Flame Detector

### Marine Intelligent Base Mounted IR<sup>3</sup> Flame Detector



The Marine Intelligent Base Mounted IR³ Flame Detector is designed to protect all indoor areas, even in dirty or smoky conditions, where open flaming fires may be expected. The detector has three IR sensors that respond to different IR wavelengths to discriminate between flames and spurious sources of radiation.

Sensitive to low-frequency flickering IR radiation emitted by flames during combustion

Compact flame detector which fits into Discovery Marine mounting bases

Loop-powered

False alarms due to factors such as flickering sunlight are avoided by a combination of filters and signal processing techniques

55000-029MAR Marine Intelligent Base Mounted IR<sup>3</sup> Flame Detector

t For details of mounting brackets, refer to page 69.







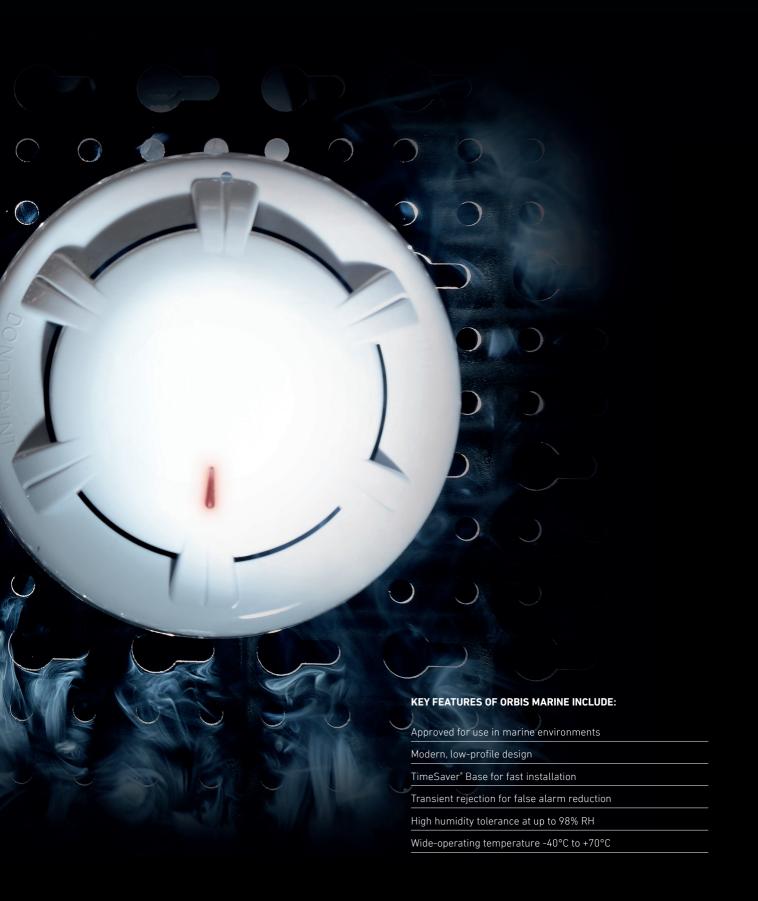
Orbis Marine conventional fire detectors offer a wealth of features to save time, enhance reliability and reduce false alarms within the marine environment. These include drift compensation and DirtAlert® - a feature that warns Service Engineers via a flashing yellow LED that detectors need maintenance and patented FasTest® - a procedure that takes just four seconds to test smoke detectors and confirm that they are functioning correctly.



ORBIS MARINE RANGE

Find out more information at: apollo-fire.co.uk/marine







### Marine Optical Smoke Detector



The Orbis Marine Optical Smoke Detector operates on the well-established light scatter principle. However, the sensing technology is radically different in design from previous optical detectors and significantly reduces false alarms.

Responds well to slow-burning, smouldering fires

Performs well in detecting black and white smoke

Extra confirmation of smoke before alarm signal is given

Reduced incidents of false alarms

Sensing chamber keeps out dust and other airborne contaminants

Operates over a broad range of voltages at extremes of temperature

Flashing LED option

ORB-OP-42001-MAR Orbis Marine Optical Smoke Detector

ORB-OP-42003-MAR Orbis Marine Optical Smoke Detector with flashing LED

### Marine Optical/Heat Multisensor



The Orbis Marine Multisensor benefits from the same false alarm reduction technology as the optical detector, with the addition of a heat sensing element.

Responds well to fast-burning, flaming fires

Reduced false alarms

Increased reliability of detection

Sensing chamber keeps out dust and other airborne contaminants

Operates over a broad range of voltages at extremes of temperature

Flashing LED option

ORB-OH-43001-MAR Orbis Marine Optical/Heat Multisensor

ORB-OH-43003-MAR Orbis Marine Optical/Heat Multisensor Smoke Detector with flashing LED

### Marine Heat Detector



The Orbis Marine Heat Detector uses a single thermistor to sense the air temperature around the detector. There are twelve heat detectors in the Orbis Marine range designed to suit a wide variety of operating conditions.

Can be used for applications where smoke detectors are unsuitable

Ideal for environments that are dirty or smoky under normal conditions

Flashing LED option

ORB-HT-41001-MAR A1R standard

ORB-HT-41013-MAR A1R with flashing LED

ORB-HT-41002-MAR A2S standard

ORB-HT-41014-MAR A2S with flashing LED

ORB-HT-41003-MAR BR standard

ORB-HT-41015-MAR BR with flashing LED

ORB-HT-41004-MAR BS standard

ORB-HT-41016-MAR BS with flashing LED

ORB-HT-41005-MAR CR standard

ORB-HT-41017-MAR CR with flashing LED

ORB-HT-41006-MAR

ORB-HT-41018-MAR CS with flashing LED



### Marine TimeSaver® Base



The Orbis Marine TimeSaver® Base provides installers with an open working area with fixing holes shaped to allow a simple mounting procedure.

Grouped terminals to make wiring easy

Multiple fixing centres

LED alignment mark

Cable stripping guide

Continuity link for voltage testing of zone wiring prior to commissioning

Detector locking mechanism

ORB-MB-00001-MAR Orbis Marine TimeSaver\* Base

### Marine Relay Base



The Orbis Marine Relay Base incorporates a single-pole voltage-free changeover contact for switching ancillary equipment. When the detector changes to the alarm state, the relay is energised, causing the contact to change state. The contact will remain in this condition until the detector is reset.

Grouped terminals to make wiring easy

Multiple fixing centres

LED alignment mark

Cable stripping guide

Continuity link for voltage testing of zone wiring prior to commissioning

Detector locking mechanism

ORB-RB-40004-MAR Orbis Marine Relay Base

### Conventional Marine Manual Call Point



The Conventional Marine Manual Call Point has been designed to operate on conventional marine fire detection systems. It is compliant with EN 54-11 and Marine Equipment Directive 2014/90/EU and is available in both indoor and outdoor variants.

Red LED indicator

'Plug and Play' terminal connections for fast wiring

Resettable element

55100-021MAR Conventional Marine Manual Call Point

55100-022MAR Conventional Marine Waterproof Manual Call Point

# Marine Series 65 Base Mounted UV Flame Detector



The Marine Series 65 Base Mounted UV Flame Detector is designed to protect enclosed indoor areas where open flaming fires may be expected. The detector has a fast acting response to flames up to 25m away and is equipped with a single UV sensor with a narrow spectral response in order to discriminate between flames and most spurious sources of radiation.

Responds to stationary flames with no flicker

Sensitive to UV radiation emitted by flames during combustion

Zone-powered

55000-026MAR Marine Series 65 Base Mounted UV Flame Detector



Apollo Fire Detectors is pleased to announce our range of devices independently evaluated and certified to SIL2 (Safety Integrity Level). These devices have been tested under IEC61508 in respect of their primary function (Detection, Manual Call Point, Audio, Visual etc).





# Discovery Optical Smoke Detector



The Discovery Optical Smoke Detector works using the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely.

Responds well to slow-burning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by wind or atmospheric pressure

Five response modes

Remote test feature

58000-600SIL Discovery Optical Smoke Detector

### Discovery Optical/Heat Multisensor Detector



The Discovery Optical/Heat Multisensor Detector comprises optical smoke and thermistor temperature sensors which give both a combined signal as well as a separate heat signal for improved false alarm management.

Ideal for a wide range of applications

Enhanced false alarm management

Recommended, in specific modes, for hotel bedrooms and hospital wards

Unaffected by wind or atmospheric pressure

Well suited for sensitive environments

Five response modes

Heat only and optical only options

Remote test feature

58000-700SIL Discovery Optical/Heat Multisensor Detector

### Discovery Heat Detector



The Discovery Heat Detector uses a single thermistor to sense the air temperature around the detector.

Ideal in environments that are dirty or smoky under normal conditions

Well-suited to for warehouses, loading bays and car parks

Unaffected by wind or atmospheric pressure

Five response modes

Remote test feature

58000-400SIL Discovery Heat Detector

### XP95 I.S. Optical Smoke Detector



The XP95 I.S. Optical Smoke Detector works using the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely.

Responds well to slow-burning, smouldering fires

Well-suited to escape routes

Unaffected by wind or atmospheric pressure

55000-640SIL XP95 I.S. Optical Smoke Detector

### XP95 I.S. Heat Detector



The XP95 I.S. Heat Detector operates by measuring heat levels with a single thermistor which gives an analogue value output proportional to the external air temperature.

Ideal for environments that are dirty or smoky under normal conditions

Unaffected by wind or atmospheric pressure

55000-440SIL XP95 I.S. Heat Detector

### XP95 I.S. Ionisation Smoke Detector



The XP95 I.S. Ionisation Smoke Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chamber and causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fast-burning, flaming fires

Designed to operate in a variety of environments

Minimal effects from temperature, humidity, atmospheric pressure

55000-540SIL XP95 I.S. Ionisation Smoke Detector

## Marine Isolating Base



The Marine Isolating Base senses and detects short-circuit faults on Discovery loops and spurs.

45681-286MAR Marine Isolating Base

### Discovery Marine Sounder Visual Indicator Base



The Discovery Marine Sounder Visual Indicator Base makes full use of the Discovery protocol. For ease of commissioning, a 'Magnetic Wand' can be used to test and adjust each sounder locally.

Flexibility to set individual control of the sounder and visual indicator

Volume and tone settings can be selected from the control panel

Electronic bell tone

IMO 1A tone included

45681-394MAR Discovery Marine Sounder Visual Indicator Base

29650-001 Magnetic Wand

### Discovery Sounder Visual Indicator Base



The Discovery Sounder Visual Indicator Base makes full use of the Discovery protocol. For ease of commissioning a 'Magnetic Wand' can be used to test and adjust each sounder locally.

Flexibility to set individual control of the sounder and visual indicator

Volume and tone settings can be selected from the control panel

Tones can be used for other purposes in addition to warning of fire, ideal for schools

Enables soft start option, ideal for hospitals and nursing homes

Electronic bell tone

45681-393SIL Discovery Sounder Visual Indicator Base

## Discovery Marine Isolator



The Discovery Marine Isolator is placed at intervals on the loop and ensures that, in the case of a short-circuit, only the section between the isolators will be affected. When the short-circuit is removed, the isolators automatically restore power in the isolated section.

Detects wiring short- circuits using patented technology

Minimises disruption from short-circuits

Automatic de-isolation on short-circuit removal

Up to 20 detectors or equivalent load may be installed between isolators

55000-721MAR Discovery Marine Isolator (uses 45681-211MAR Isolator Base)

45681-211MAR Discovery Marine Isolator Base

## Input/Output Unit



The Input/Output Unit provides a voltage-free and double pole changeover (DPCO) relay output, a single monitored switch input and an unmonitored, non-polarised opto-coupled input.

Reports faults, switch open and switch closed levels

Three visible LEDs

Loop-powered

Capable of switching up to 30V at 1A

Built in isolator

55000-847SIL Input/Output Un

### Marine Mini Switch Monitor



The Marine Mini Switch Monitor is an interface within an entirely new housing. Designed in response to customer feedback, the smaller Mini Switch Monitor can be fitted onto a 35mm DIN-Rail with a twist-click motion or mounted in an enclosure such as a manual call point. It is designed to monitor the state of one or more single pole, volt-free contacts connected to a single pair of cables and to report the status to Apollo-compatible control equipment.

Designed for use where space is limited

Isolated as standard

Interrupt/non interrupt in one unit

'Pre-alarm' status available

Three coloured LEDs giving clear status indication

55000-775MAR Marine Mini Switch Monitor

## Marine DIN-Rail Dual Isolator



The Marine DIN-Rail Dual Isolator provides two independent isolators which sense and isolate short-circuits on loops and spurs.

Loop-powered

Up to 20 detectors can be installed between isolators

Allows fully isolated spurs

55000-770MAR Marine DIN-Rail Dual Isolator

### Marine DIN-Rail Zone Monitor



The Marine DIN-Rail Zone Monitor with isolator controls a zone of up to 20 Apollo Orbis Marine fire detectors in a loop.

Loop-powered

Visible short-circuit LED

Built-in isolator

55000-773MAR Marine DIN-Rail Zone Monitor

### XP95 Protocol Translator



The XP95 Protocol Translator is installed in the safe area, ensuring integrity of communication between control equipment and field devices and safety within the limits of BASEEFA approvals.

Loop-powered

Translates voltage levels from a loop driver to be compatible with I.S. requirements

55000-855 XP95 Protocol Translator (single channel)

55000-856 XP95 Protocol Translator (dual channel)

### Apollo XP95 I.S. Manual Call Point



The Apollo XP95 I.S. Manual Call Point has been designed for use in atmospheres in which explosive mixtures may be present. The device is rated to be used in Zones 2, 1 & 0.

Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed key for resetting and front cover removal

55200-940SIL Apollo XP95 I.S. Manual Call Point

### Discovery Manual Call Point



The Discovery Manual Call Point has a seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

Flashing LED option to indicate polling (Discovery systems only)

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

58100-910SIL Discovery Manual Call Point

58100-908SIL Discovery Manual Call Point with Isolator

# Discovery Marine Manual Call Point



The Discovery Marine
Manual Call Point has been
approved for use in indoor
marine applications. A
seven-segment DIL switch
enables addressing of each
call point at commissioning
stage. When operated, the
manual call point interrupts
the polling cycle for a fast
response. Bi-coloured
LEDs indicate isolate and
normal conditions.

Flashing LED option to indicate polling (Discovery systems only)

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

58100-971MAR Discovery Marine Manual Call Point with Isolator

58100-976MAR Discovery Marine Waterproof Manual Call Point with Isolator

### Waterproof Manual Call Point



The Waterproof Manual Call Point has been designed for use outdoors and in places where moisture can occur. A seven-segment DIL switch enables addressing of each call point at commissioning stage. When operated, the manual call point interrupts the polling cycle for a fast response. Bi-coloured LEDs indicate isolate and normal conditions.

#### IP67 rated

'Plug and Play' terminal connections for fast wiring

Continuity link for wiring test before commissioning

Reports an alarm in under 0.2 seconds

Resettable element

58100-951SIL Waterproof Manual Call Point with Isolator

# Intrinsically Safe

Apollo offers both analogue addressable and conventional smoke and heat detector ranges, designed to be intrinsically safe as they meet the requirements of the ATEX directive.

There are many places where an explosive mixture of air and gas or vapour may be present continuously, intermittently or as a result of an accident. These are defined as hazardous areas by BS EN 60079, which is the code of practice for installation and maintenance of electrical apparatus in potentially explosive atmospheres.

Hazardous areas are common in petroleum and chemical engineering plants and in factories processing and storing gases, solvents, paints and other volatile substances.

Electrical equipment for use in these areas needs to be designed so that it cannot ignite an explosive mixture, not only in normal operation but also in fault conditions. There are a number of methods available to achieve this but one of the most common is intrinsic safety. The Apollo I.S. range is compliant with MED 2014/90/EU.



INTRINSICALLY SAFE RANGE

Find out more information at: apollo-fire.co.uk/is





#### **ENGINEERING PLANTS**

Hazardous areas and potentially explosive atmospheres within these environments require electrical equipment that cannot ignite an explosive mixture, achievable by using the Apollo intrinsically safe range.

#### **FACTORY ENVIRONMENTS**

Factories where the processing or storing of gases, solvents, paints and other volatile substances are defined as hazardous areas and are required to follow the BS EN 60079 code of practice. The Apollo Intrinsically Safe range fulfils these requirements.



XP95 Intrinsically Safe (I.S.) detectors are a development of the well-established analogue addressable XP95 range from Apollo. XP95 I.S. detectors feature all of the benefits of the standard range, but are developed specifically for use in hazardous areas. The addresses of XP95 I.S. detectors are set by means of the patented XPERT 7 Card. See page 34 for more details.





# I.S. Optical Smoke Detector



The XP95 I.S. Optical Smoke Detector works using the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely.

Responds well to slow-burning, smouldering fires

Well-suited to escape routes

Unaffected by wind or atmospheric pressure

55000-640 XP95 I.S. Optical Smoke Detector

### I.S. Heat Detector



The XP95 I.S. Heat Detector operates by measuring heat levels with a single thermistor which gives a count output proportional to the external air temperature.

Ideal for environments that are dirty or smoky under normal conditions

Unaffected by wind or atmospheric pressure

55000-440 XP95 I.S. Heat Detector

## I.S. Ionisation Smoke Detector



The XP95 I.S. Ionisation Smoke Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chamber and causing a current flow. If smoke enters the chamber, the current flow is reduced, leading to an alarm.

Responds well to fast-burning, flaming fires

Designed to operate in a variety of environments

Minimal effects from temperature, humidity, atmospheric pressure

55000-540 XP95 I.S. Ionisation Smoke Detector





The XP95 I.S. Manual Call Point – MEDC Style is recommended for heavy duty applications. This model is made of glass-reinforced polyester.

Reports an alarm in under 0.2 seconds

Waterproof

Robust design

### Break-glass:

55000-960 Red 55000-962 Yellow\* 55000-964 Blue\* 55000-966 Black/yellow stripes\*

Break-glass with flap:

55000-961 Red 55000-963 Yellow\* 55000-965 Blue\* 55000-967 Black/yellow stripes\*





The XP95 I.S. Mounting Base has been designed to accept only I.S. products. This ensures that standard detectors cannot inadvertently be fitted into an Intrinsically Safe system. XPERT 7 Cards are supplied with all bases.

XPERT 7 Card addressing

One-way fit

Only accepts I.S. detectors

45681-215 XP95 I.S. Mounting Base

### Apollo XP95 I.S. Manual Call Point



The Apollo XP95 I.S. Manual Call Point has been designed to be used in atmospheres in which explosive mixtures may be present. The device is rated to be used in Zones 2, 1 & 0.

Resettable element for testing

Easy access, front reset mechanism

A unique, ergonomically designed key for resetting and front cover removal

IP67 rated

55200-940 Apollo XP95 I.S. Manual Call Point

<sup>\*</sup> Does not comply with EN 54-11.



### XP95 I.S. Galvanic Barrier



The XP95 I.S. Galvanic Barrier is installed in the safe area and ensures system integrity.

Enables compliance to the ATEX directive

29600-098 XP95 I.S. Galvanic Barrier

### XP95 Protocol Translator



The XP95 Protocol Translator is installed in the safe area, ensuring safety integrity of communication between control equipment and field devices within the limits of BASEEFA approvals.

#### Loop-powered

Translates voltage levels from a loop driver to be compatible with I.S. requirements

55000-855 XP95 Protocol Translator (single channel)





### **KEY FEATURES OF ORBIS I.S. INCLUDE:**

TimeSaver® Base

Patented FasTest\* enabling functional testing in four seconds

DirtAlert\* indicates limit of drift compensation

Tolerates extreme operating conditions: -40°C to +70°C

False alarm reduction

Flashing LED option











### I.S. Optical Smoke Detector



The Orbis I.S. Optical Smoke Detector works using the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely.

Reduces false alarms

Recommended for early warning of fire in most areas

Improved sensitivity to black smoke

Compensation for slow changes in sensitivity

Algorithms for reliability of alarm

ORB-OP-52027-APO Orbis I.S. Optical Smoke Detector

ORB-OP-52028-APO Orbis I.S. Optical Smoke Detector with flashing LED

### I.S. Multisensor Smoke Detector



The Orbis I.S. Multisensor Smoke Detector benefits from the same false alarm technology as the Optical Smoke Detector, with the addition of a heat sensing element.

Reduces false alarms

Sensitive to fast burning, flaming fires

Improved sensitivity to black smoke

Compensation for slow changes in sensitivity

Algorithms for reliability of alarm

ORB-OH-53027-APO Orbis I.S. Multisensor Detector

ORB-OH-53028-APO
Orbis I.S. Multisensor
Detector with flashing LED

### I.S. Heat Detector



The Orbis I.S. Heat Detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature.

Can be used for applications where smoke detectors are unsuitable

Ideal for environments that are dirty or smoky under normal conditions

Reduced incidences of false alarms

Increased reliability of detection

#### Standard:

ORB-HT-51145-APO A1R ORB HT 51157 APO A1S ORB-HT-51147-APO A2S ORB-HT-51149-APO BR ORB-HT-51151-APO BS ORB-HT-51153-APO CR ORB-HT-51155-APO CS

With flashing LED:

ORB-HT-51146-APO A1R ORB HT 51158 APO A1S ORB-HT-51148-APO A2S ORB-HT-51150-APO BR ORB-HT-51152-APO BS ORB-HT-51154-APO CR ORB-HT-51156-APO CS

### Conventional I.S. IR<sup>3</sup> Flame Detector



The Conventional I.S. IR3 Flame Detector is designed for harsh environments in either indoor or outdoor applications. It is sensitive to low-frequency flickering IR radiation emitted from flames during combustion. The sensor operates even through a layer of oil, water vapour or ice. These detectors have been approved by BASEEFA to EN 50014, EN50020 and EN50284. The requirements of the ATEX Directive 2014/34/ EU have also been met.

ATEX certified: II 1 G

CENELEC/IEC certified: Ga Ex ia IIC T4

Selectable output options: Conventional two-wire, 4-20 mA, latching or nonlatching, relay contacts, fire/fault, pre-alarm

Class 1 sensitivity to EN54-10 detects 0.1 m2 fire at 25 m

High optical interference immunity

Selectable response speed

Optical self-test

Low power consumption

IP65 rated

Supply voltage 14 to 30 V dc

Operating temperature -100C to +400C (T4)

55000-063

Conventional I.S. IR<sup>3</sup> Flame Detector

## I.S.TimeSaver®



The Orbis I.S. TimeSaver®
Base provides installers with
an open working area with
fixing holes shaped to allow a
simple mounting procedure.

Grouped terminals to make wiring easy

Two fixing centres

LED alignment mark

Detector locking mechanism

ORB-MB-50018-APO Orbis I.S. Timesaver® Base

### I.S. Adaptor



The Orbis I.S. Adaptor enables Orbis I.S. detector heads to be fitted into existing Series 60 I.S. bases in order to upgrade systems with minimal disruption.

Eliminates the need for re-wiring

ORB-BA-50008-APO Orbis I.S. Adaptor

# Conventional I.S. Manual Call Point



The Conventional I.S.
Manual Call Point has been designed to operate on conventional Intrinsically Safe fire detection systems specifically in areas where explosive mixtures are or may be present.

'Plug and Play' terminal connections for fast wiring

Resettable element

55100-031 Conventional I.S. Manual Call Point

55100-032 Conventional I.S. Manual Call Point (Non-Standard) yellow

55100-033 Conventional I.S. Waterproof Manual

55100-034 Conventional I.S. Waterproof Manual Call Point (Non-Standard) yellow

# Conventional Explosion Proof Manual Call Point



The Conventional Explosion Proof Manual Call Point is break-glass operated with a flap. It is approved for Zone 1, 2, 21 and 22 hazardous areas for the control of fire and gas alarm systems.

ATEX certified

IECEx certified

29600-508 Explosion Proof Manual Call Point



# Conventional I.S. Sounder and Sounder Visual Indicator



The I.S. Conventional Sounder and Conventional Sounder Visual Indicator are suitable for intrinsically safe signalling applications including fire, security and process control. The Conventional I.S. Sounder is also available for Group I mining.

#### ATEX certified

IECEx certified

GOST-R certified for Zone 0 applications

FM certified for Class I Division 1 and Class I Zone 0 applications

29600-379 I.S. Conventional Sounder

29600-446
I.S. Conventional Sounder Visual Indicator

### AV Galvanic Barrier



The AV Galvanic Barrier is installed in the safe area and provides connection to Audio Visual Alarms in a hazardous area.

Enables compliance with the ATEX directive

Approved up to SIL3

29600-440 AV Galvanic Barrier

### Conventional Galvanic Barrier



The Conventional Galvanic Barrier is installed in the safe area and ensures system integrity.

Enables compliance with the ATEX directive

29600-378 Conventional Galvanic Barrier

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## UL/ULC/FM

Apollo's product offering includes devices which have been developed and approved for the UL/ULC/FM markets. We have carefully researched and developed these ranges to ensure that they meet not only UL and other standards, but also the demands of today's high-technology environments.



**UL/ULC/FM RANGE** 

Find out more information at: apollo-fire.co.uk/analogueaddressable

## KEY FEATURES OF DISCOVERY UL INCLUDE:

XPERT 7 Card addressing

Resists steam and cigarette smoke

Flashing LED option

Five approved response modes to provide adaptability to changing environments

Drift compensation to ensure constant sensitivity

Capable of recording site specific data in the detector

Alarm flags for fast alarm reporting

Conventional alarm facility during control panel processor fault

360° visibility alarm indication

Compatible with XP95A systems

## ADVANCED FEATURES FOR NOTIFICATION DEVICES:

Global and group addressing

15 tone pairs

Volume selection

Synchronisation of all looppowered notification devices

















### UL Photoelectric Smoke Detector



The Discovery UL
Photoelectric Smoke
Detector works using the
light scatter principle and
is ideal for applications
where slow-burning or
smoldering fires are likely.

Responds well to slowburning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by wind or atmospheric pressure

Remote test feature

58000-650 Discovery UL Photoelectric Smoke Detector

### UL Multisensor Detector



The Discovery UL Multisensor Detector consists of photoelectric smoke and thermistor temperature sensors whose outputs are combined to give the final analogue value. As a result, the multisensor is useful over a wide range of applications and is highly immune to false alarms.

Ideal for wide range of applications

Highly immune to false alarms

Well-suited to sensitive environments

Unaffected by wind or atmospheric pressure

Remote test feature

58000-750 Discovery UL Multisensor Detector

### UL Heat Detector



The Discovery UL Heat
Detector is distinguishable by
the low airflow resistant case
and uses a single thermistor
to sense the air temperature
around the detector.

Ideal for environments that are dirty or smoky under normal conditions

Well-suited to warehouses, loading docks and parking garages

Unaffected by wind or atmospheric pressure

Remote test feature

58000-450 Discovery UL Heat Detector

## UL Ionisation Smoke Detector



The Discovery UL Ionisation Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chambers and causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fastburning, flaming fires

Designed to operate in a variety of environments

Remote test feature

58000-550 Discovery UL Ionisation Smoke Detector



### XP95A Mounting Base



All detectors in the XP95A product line fit the XP95A Mounting Base which is a low insertion force base with stainless steel contacts for the detector terminals. XPERT 7 Cards are supplied with all bases.

XPERT 7 Card addressing

One-way fit

Locking feature to prevent unauthorised removal

45681-210UL XP95A Mounting Base 4"

45681-225APO XP95A Mounting Base 6"

### XP95A Low Power Relay Base



The XP95A Low Power Relay Base incorporates a low power relay to control field equipment, such as automatic door closers.

Gives a set of voltage-free contacts controlled by the remote output of a detector

Draws negligible current

45681-242UL XP95A Low Power Relay Base 4"

### E-Z Fit Base



The E-Z Fit Base is a low profile 6" mounting base for XP95A detectors.

High degree of protection against unauthorised removal

45681-250 E-Z Fit Base

#### XP95A Isolating Base



The XP95A Isolating Base senses and detects short-circuit faults on XP95A loops and spurs.

Up to 20 devices may be installed between isolating bases

XPERT 7 Card addressing

45681-321UL XP95A Isolating Base

#### Discovery UL Sounder Visual Indicator Base



The Discovery UL Sounder Visual Indicator Base makes full use of the Discovery protocol. For ease of commissioning, a 'Magnetic Wand' can be used to test and adjust each sounder locally.

Sounder and visual indicator are independently configurable

Volume and tone settings are independently selectable from the control panel

Tones can be used for other purposes in addition to warning of fire, ideal for schools etc

Enables soft start option, ideal for hospitals and nursing homes

Electronic bell tone

45681-524

Discovery UL Sounder Visual Indicator Base (red LEDs)

45681-527

Discovery UL Sounder Visual Indicator Base (yellow LEDs)

29650-001 Magnetic Wand

#### Discovery UL Open-Area Sounder Visual Indicator



The Discovery UL Open-Area Sounder Visual Indicator makes full use of the Discovery protocol, designed for use in indoor, outdoor and open areas.

15 tone pairs

Sounder and visual indicator are independently configurable

Volume and tone settings are independently selectable from the control panel

Tones can be used for other purposes in addition to warning of fire, ideal for use in schools etc

Soft start option, ideal for hospitals and nursing homes

Group and global control for increased response time

58000-011

Discovery UL

Open-Area Sounder Visual Indicator (red)

58000-012

Discovery UL

Open-Area Sounder Visual Indicator (white)



#### XP95A Isolator



The XP95A Isolator is placed at intervals on the loop and ensures that, in the case of a short-circuit, only the section between the isolators will be affected. When the short-circuit is removed, the isolators automatically restore power and data to the isolated section.

Detects wiring short-circuits using patented technology

Minimises disruption from short-circuits

Automatic de-isolation on short-circuit removal

Up to 20 devices may be installed between isolators

55000-750 XP95A Isolator

#### XP95A Mini Switch Monitor Module



The XP95A Mini Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report the status to Apollocompatible analogue control equipment.

Three input states - 'normal', 'trouble', and 'alarm'

Visible LED with remote LED connection option

Loop-powered

Designed to fit into equipment with limited space

Easy to install

55000-831 XP95A Mini Switch Monitor Module

# XP95A Mini Priority Switch Monitor Module



The XP95A Mini Priority Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report the status to Apollo-compatible analogue control equipment. It can also place a signal on the loop to provide early warning if a device such as a pull station is operated.

Three input states - 'normal', 'trouble' and 'alarm'

Visible LED with remote LED connection option

Loop-powered

Designed to fit into equipment with limited space

Easy to install

Monitors equipment where a fast response is required

Interrupt facility

55000-830 XP95A Mini Priority Switch Monitor Module



#### XP95A Switch Monitor Module



The XP95A Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report this status to Apollocompatible analogue control equipment.

Three input states - 'normal', 'trouble', and 'alarm'

Visible LED

Loop-powered

55000-805 XP95A Switch Monitor Module

#### XP95A Priority Switch Monitor Module



The XP95A Priority Switch Monitor Module is designed to monitor the state of one or more single pole, voltagefree contacts and to report this status to Apollo-compatible analogue control equipment. It can also place a signal on the loop to provide early warning if a device such as a pull station is operated.

Three input states -'normal', 'trouble', and 'alarm'

Visible LED

Loop-powered

Fast response time

Interrupt facility

XP95A Priority Switch Monitor Module

#### XP95A Dual Priority Switch Monitor Module



The XP95A Dual Priority Switch Monitor Module contains two priority mini switch monitor modules on a single plate.

Loop-powered

Fast response time

Interrupt facility

XP95A Dual Priority Switch Monitor Module



#### XP95A Switch Monitor Input/ Output Module



The XP95A Switch Monitor Input/ Output Module provides a voltagefree and single pole changeover relay output, a single, monitored switch input and an unmonitored, non-polarised opto-coupled input.

Reports 'trouble', 'switch open' and 'switch closed' levels

Visible LED

Loop-powered

55000-820 XP95A Switch Monitor Input/Output Module

#### XP95A Sounder Control Module



The XP95A Sounder Control Module monitors and controls the operation of a zone of conventional sounders and reports their status to the control panel.

Allows sounders to be operated continuously or be pulsed, one second on, one second off

May be synchronised when in pulsed operation

Can also be used for public address speakers

55000-825 XP95A Sounder Control Module

## XP95A Relay Output Module



The XP95A Relay Output Module provides a single two-pole changeover relay.

Loop-powered

Can be placed anywhere on the loop

55000-863 XP95A Relay Output Module



#### XP95A 120V AC Input/Output Module



The XP95A 120V AC Input/Output module is a loop-powered device which incorporates a monitored input circuit for connection to dry contacts, as well as a 120V AC 4A rated dry contact relay output. It is mounted in a plastic facia plate for use with a 42 square or two-gang electrical back box.

Loop-powered

Visible LEDs

XP95A 120V AC Input/Output Module

#### Mini Monitor Module



The Mini Monitor Module is an interface within an entirely new housing. This allows the unit to be fitted onto a standard 35mm DIN-Rail (using a twistclick motion) or mounted within an enclosure, for example a Pull Station. It is designed to monitor the state of one or more single pole, voltage-free contacts connected on a single pair of cables and to report this status to Apollocompatible analogue control equipment.

Designed for use where space is limited

Interrupt/non interrupt in one unit

'Pre-alarm' status available

Three, coloured LEDs, giving clearer status indication

Mini Monitor Module

#### **Dual Action** Addressable Manual Pull Station



The Dual Action Addressable Manual Pull Station features translucent plastic at the centre, allowing visibility of an internal LED that indicates alarm condition and polling status. The unit is addressable using a DIP switch protected within the pull station. The pull station may be flush mounted on a single gang work box or use an optional back cover (56000-006).

Control panel compatibility

Key lock

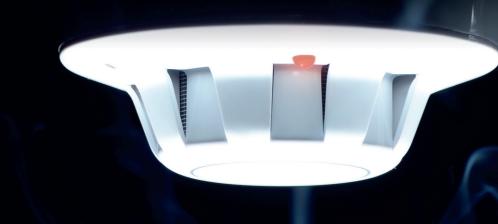
Easily resettable

Lightweight polycarbonate housing

Dual Action Addressable Manual Pull Station

Backbox







The XP95A range of analogue addressable fire detectors is advanced in design and performance and offers unique features that benefit both the installer and the end user.

The range is based on Apollo's XP95 products. XP95A has a 'central intelligence' system where all the decisions are made by the control panel. Each detector is addressed using Apollo's patented XPERT 7 Card, supplied with the mounting bases. The XP95A range includes an Ionisation Detector, a Photoelectric Detector, a Heat Detector, a Multisensor, an Isolator and a series of Modules.



#### UL/ULC/FM XP95

Find out more information at: apollo-fire.co.uk/xp95a

#### **KEY FEATURES OF XP95A INCLUDE:**

XPERT 7 Card addressing

Analogue value report

Alarm flags for fast alarm response

Synchronisation of all loop-powered notification devices

Advanced error check

#### Photoelectric Smoke Detector



The XP95A Photoelectric Smoke Detector works on the light-scatter principle and is ideal for applications where slow-burning or smoldering fires are likely.

Responds well to slowburning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by atmospheric pressure

55000-650 XP95A Photoelectric

#### Multisensor



The XP95A Multisensor contains a photoelectric smoke sensor and a thermistor (temperature sensor) whose outputs are combined to give the final analogue value.

Sensitive to a wide range of fires

Well-suited to environments such as hotel bedrooms, warehouses and loading docks

Unaffected by wind or atmospheric pressure

55000-886 XP95A Multisensor

#### Heat Detector



The XP95A Heat Detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature. It is classified as an ordinary detector by UL.

Ideal for environments that are dirty or smoky under normal conditions

Well-suited to warehouses, loading docks and parking garages

Unaffected by wind or atmospheric pressure

55000-450 XP95A Heat Detector

# Ionisation Smoke Detector



The XP95A Ionisation Smoke Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chambers causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fastburning, flaming fires

Designed to operate in a variety of environments

Minimal effects from temperature, humidity, atmospheric pressure

> 55000-550 XP95A Ionisation Smoke Detector †

55000-555 XP95A Ionisation Smoke Detector (ULC)

† Does not have ULC approval



#### XP95A Mounting Base



All detectors in the XP95A product line fit the XP95A Mounting Base which is a low insertion force base with stainless steel contacts for the detector terminals. XPERT 7 Cards are supplied with all bases.

XPERT 7 Card addressing

One-way fit

Locking feature to prevent unauthorised removal

45681-210UL XP95A Mounting Base 4"

45681-225APO XP95A Mounting Base 6"

## XP95A Low Power Relay Base



The XP95A Low Power Relay Base incorporates a low power relay to control field equipment such as automatic door closers.

Gives a set of voltage-free contacts controlled by the remote output of a detector

Draws negligible current

45681-242UL XP95A Low Power Relay Base 4"

#### E-Z Fit Base



The E-Z Fit Base is a low profile 6" mounting base for XP95A detectors.

High degree of protection against unauthorised removal

45681-250 E-Z Fit Base

#### XP95A Isolating Base



The XP95A Isolating Base senses and detects short-circuit faults on XP95A loops and spurs.

Up to 20 devices may be installed between isolating bases

XPERT 7 Card addressing

45681-321UL XP95A Isolating Base

#### XP95A Sounder Visual Indicator Base



The XP95A Sounder Visual Indicator Base is a loop-powered sounder and visual indicator combined with a standard Intelligent Mounting Base. It is used to signal a fire alarm in enclosed areas. The sounder visual indicator base can be used either with a detector fitted or with a cap for operation as a stand-alone alarm device.

Two volume ranges 55-75dB(A) and 75-91dB(A)

Visual indicator flash rate of once per second

Synchronisation of 'alert' and 'evacuate' tones

Synchronisation of visual indicator flash

Individual and group addressing

Unique acoustic and visual indicator self-test

Built-in isolator

45681-525 XP95A Sounder Visual Indicator Base (yellow LEDs)

45681-526 XP95A Sounder Visual Indicator Base (red LEDs)

#### XP95A Open-Area Sounder



The XP95A Open-Area Sounder has been designed for use in open areas and can be connected to any Discovery UL or XP95A system.

For use with XP95A and Discovery UL systems

Self-test trouble monitoring

Two volume settings 92dB(A) and 100dB(A)

Synchronisation of tones

Individual and group addressing

Built-in isolator

Available in red or white

Loop-powered

IP65 rated

55000-041 XP95A Open-Area Sounder (red)

55000-042 XP95A Open-Area Sounder (white)



#### XP95A Isolator



The XP95A Isolator is placed at intervals on the loop and ensures that, in the case of a short-circuit, only the section between the isolators will be affected. When the short-circuit is removed, the isolators automatically restore power and data to the isolated section.

Detects wiring short-circuits using patented technology

Minimises disruption from short-circuits

Automatic de-isolation on short-circuit removal

Up to 20 devices may be installed between isolators

55000-750 XP95A Isolator

#### XP95A Mini Switch Monitor Module



The XP95A Mini Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report this status to Apollocompatible analogue control equipment.

Three input states - 'normal', 'trouble', and 'alarm'

Visible LED with remote LED connection option

Loop-powered

Designed to fit into equipment with limited space

Easy to install

55000-831 XP95A Mini Switch Monitor Module

#### XP95A Mini Priority Switch Monitor Module



The XP95A Mini Priority Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report this status to Apollo-compatible analogue control equipment. It can also place a signal on this loop to provide early warning if a device such as a pull station is operated.

Three input states - 'normal', 'trouble' and 'alarm'

Visible LED with remote LED connection option

Loop-powered

Designed to fit into equipment with limited space

Easy to install

Monitors equipment where a fast response is required

Interrupt facility

55000-830 XP95A Mini Priority Switch Monitor Module



#### XP95A Switch Monitor Module



The XP95A Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report this status to Apollocompatible analogue control equipment.

Three input states - 'normal', 'trouble', and 'alarm'

Visible LED

Loop-powered

55000-805 XP95A Switch Monitor Module

#### XP95A Priority Switch Monitor Module



The XP95A Priority Switch Monitor Module is designed to monitor the state of one or more single pole, voltage-free contacts and to report this status to Apollo-compatible analogue control equipment. It can also place a signal on the loop to provide early warning if a device such as a pull station is operated.

Three input states - 'normal', 'trouble', and 'alarm'

Visible LED

Loop-powered

Fast response time

Interrupt facility

55000-806 XP95A Priority Switch Monitor Module

#### XP95A Dual Priority Switch Monitor Module



The XP95A Dual Priority Switch Monitor Module contains two priority mini switch monitor modules on a single plate.

Loop-powered

Fast response time

Interrupt facility

55000-790 XP95A Dual Priority Switch Monitor Module



#### XP95A Switch Monitor Input/ Output Module



The XP95A Switch Monitor Input/Output Module provides a voltage-free, single pole, changeover relay output, a single, monitored switch input and unmonitored, non-polarised opto-coupled input.

Reports 'trouble', 'switch open' and 'switch closed' levels

Visible LED

Loop-powered

55000-820 XP95A Switch Monitor Input/Output Module

#### XP95A Sounder Control Module



The XP95A Sounder Control Module monitors and controls the operation of a zone of conventional sounders and reports their status' to the control panel.

Allows sounders to be operated continuously or be pulsed, one second on, one second off

May be synchronised when in pulsed operation

Can also be used for public address speakers

55000-825 XP95A Sounder Control Module

## XP95A Relay Output Module



The XP95A Relay Output Module provides a single two-pole changeover relay.

Loop-powered

Can be placed anywhere on the loop

55000-863 XP95A Relay Output Module

#### XP95A 120V AC Input/Output Module



The XP95A 120V AC Input/Output module is a loop-powered device which incorporates a monitored input circuit for connection to dry contacts, in addition to a 120V AC 4A rated dry contact relay output. It is mounted in a plastic facia plate for use with a 42 square or two-gang electrical back box.

Loop-powered

Visible LEDs

55000-859 XP95A 120V AC Input/Output Module

#### Mini Monitor Module



The Mini Monitor Module is an interface within an entirely new housing. This allows the unit to be fitted onto a standard 35mm DIN-Rail (using a twist-click motion) or mounted within an enclosure, for example a pull station. It is designed to monitor the state of one or more single pole, voltage-free contacts connected on a single pair of cables and to report this status to Apollocompatible analogue control equipment.

Designed for use where space is limited

Interrupt/non interrupt in one unit

'Pre-alarm' status available

Three, coloured LEDs, giving clearer status indication

55000-765 Mini Monitor Module

#### Dual Action Addressable Manual Pull Station



The Dual Action Addressable Manual Pull Station features translucent plastic at the centre, allowing visibility of an internal LED that indicates alarm condition and polling status. The unit is addressable using a DIP switch protected within the pull station. The pull station may be flush mounted on a single gang work box or use an optional back cover (56000-006).

Control panel compatibility

Key lock

Easily resettable

Lightweight polycarbonate housing

56000-005 Dual Action Addressable Manual Pull Station

56000-006 Backbox





**OPERATED TEST SWITCH** 

apollo-fire.co.uk/series-65a



#### Photoelectric Smoke Detector



The Series 65A Photoelectric Smoke Detector incorporates a pulsing LED located within the housing of the detector. The detector has an indicator LED which is clear in a quiescent state but produces a red light when in alarm.

Responds well to slow-burning, smouldering fires

Well-suited to bedrooms and escape routes

Unaffected by wind or atmospheric pressure

Wide-operating voltage

Flashing LED option

Flashing LED and magnet operated test switch option

55000-327 Series 65A Photoelectric Smoke Detector

55000-326 Series 65A Photoelectric Smoke Detector with flashing LED

55000-325 Series 65A Photoelectric Smoke Detector with flashing LED and magnetic test

55000-328 Series 65A Photoelectric Smoke Detector – high sensitivity

#### Heat Detector



The Series 65A Heat Detector monitors temperature by using a dual thermistor network providing a voltage output proportional to the external air temperature. There are nine heat detectors in the Series 65A range designed to suit a wide variety of operating conditions.

Can be used for applications where smoke detectors are unsuitable

Ideal environments that are dirty or smoky under normal conditions

Wide-operating voltage

Flashing LED option

Flashing LED and magnet operated test switch option

55000-140 135°F

55000-139 135°F with flashing LED

55000-138 135°F with flashing LED and magnetic test

55000-143 170°F

55000-142 170°F with flashing LED

55000-141 170°F with flashing LED and magnetic test

55000-146 200°F

55000-145 200°F with flashing LED

55000-144 200°F with flashing LED and magnetic test

#### Ionisation Smoke Detector



The Series 65A Ionisation Smoke Detector uses a low activity radioactive foil to detect fires by irradiating the air in the smoke chamber causing a current flow. If smoke enters the chamber, the current flow is reduced leading to an alarm.

Responds well to fast-burning, flaming fires

Designed to operate in a variety of environments

Wide-operating voltage

Flashing LED option

Flashing LED and magnet operated test switch option

55000-227 Series 65A Ionisation Smoke Detector

55000-226 Series 65A Ionisation Smoke Detector with flashing LED

55000-225 Series 65A Ionisation Smoke Detector with flashing LED and magnetic test



#### Series 65A Standard Base



The Series 65A Standard Base has been designed to enable detectors to be fitted without the need of force – particularly useful when fitting to suspended ceilings. All Series 65A bases have a 'one-way-only' fit.

Two-Wire base

Detector locking mechanism

One-way fit

Easy to wire

Contains a ground wire terminal

Contains no electrical parts

45681-200USA Series 65A Standard Base 4"

45681-220USA Series 65A Standard Base 6"

## Series 65A Standard Relay Base 4"



The Standard Series 65A Relay Base provides one set of volt-free, changeover (form C) contacts that change state when the detector signals an alarm.

Four-Wire base

Detector locking mechanism

One-way fit

Easy to wire

Contains a ground wire terminal

45681-255USA Series 65A Standard Relay Base 4'

## Series 65A Auxiliary Relay Base 4"



The Series 65A Auxiliary Relay Base provides two sets of volt-free changeover contacts to facilitate the switching of a remote LED or other auxiliary device.

Four-Wire base

Detector locking mechanism

One-way fit

Easy to wire

Contains a ground wire terminal

45681-256USA Series 65A Auxiliary Relay Base 4"



#### Series 65A End-of-Line Relay Base



The Series 65A End-of-Line (EOL) Relay Base is intended for use with four-wire circuits and features two sets of changeover contacts and a power supervision relay.

Detector locking mechanism

One-way fit

Easy to wire

Contains a ground wire terminal

45681-257USA Series 65A 12V End-of-Line Relay Base 4"

45681-258USA Series 65A 24V End-of-Line Relay Base 4"

#### Series 65A Low Profile Base 6"



A low profile mounting base for Series 65A detectors.

Adaptor bar to fit different back boxes

Detector locking mechanism

One-way fit

Easy to wire

Contains a ground wire terminal

45681-232USA Series 65A Low Profile Base 6"

#### Series 65A E-Z Fit Base 6"



A low profile mounting base for Series 65A detectors.

High degree of protection against unauthorised removal

45681-251USA Series 65A E-Z Fit Base 6"



#### Conventional Duct Smoke Detector



The Conventional Smoke Duct Detector is a four-wire detector that includes many features and is designed and built to meet the NFPA and ICC standards regarding HVAC supply and return duct smoke detectors. Output terminals are provided for a wide range of remote accessories, such as strobes, remote status indicators, and test/reset key switches or push buttons.

Four-Wire conventional detector

No-tools features

Wide-operating voltage

SL-2000-P Photoelectric (29600-934)

# Test Equipment & Maintenance

To keep a fire detection system in good working order, it should be subject to a routine maintenance programme in accordance with locally applicable regulations. Over the course of a year, every detector in the system should be functionally tested at least once, using recommended equipment. We offer a range of Apollo test equipment for both conventional and intelligent systems to enable you to do this.



TEST EQUIPMENT
& MAINTENANCE RANGE

Find out more information at: apollo-fire.co.uk/test-equipment



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#### Apollo Loop Test Set



The Apollo Loop Test Set is a selfcontained, portable test unit capable of providing a number of useful functions in relation to individual detectors, ancillary devices or complete circuits of analogue addressable devices in the Apollo intelligent ranges, including loop diagnostics and programming individual devices. The Apollo Loop Test Set is designed for indoor use only and should not be subjected to harsh environments. It should not be used in Intrinsically Safe enclosures or other hazardous areas such as those containing dust or explosives. It should not be used in areas where temperatures and/or humidity are high or go through rapid changes. The Apollo Loop Test Set is supplied in a robust carrying case complete with a universal charger, connector cables, XPERT8 Intelligent Mounting Base and carry strap.

7" colour touch screen

Works with XP95, Discovery and CoreProtocol

5-6 hour battery life

Earth fault detection

Loop in and Loop out

Colour coding for different issues

Multi-region AC power adaptor

Field upgradeable for future products

SA7800-870APO Apollo Loop Test Set

#### Conventional Test Set



The Conventional Test Set is an invaluable tool designed to give a thorough on-site check of conventional fire detectors within the Apollo Series 65 and AlarmSense ranges. Each test set is supplied with a link head, mains adaptor and carrying case with shoulder strap.

Easy to use

Two button select/accept options

LCD for a clear display

53832-020 Conventional Test Set

#### Flame Sensor Test Unit and Case



The Flame Sensor Test Unit is a tool which is designed to test flame detectors without the need for real flames.

Mimics the characteristics of real flames

29600-226 Flame Sensor Tester

# Equipment

In addition to the main test kits, Apollo provides a range of equipment to assist you in keeping your system in good working order.

# DETECTOR INSTALLATION AND REMOVAL

Detector Extract Tool

29600-102 Detector Extract Tool

Extension Pole, 1.13m

29600-103 Extension Pole, 1.13m

Telescopic Pole, 1.26m to 4.5m

Telescopic Pole, 1.26m to 4.5m

#### **IN-SITU FUNCTIONAL TESTING OF INDIVIDUAL DETECTORS**

S0L0™

Smoke Dispenser Head

29600-100 Smoke Dispenser Head

Aerosol Test Gas

29600-225 Aerosol Test Gas

Heat Detector Test Pole

29600-229 Heat Detector Test Pole (240V

Cordless Heat Tester Kit

29600-212 Cordless Heat Tester Kit

Cordless Heat Detector Tester

Cordless Heat Detector Tes

296UU-235

CO Test Gas

Detector Duster

29600-449 Detector Duster

Battery Baton

29600-183 Battery Baton TESTIFIRE\*

Smoke/Heat Unit

29600-459 Smoke/Heat Unit

Smoke/Heat Kit

29600-460 Smoke/Heat Kit

Replacement Smoke Capsule

29600-464 3-Pack Replacement Smoke Capsule

Battery Baton

29600-183 Battery Baton

<sup>\*</sup> When ordering, please state if you require an EU lead or UK lead.

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# General Conditions of Sale

PP2102/2014/Issue 13

Apollo Fire Detectors Limited ('the Company') General Conditions of Sale

All contracts of sale by the Company shall be on and subject to these Conditions "The Customer" is the person, firm or company set out on the reverse of

"The Goods" are the goods of or Services provided by the Company, details of which are set out on the reverse of these Conditions.

- 1.1 INFORMATION ABOUT GOODS Any description, specification or drawing published by the Company in relation to the Goods shall not form part of any contract of sale by the Company.
- 1.2 The Customer in assessing whether the goods are reasonably fit for any particular purpose for which it is purchasing them has not relied on the skill or judgement of the Company.
- 2.1 ORDERS No order shall be binding on the Company unless and until expressly accepted by the Company in writing.
- 2.2 No order given may be cancelled or amended unless agreed by the Company in writing.
- 3.1 CONTRACT The Company shall sell and the Customer shall purchase the Goods in accordance with the written order of the Customer accepted by the Company in writing ("the Order") and with these Conditions (together "the Contract").
- 3.2 The Contract represents the entire understanding and supersedes any previous agreement between the Company and the Customer in relation to their subject matter.
- 3.3 The Contract shall not in any circumstances whatsoever be or be deemed to be affected by any previous dealings with the Company and any previous terms and/or conditions issued by the Company are superceded.
- 3.4 Where the Order Acceptance is on terms which vary from those set out in these Conditions, those terms shall prevail, but otherwise these Conditions shall be deemed to be part of the Contract.
- 4.1 PRICE The Price payable for the Goods shall be the price specified in the Order, provided that the Company may at any time before delivery, without notice, increase the Price.
- 4.2 The Price is exclusive of Value Added Tax and the Customer shall pay value Added Tax in respect of the Price at the standard rate prevailing at the date of delivery, together with all other taxes, duties or imports arising in connection with the sale.
- 5.1 PAYMENT Payment of the Price shall be made in pounds sterling at the office of the Company within 30 days from the date of invoice. All payments shall be made in full without deduction in respect of any right of set-off or counter-claim.
- 5.2 If the Customer fails to make due payment under the Contract, the Company shall be entitled to interest at the rate of 4% above the base rate of National Westminster Bank PLC from time to time on all outstanding sums from the date that payment fell due until payment is received.
- 5.3 If the Customer fails to make due payment under the Contract the Company shall be entitled to treat the Contract as repudiated by the Customer.
- 6.1 DELIVERY The Customer shall promptly, on request made at any time by the Company, provide the Company with any information or instruction it may require in order to supply the Goods.
- 6.2 Normal delivery terms are ex-works, despatch from Company works (where applicable) shall be deemed to be delivered to the Customer unless the Contract states otherwise.
- 6.3 Confirmed delivery dates are subject to credit being available at the proposed date of despatch. We will contact you if we are unable to ship because your available credit limit has been exceeded.
- 6.4 Where the Contract provides that delivery is the Company's responsibility:
  - 6.4.1 Any delivery time indicated by the Company is an estimate only and not an essential term of the Contract.
  - 6.4.2 The Company shall deliver the Goods to the agreed delivery address. Delivery shall be deemed to take place when the Goods arrive at the Delivery Address (before unloading).
  - 6.4.3 The Company shall not be liable for any damage to, deterioration in, or partial loss of the Goods in transit if the matter should have been apparent on a reasonable examination on delivery, unless the Company receives written notice thereof from the Customer within 7 days of delivery.
  - 6.4.4 Where the Company has made part delivery of the Goods it will not be taken under any circumstances to have agreed to waive any lien or right of retention on the remainder of the Goods or to give up possession of the whole of the Goods unless expressly so agreed
- 6.5 Where Customer has rejected any of the Goods or notified any damage or deterioration under this Condition 6, the Customer shall, if requested to do so by the Company, return the Goods to the Company within 7 days of such request.

- 7. RISK All risk in the Goods shall pass to the Customer on delivery.
- 8.1 TITLE RETENTION OF TITLE CLAUSES Notwithstanding delivery and the passing of risk, property in and title to the Goods shall remain with the Company and shall not pass to the Customer until the Company has received payment of the full price of (a) all Goods the subject of this contract and (b) all other Goods supplied by the Company to the Customer under any contract whatsoever. Payment of the full price shall include, without limitation, the amount of any interest or other sum payable under the terms of this and all other contracts between the Company and the Customer.
- 8.2 During such time as the property in the Goods remain in the Company the Customer shall store the Goods separately from all other goods and in such a way as clearly to indicate at all times that the said property remains in the Company. The Company's representatives shall be allowed to enter at all reasonable times upon any land or buildings on or in which the Goods may be situated for the purpose of inspecting the way in which the Goods are being kept.
- 8.3 During such time as the property in the Goods remains in the Company, the Customer in possession of the Goods shall hold the Goods as bailee of the Company and shall have power to deal with the Goods in normal course of
- 8.4 If the Customer shall sell any of the Goods it shall hold all the proceeds of sale as trustee for the Company and shall (until payment of such proceeds to the Company) place such proceeds in a separate bank account and hold the same to the order of the Company.
- 9.1 INTELLECTUAL PROPERTY All patent, design, trademark, service mark, copyright and other industrial or intellectual property rights of the Company of whatever nature in respect of the Goods, any of their constituent parts, their packaging or other material supplied with the Goods shall remain the absolute property of and vested in the Company.
- 9.2 The Customer shall indemnify and keep indemnified the Company against any and all loss, damage, claims costs and expenses whatsoever suffered or incurred by the Company in connection with any infringement of any patent, design, trademark, service mark, copyright or other industrial or intellectual property right of any other person in connection with the Company's use or application in relation to the Goods or possession of any material or information or instruction supplied by the Customer in relation to the Goods.
- 10.1 WARRANTY The Company warrants that save only as provided in the Conditions the Goods will on delivery correspond with the Company's specification in respect of them current at the time of delivery.
- 10.2 Provided that any defect in the condition or performance of the Goods is notified to the Company by the Customer within 10 years (5 years for carbon monoxide detectors) from the date of manufacture, the Company shall correct such defect or replace the Goods (at the Company's discretion) subject to the Customer consenting or procuring consent for access to the Goods by the Company's employees or sub-contractors to carry out any work under this clause. This undertaking is given and shall be accepted by the Customer in lieu of any other remedy.
- 10.3 The Company shall not be liable under clause 10.2 above if:
  - 10.3.1 The Customer makes any further use of the Goods after giving notice in accordance with clause 10.2;
  - 10.3.2 The defect arises because the Customer failed to follow the Company's oral or written instructions as to the installation, use, maintenance or cleaning of the Goods or (if there are none) good trade practice;

  - 10.3.4 The defect arises as a result of fair wear and tear, wilful damage, negligence or abnormal storage or working conditions. For example, the Customer will be responsible for replacing parts that are expected to have a limited working life, such as batteries and rubber seals;
  - 10.3.5 The defect arises as a result of electrical or power supply failure;
- 10.4 Any notice of defect in the condition or performance of the Goods given by the Customer under clause 10.2 shall be made in writing to the Company within a reasonable time of discovery.
- 10.5 The benefit of the warranty under clause 10.2 is not transferable.
- 11.1 LIABILITY The implied terms in the Sale of Goods 1979 are excluded in respect of Customer's dealing otherwise than as consumer, except the implied terms about title.
- 11.2 Save only as provided in these Conditions the Company shall not be liable for any defect in the Goods caused by the manufacture of the Goods in accordance with any material, information or instruction supplied or provided by the Customer. The Customer shall indemnify and keep indemnified the Company against any and all loss, damage, claims, costs and expenses suffered or incurred by the Company in connection with any such defect.
- 11.3 Save only as provided in these Conditions the Company shall not in any event be liable for any special, indirect or consequential loss. damage, costs or claims including but not limited to loss or damage resulting from negligence and loss of profit or revenue.

- 11.4 The Company's aggregate liability to the Customer in respect of any and all causes of action arising at any time in connection with the Goods, the Contract or its other subjectmatter shall not exceed 125% of the price of the defective goods, which sum the Customer agrees is reasonable.
- 11.5 These Conditions shall not exclude, restrict or limit any liability the exclusion, restriction or limitation of which is for the time being prohibited by legislation or any right or remedy in respect of any such liability.
- 11.6 Each of the exclusions, restrictions and limitations of the Company's liability in these Conditions shall be separate and severable from every other such exclusion, restriction or limitation. If a court or competent jurisdiction finds any such exclusions, restrictions and limitations to be unenforcable to any extent the exclusions, restrictions and limitations shall save to such extent remain in full force and effect.
- 12.1 USE AND SAFETY The Goods are designed only for use in accordance with the Company's operating and maintenance instructions in relation to the Goods at the time of delivery. The Company warns that use, repair or adaptation of the Goods in any other manner may result in damage to the Goods or other property and/or affect the safety of the Goods.
- 12.2 No undertaking is given by the Company that goods will not infringe the Letters Patent or any other industrial property rights of any third party and the Customer accepts the goods on this understanding and agrees not to pursue any claim against the Company and to hold the Company harmless in respect of any alleged or actual infringement of such third party rights.
- 12.3 Save only as provided in these Conditions the Company shall not be liable for any loss or damage caused wholly or partly by the fitment to the Goods of any part, accessory or item of equipment which has not been manufactured or approved by the Company or by misuse of the Goods or failure to follow operating or maintenance instructions supplied by the Company. The Customer shall indemnify and keep indemnified the Company against any and all claims whatsoever in respect of any such loss or damage.
- 13.1 GOODS PURCHASED FOR RESALE In respect of any goods which are purchased by the Customer for resale, the Customer shall not apply its own trade or other marks to the Goods or their packaging without the written consent of the Company.
- 13.2 In respect of any Goods which are purchased by the Customer for resale, the Customer shall not alter or interfere with the Goods and shall comply with all applicable legislative and other requirements and standards and the Company's instructions in relation to the storage, handling and safety of the Goods. The Customer shall indemnify and keep indemnified the Company against any and all loss, damage, claims, costs and expenses suffered or incurred by the Company arising from any failure by the Customer to comply with this Condition.
- 14.1 DEFAULT AND TERMINATION If any of the events specified in Condition 14.2 occurs all monies accrued owing under the Contract shall become immediately due and payable and the Company shall be entitled at any time thereafter to terminate the Contract and any other contract between the Company and the Customer by notice and/or to suspend further deliveries of Goods the subject of any or all such contracts.
- 14.2 The events referred to in clause 14.1 are:
  - 14.2.1 the Customer makes default in or commits a breach of the Contract;
  - 14.2.2 any distress or execution is levied upon the Customer's property or assets:
  - 14.2.3 the Customer makes or offers or proposes to make any arrangement or composition with its creditors, any resolution or petition to wind up the Customer is passed or presented, any petition for an administration order in respect of the Customer is presented, a petition for a bankruptcy order is made against the Customer, or a receiver or manager of the Customer's undertaking, property or assets or any part thereof is appointed; or
  - 14.2.4 the Customer fails to provide any letter of credit, bill of exchange or other security requested by the Company.
- 15. FORCE MAJEURE Should the Company be prevented from or hindered or delayed in performing any of its obligations under the Contract by reason of strike, lock-out or trade dispute, acts of national or local government or other authority, Act of God, storm, tempest, fire, flood, explosion, accident, theft, civil disturbance, insurrection or war or by any other cause whatsoever beyond the Company's reasonable control then the Contract may be suspended and/or cancelled (whether or not while suspended) by the Company without notice and the Company shall have no liability in relation to any failure by it caused by such prevention, hindrance or delay, or any such delay,
- 16.1 ANTI-BRIBERY CLAUSE The Customer will:
  - 16.1.1 Comply with all applicable laws, regulations, codes and sanctions relating to anti-bribery and anti-corruption including, but not limited to:
  - 16.1.1.a Local and national laws in the territories in which it operates.
  - 16.1.1.b The UK Bribery Act 2010.
  - 16.1.1.c The US Foreign Corrupt Practices Act 1977.
  - 16.1.1.d The UN Convention Against Corruption.

- 16.1.2 Comply with the Halma p.l.c. Group Code of Conduct relating to bribery and corruption which may be found on the Halma website (www.halma.com).
- 16.1.3 Have in place its own policies and procedures to ensure compliance with this Clause.
- 16.1.4 Ensure that all parties with which it is associated or who are providing goods or services in connection with this Contract (including subcontractors, agents, consultants and other intermediaries) are aware of and comply with the requirements of this Clause.
- 16.1.5 Maintain complete and accurate records of all transactions and payments related to this Contract and, on reasonable request, disclose details of those transactions and payments to the Company.
- 16.1.6 On reasonable request confirm in writing to the Company that it has complied with the requirements of this Clause and, if so requested, allow the Company to verify this compliance by way of an audit of its records.
- 16.1.7 Immediately inform the Company if it suspects or becomes aware of any breach of this Clause by one of its employees, subcontractors, agents, consultants or other intermediaries and provide detailed information about the breach.
- 16.2 The Customer will indemnify, keep indemnified and hold harmless (on a full indemnity basis) the Company against all costs, expenses and losses that the Company incurs or suffers as a result of any breach by the Customer of any of its obligations under this Clause. This indemnity will not apply to any fine levied on the Company as a result of the Company's criminal liability.
- 16.3 If the Customer breaches this Clause the Company shall have the right to terminate this Contract without notice and with immediate effect and will be in no way liable to the Customer in respect of such termination for payment of damages or any other form of compensation.
- 17.1 GENERAL Each of the rights and remedies conferred on the Company by these Conditions shall be in addition and without prejudice to any other right or remedy which the Company may have under these Conditions or otherwise and in particular to any right to payment of all sums due or to become due in respect of the Goods.
- 17.2 No failure by the Company to enforce any of its rights under the Contract, or delay by the Company in enforcing any such rights, whether or not after knowledge of any breach of the Customer, shall constitute waiver thereof.
- 17.3 If any of these Conditions shall be held unenforceable, the remaining Conditions shall not be prejudiced thereby and shall continue in full force and effect.
- 17.4 Save only as provided in these Conditions time shall not be or be deemed to be of the essence of the Contract.
- 17.5 The Contract shall be personal to the Customer and the Customer shall not assign any of its rights under the Contract without the prior written consent of the Company.
- 17.6 Any notice under the Contract shall be given by letter or by telex, facsimile transmission or cable confirmed by letter.
- 17.7 Any reference in these Conditions to any provision of legislation shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time. Words in the singular include the plural and vice versa. The headings in these Conditions are for convenience only and shall not affect their interpretation.
- 17.8 The Contract shall governed by and construed in all respects in accordance with English law and the Customer shall submit to the jurisdiction of the Supreme Court of justice in England in respect of any matters which may arise in connection with the Contract.
- 17.9 The Contract represents the entire understanding between the parties and supersedes any previous agreement between the Company and the Customer in relation to the subject matter.
- 18.0 The Company is a registered producer under the UK WEEE Regulations WEE/HE0048TZ. Upon the sale of all electrical and electronic equipment (EEE) the Customer agrees to accept the financial obligations for removal, collection, recovery and recycling of the EEE once it becomes waste and any replaced WEEE to the customer.

- 11.4 The Company's aggregate liability to the Customer in respect of any and all causes of action arising at any time in connection with the Goods, the Contract or its other subject-matter shall not exceed 125% of the price of the defective goods, which sum the Customer agrees is reasonable.
- 11.5 These Conditions shall not exclude, restrict or limit any liability the exclusion, restriction or limitation of which is for the time being prohibited by legislation or any right or remedy in respect of any such liability.
- 11.6 Each of the exclusions, restrictions and limitations of the Company's liability in these Conditions shall be separate and severable from every other such exclusion, restriction or limitation. If a court or competent jurisdiction finds any such exclusions, restrictions and limitations to be unenforcable to any extent the exclusions, restrictions and limitations shall save to such extent remain in full force and effect.
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- 16.1.6 On reasonable request confirm in writing to the Company that it has complied with the requirements of this Clause and, if so requested, allow the Company to verify this compliance by way of an audit of its records.
- 16.1.7 Immediately inform the Company if it suspects or becomes aware of any breach of this Clause by one of its employees, subcontractors, agents, consultants or other intermediaries and provide detailed information about the breach
- 16.2 The Customer will indemnify, keep indemnified and hold harmless (on a full indemnity basis) the Company against all costs, expenses and losses that the Company incurs or suffers as a result of any breach by the Customer of any of its obligations under this Clause. This indemnity will not apply to any fine levied on the Company as a result of the Company's criminal liability.
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#### A HALMA COMPANY



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