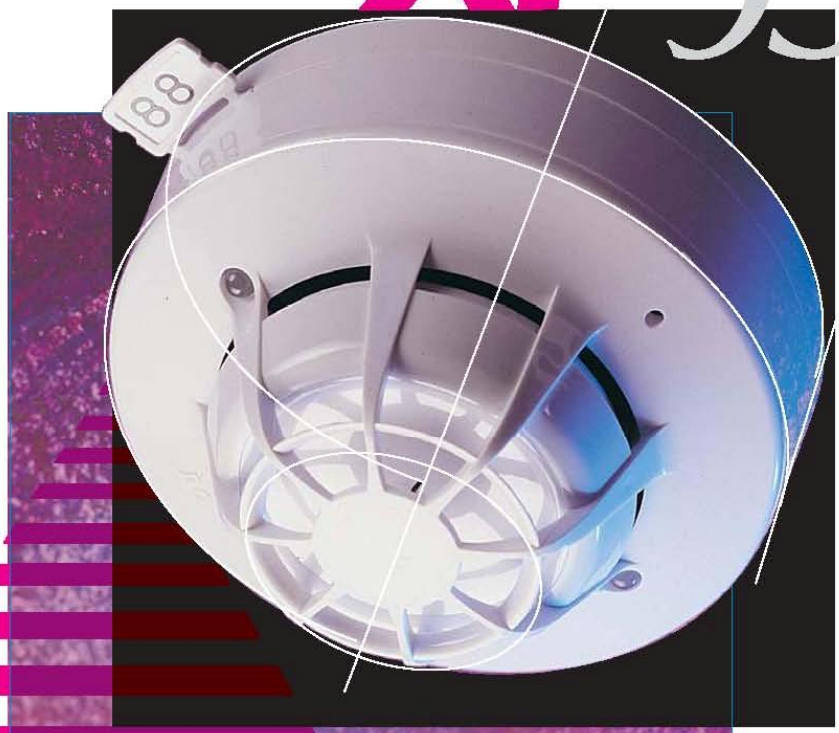
INTELLIGENT SMOKE & HEAT DETECTORS

XP95



- Open, Digital Protocol
- Addressed by the patented XPERT Card
- Electronics Free Base

- *Alarm Flag for fast alarm reporting*
- *Alarm Address for fast location of alarm*
- *Automatic addressing with the patented XPERT card*
- *Electronics free base*
- *Slide-easy base*
- *Ease of installation*
- *Elegant design*

XP95

Intelligent Smoke & Heat Detectors

The XP95 range of intelligent fire detectors is advanced in design, improved in performance and has unique features that benefit the installer and end user.

Apollo has always used an open, digital protocol which has remained basically unchanged since its inception in 1986. An open protocol allows freedom of choice for the fire system specifier, installer and end user. A system using a digital protocol is also much less susceptible to corruption than an analogue protocol and is therefore often preferred in a system which is life critical.

XP95 detectors have been carefully researched and developed by the Apollo design team and the range has undergone rigorous testing to ensure that it meets not only European and other standards but also the demands of today's high technology environments.

A unique, patented address mechanism, the XPERT card, ensures that the address data is stored in the base while keeping the base free of electronic parts that could be damaged during installation.

Apollo's XP95 intelligent system is compatible with a wide range of control panels. *For more information on compatible panels, please refer to Apollo publication PP1010 or visit www.apollo-fire.co.uk*

XP95 SMOKE AND HEAT DETECTORS

The XP95 range has an elegant, unobtrusive design, finished in pure white polycarbonate

▲ **XP95 Ionisation Smoke Detector**
The air in the dual chambers of the XP95 ionisation smoke detector is irradiated to produce ions that travel to the positive and negative electrodes and hence create a current flow in the chambers. Smoke entering the outer chamber causes a drop in the current flow and an increase in the voltage measured at the junction between the outer and inner chambers. The analogue voltage signal produced in the sensing chamber is converted to a digital signal by the electronic circuitry and transmitted to the control equipment on interrogation. The micro-processor in the control equipment then compares the signal with the stored data and initiates a pre-alarm or fire alarm as smoke density increases. When the equipment determines that a fire condition exists, it instructs the detector to switch on its indicator LED and the pre-planned alarm routine is initiated.
Part no. 55000-500

▼ **XP95 Optical Detector**
The XP95 optical smoke detector uses an internal pulsing LED and a photo-diode at an obtuse angle. In clear air conditions the photo-diode in the XP95 detector receives no light from the LED and produces a corresponding analogue signal. The signal increases when smoke enters the chamber and light is scattered onto the photo-diode. The signal is processed by the electronic circuitry and transmitted to the control equipment in exactly the same way as in the case of the ionisation smoke detector.
The optical smoke detector is externally identical to the ionisation detector but is distinguished by having a clear indicator LED which emits red light when the detector is in alarm.
Part no. 55000-600

▼ **XP95 Heat Detector**
The XP95 heat detector is distinguishable from the smoke detectors by its low air-flow resistance case which allows good contact between the sensing thermistor and the surrounding air.
The device monitors temperature by using a single thermistor network which provides a voltage output proportional to the external air temperature. The voltage signal is processed and transmitted to the control equipment in exactly the same way as in the case of the ionisation smoke detector.
A heat detector for use in ambient safe temperatures of up to 50°C and which reaches the alarm level at 90°C is also available.
Part no. 55000-400 (standard)
55000-401 (high temperature)

▼ **XP95 Multisensor Detector**
The XP95 Multisensor detector combines inputs from optical and heat sensors and processes them using a sophisticated algorithm. It is designed to be sensitive to a wide range of fires and may be used in place of an ionisation detector in many instances. The detector's construction is similar to that of the optical detector but uses a different lid and optical mouldings to accommodate the thermistor temperature sensor.
Part no. 55000-885

For more information on these detectors, please refer to Apollo publication, PP1039

▼ XP95 Beam Detector
The XP95 beam detector has been designed to protect large, open spaces such as museums, churches, warehouses and factories. It consists of three main parts: the transmitter, which projects a beam of infra-red light, the receiver, which registers the light and produces an electrical signal, and the interface, which processes the signal and generates alarm or fault signals.
The XP95 beam detector is loop-powered and requires no separate 24V supply, eliminating the need for additional equipment and saving installation time.
For more information, please refer to Apollo publication, PP2078
Part no. 55000-265

▲ XP95 Flame Detector
The XP95 flame detector is designed for use in areas where flaming fires may be expected and is sensitive to low-frequency, flickering infra-red radiation emitted by flames during combustion. The XP95 flame detector is loop-powered and requires no external supply. It communicates with the control panel using either the XP95 or Discovery open, digital protocol.
For more information, please refer to Apollo publication, PP2111
Part no. 55000-280

▲ Intrinsically Safe Detector
XP95 Intrinsically Safe (IS) detectors include all the benefits of the standard XP95 range, but are developed specifically for use in hazardous areas. This range includes ionisation and optical smoke detectors, heat detectors and manual call points, BASEEFA approved to E EX ia IIC T5.
XP95 IS detectors, manual call points and short circuit isolators are approved by a number of marine classification societies. These include the American Bureau of Shipping (ABS), Bureau Veritas (BV), Det Norske Veritas (DNV), Germanischer Lloyd, Lloyd's Register of Shipping, and the Maritime and Coastguard Agency (MCA).
For more information, please refer to Apollo publications PP1094 and PP1095.

Marine *(not illustrated)*
XP95 detectors, manual call points and short circuit isolators are approved by a number of marine classification societies. These include the American Bureau of Shipping (ABS), Bureau Veritas (BV), Det Norske Veritas (DNV), Germanischer Lloyd, Lloyd's Register of Shipping, and the Maritime and Coastguard Agency (MCA).
For more information, please see Apollo publication PP1099.

▼ Sounders
There are two types of loop-powered sounder available, one ceiling-mounted for fitting with detectors; one stand-alone.
For more information, please refer to Apollo publications PP2082 for XP95 100dB Loop Sounder or PP2031 for XP95 Loop Sounder.
Part nos.
45681-261 85dB Sounder (sounder only)
45681-262 Sounder for use with isolating base
55000-259 Sounder with white cap
55000-260 Sounder with red cap
55000-261 100dB Loop Sounder

▲ XP95 Manual Call Point
When activated, the XP95 manual call point not only interrupts the polling cycle to indicate to the control panel that it has been operated, but also reports its address. Thus an alarm and its condition can be reported in less that 0.2 seconds.
Part nos.
55000-905 (surface mounting)
55000-906 (flush mounting)

▲ Interfaces for Intelligent Systems
A comprehensive range of interface units is available.
See Apollo publication PP2025.

XP95 Isolator
Isolators are designed to protect the XP95 loop in the event of a short circuit fault. They divide a loop of fire detectors and ancillary devices into groups of 20 as a rule, so that, in the event of a short circuit, no more that 20 devices will be inoperable. The XP95 isolator has particularly low non-isolating resistance.
Part no. 55000-720

▲ Isolating Base
The XP95 20D Isolating base senses and isolates short circuit faults on XP95 loops and spurs. The base is loop powered, polarity sensitive and accepts the patented XPERT card to set the associated device address.
For more information, please refer to the Apollo publication PP2039.
Part no. 45681-321

Bases
A wide range of bases is available.
For more information, please refer to the Apollo publication PP1089.