



# DISCOVERY

ANALOGUE ADDRESSABLE FIRE DETECTORS



- **5 Response modes**
- **Drift compensation**
- **User programmable**
- **Conventional alarm on processor fault**
- **Rejection of transient signals**



# DISCOVERY

## ANALOGUE ADDRESSABLE FIRE DETECTORS



### Optical Smoke Detector

The Discovery optical smoke detector uses an IR LED which pulses light across a smoke chamber with a photo-diode set at an obtuse angle. In clear air it receives no light, but when smoke enters the chamber, light from the LED is scattered onto the photo-diode. A signal is then processed to provide an analogue value for transmission when the detector is polled.



### Heat Detector

The Discovery heat detector, distinguishable by the low airflow resistant case, uses a single thermistor to sense the air temperature around the detector. The thermistor is connected in a resistor network, which produces a voltage output dependent on temperature.



### Multisensor Detector

The Discovery multisensor detector contains an optical smoke sensor and a thermistor temperature sensor whose outputs are combined to give the final analogue value. The multisensor is therefore useful over a wide range of applications, and is highly immune to false alarm sources.

Discovery is a range of high-specification, analogue addressable fire detectors developed to meet the requirements of sophisticated systems while providing engineers with an additional dimension in fire protection capability. Discovery gives you total reassurance in installations where adaptability to changing conditions and protection against unwanted alarms are paramount.

### Ionisation Smoke Detector

Air in the sensing chambers becomes irradiated, producing both positive and negative ions which are attracted to the electrodes of the opposite sign. This results in a small electric current flowing between them. When smoke particles enter the chamber, they become attached to the ions, reducing the flow of current. This imbalance of the electrodes causes the detector to produce a signal which is transmitted to the control panel.



### Carbon Monoxide Detector

The Discovery CO fire detector contains a long-life electro-chemical carbon monoxide sensor. The detection capabilities are enhanced by a rate-sensitive response.

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

For more information about CO fire detection, please refer to Apollo publication PP2089.



### Manual Call Point

When operated, the manual call point interrupts the polling cycle for a fast response.



### Interfaces

For information on compatible interfaces, please refer to PP2025.

### Bases

Full details of compatible bases and mounting accessories can be found in PP1089.

### Sensitivity Selection

Each detector in the Discovery range can operate in one of five response modes, which can be selected from the control panel. Mode selection depends on application - Mode 1 will give a higher sensitivity to fire than Mode 5. See table below for more information.

Discovery is compatible with all XP95 panels. Please refer to the Discovery Engineering Product Guide, PP2052 for further information.

	Cleanroom EDP suite					Hotel room; Studio apartment; Small flat ( $<50m^2$ )					Office Long corridor; Hospital ward; Light industrial factory					Warehouse; Bar					Loading bay; Car park					Kitchen; Laundry (enclosed & ventilated)					Boiler room				
Mode	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
MULTI	■						■	■	■	■		■	■	■	■		■	■	■	■		■	■	■	■		■	■	■	■		■	■	■	■
OPTICAL	■																																		
ION																																			
CO																																			
HEAT																																			

KEY ■ Recommended ■ Suitable ■ Suitable as supplement



INVESTOR IN PEOPLE



Quality Systems Certificate No 010  
Assessed to ISO 9001



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