Kidde Fire Protection

DISCOVERY

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Intelligent Fire Detectors

Exciting and innovative, Discovery Intelligent Fire Detectors take the advanced features of XP95 and add new dimensions of sophistication, providing total reassurance in installations where adaptability to changing conditions and protection against unwanted alarms are paramount.

The Discovery range

Using well established sensing technologies, the Discovery range of intelligent fire detectors includes ionisation and optical smoke detectors, plus a temperature detector and a carbon monoxide (CO) detector. Additionally, an intelligent multi-sensor detector combining optical smoke and temperature sensing has been developed. A manual call point incorporating Discovery technology is also available.

Features

- Rejection of transient signals
- Five response modes for changing environments
- Drift compensation for constant sensitivity
- Non-volatile memory for user data
- Alarm flag for fast alarm reporting
- Compatible with Apollo XP95 Vega fire control panel
- Flashing LED option - 360° visibility in alarm

Sensitivity Selection

Each detector in the Discovery range can operate in one of five response modes, which can be selected from the control panel. The response characteristics of the detectors have been carefully set so that the detectors will comply with the requirements of the relevant part of EN54 in all response modes. Mode selection depends on application. Mode 1 will give a higher sensitivity to fire than Mode 5. See table overleaf for more information.

Optical Smoke Detector

The Discovery optical smoke detector is suitable for slow burning or smouldering fires and should be positioned where these are most likely to occur. It can be set to a sensitivity mode best suited for the application.
Part No. 23900-K142

Ionisation Smoke Detector

Ionisation detectors use a low activity radioactive foil to detect fires by irradiating the air in the smoke chambers and causing a current to flow. If smoke enters the chambers, the current flow is reduced, leading to an alarm. It is a good general purpose detector that responds well to fast burning, flaming fires.
Part No. 23900-K141

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. This type of detector is particularly useful where the environment is dirty or smoky under normal conditions. For more information on the application of these detectors, see table overleaf.
Part No. 23900-K144

Multisensor Detector

The Discovery multisensor detector comprises optical 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.
Part No. 23900-K143

Carbon Monoxide (CO) Detector

The Discovery CO fire detector is good at detecting deep-seated fires. See the chart overleaf for information on typical applications. **Please note CO detectors do not detect smoke particles or heat and are not universal replacements for smoke detectors.**
Part No. 23900-K147

Manual Call Point

The Discovery manual call point can be addressed at the commissioning stage by means of a seven-segment DIL switch. When operated, the MCP interrupts the polling cycle for a fast response. It is available in both surface and flush mounted versions.

Part No. Surface: 23900-K146
Flush: 23900-K145

Drift compensation

Discovery incorporates an algorithm to ensure that the analogue count reported to the panel is not affected by extraneous factors such as contamination which could lead to drift. If the count moves from its normal clean air value it is, within permitted limits, compensated back to reduce unwanted alarms.

Non-volatile memory

Discovery has a non-volatile memory that may be accessed by the control panel. This records unchanging information, such as the month of manufacture and information under control of the panel such as the sensitivity setting. Self-changing data, such as the degree of drift compensation, is also held in the memory, but a significant amount of memory is reserved for customers to use freely. This part (four Byte of data) may be used to record any data required, eg. commissioning date, last service date, site reference number or project number.

Compatibility

Vega fire control equipment must be used to access the benefits of Discovery.

The mounting bases are identical to those of XP95, featuring the patented Xpert card addressing system that has proven so simple, reliable and effective.

Existing XP95 isolators and interfaces can be used with all Discovery fire detectors.

- Ionisation smoke detector
- Optical smoke detector
- Heat detector
- Multisensor detector
- Carbon monoxide detector
- Manual call point

Application	Cleanroom EDP suite					Hotel room; Studio apartment; Small flat (<50m²)					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

Optical Smoke Detector
Part No. 23900-K142

Multi-Sensor Detector
Part No. 23900-K143

Temperature Detector
Part No. 23900-K144

Ionisation Smoke Detector
Part No. 23900-K141

CO Monitor
Part No. 23900-K147

Manual Call Point
Part No. 23900-K145 (Flush)
23900-K146 (Surface)

Base (inc Xpert card)
Part No. 23900-H05

BS EN ISO9001
FM00215

INVESTOR IN PEOPLE

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