DISCOVERY CARBON MONOXIDE (CO)

A FireFinder™ compatible product

PDS201-0102

Features:

- Early warning of carbon based smouldering fires
- Resistance to unwanted alarms in areas with high levels of steam and other airborne particles
- Resistance to contamination in dirty and dusty conditions
- Excellent supplement to fire detection systems to improve detection of smouldering hydrocarbon fires

Discovery Carbon Monoxide Detector

Description

The Discovery Carbon Monoxide (CO) detector can be used to detect deep seated smouldering fire by sensing the level of carbon monoxide in the air.

All carbon-based materials in the smoldering, red ember stage of a fire can produce significant and easily detectable levels of carbon monoxide (CO). These levels can, therefore, be monitored in order to give an early warning of a fire.

CO fire detectors are not to be confused with CO gas leakage detectors. CO fire detectors are electronic detectors that can indicate the outbreak of a fire by sensing the level of CO in the air. These detectors have an electrochemical cell which senses CO but not smoke or any other combustion products.

The electrochemical cell has a finite life (maximum of 7 years), at which time the detector must be replaced.

Technical

Discovery CO fire detectors contain a long-life electrochemical carbon monoxide sensor which is tolerant to low levels of common vapours and household products. The sensing technology is fast, accurate and needs only very low power. These factors make the CO sensor suitable for fire detection applications.

The detection capabilities are enhanced by a rate-sensitive response. Sudden increases in carbon monoxide levels are often associated with hot fires and the detector will respond earlier under these conditions. The analogue reply from the detector is rate limited to remove unwanted alarms resulting from short-term high levels caused by sources such as pipe smokers or gas flame ignition.

Safety Information

This product contains a sealed electro-chemical cell and in normal usage represents no chemical hazard. Chemical hazard can, however, arise if the following notes on storage, handling and disposal are not observed.

- ✓ Stored in clean dry conditions between 0°C and 20°C.
- ✓ It should not be exposed to temperatures outside the range –40°C to +60°C or to organic vapours.

Do not remove the electrochemical cell contained in this product as it contains sulphuric acid in a relatively concentrated state. In the event of leakage (which may be caused by mechanical damage or use outside the operating specification for the cell) the cell should be removed from the detector using protective gloves. Avoid contact with any liquid. If skin or eye contact with the electrolyte occurs, wash immediately with plenty of water and obtain medical advice. Traces of electrolyte should be washed away with copious amounts of clean water.

The cell should be disposed of according to local waste management requirements and environmental legislation. It should not be burnt since it may release toxic fumes.

DISCOVERY CARBON MONOXIDE (CO)

A FireFinder™ compatible product

PDS201-0102

Discovery CO Detector Modes of Operation

Mode	*Alarm Threshold (PPM) ART value (AS1603.14)*	*Typical time to alarm (secs)*	*Typical application*
1	15	60	Not listed in SSL ACTIVEFIRE register
2	30	30	General use fast response
3	40	60	General use and sleeping risk
4	50	30	General smoking area and supplement detection of deep seated fires
5	60	30	Supplementary use in kitchen or boiler room

Specifications

Detector Type	Carbon Monoxide (CO)
Communication	Apollo Discovery
Supply Wiring	2 wire
Supply Voltage	17 to 28 volts
Quiescent current	500uA avg
Alarm current	3.8 mA
Remote Alarm o/p	5mA, diode gated
Operating Temp.	0° C to +40° C
Humidity	0% to 95%
Cell type	Electrochemical
Cell Life	**Maximum of 7 years**
Approvals	C-Tick, SSL (AS1603.14:2001), LPC
Alarm Indicator	Twin colourless LED – Red
Compatible Base	XP95 Universal Base

Order Code	201-0102