

Intellia CO Fire Detector EDI-60

Instruction Sheet
R10076GB0



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Document number: R10076GB0
Published: 26.04.2019

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1 Intellia CO Fire Detector EDI-60

Intellia CO fire detector EDI-60 contains a long-life electro-chemical carbon monoxide sensor which is tolerant of 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.

Intellia EDI-60 uses a digital communications protocol.

The Intellia series of products are all compatible with the ALC-board of an Esmi Sense FDP and FX panel.

1.1 Application

CO fire detectors are particularly suitable for supplementing smoke detection when there is:

- a deep seated smouldering fire risk
- a risk of fire starting in an enclosed space
- a likelihood of stratification taking place

Carbon monoxide detectors may be used as the primary fire detector in areas where the following conditions exist:

- the main risk is smouldering fires
- optical smoke detectors are deemed unsuitable
- the fire compartment is not greater than 50m²

Typical applications include hotel bedrooms, halls of residence, sheltered accommodation and hospital wards.

CO detectors do not detect smoke particles or heat and are not universal replacements for smoke detectors. Apollo does not endorse the use of CO detectors as the main method of fire detection if:

- the protected area is an escape route
- there is a requirement to detect overheating of electrical equipment or cables
- the protected area is exposed to sources of CO such as vehicle exhausts, or to hydrogen or to high levels of alcohol vapour as emitted by some cleaning agents
- there is a requirement to detect fires involving flammable liquids

1.2 Detector siting

CO fire detectors should be sited using the recommendations for smoke detectors from BS5839: Part 1 (or other applicable code).

As CO is a gas, it further spreads—like smells—by diffusion. For this reason CO may reach a detector faster than smoke would. This potential advantage can be exploited when designing a fire protection system and CO detectors may be used for supplementary detection. Equally, the opposite effect might occur, with CO moving away from a detector.

The behaviour of CO is therefore unpredictable and diffusion should not be relied on when designing a fire protection system.

1.3 Operating modes

The Intellia CO detector EDI-60 has five operating modes, each having a set combination of sensitivity and response time.

1.4 Maintenance and service

In a typical environment, the life of the cell is five years. High temperature or low relative humidity can, however, reduce the life significantly.

Pelco recommends that CO fire detectors be tested using a “hand warmer”, burning compressed charcoal fuel rods. These hand warmers are available in camping and outdoor shops. The charcoal rod should be ignited at one end according to the instructions. To achieve a reliable test, the complete hand warmer should be placed inside a hood which fits over the detector, allowing CO to build up around the detector. The detector tester can be used for this purpose.

1.5 Health and safety guidelines

This product contains a sealed electro-chemical cell and in normal usage represents no chemical hazard in the sense of COSHH and the Health and Safety at Work Act 1974. Chemical hazard can, however, arise if the following notes on storage, handling and disposal are not observed.

For maximum life, the product should be stored before installation in clean dry conditions between 0° C and 20°C. It should not be exposed to temperatures outside the range – 40°C to +55°C or to organic vapours.

The electrochemical cell contained in this product is fitted into sockets on the printed circuit board; to avoid damage to the cell do not remove it. The electrochemical cell 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. All 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.

1.6 Product Codes

Product	Product codes
EDI-60 CO Fire Detector	FFS0672 0260
EBI-10 Standard Mounting Base	FFS0672 0010
EBI-12 Deep Base	FFS0672 0012
EBI-20 Relay Base	FFS0672 0020

Note: EDI-60 CO-detector is not compatible for use with EBI-11 Isolating base