



Product Data Sheet

FD905R

900 series addressable reflective beam detector + isolator

General

The FD905R provides an integral, loop powered, analogue addressable reflective beam detector covering up to 50 meters. It operates with 900 series protocol with the 1200/2000 series fire panels. It also has a built in 20D negative bi-directional short circuit isolator.

The product

The FD905R consists of an infrared transmitter and receiver in one single compact housing. The infrared signal is reflected by a prism and analysed for smoke presence. It is particularly designed to be use where point smoke detectors are not practical due to height or inaccessibility. The unit is loop powered for connection to the 1200/2000 series fire panels. It utilizes the 900 series protocol. The FD905R has a range of 5-50 m.

Installer friendly

Wiring is restricted to a minimum as the transmitter and receiver are in the same housing. The detector is very easily aligned by means of checking the red and green LED's. A course "Prism Find" and then "Alignment Mode" fine-tune ensures optimum operation. Two adjustment thumb wheels on two sides of the detector provide mechanical alignment. Adjustment is achievable in both axes. The low power consumption of the units allows multiple sets to be powered on the same loop without compromising the system's autonomy.

Reducing false alarms

Alarm thresholds of 25%, 35% and 50% can be selected to suit the environment. If the received infrared signal reduces to below the selected threshold and is present for approximately 10 seconds, the fire condition is signalled to the fire panel. If the infrared beam is obscured rapidly to a level of 90 % or greater for approximately 10 seconds the fault condition is signalled. This condition can be entered in a number of ways, for example, an object being placed in the beam path, transmitter failure, loss of the prism, or sudden misalignment of the detector. The detector monitors long term degradation of signal strength caused by component ageing or build up of dirt on optical surfaces. The unit is easily tested using the graduated obscuration test card supplied.



Standard Features

- Loop Powered
- 900 series protocol
- Area coverage up to 600 m² per unit
- Range from 5 - 50 m
- Up to ceiling heights of 25 m
- Low current consumption
- 3 selectable alarm thresholds
- Self check and automatic contamination compensation
- Automatic discrimination between fire and fault
- Retro operation through prism
- Vertical or horizontal mount
- Easy wiring and unique alignment
- Microprocessor controlled
- Conforms to BS 5839 part 5 and EN54

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Specifications

Supply voltage	17 - 28 VDC
Range	5 - 50 m
Current consumption	
Quiescent	5 mA
Alarm	9 mA
Fault	5 mA
Alignment mode	17 mA
Optical wave length	880 nm
Operating temperature	-20°C to 55°C
Size	210 x 130 x 120 mm
Weight	670 g
IP rating	IP50
Construction	Flame retardent ABS
Colour	Gray-black

Ordering Information

Part No.	Description
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