FD2705R

2000 series addressable reflective beam detector 5 to 50 m

General

The FD2705R and FD2710R provides an integral, loop powered analogue addressable reflective beam detector up to 100 m distance.

Configuration

The FD2705R and FD2710R consist 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 FD27xxR series units are loop powered for connection to 1200/2000 series fire panels. They use the Aritech 2000 series protocol.

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 alignment LEDs. Easy alignment ensures optimum operation, both electrically and mechanically. The unit is easily tested using the graduated obscuration test card supplied.

The low power consumption of the units allows multiple beams to be powered on the same loop without compromising the system's autonomy.

Reducing false alarms

Various alarm thresholds may be selected from to suit the environment. If the signal reduces to below the selected threshold and is present for ±10 seconds, a fire condition is signalled. If the infrared beam is obscured rapidly to a level of 90 % or greater for ±10 seconds, a fault condition is signalled. The detector monitors long term degradation of signal strength caused by component ageing or build up of dirt on optical surfaces.



Details

- Loop Powered
- 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
- Vertical or horizontal mount
- Easy wiring and unique alignment
- Microprocessor controlled
- Conforms to BS5839 part 5 and EN54

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Technical specifications

General

Status indication	LEDs
Compatibility	Aritech 2000 series systems
Alarm levels	3
Connectivity	2-wire loop
Addressing method	DIP Switches

Electrical

Power supply type	Loop powered
Operating voltage	17 to 28 VDC
Current consumption	5 mA (Quiescent) 14 mA (Alarm) 10 mA (Fault) 22 mA (Alignment mode)

Detection

Detection principle	Optical light scatter
Coverage area	<750 m²
Range	5 to 50 m
Lateral detection	7.5 m
Optical wave length	880 nm
Installation height	< 25 m
Misalignment tolerance	Detector ± 0.4°, Prism ± 5.0° (@ 25%)

Physical

Physical dimensions	130 x 210 x 120 mm(W x H x D)
Net weight	770 g
Colour	Black, Grey
Mounting type	Wall mount
Material (body)	Flame retardent ABS

Environmental

Vandal proof	No
Operating temperature	-10 to 55°C (32 to 100°F)
Relative humidity	93% (non-condensing)
Environment	Indoor
IP rating	IP50

Regulatory

Compliancy	CE, REACH, RoHS 3, WEEE
Certification	CPR
Standards	EN54:12

Compatible products

Category	Reference	Description
Detection device	FD-MB10	Mounting bracket for use with FD700, FD900, FD2700 & FDR-EZ series beam detectors (1000-002)
Detection device	OR2000	Reflective prism for Fireray reflective beam detectors (23901.01)

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