1108010

FDR50-EZ Addressable Reflective Beam Detector, 50 m

General

The FDR50-EZ linear beam smoke detector is developed for use in areas where point type detectors would be difficult to install and maintain. The FDR50-EZ has a detection ranges of up to 50 metres.

A transmitter and receiver are contained in one enclosure. The transmitter emits an invisible infrared beam, which is reflected back to the receiver, by a prism mounted directly opposite and in clear line of sight. The presence of smoke obscures the beam and reduces the signal strength detected at the receiver.

Unique aligment feature

Alarm thresholds of 25%, 35% and 50% obscuration are selectable, making the detector suitable for a wide range of building environments. The fire output can be set to latch, only cancelled by resetting the device, or auto reset where the detector is reset automatically 5 seconds after the received infrared signal has recovered to a level above the alarm threshold.

The detector and the reflecting prism are installed on opposite walls of the protected area, usually between 0.3 and 0.6 metres below ceiling height. With unique alignment features, the equipment is easy to install, provides high stability and freedom from false alarms.

Continuiously monitored

The FDR50-EZ incorporates continuous monitoring of both electrical and optical faults. If the infrared beam is obscured rapidly to a level above 90%, for approximately 10 seconds the condition is seen as a fault. Long-term degradation of signal strength is monitored and adjusted automatically.

Installed under flat horizontal ceilings, a single unit provides satisfactory smoke detection up to 7.5 metres on either side of the beam axis. For larger areas multi detector systems can be installed.

The FDR50-EZ addressable detector is connected directly to the ZP3 loop wiring and is configured with it’s own address which the control panel poles every two seconds.



Details

- Single installation and maintenance point
- Fully addressable
- 50 metre detection range
- Unique simple alignment
- Selectable alarm thresholds
- Latching or auto reset fire output
- Automatic contamination compensation

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Technical specifications

General

Status indication	Fire, fault and power on, LEDs for beam alignment
Compatibility	All ZP addressable systems

Electrical

Operating voltage	10.2 to 30 VDC
Current consumption	<15 mA alarm 5 mA (quiescent, no LEDs illuminated)

Detection

Monitoring	Adjustment limit exceeded, Signal lost, Signal strength

Physical

Physical dimensions	130 x 210 x 120 mm (W x H x D) Space requirement: 220 x 155 x130 mm (H x W x D) door clearance to right 190 mm
Net weight	740 g
Colour	White enclosure, black - lens cover
Mounting type	Wall mount
Material (body)	Flame retardent ABS, Sheet steel enclosure

Environmental

Operating temperature	-30 to +55°C
Relative humidity	0 to 95% noncondensing
Environment	Indoor
IP rating	IP50 (EN60529 rating)

Regulatory

Certification	EN54-12
EMC	CE marked (EEC89/336)

Model No

	FDR50-EZ

Wiring

	ZP Loop wiring

Output

Switched outputs	Fire – N/O, closes on fire. Fault – N/C, opens on fault

Reset

	Via ZP loop

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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Last updated on 16 October 2026 - 11:25