1109010

FDR100-EZ Addressable Reflective Beam Detector, 100 m

General

The FDR100-EZ linear beam smoke detector is developed for use in areas where point type detectors would be difficult to install and maintain. The FDR100-EZ has a detection ranges of up to 100 m.

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 Alignment

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 m below ceiling height. With unique alignment features, the equipment is easy to install, provides high stability and freedom from false alarms.

Continuously monitored

The FDR100-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 m on either side of the beam axis. For larger areas multi detector systems can be installed.

The FDR100-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
- 100 m 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 , power on & alignment
User interface	LEDs
Compatibility	ZP7 Series Systems
Connectivity	2 Wire loop
Reset	Via ZP loop

Electrical

Operating voltage	10.2 to 30 VDC
Current consumption	<5 mA (Quiescent with no LEDs illuminated) <15 mA (Alarm)

Detection

Detection principle	Optical (Light Scatter)
Monitoring	Adjustment limit exceeded, Signal lost, Signal strength
Coverage area	<1500 m²
Zone length	100 m
Range	100 m
Lateral detection	15 m

Output

Output quantity	2
Output type and rating	Fire – N/O, closes on fire. Fault – N/C, opens on fault

Physical

Physical dimensions	130 x 210 x 120 mm (W x H x D)
Net weight	740 g
Colour	White enclosure, black - lens cover
Mounting type	Wall mount
Material	Chassis – steel, Enclosure – flame retardant ABS

Environmental

Vandal proof	No
Operating temperature	-30°C to +55°C
Storage temperature	-30°C to +55°C
Relative humidity	0 to 95% noncondensing
Environment	Indoor
IP rating	IP50 (EN60529)

Regulatory

Compliancy	CE, REACH, RoHS 2
Certification	CPR
Standards	EN54-12
Environmental	EEC89/336

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