



F5000 Series Reflective Beam Smoke Detector

F5000

Self-adjusting beam type smoke detector, 24VDC

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Description

The Fire^{ray} 5000 System is an auto-aligning infrared beam smoke detector. Once the detector head is installed, using the *easyfit mounting system* an integral LASER can be activated that is aligned along the optical path of the infrared beam. This allows the reflective prism to be located quickly and with confidence. The *AutOptimiser beam alignment system* then takes over and automatically steers and maintains the beam in the optimum position for reliable performance. The signal generated in the transmitter element and reflected by the prism back to the receiver element is analyzed for the presence of smoke. The internal microprocessor determines an alarm condition when a predetermined level is reached. The system is designed to be mounted so the beam will project between 1ft. (0.31m) and 2ft. (0.61m) below and parallel to the ceiling. Lateral detection may be up to 30ft. (9.144m) on either side of the beam, providing a maximum total coverage area of up to 19,800 square feet (60ft. x 330ft. or 18.29m x 100m).

Engineering Specification

The projected beam type smoke detector shall be a 4-wire 24 VDC device to be used with an U.L. Listed separately supplied 4-wire control panel. Unit shall be listed to U.L. 268 and shall consist of an integrated transmitter, receiver and remote control unit. The detector shall operate between a range of 16.5 ft. to 330 ft. (5m to 100m). The temperature range of the beam shall be -4°F to 131°F (-20°C to 55°C). The beam detector shall feature automatic gain control which will compensate for gradual signal deterioration from dirt accumulation on the lenses. The Reflective Beam shall include AutoOptimise Beam Alignment feature to ensure unit is always receiving maximum signal available. And shall be able to compensate for Building Shift. The unit shall include a wall mounting



Features

- Range of 16.5 ft. to 330 ft. (5m to 100m)
- Modular Design
- *Easyfit* First Fix System
- Ground Level System Controller
- LASER Assisted Alignment
- *AutOptimise* Beam Alignment
- Electronic Obscuration Test
- Contamination Compensation
- Building Shift Compensation
- Separate alarm and trouble contacts
- Remote display and control unit with LCD backlight
- Password protected settings
- Current monitoring for gimbals motor position
- User feedback of operating parameters
- 3 Year Warranty

remote display and control unit with LCD backlight.

Testing shall be carried out by using a UL approved internal obscuration test.. The Reflective beam type smoke detector shall be a Fire Fighting Enterprises Fire^{ray} 5000.

Construction Specification

Housing:

Flame Retardant ABS

IP Rating:

IP54

Finish:

Light Grey/Black

Weight:

Head & Controller 3.24 lbs (1.47 kg)

Dimensions:

Head:

5.28" H x 5.31" L x 5.28" W
(135mm H x 134mm L x 132mm W)

Controller:

2.80" H x 9.25" L x 7.87" W
(71mm H x 235mm L x 200mm W)

Prism:

0.37" H x 4.13" L x 3.94" W
(9.5mm H x 105mm L x 100mm W)

Electrical Specification

Primary Input Power:

14 to 28 VDC

Standby Current:

Low Current Mode: 3mA @ 24VDC
High Current Mode: 52mA@24VDC

Alarm Current:

52 mA @ 24 VDC

Relay Contacts:

1A at 30 VDC Resistive

Reset Time:

5 Seconds maximum

Start Up Time:

45 Seconds

Optical Wavelength:

850nm.

Sensitivity:

25%, 35%, 50%

Temperature Rating:

-4°F to 131°F (-20°C to 55°C).

Relative Humidity:

0% to 85% RH non-condensing

Range:

16.5ft. to 330ft. (5m to 100m)

Listings

- UL
- ULC
- MEA
- CSFM



Applications

- Open areas where ceiling heights exceed 25ft. (Warehouses, Hotel Atriums, Industrial Plants and School Gymnasiums)
- Public areas where cosmetics are of prime importance and detector heads need to be small and unobtrusive. (Shopping Malls, Libraries, Theaters and Churches)

Ordering Information

- F5000 Reflective Auto Align beam smoke detector 16.5ft. to 330ft. (5m to 100m)
- 23901 Replacement Prism
- 5000-004 Long Range Prism Kit (50m—100m)
- 5000-005 Surface Mount Wall Bracket

Specifications and wiring information are provided for information only and are believed to be accurate. Fire Fighting Enterprises assumes no responsibility for their use. Data and design are subject to change without notice. Installation and wiring instructions are shipped with the products and should always be used for actual installation. For more information, contact your Sales Representative.



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