



50RU/100RU Reflective Beam Smoke Detector



Description

The system comprises of a single unit incorporating an infra-red transmitter and receiver. 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. (0.305 m) 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 18.288m x 100m).

Engineering Specification

The projected beam type smoke detector shall be a 4-wire 12/24 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 and receiver. The detector shall operate between a range of 15 ft. to 330 ft. (5m to 100m). The temperature range of the beam shall be -22°F to 131°F (-30°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 unit shall

Features

- 2 Models for ranges of
15 ft. to 160 ft. (5m to 50m)
160 ft. to 330 ft. (50m to 100m)
- Easy set up and alignment
- Single Compact Housing
- Calibrated obscuration test filter included
- 3 selectable alarm thresholds:
25%, 35% or 50%
- Microprocessor controlled
- Alarm latching or auto reset
- Automatic gain control
- 12 VDC or 24 VDC operation
- Separate alarm and trouble contacts
- Remote Test Station

include a wall mounting bracket. Testing shall be carried out by using a calibrated obscuration test filter. The Reflective beam type smoke detector shall be a Fire Fighting Enterprises 50RU (160 ft./50m) or 100RU (330 ft./100m)

Beam Detector Spacing

On smooth ceilings, up to 60 ft. (18.288m) between reflective beams and not more than one-half that spacing between a reflective beam and a sidewall. Other spacing may be used depending on ceiling height, airflow characteristics and response requirements. See NFPA 72 for further information

Listings

- UL Listed
- ULC Listed
- MEA 70-02-E
- CSFM 7260-1508:102

Construction Specification

Housing:

Flame Retardant ABS

IP Rating:

IP50

Finish:

Grey/Black

Weight:

1.5 lbs (0.68 kg)

Dimensions:

8.25" H x 4.5" D x 4.75" W
(21.0cm H x 11.43cm D x
12.065cm W)

Electrical Specification

Primary Input Power:

10.2 to 30 VDC

Standby Current:

4mA @ 24VDC

Alarm Current:

15 mA @ 24 VDC

Relay Contacts:

1A at 30 VDC Resistive

Reset Time:

5 Seconds maximum

Start Up Time:

10 Seconds

Optical Wavelength:

880nm.

Sensitivity:

25%, 35%, 50%

Temperature Rating:

-22°F to 131°F (-30°C to +55°C)
For UL Listed Installations, 32°F to 100°F
(0°C to 38°C).

Relative Humidity:

10% to 93% RH non-condensing

Range:

50RU 15-160 ft. (5m to 50m)

100RU 160-330 ft. (50m - 100m)

Operational Specification

- Latching / Non Latching Alarm
- Fault condition (Trouble)
- 90% or more obscuration (Trouble)
- Automatic gain control
- Improper set up alignment (Trouble)
- Microprocessor Controlled
- 3 Sensitivity Selections
- Alarm Indicator—Red LED
- Trouble Indicator—Amber LED

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)

Benefits

- Reduces installation costs where 6 or more spot detectors are required in a single area.

Reduces service time by taking advantage of optional remote test station located at ground level for system test without disruption of the site.

Ordering Information

50RU	Reflective beam smoke detector 160ft. (50m) (0206-02)
100RU	Reflective beam smoke detector 330ft. (100m) (0206-03)
LLC	Remote Test Station (0400)
0608	Surface Mount Back Box for 50RU/100RU Beam Detectors
0893	Surface Mount Wall Bracket for 50RU/100RU Beam Detectors
0209	Obscuration Test Filter
23901	Replacement Prism
5000-005	New Alignment Bracket Base for 5000-007 and 5000-008
5000-006	Prism Wall Bracket
5000-007	4 Prism Alignment Bracket
5000-008	1 Prism Alignment Bracket

Specifications 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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