



### ■ 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 19" (0.5 m) and 24" (0.6m) 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 12/24 VDC device to be used with a Nationally Recognized Testing Laboratory's 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 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 unit shall 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 Nittan FIRERAY 50RU (160 ft./50m) or 100RU (330 ft./100m).

### ■ Features

- 2 Models for ranges of:
  - 50RU: 16.5 ft. to 160 ft. (5m to 50m)
  - 100RU: 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 available
- 3YearWarranty

### Operational Features

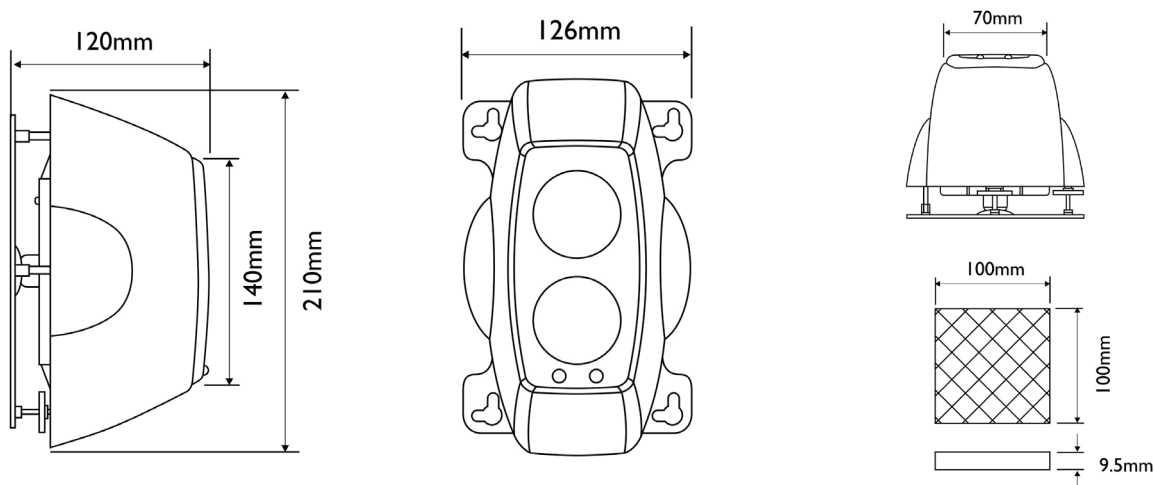
- Latching / Non latching alarm
- Fault condition (Trouble)
- 90% or more obscuration (Trouble)
- Automatic gain control
- Improper set up alignment (Trouble)
- Microprocessor controlled
- 3 Sensitivity selections
- Indicators - Alarm Red LED / Trouble Amber LED

### ■ 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.



## ■ Diagrams



## ■ Applications

- Open areas. (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)

## ■ Specifications

Specifications	FIRERAY 50RU / FIRERAY 100RU
Housing	Flame Retardant ABS
IP Rating	IP50
Finish	Gray / Black
Weight	1.5 lbs (0.68 kg)
Dimensions	H 210 mm x D 114.3 mm x W 120 mm (8.25" H x 4.5" D x 4.75"W)
Primary Input Power	10.2 VDC to 30 VDC
Standby Current	4 mA @ 24 VDC
Alarm Current	15 mA @ 24 VDC
Relay Contacts	1 A at 30 VDC Resistive
Reset Time	5 Seconds maximum
Start Up Time	10 Seconds
Optical Wavelength	880 nm
Sensitivity	25 %, 35 %, 50 %
Temperature Rating	-4 °F to 131 °F (-20 °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	FIRERAY 50RU 16.5-160 ft. (5 m-50 m) FIRERAY 100RU 160-330 ft. (50 m-100 m)

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All specifications are subject to change without any notice.  
For more information, contact with NITTAN.

**NITTAN**

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