

**NO EXCUSES!**



# FE-5000

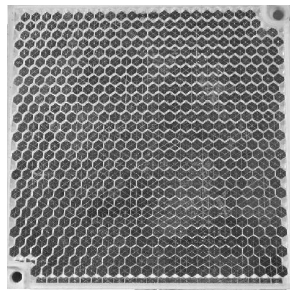
## Self-Aligning Reflective Beam



The Fireray 5000 System is an auto-aligning, selfcorrecting infrared beam smoke detector. Up to 4 detector heads can report to a single ground level controller. Once the detector head is installed, using the easyfit mounting system an integral LASER can be activated. This allows the reflective prism to be located quickly and with confidence. The Auto-Align function ensures proper alignment and maximum signal during the beam installation. AutoOptimise 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 obscuration 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).

### Standard Features:

- Up to 4 Detector Heads reporting to One Ground Level Controller
- Range of 26.25 ft. to 330 ft. (8m to 100m)
- Built in Laser assisted prism mounting
- Auto-Alignment 2-4 minutes per head
- AutoOptimise - Auto-Correction due to building shift
- Built-In electronic UL/ULC obscuration acceptance Fire Test
- Contamination compensation
- Common alarm and trouble contacts
- Password protected settings
- Low current draw 10-16 mA.
- Built-In 1/2"/M-20 conduit knock-outs on the system controller
- Programmable obscuration thresholds: 10% - 60% in 1% increments
- Programmable Fault and Alarm timing: 2—30 Seconds
- 5 Year Warranty



1 Prism included for 15 - 160 Foot installations.  
4 Prisms required for 160 - 330 Foot installations.  
Use the FE-5000-004 Long Range Kit.



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## Specifications:

The projected beam type smoke detector shall be listed to U.L. 268 and shall consist of up to four integrated transmitter, receiver detector heads and single low level remote control unit. The detector shall operate between a range of 26.25 ft. to 330 ft. (8m to FireRay 5000 Reflective Beam Smoke Detector 100m). The temperature range of the system shall be -4°F to 131°F (-20°C to 55°C). The beam detector heads shall include an integral built-in laser pointer to assist prism mounting. The beam detector shall feature automatic gain control which will compensate for gradual signal deterioration from dirt accumulation on the lenses. The beams detector heads shall include AutoOptimise Self-Correcting motorized head feature to ensure unit is always receiving maximum signal available, and shall automatically compensate for Building Shift. The unit shall include a low level remote display and control unit with LCD readout for set-up, reporting and testing of up to 4 separate detector heads. The system shall be capable of programming obscuration thresholds for 10% to 60% in 1% increments.

The system shall be capable of programming delay to fault and delay to alarm from 2 seconds to 30 seconds in 1 second increments. Test and acceptance of the system shall be carried out by using the UL approved internal electronic obscuration fire test. The projected beam type smoke detector shall be a 4-wire 24 VDC device to be used with a Nationally Recognized Testing Laboratory's Listed separately supplied 4-wire control panel. The Reflective beam type smoke detector shall be a Space Age Electronics FireRay 5000.

## Electrical Specifications:

Primary Input Power: 14 to 28 VDC

Standby Current: Low Current Mode: 10mA to 16mA  
@24 VDC depending on number  
of detectorheads used

High Current Mode: 50mA @24VDC

Alarm Current: 10mA to 16mA @ 24 VDC depending  
on number of detector heads used

Relay Contacts: 1A at 30 VDC Resistive

Reset Time: 5 Seconds maximum

Start Up Time: 45 Seconds

Optical Wavelength: 850nm.

Sensitivity: 10% - 60% (35% Default)

Temperature Rating: -22°F to 131°F (-20°C to 55°C)

For UL Listed Installations,  
32°F to 100°F (0°C to 37.8°C).

Relative Humidity: 0% to 93% RH non-condensing

Range: 26.25ft. to 330ft. (8m to 100m)

Cableing: 24—14 AWG 1—Pair Shielded

Housing: Flame Retardant ABS

IP Rating: IP54

Finish: Light Grey/Black

Conduit Knock Outs Controller: 7— 1/2"/M-20

Detector Head—1 M-20

Weight: Head & Controller 3.24 lbs

Dimensions: Head:

Head: 5.28" H x 5.31" L x 5.28" W

Controller:

3.20" H x 9.25" L x 7.87" W

Prism:

0.37" H x 4.13" L x 3.94" W

## Approvals:

UL UROX.S3417

ULC UROXC.S3417

MEA 22-08-E

CSFM 7260-1508:104

## Ordering Information:

### Part #

FE-5000-103

### Description

Reflective Auto Align beam smoke detector  
27ft.. to 330ft. System includes 1 Detector  
Head, 1 Controller and 1 Prism.

FE-5000-031

Additional Detector Head and 1 Prism,  
Use up to 3 additional heads per 5000-103

Accessories:

Refrence Our Document LT10520.PDF

This Product Manufactured by  
Fire Fighting Enterprises



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