fireray®

Fireray® 3000

End-to-End Beam Smoke Detector



The Fireray® 3000 End-to-End Infra-red beam smoke detector has been designed using the latest optical technology, incorporating modern industrial, electronic and software techniques. This detector offers cost effective protection of large, open area spaces with high ceilings. It is also very suited to applications where access to ceiling mounted smoke detectors presents practical difficulties.

The Fireray® 3000 is ideal for applications where line of sight for the IR (infra-red) detection path is narrow and where the building structure uses reflective surfaces. It has also been designed to be aesthetically pleasing and thus can equally suit modern architectural buildings as well as heritage sites, particularly where ornate ceilings exist.

Features

- Range 5 to 120 metres, configurable per set of detectors
- Light cancellation technology
- Integral laser alignment in receiver
- 2-wire Interface between controller and receiver
- Single and twin detector options
- Separate fire and fault relays per detector
- Low level controller with LCD display
- Programmable sensitivity and fire/threshold
- Contamination compensation
- First-Fix design for transmitter, receiver and controller
- Multiple cable gland knockouts for ease of wiring
- Optional transmitter powering from controller
- Working optical path for detector alignment

Approvals:

World-wide approvals include EN54:12 and UL268.
Visit www.ffeuk.com for up to date approvals information.

Operation

The system comprises a modern looking transmitter head, which emits a narrow beam of infra-red light to an associated receiver head, with a compact low level controller. Once smoke crosses through and thus obscures the IR beam path, the signal strength at the receiver drops below a preset level which in turn results in an alarm condition.

Both the detector heads, transmitter and receiver, have integrated alignment thumbwheels for ease of alignment. Using these thumbwheels provides a smooth and repeatable alignment process. The detector heads have up to 10 degrees of adjustment in both planes. For further adjustment, a bespoke adjustment bracket is available, which offers up to 180 degrees movement in both planes, as well as a full 360-degree rotation.

The Fireray® 3000 has been designed so that it can be installed by one operator, with its laser assisted alignment method combined with easy to use alignment LED's offering visual feedback. Integrated laser alignment aid can be activated at the controller or at the receiver head.

The Fireray® 3000 also has a feature which allows for the transmitter to be powered from the Controller by wiring directly, thus reducing the number of power supplies required.

The low level controller incorporates a LCD display, which offers a full icon-based, easy-to-use interface unit. This controller enables ease of commissioning, testing and maintenance of the beam detection system. During commissioning the detector's fire sensitivity thresholds can be selected, along with the user variable time to fire and time to fault settings.

The system is fully compliant with the requirements of RoHS and WEEE.

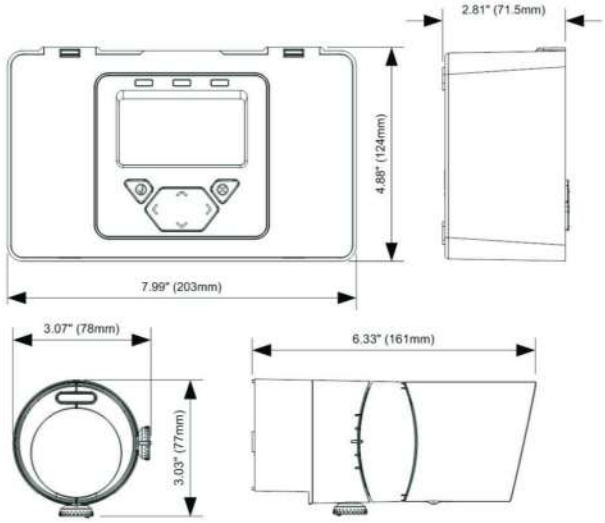
Fireray® 3000

Technical Specification	
Operating Range:	5 to 120 Metres
Operating Voltage Range:	12 to 36V DC ±10%
Operating Controller Current (with 1 or 2 Receivers):	14mA (constant)
Operating Transmitter Current:	8mA (per Transmitter)
Power Down Reset Time:	>20 seconds
Fire and Fault Relay Contacts:	VFCO 2A @ 30 Volts DC resistive
Operating Temp. (non-condensing):	
UL -	-20°C to +55°C
EN54 -	-10°C to +55°C
Optical Wavelength:	850nm
LED Indications: Control Unit -	Red = Fire Amber = Fault Green = System OK
Receiver -	Alignment LEDs for single person alignment.
IP Rating:	IP54 (Controller)
Relative Humidity (non-condensing):	93%
Parts List (System):	1 x Transmitter (clear lens) 1 x Receiver (dark lens) 1 x Control Unit
Parts List (Additional Detector):	1 x Transmitter (clear lens) 1 x Receiver (dark lens)
Housing Material (Transmitter/Receiver/Controller):	UL94 V2 PC
CPD Reference:	0786-CPD-21162
UL File:	S3417

All figures are quoted for 25°C

Alarm & Operation Thresholds	Min	Type	Max
Delay to Alarm/Fault (selectable in 1 sec steps):	2s	10s	30s
Laser Time-out (selectable in 1 min steps):	1min	5min	59min
Response Sensitivity/Threshold (selectable in 1% steps):	35%	60%	

Weight	
Control Unit:	203 x 124 x 71.5mm (W x H x D) 606g
Transmitter & Receiver	78 x 77 x 161mm (W x H x D) 207gms



Fireray® 3000 Accessories



Flush Mount Plate
3000-202



Adjustment Bracket
3000-201

Installation Recommendations

Please refer to the User Guide (UG) for mounting, wiring and commissioning instructions . The installation of the 3000 End-To-End infra-red optical beam smoke detector should be undertaken in accordance with the recognised national, or international, standards and Codes of Practice (COP)

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Document Part No: 24-0237-01

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