

## Fireray 3000 Beam Detector

The Fireray® 3000 End to End infrared Optical Beam Smoke Detector (OBSD) 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

- Separate Transmitter and Receiver Heads
- Each detector configurable from 5m to 12m
- Integral Laser Alignment in Receiver
- Single and Twin Detector options
- First Fix concept for Transmitter, Receiver and Controller
- Optional Transmitter powering from Controller
- Separate Fire and Fault Relays per Detector
- Low Level Controller with LCD display
- Programmable Sensitivity and Fire Threshold
- Automatic Gain Control (AGC) for drift compensation
- Multiple cable gland knockouts for ease of wiring

### Approvals

- Approved to EN54-12 and UL268

### Specification

Operating Range	5 to 120m
Operating Voltage range	12 to 36V DC ±10%
Operating Controller Current (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	Red = Fire, Alignment LED's for single person alignment
IP Rating	IP54
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)	UL94V2 PC		
CPD Reference	0786-CPD-21162		
UL File	S3417		
Alarm & Operation Thresholds	Min	Typ	Max
Delay to Alarm (selectable in 1 sec steps)	2s	10s	30s
Delay to fault (selectable in 1 sec steps)	2s	10s	30s
Laser Time-out (selectable in 1 min steps)	1 min	5 min	59 min
Response Sensitivity/Threshold (selectable in 1% steps)	10%	35%	60%
Control Unit	203 x 124 x 71.5mm (W x H x D) 606gms		
Transmitter & Receiver	78 x 77 x 161mm ( W x H x D) 207gms		

## 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 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 a visual feedback. Integrated laser alignment aid can be activated at the Controller or at the R

An optional feature is to power the Transmitter 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 sensitivity and fire 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

## Mounting Instructions

Please refer to our User Guide (UG) for mounting and wiring instructions. The installation of the infrared optical beam smoke detector should be undertaken in accordance with recognised national or international standards and codes of practice.

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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