

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 for 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 can equally suit modern architectural buildings as well as heritage sites, particularly where ornate ceilings exist.



FIRERAY 3000 DETECTORS

- 3000-101 Fireray 3000 [EN] 5 m - 120 m (16½ ft - 394 ft)
- 3000-103 Fireray 3000 [UL] 10 m - 120 m (33 ft - 394 ft)

FEATURES

- 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 our website for up-to-date approvals information.

ACCESSORIES

- 1000-019 Protective Wire Cage
- 3000-204 Anti-Condensation Heater
- 3000-202 Flush Mount Plate

Operation

The Fireray 3000 comprises a modern Transmitter head that emits an infrared beam to an associated Receiver, plus a compact Low-Level Controller. When smoke crosses the IR beam and signal strength drops below a preset threshold, an alarm is triggered.

Both Transmitter and Receiver heads feature integrated thumbwheels for precise alignment, with 10 degrees of adjustment in both planes. For greater flexibility, an Adjustment Bracket offers up to 180 degrees of movement and 360-degree rotation.

The Fireray 3000's laser-assisted alignment, accessible from the Controller or Receiver, simplifies installation by a single operator. The Controller can power the Transmitter directly, reducing power supplies, and its LCD interface provides user-friendly commissioning, testing, and maintenance options, including fire sensitivity and time settings.

The system complies with RoHS and WEEE requirements.



SCAN THE QR CODE
TO EXPLORE THE
FIRERAY PRODUCT RANGE

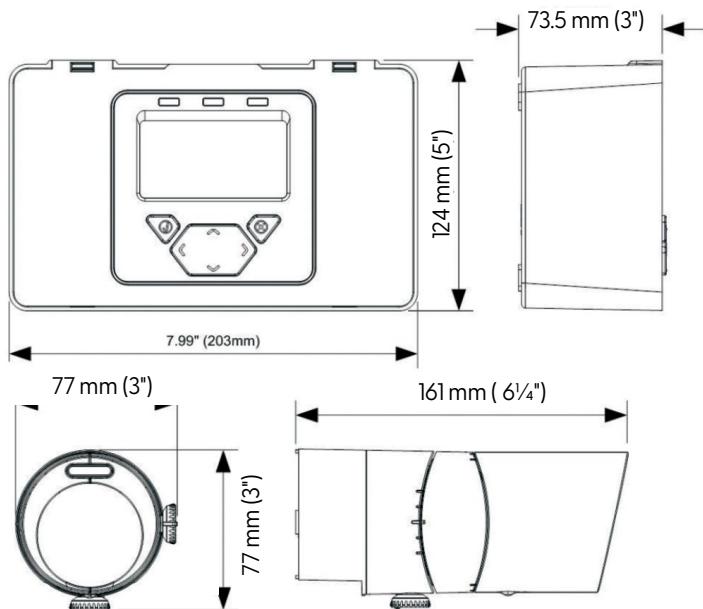
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Datasheet

TECHNICAL SPECIFICATION	
Operating range	
EN54	5 to 120 m (16½ to 394 ft)
UL	10 to 120 m (33 to 394 ft)
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)	
EN54	-10°C to +55°C (+14°F to +131°F)
UL	-20°C to +55°C (-4°F to +131°F)
Optical wavelength	850nm
LED indications:	
System Controller	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)	1x Transmitter (clear lens) 1x Receiver (dark lens) 1x Control Unit
Parts list (Additional Detector)	1x Transmitter (clear lens) 1x Receiver (dark lens)
Housing material	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)	2 s	10 s	30 s
Laser time-out (selectable in 1 min steps)	1 min	5 min	59 min
Response sensitivity/ threshold (selectable in 1% steps)	35%	60%	

WEIGHT & DIMENSIONS			
System Controller	606 g (1½ lb) 124(h) x 203(w) x 71.5(d) mm (5"(h) x 8"(w) x 2¾"(d))		
Transmitter & Receiver	207 g (½ lb) 77(h) x 78(w) x 161(d) mm (3"(h) x 3"(w) x 6¼"(d))		



INSTALLATION RECOMMENDATIONS

Please refer to the User Guide (UG) for mounting, wiring and commissioning instructions. The installation of the Fireray 3000 End-To-End Beam Smoke Detector should be undertaken in accordance with the recognised national, or international, standards and Codes of Practice (COP).