

Engineering Technical specs for Fireray One

The Auto-aligning reflective Optical Beam Smoke Detector system shall be compliant with EN54:12 and the CPR, or listed to UL 268 7th Edition

The beam shall consist of a Detector and Reflector arranged in a reflective mode of operation.

The beam system shall operate between a range of 5m to 120m.

The beam shall use one reflective prism up to 50m and 4 prisms up to 120m.

The detector head shall have an integral red laser to assist prism positioning or initial alignment.

The detector shall use an invisible light source as its method of smoke detection.

The detector shall include an Auto-Alignment function to automatically align the beam onto the reflector.

The detector shall be capable of automatically aligning itself in less than 3 minutes.

The detector shall automatically compensate for natural building movement, to minimize nuisance alarm, by a function of Building Movement Tracking.

The detector shall feature a method of contamination compensation to compensate for gradual signal deterioration from dirt accumulation on the optical surfaces.

The detector shall not signal an alarm condition if the detector is exposed to sunlight. This method can be by a function called Light Cancellation Technology which compensates high level of sunlight and artificial light.

The detector has an integrated user interface with a slide switch to set the alignment mode, directional keys and setting switches allowing the programming of alarm threshold levels to 25%, 35%, 50% or 60%.

The detector shall have a 'delay to fault' of 10 seconds to minimise faults from temporary obstructions

The detector shall have a 'delay to Alarm' of 10 seconds to minimise false alarms from temporary atmospheric conditions.

A full range of installation accessories shall be available for flexibility during installation.

Technical specifications

Detection range	0 to 50 m
Alignment Method	0 to 120 m with Reflective Long Range Kit Laser assisted, Auto-Alignment™. Manual alignment – Optional setting
Auto-Alignment™ Protocole	Background check, Box search, Adjust and Centre
Building Movement Tracking™	Compensates for natural shifts in alignment from building movement
Contamination Compensation	Compensates for gradual buildup of contamination on the optical surfaces
Light Cancellation Technology™	Compensates for high levels of sunlight and artificial lighting
Optical wavelength-smoke detection	850 nm near infrared (invisible)
Integrated laser – laser alignment	650 nm visible. Classe IIIa <5 mW
Dynamic Beam Phasing	Allows beam detectors to be mounting facing each other with the reflectors in the middle. Eliminates false alarms caused by the crosstalks between beams.
Signal Output	Individual alarm and fault relay (VFCO) 2A@30VDC
Operating voltage	14 to 36 V CC
Operating current (constant)	All operational modes – 5 mA; Fast alignment mode – 33 mA

Available Model:

6010-100 Fireray One – 50 m detection range

1010-000 Reflective Long Range Kit – 120 m detection range

Accessories

1150-000 Commissioning and Maintenance Kit

1170-000 Reflective Detector Adjustment bracket

1100-000 The Fireray One Protective Cage

1040-000 Single Reflector Adjustment Bracket

1050-000 4 Reflector Adjustment Bracket

1030-000 Reflector Wall Bracket - white

1031-000 Reflector Wall Bracket- black

1060-000 The Fireray One Anti-condensation heater

1090-000 Reflector Anti-condensation heater

1260-000 The Fireray One Back Box