

UV/IR Flame Detector

This Axis EN Ultra-Violet, dual Infra-Red (UV/IR²) Flame Detector is designed to operate in hazardous areas where open fires may be expected.

This detector is sensitive to low frequency flickering infra-red radiation and detects almost all flames, from invisible fire such as hydrogen to hydrocarbon fires. The flame detector has a UV sensor and two IR sensors which respond to different wavelengths of both the ultraviolet and infra-red spectrum enhancing detection through signal processing while minimising false alarms as only when both UV and IR are detected an alarm is signalled.

The detector signals an alarm state by switching an alarm latch on, increasing the current drawn from the supply from 8mA to 28mA and closing the contacts of a Fire relay RL1. The alarm current also illuminates the detector integral red LED. A Fault relay RL2 closes its volt free contacts if the detector has no faults and the supply voltage to the detector is the correct value.

The detector is tolerant to fumes, vapours and mist and suitable for indoor and outdoor areas. ATEX certified for Zones 1, 21, 2 and 22 and SIL 2 rated.



Features

- Fast Response to Fire
- Solar Blind
- Unaffected by Convection Currents, Draught or Wind
- Multi-spectrum Detection
- Selectable Output Options
- Selectable Response Speed
- Selectable Sensitivity Levels
- Built-in Auto and Manual Test
- Low Current Consumption
- Suitable for indoor and outdoor areas

Specifications

Supply Voltage	14 V - 30 V
Quiescent Current	3 mA - 8 mA
Alarm Current	9 mA - 28 mA
Relay Outputs:	Normally Open or Normally Closed
Programmable	Latching or Non-Latching
Ratings (Max.):	
Current	1.0 A
Voltage	50 V _{DC}
Power	30 W
	(Note: Resistive Loads Only)

Power Up Time	2 s
Test Signal Voltage	14 V - 30 V
Operating Temperature Range	-10°C - 55°C
Maximum Humidity (non condensing)	95% RH
Dimensions (H x W x D)	150 x 146 x 137 mm
Cable Gland Entries	3 x 20 mm
Wiring (Cross Sectional Area)	1 mm ² - 4 mm ²
Weight	2.5 kg
IP Rating	66

Performance

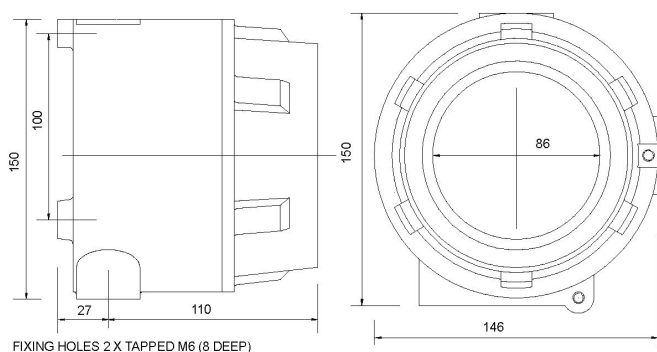
Range	
Class 1	0.1m ² n-heptane at 25m
Class 2	0.1m ² n-heptane at 12m (See EN54-10 for sensitivity settings)
Field of View	90 ° min. Cone
Spectral Response	
UV	185 to 260nm
IR	0.75 to 2.7µm

Response Characteristics - High Sensitivity

Fuel	Flame Size m (ft)	Distance m (ft)	Factory Tested Distance m (ft)	Average Response Time (Sec)
n-Heptane* (Yellow flame)	0.3 X 0.3 (1 X 1)	25 (82)	60 (196)	8
Methylated Spirit* (Clear flame)	0.5 X 0.5 (1.6 X 1.6)	25 (82)	60 (196)	12
Hydrogen (Non-visible flame)	0.1 X 0.5 (0.3 X 1.6)	12 (39)	30 (98)	16

* has been tested and approved at Class 1

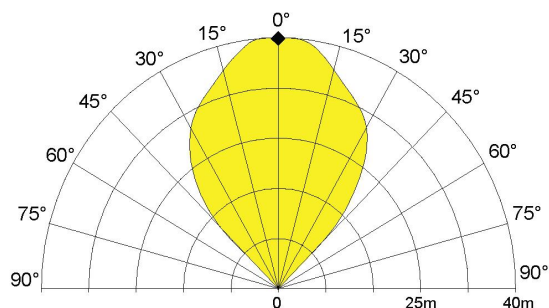
Flame Detector



Listings and Approvals

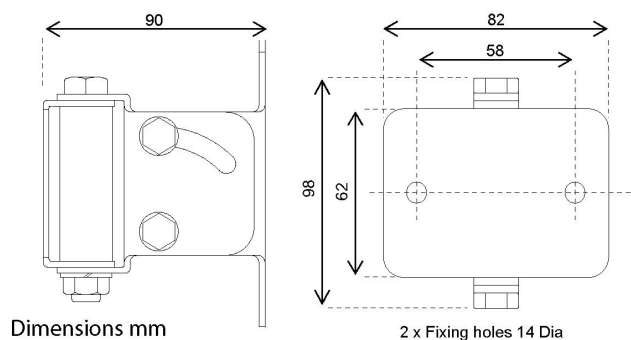
- CPR: 0832-CPR-F0579
- LPCB: 1204a/07
- VDS: G212190
- SIL 2 C127_CT003_(2.0)
- ISSeP ATEX: ISSeP03ATEX012X

Field of View



To meet the requirements of EN54:10 clause 5.4, where the ratio of the response points. Dmax: Dmin should not exceed 1.41, the horizontal and vertical viewing angles max should not exceed ± 30 °.

Mounting Bracket



Order Codes and Options

08-016521

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