

Industrial UV/IR² Flame Detector

16591



Features

- ▶ Unaffected by convection currents, draughts or wind and solar-blind
- ▶ Tolerant of fumes, vapours, dust and mist
- ▶ Selectable response speed
- ▶ Class 1 performance as defined in BS EN54-10:2002 (on the high sensitivity setting)
- ▶ Solar Blind
- ▶ Built in auto and manual test
- ▶ SIL2 Rated

Description

Model 16591 is an UV/IR² flame detector designed for use where open flaming fires may be expected and responds to the light emitted from flames during combustion.

The UV/IR² flame detector is designed to protect areas where open fires may be expected and detects most flames from hydrocarbon fires with 4.3µm emissions through to invisible fires such as hydrogen. The UV/IR² Flame Detector is sensitive to flickering, low frequency (1-15Hz) infra-red radiation along with ultra-violet emitted by flames during combustion.

This detector has a UV sensor and two IR sensors which respond to different wavelengths of both the ultra-violet and the infra-red spectrum. The signals from these sensors are processed by the detector and checked for characteristics of a flame.

The simultaneous detection of both the UV and the IR light by the sensors will signal an alarm. False alarms from flickering sunlight, arc welding and lighting are eliminated by a combination of UV and dual IR signal processing techniques.

The UV/IR² flame detector has selectable output options or relay contacts or 4 to 20mA signal as standard.

Specification

Ordering codes	16591 IFD-MB (Stainless Steel Mounting Bracket)	
Operating voltage	14 – 30 V dc	
Alarm Current (selected via by DIL switches)	9 ~ 28 mA	
Test Signal Voltage	14 to 30 V dc	
Relay Contact Ratings	Current	1.0 A (max)
	Voltage	50 V dc (max)
	Power	30 W (max) (resistive loads only)
Power Up Time	2 seconds (max)	
Field of View	90° min. Cone	
Range – Class 1* Class 3	0.1 m ² n-heptane at 25 m 0.1 m ² n-heptane at 12 m (see EN54: 10 for sensitivity settings)	
Spectral Response	UV (185 – 260 nm) IR (1.0 ~ 2.7 µm)	
Operating temperature range	-10 °C to + 55 °C	
Storage temperature range	-20 °C to + 65 °C	
Maximum humidity	95% RH - Non condensing (at 40 °C)	
Ingress Protection Rating	IP65	
Colour / Case Material	Blue / Die-Cast Zinc Alloy (ZA12)	
Weight (Kg) / Height / Width / Depth (mm)	2 / 142 / 108 / 82	

This product is not suitable for use in Intrinsically Safe areas

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