GE Security

Product Data Sheet

FF751

UV / Dual IR flame detector in die cast zinc alloy housing

General

Dual infrared (IR^2) and UV/IR^2 models have excellent response to flame while providing immunity to extraneous sources. New microprocessor technology makes the detectors independent of flame intensity enabling it to operate through smoke, a layer of oil, dust, or water vapour. A high and low sensitivity setting according to EN54-10 is provided.

Installer and maintenance friendly

The units can be wired as conventional 2 wire, 4-20 mA, or relay contacts (fire, fault and pre alarm) in latching or non-latching operation. Remote test inputs are available to activate self-test.

IP65, explosion & flameproof enclosures, and intrinsic safe models are available. A stainless steel adjustable bracket and weather shield is also available.

The units are tolerant to vibration, and wind does not affect the performance. The IR^2 unit has excellent tolerance to detector window contamination and can detect flame through glass windows.

A flame sensor test unit is available for accurate testing of the detectors.

Standard Features

- Dual IR and UV/Dual IR models
- High specification units for critical applications
- IP65 Housing available
- Flame proof and Intrinsic safe models
- Low current consumption
- 2 Wire, 4 - 20 mA and relay operation
- Latching and non latching operation
- High / Low sensitivity setting
- Versatile mounting brackets
- Tolerance to detector window contamination
- Versatile, adjustable test torch available
- Remote self test facility
- Microprocessor controlled
- Immunity to false sources (arc welding, lightning and static)
- Conforms to EN54: Part 10

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Specifications

Supply voltage	14 - 28 VDC
Supply current	3/9, 4/8/14, 4-20, 8-20 mA
Relay contact ratings	1 A @ 30 VDC (resistive load)
Field of view	90° min. cone
Spectral response (IR)	1.0 to 2 microm
Operating temperature	-10°C to 55°C
Storage temperature	-20°C to 65°C
Relative humidity	95% non-condensing
IP Rating	IP64 poly carbonate box
	IP65 die-cast zinc alloy box
	IP66 flame proof box
Weight	1 kg die-cast zinc ally box
	2 kg flame proof box

Ordering Information

Part No.	Description
FF751	UV / Dual IR flame detector in die cast zinc alloy housing
FF756	UV / Dual IR flame detector in Eexd - IIC T6 flame proof housing

Reducing false alarms

Most IR flame sensors respond to 4.3 m light, emitted by hydrocarbon flames. By responding to 1.0 to 2.7 m light emitted by every fire, all flickering flames can be detected. Gas fires not visible to the naked eye e.g. hydrogen may also be detected.

The IR² detectors, responding to adjacent IR wavelengths, enable it to discriminate between flames and spurious sources of IR radiation.

The combination of filters and signal processing allows the sensor to be used without risk of false alarms in difficult situations characterised by factors such as flickering sunlight.

The combination of UV and IR² detection, plus signal processing allows the UV / IR² sensor to be used without risk of false alarms in difficult situations characterised factors such as flickering blackbody radiation or arc welding.

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