

# DUAL IR (IR<sup>2</sup>) FLAME DETECTOR

 **NOTIFIER**<sup>®</sup>  
by Honeywell

Flame Detection

## General

The Dual Infra-red (IR<sup>2</sup>) Flame Detector is designed to protect areas where open fires may be expected.

The IR<sup>2</sup> Flame Detector is sensitive to low frequency, flickering infra-red radiation emitted by flames during combustion.

Since it responds to flickering radiation the IR<sup>2</sup> Flame Detector can operate even if the lens is contaminated by a layer of oil, dust water-vapour or ice.

## Features

- Response range of 0.75 to 2.7µm radiation at 1 to 15 Hz
- Detects almost all flames
- Dual IR sensors respond to different IR wavelengths
- Discriminates between flames and spurious sources of radiation.
- False alarms are avoided by a combination of filters and signal processing techniques.
- Intrinsically safe & Ex d models for use in hazardous areas
- Front or rear viewing models
- Fire/Fault, Pre-alarm clean contact, latching or non-latching relays
- Integral alarm LED
- To reset after an event, interrupt power to the detector for minimum of 1 second
- Front or rear viewing models
- Class 1 Sensitivity to EN54-10  
Detects 0.1m<sup>2</sup>fire @ 25m



- High optical interference immunity
- Selectable response speed
- Optical self test
- Low power consumption

## Approvals

### Flameproof (Ex d)

(Zones 1, 21, 2 and 22)

- **ATEX**

 II 2GD


- **IECEX**

Ex d IIC T4 Gb  
Ex d IIIC T135° C Db IP66 A21

### Intrinsically Safe (IS)

(Zones 0, 1 and 2)

- **ATEX**

 II I G

**LPCB & CPD** Approved to EN54-10

## IR<sup>2</sup> Flame Detector Housings



Front or Rear Viewing  
Die Cast Zinc Alloy  
Intrinsically Safe Model Available



Exd Flameproof Front Viewing  
Copper Free Aluminium Alloy



Exd Flameproof Front Viewing  
Stainless Steel (316)

## Specifications

|                    |   |
|--------------------|---|
| Supply Voltage:    | 14 - 30 VDC                                     |
| Quiescent Current: | 8mA maximum                                     |
| Alarm Current:     | 28mA maximum                                    |
| Alarm Indicator:   | Red LED   |
| Power Up Time:     | 2 Seconds                                       |
| Range of View:     | 0.1m <sup>2</sup> n-heptane<br>@ 25m            |
| Sensitivity:       | Class 1 (EN54-10)                               |
| Field of View:     | 90° cone  |
| Spectral Response: | IR <sup>2</sup> 0.75 to 2.7µm                   |
| Temperature Range: | -10° to +55° C<br>(no condensation<br>or icing) |
| Relative Humidity: | 95%<br>(non-condensing)                         |
| IP Ratings:        | IP65<br>IP66 for Exd models                     |

### Note:

When using IR<sup>2</sup> flame detectors, please avoid, direct or reflected sunlight on the optics, prolonged ambient temperatures above 55° C and obstructions in the field of view.

### Accessories:

Stainless steel adjustable mount  
Stainless steel weathershield  
Bayonet mount

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