

# Flame Detector *AlphaEye™*

## General

High Sensitivity Triple Infrared (IR3) Flame detectors, provides detection of fires from light to heavy hydrocarbon fuels combined with the highest degree of false alarm rejection. A truly versatile detector for today's demanding industrial requirements, with range up to 60 m (200 feet) for the detection of a 0.1 m<sup>2</sup> (one square-foot) Heptane reference fire and has a very good cone of vision in volumetric coverage.

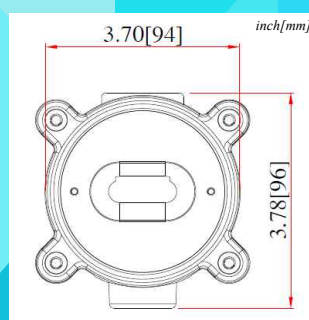
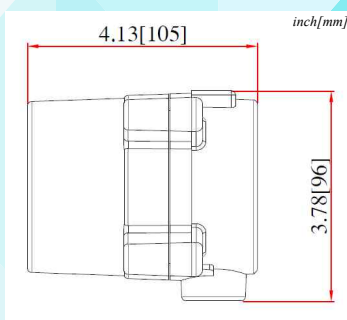
IR3 Flame Detectors providing an efficient alternative to smoke and heat detectors often proven to be ineffective.

IR3 Flame Detectors have explosionproof ratings and are suitable for use in indoor and outdoor

## Applications

- Refineries and Tank farms
- Gas Stations
- Automotive industry
- Power plants,
- Warehouses
- Chemical plants
- Paint and Solvent storage
- Aircraft hangers,
- Aerospace industry,
- Onshore oil and gas installations,
- Malls,
- wood stores,
- underground tunnels
- arc welding workshops

## General Dimensions



[Certifications / Approvals]  
FM3260, IECEx, KFI, KGS, ATEX, NEPSI

## Features & Benefits

- Low power consumption
- Quick Response Time: < 5 sec
- Intrinsically safe
- Compact design
- Cost effective
- Low weight load

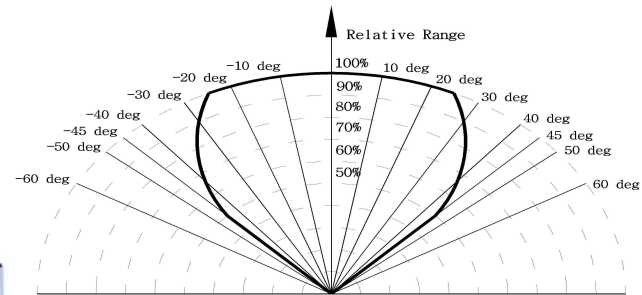
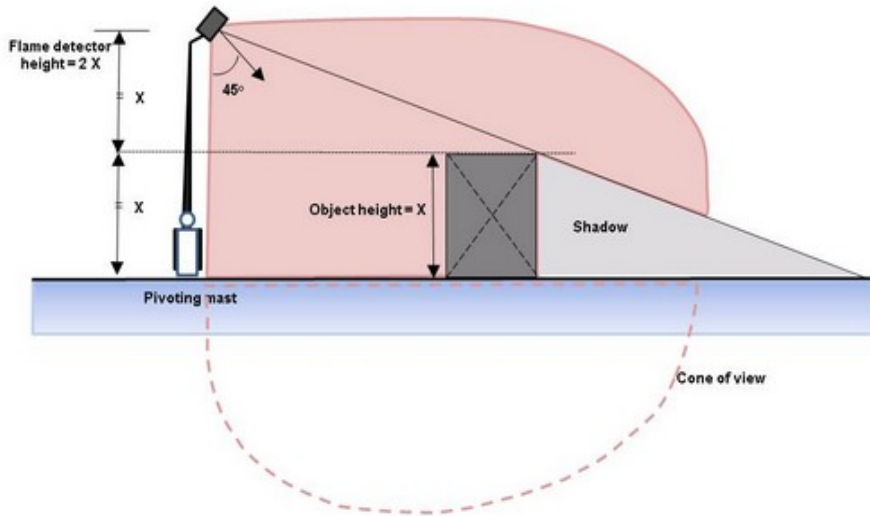
## General Specifications

<b>Detection Range:</b>	up to 60Meters (n-Heptane )
<b>Field of View:</b>	90° horizontal / 90°vertical (an extra wide field of view up to 120°)
<b>Response Time:</b>	< 5 sec
<b>Temperature Range:</b>	<ul style="list-style-type: none"> <li>Operating: -40°C to +75°C</li> <li>Storage: -50°C to +85°C</li> </ul>
<b>Enclosure Type IP Rating:</b>	IP66
<b>Enclosure Material:</b>	RED powder coated Aluminum
<b>Voltage Range:</b>	24 Vdc (18 – 30 Vdc) - regulated
<b>Electrical Specifications:</b>	<p><b>during detection</b> of fire or self-diagnosis test</p> <ul style="list-style-type: none"> <li>Max Consumption Power: 3W (@24VDC)</li> <li>Normal Average Current: 100mA (@24VDC)</li> <li>Max Operating Current: 125mA</li> </ul> <p><b>Output Relay</b></p> <ul style="list-style-type: none"> <li>Fire Alarm: SPDT (NO/NC) -De-energised/energized, latching/non-latching</li> <li>Fault: SPST (NO) – De-energised, latching/non-latching</li> <li>Contacts rating: 2 amp @ 24 Vdc</li> <li>Dry contact: A (Normally Open) or B (Normally closed)</li> </ul> <p><b>RS485 Communication</b></p> <ul style="list-style-type: none"> <li>Non-isolation output (2 wiring)</li> <li>Communication Speed: 9600 bps</li> </ul>
<b>Visual Indicator</b>	<ul style="list-style-type: none"> <li>Power: <b>Green</b> LED (Normal)</li> <li>Alarm: <b>Red</b> LED</li> <li>Fault: <b>Yellow</b> LED (Power supply fault/ blinking 2Hz)</li> </ul>
<b>Wiring</b>	2.5 mm <sup>2</sup> (14 AWG) to 0.326 mm <sup>2</sup> (22 AWG) shielded cable recommended
<b>Relative Humidity:</b>	0-95%
<b>Hazardous Area Certifications:</b>	ATEX/IECEX: II 2 G Ex db IIB +H2 Gb T6 Ta: -40 to +75°C
<b>Shipping Weight:</b>	Detector - 1.4 kg Bracket- 1.25 kg (option)
<b>BIT (built-in-test):</b>	Function Fire and Fault Relays False Alarm immunity
<b>Conduit Entry:</b>	1 x 1/2-inch PF or M20
<b>EMC Protected</b>	Yes

## False Alarm Detection Range

Radiation Source	Immunity Distance ft(m)
Reflected sunlight	No fire alarm
Incandescent lamp 100W	No fire alarm
Fluorescent light 40W	No fire alarm
Resistive electric heater 1500W	No fire alarm
Blue, Green dome light XXXW	No fire alarm
Halogen lamp 500W (Glass)	No fire alarm
Halogen lamp 1000W (Quartz lamp)	No fire alarm
Grinding metal	3.3 (1)
Arc welding (5mm, 200A)	16(5)

**Installation Design**



**Accessories**

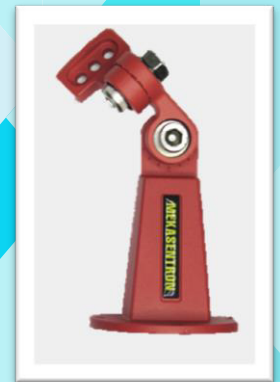
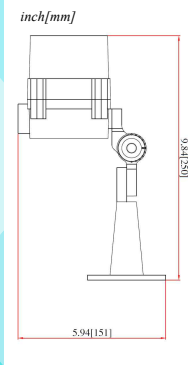
**Test Lamp TLX300**

Explosion Proof : EX d IIB, T6, IP65 KGS  
 Dimension : 13 x 15 x 23 cm  
 Operating Distance : Max. 5m  
 (Distance may vary depends on the model)  
 Operating Time : Max. 100minutes  
 Weight : 3Kg  
 Material : Aluminium



**Bracket MB-01**

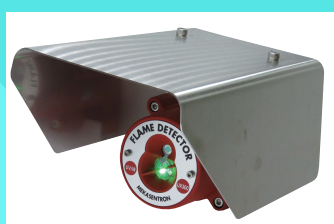
Adjustable Angle : Horizontal & Vertical 180 degrees each  
 Material : Aluminium  
 Color : RED  
 Weight : 0.3Kg  
 Dimension : 94 x 151 x 250mm



**Sun Shield MS-01**

Material : Stainless Steel  
 Weight : 0.746Kg

This sun visor will protect the detector from sunlight and rain



**Air Shield / Air Jet MA-01 / MA-02**

Continuously spray into flame detector window and keep it clean.  
 Suitable at contaminated areas such as dust or greasy places

