



SENSE-WARE

THE FLAME DETECTOR
COMPANY



Model IR3-109/1

Triple Infrared Flame Detector

- Three Infrared Sensors
- Corrosion proof
GRP housing
- Non-Incendive for Zone 2
- Weather Resistant
- Relay & 4-20 mA Outputs
- Automatic & Manual
Self Test
- 5 Year Warranty
- ATEX, IECEx &
FM3611 Approved
- EN54-10 & FM3260
Approved
- Suitable for Zone 2 &
Safe Areas
- Low Power

The Sense-WARE Triple IR3 Flame Detector is designed to give optimum performance for Zone 2 and Safe Area flame detection. Designed to detect all types of hydrocarbon fires and immune to false alarms, the Model IR3-109/1 offers a cost effective solution for Zone 2 and Safe Area industrial and commercial applications.

The Retroreflective ring around the window allows for easy testing with a Sense-Ware Test Lamp. The Pressure Compensating Element (PCE), prevents water ingress damaging the electronics.

Sense-WARE Flame Detectors offer fast performance, with a 5 year warranty making them the Best in Class.



Typical Applications

- Aircraft Hangars • Atriums • Biogas • Car, Train Bus, Tram and Train Parkings • CNG Filling • Conveyor Belts
- Diesel Engine Rooms • Electric Power Transformers Engine Test Cells • Gas Cabinets • Gasoline/Gas Engine Rooms • Service & Charging Stations
- Hydraulics e.g. Extruders • Chemical, Fuel & Solvent Storage • Hydrocarbon Storage and Processing
- Laboratories • Loading / Unloading Terminals
- Monitoring of Machinery • Chemical Storage • Oil and Gas Pipe Line and Pumping Stations • Powder Coating & Paint Booths • Recycling and Waste Processing Plants • Wind Turbines



Specifications

Spectral Range

2.7 - 5.0 Microns

Maximum Range

35 Meters (115 ft)
0.09 m² (1 Sq.Ft.) Heptane pan fire

Typical Response

<10 Seconds

Field of View

90° x 90°

Input Power

10-28 VDC

Current (Normal)

25 mA @ 24 VDC
(40 mA peak during Self-Test)

Current (Alarm)

35 mA @ 24 VDC

Start Up Time

<10 Seconds

Analogue Signal - Sink

0-20 mA

Power Fault

0 mA

Optical Fault

2 mA

Normal Operation

4 mA

Alarm

20 mA

Relays

Alarm & Fault SPDT

Relay Contact Rating

30 VDC / 2 A / 60 W

Latching (default) / Non Latching

DIL Switch selectable

Normal Operation

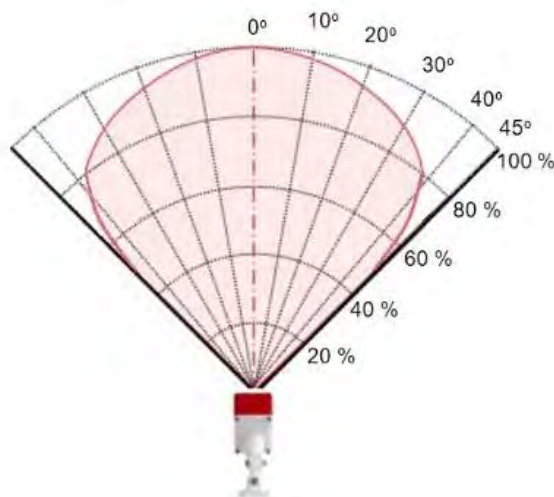
Green LED

Alarm Indication

Red LED

Fault Indication

Yellow LED



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Approvals

EN54-10

Performance, Class 1

ATEX, IEC Hazardous Area

II 3G Ex nA IIC T4 Gc,
II 3D EX tc IIIC T71°C Dc

FM3260

Performance (see Manual)

FM3611 Hazardous Area

Non-Incendive: Class I, II, III,
Div 2, Groups A,B,C,D,F,G
(see Manual)

Accessories

I.S. Test Lamp

TC-940/1Z

Non EX Test Lamp

TC-169/1

Swivel Mount

SM21

Specifications may be subject to change

Automatic Self-Test

Once per Hour

Manual Self-Test

Available (see Manual)

Cable gland (pre-mounted)

1 x M20

Cable diameter

5.5-13 mm / 20-60 AWG

Housing

GRP

Temperature Range

-25 °C to +70 °C Hazardous Area
-40 °C to +70 °C Safe Area

Humidity

0-95 % Non Condensing

Ingress Protection

IP65

Pressure Compensation

PCE

Weight

465 g

Dimensions

125 x 80 x 57 mm

Warranty

5 Years

www.sense-ware.com

PRODUCTS:

Gaseous Suppression



Inert Gas (IG-01, IG-55, IG-100, IG-541)
Novec 1230™ Fluid (FK-5-1-12)
FM-200® (HFC-227ea.)
Carbon Dioxide (CO₂)
Hybrid Systems (N₂ / Water)
Pressure Relief Vents
Enclosure Integrity Testing Equipment
Pipe & Fittings

Water Suppression



Water Mist - High Pressure
Water Mist - Intermediate Pressure
Water Mist - Low Pressure
Hybrid Systems (Water / N₂)
Monitors & Delivery Systems
High Speed Deluge

Foam Suppression



Foam Concentrates
Foam Proportioning
Foam Delivery Systems
Compressed Air Foam
Foam Concentrate Testing

Explosion Protection



Explosion Suppression
Explosion Isolation
Explosion Vents & Pressure Relief
Spark Suppression
Explosibility Testing

Fire Detection



Linear Heat Detection - Digital
Linear Heat Detection - Fibre Optic
Linear Heat Detection - Micro Chip
Flame Detection
Video Imaging Detection
Spark Detection
Control & Indicating Equipment
Thermal Imaging Detection
Aspirating Smoke Detection

Military & Defence



Military Vehicles
Naval Vessels

Special Applications



Micro Environment
Oxygen Reduction
Kitchen Protection Systems
Dry Chemical
Vehicle Systems
Marine & Offshore
Vapour Mitigation
Li-Ion Fire Systems

Support Services



Design / Engineering
Technical Support
Services & Testing

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‘Every solution for your special hazard problems’