5 YEARS WARRANTY

FLAME DETECTOR

SENSE-WARE

THE FLAME DETECTOR
COMPANY

BEST-IN-CLASS
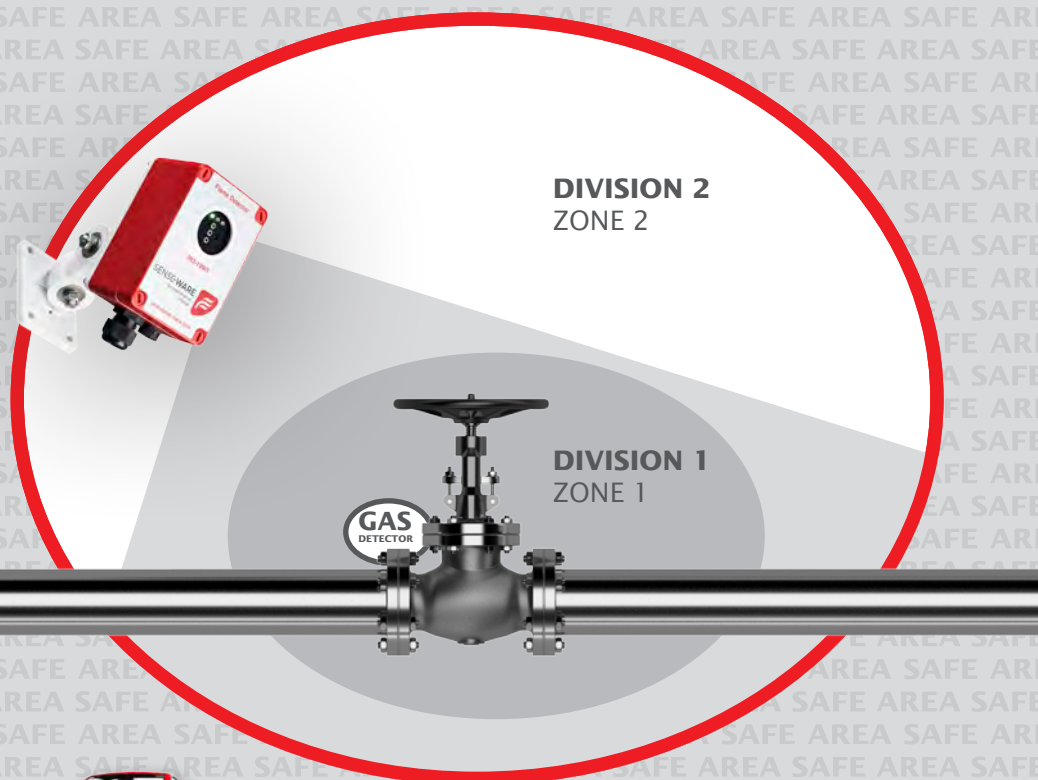
Industrial Flame Detectors

IR3

UV/IR

UV

Why **Division 2**

- Consider that detectors developed for Division 2 means full protection at improved life time cost
- Flame detectors are line of sight detectors and should be mounted outside the potential risk area
- This fact, is exactly why Division 2 flame detectors are also suitable to monitor Division 1 hazardous areas

DIVISION 2
ZONE 2

DIVISION 1
ZONE 1

GAS DETECTOR

Why **Fiberglass**

- Suitable for Hazardous Areas
- Highly impact resistant housing (7 J) and Sapphire window (4 J)
- Non-corrosive and good solvent resistance
- Ingress Protected (IP65), designed to meet NEMA 4
- UV resistant (f1) and flammability V-0 according to UL94
- Pressure Compensating Element (Breather) prevents water trapping
- Easy to install, light weight, grounding of the Housing is not needed and two step cable gland enable wide range of cable diameters

Why **Sense-Ware**

- Independent, internationally orientated manufacturer of high quality safety products since 2001
- Focus on Best in Class Division 2 flame detectors
- Works with partners who share in our vision of developing products that help make this world a safer place
- Committed to provide customers with products that meet their demanding safety needs with zero problems. Ongoing focus on improving technical know-how and ability
- Professional employees with many years of experience in the flame detection industry, focused on providing you with the best, most effective solutions in line with Six Sigma quality control principles
- Cutting edge technical knowledge and expertise combined with ongoing product development
- International certification including FM class 3260 and 3611 approvals; EN54-10 and IECEx/ATEX certificates
- Detection range sufficient for over 95% of applications where flame detectors are required

Accessoires

Swivel Mount

Safe-Area Test Lamp

Intrinsically Safe Test Lamp

Benefits

- Rugged sensors make the detector suitable for virtually all types of fires
- Sophisticated software such as built-in self-test enhances detector reliability and Serviceability
- Housing and swivel mount designs help prevent grounding-related assembly and mounting mistakes
- The Pressure Compensating Element prevents costly maintenance as a result of moisture build-up
- Nonincendive/Non-sparking features enhance unit reliability and serviceability at a reasonable additional cost
- Warranty for 36 months after installation or 42 months after supply, whichever comes first

Applications

Application*	UV	UV/IR	IR3
Aircraft hangars		•	••
Atriums		•	••
Battery storage/data communication rooms	•	••	
Biogas		•	••
Car, bus, streetcar, and train parking areas		•	••
Sterile rooms such as semi-conductor, medicinal drug manufacturing, and hospital operating rooms	•	••	
CNG refueling stations for buses (for public transport)		••	••
Cold storage	••		
Conveyer belts			••
Diesel engine rooms		•	••
Electric power transformers		••	•
Engine test cell rooms	•	••	••
Fume hoods	••	•	
Gas cabinets	•	••	•
Gasoline storage/gas engine rooms	•	••	••
Service stations and plug-in (hybrid) charging stations		••	••
Heating rooms for chemicals	••	•	
Hydraulics (such as extruders)		•	••
Indoor chemical, fuel, and solvent storage	•	••	•
Indoor hydrocarbon storage and processing	•	•	••
Indoor hydrogen storage and processing	••	••	
Radio amplifier rooms/isolators for antennas	••		
Laboratories	•	••	•
Loading and unloading bays: for semi, train, and marine		••	••
Machinery monitoring	•	••	••
Outdoor chemical, fuels, paint, and solvent storage		•	••
Outdoor hydrogen storage and processing		••	
Oil and gas pipe line and pumping stations		•	••
Paint spray booths			••
Recycling and waste processing plants		•	••
Wind turbines		•	••
Livestock barns, -stables or -stalls		•	••

• Suitable   •• Recommended

* Contact your sales representative to discuss the exact application you have in mind. Visit our website if your intended application was not included in this list.

www.sense-ware.com

Specifications

Power	12-24 Vdc (10-28 Vdc)
Current normal	± 25 mA at 24 Vdc
Current in alarm	± 35 mA at 24 Vdc
Current peak (during self-test, max 5 sec. per hour)	UV and UV/IR: ± 75 mA at 24 Vdc IR3: ± 40 mA at 24 Vdc
Start-up time	< 10 sec
Alarm output setting	Selectable LEDs and latching/non latching relays Factory default: latching
Connections	• Fire alarm control panels using the end of line (EOL) and alarm resistor (current increase) • Devices that can take relay outputs • PLCs with a 0-20 mA input
End of line and alarm resistors	Adjustable from the fire control panel, free terminals dedicated to resistors are available. **Note:** the EOL and alarm resistors must have a minimum 2 W rating each, with total power dissipation for both EOL and alarm resistors not exceeding 2 W
Relay outputs: • alarm relay • fault relay	De-energized during normal operation, no alarm, SPDT, 30 Vdc - 2 A, 60 W max. Energized during normal operation, no fault, SPDT, 30 Vdc - 2 A, 60 W max
Current output	Standard available 0-20 mA (stepped, sinking, non-isolated)
Alarm response time	< 10 sec, see appendices
Cone of vision	Minimum 90°
Housing	Glass reinforced polyester (GRP), min 2 nm lid screw tightening torque
Ingress protection	IP65
Operating temperature	-40° F to +158° F (-40° C to +70° C)
Room temperature	ATEX, IECEx and FM class 3611: -13° F to +158° F (-25° C to +70° C)
Automatic and manual self-tests	Automatic Sensor Test (built-in self-test) and manual self-test
Dimensions	4.9 x 3.15 x 2.25 inches (125 x 80 x 57 mm)
Weight	1.05 lbs. (465 g)
Cable connector (gland)	M20 (cable conduit diameter 5.5-13 mm, two steps: 5.5-8 mm and 8-13 mm)
Pressure Compensating Element	Prevents moisture build-up in the detector housing as a result of temperature fluctuations caused by pressure differences
Terminals	Suitable for solid cores 0.5 to 1.5 mm^2 (20 to 16 AWG), min 0.4 nm tightening torque
EN54-10 certificate, performance	UV-185/5CZ and UV/IR-210/1CZ: Class 2. IR3-109/1CZ: Class 1
ATEX cert. for hazardous areas	II 3G Ex nA IIC T4 Gc, II 3D Ex tc IIIC T 710C Dc, IP65
IECEx cert. for hazardous areas	Ex nA IIC T4 Gc, Ex tc IIIC T 710C Dc, IP65
FM3260 approval for performance	Awarded
FM3611 approval for hazardous areas	Awarded
Optional SM21 Swivel Mount materials	PA66, UV resistant; 316 stainless steel fixings
Optional SM21 Swivel Mount weight	0.62 lbs. (280 g)

BEST-IN-CLASS

Industrial Flame Detectors

Features

- Equipped with a microprocessor for sophisticated electronic signal analysis
- Splendid false alarm immunity
- The UV sensor rules out virtually any false alarm (arc welding the notable exception)
- Capable of detecting all types of flaming hydrocarbon fires
- UV and UV/IR detect hydrogen flames
- Virtually immune to sunlight, artificial light sources, arcs and electric discharges and arc welding
- The IR3 flame detector is perfect for situations where there is a risk of smoky fires
- The Automatic Sensor Test (built-in self-testing) function monitors flame sensors and electronics
- DIL-switches are incorporated for setting latching/non-latching alarm functions

NORTH & SOUTH AMERICA

SENSE-WARE Americas
1942 W White Oak Dr.
Peoria IL 61614
Illinois
USA
Phone: +1 888 732 7521
Email: americas@sense-ware.com

EUROPE, M. EAST & AFRICA

SENSE-WARE
Fire and Gas Detection B.V
Fokkerstraat 25
3905 KV Veenendaal
The Netherlands, EU
Phone: +31 88 736 7300
Email: eu@sense-ware.com

ASIA & OCEANIA

SENSE-WARE Asia Pacific
59 Fen Ji Hu, Danshui
New Taipei City 25163
Taiwan
Mobile: +886 926 664 232
Phone: +886 2 862 628 93
Email: ap@sense-ware.com

www.sense-ware.com