

AUTOMATIC



Shown with Q9033A
Aluminum Mounting Arm

DESCRIPTION



The X3301 is a multispectrum infrared (MIR) flame detector. It provides unsurpassed detection of fires from light to heavy hydrocarbon fuels combined with the highest degree of false alarm rejection. The detector has Division and Zone explosion-proof ratings and is suitable for use in indoor and outdoor applications.

The X3301 contains three IR sensors with their associated signal processing circuitry. The standard output configuration includes fire alarm, fault and auxiliary relays, with an isolated 0 to 20 mA output model with optional HART communication.

The detector provides superior performance in applications that are at the extremes, and where background infrared radiation is a normal condition:

- Hangars
- Offshore production platforms
- Offshore production ships
- Refineries
- Production facilities
- Loading racks
- Compressor stations
- Turbine enclosures
- Airport water curtains
- Automotive Painting
- LNG/LPG
- Gas Separation Plants
- Warehousing
- Marine

Multispectrum IR Flame Detector X3301



HIGHLIGHTS

X3301 TECHNOLOGY FEATURES

- ▲ Complies with FM 3260
- ▲ EN54 certified
- ▲ Certified SIL 2 capable
- ▲ ATEX Directive compliant
- ▲ Certified performance to multiple fuel types and fire sizes
- ▲ EQP models available
- ▲ Long detection range to carbonaceous fires
- ▲ HART models available
- ▲ FDT/DTM capable
- ▲ Multiple sensitivity levels
- ▲ Maximum false alarm rejection
- ▲ Reliable flame detection with modulated IR background
- ▲ Microprocessor controlled heated optics
- ▲ Calibrated automatic optical check for each sensor eliminates need for testing with external test lamp
- ▲ RFI and EMC Directive compliant
- ▲ Event logging with time and date stamp
- ▲ Integral wiring compartment for ease of installation
- ▲ Operates under adverse weather conditions and in dirty environments

BENEFITS

- ▲ Single detector for multiple hydrocarbon fuels
- ▲ Low cost of coverage
- ▲ Ability to detect smaller fires earlier
- ▲ Solid cone of vision to 125 feet for methane
- ▲ Better detection zoning capability
- ▲ Best combination of flame detection and false alarm rejection
- ▲ Low maintenance costs
- ▲ Reliable fault diagnostics
- ▲ Suitable for heavy industrial applications
- ▲ Explosion/flame proof (Ex d) or increased safety installations (Ex d e) in hazardous locations

SPECIFICATIONS

Operating Voltage	24 Vdc nominal (18 Vdc minimum, 30 Vdc maximum). Maximum ripple is 2 volts peak-to-peak.	Shipping Weight (Approximate)	Aluminum: 7 lbs. (3.2 kg). Stainless Steel: 13.8 lbs. (6.3 kg).																																																																																																																					
Power Consumption	4 watts minimum (without heater), 17 watts at 30 Vdc with EOL resistor installed and heater on maximum.	Field of View	90° horizontal by 75° vertical, at a minimum of 70% of the on-axis detection distance.																																																																																																																					
Relays	Contacts rated 5 amperes at 30 Vdc. Fire Alarm: — Form C (NO and NC contacts) — normally de-energized — latching/non-latching. Fault: — Form A (NO contacts) — normally energized — latching/non-latching. Auxiliary: — Form C (NO and NC contacts) — normally energized/de-energized — latching/non-latching.	Certification	 																																																																																																																					
Current Output (Optional)	0–20 mA (\pm 0.3 mA), with a maximum loop resistance of 500 ohms from 18–19.9 Vdc, 600 ohms from 20–30 Vdc.	Class I, Div. 1, Groups B, C & D (T4A); Class II, Div 1, Groups E, F & G (T4A); Class I, Div. 2 , Groups A, B, C & D (T3C); Class II, Div 2. Groupd F & G (T3C); Class III Enclosure NEMA/Type 4X.	DEMKO 01 ATEX 130204X Increased Safety Model  II 2 G  II 2 D																																																																																																																					
Temperature Range	Operating: -40°F to +167°F (-40°C to +75°C). Storage: -67°F to +185°F (-55°C to +85°C).	For FM and CSA Zone approval information, refer to the X3301 instruction manual (95-8704).	Ex d IIC T6...T5 Gb Ex tb IIIC T130°C T6 (Tamb -50°C to +60°C) T5 (Tamb -50°C to +75°C) IP66/IP67.																																																																																																																					
Humidity Range	Hazardous location ratings from -55°C to +125°C.	IEC 61508 Certified SIL 2 Capable. Applies to specific models – Refer to the SIL 2 Certified X3301 Safety manual (95-8720).	Flameproof Model  II 2 G  II 2 D																																																																																																																					
Wiring	16 AWG or 2.5 mm ² shielded cable is recommended.		Ex d IIC T6...T4 Gb Ex tb IIIC T130°C T6 (Tamb -55°C to +60°C) T5 (Tamb -55°C to +75°C) T4 (Tamb -55°C to +125°C) IP66/IP67.																																																																																																																					
Enclosure Material	Copper-free aluminum (painted) or stainless steel (316/CF8M Cast).																																																																																																																							
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Warranty	5 years.																																																																																																																							
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* Outdoor test condition.

** 10 second pre-burn from ignition.

*** Add 2 seconds for EQP Model.

Ø Diameter

NOTE: Refer to the X3301 instruction manual (95-8704) for additional sensitivity levels.

Specifications subject to change without notice.

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Customer Service: 952.946.6491 or 800.765.3473

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Corporate Office



DNV

Type Approval Certificate Number A-13995.

DNV Certificate Number MED-B-9427.