

AutroFlame X22AF

Ultraviolet Flame Detector Product datasheet

Features

- FM 3260 (2000).
- EM 54-10 Certified (VdS).
- ATEX Directive compliant.
- Advanced signal processing.
- Arc — unequaled false alarm rejection.
- HART models available.
- Responds to a fire in the presence of modulated blackbody radiation (i.e. heaters, ovens, turbines) without false alarm.
- High speed capability.
- Automatic, manual or magnetic optical integrity (**oi**) testing — no external test lamp required.
- Easily replaceable **oi** plate.
- Fire, fault and auxiliary relays standard.
- MODBUS RS-485 communication.
- 4 to 20 mA isolated output (optional).
- Pulse output for compatibility with controller based systems (optional).
- A tricolor LED on the detector faceplate indicates normal condition and notifies personnel of fire alarm or fault conditions.
- Mounting swivel allows easy sighting.
- Integral wiring compartment for ease of installation.
- Class A wiring per NFPA-72.
- Meets NFPA-33 response requirement for under 0.5 second (available when model selected).
- RFI and EMC Directive compliant.
- Built-in data logging / event monitoring.

Application/Description

The evolution continues with the new AutroFlame X22AF UV Flame Detector. The X22AF is the most advanced UV detector meeting standards and approvals worldwide, combined with a superior mechanical design. The detector is equipped with automatic, manual and magnetic oi test capability. The detector has Division and Zone explosion-proof ratings and is suitable for use in a variety of applications.



The standard output configuration includes fire, fault and auxiliary relays. An optional 4 to 20 mA output with HART can be provided in addition to the three relays. A tricolor LED on the detector faceplate indicates normal condition and notifies personnel of fire alarm or fault conditions.

The X22AF housing is available in aluminum or stainless steel, with NEMA 4X and IP66 rating.

Typical applications include:

- Hydrogen storage
- Munitions
- Silane storage.

AutoFlame X22AF Ultraviolet Flame Detector

Specifications

Input Voltage	24 Vdc nominal. Operating range is 18 to 30 Vdc.
Power Consumption	2.5 watts @ 24 Vdc nominal. 7.6 watts @ 30 Vdc with EOL resistor installed.
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 — latching/non-latching.
Current Output (opt.)	0–20 mA, with a maximum loop resistance of 500 ohms from 18–19.9 Vdc, 600 ohms from 20–30 Vdc.
Temperature Range	Operating: –40°F to +167°F (–40°C to +75°C). Storage: –67°F to +185°F (–55°C to +85°C).
Humidity Range	0 to 95% relative humidity, can withstand 100% condensing humidity for short periods of time.
Field of View	The X22AF has a 90 degree cone of vision with the highest sensitivity lying along its central axis.
Warranty	3 years
Enclosure Material	Copper-free aluminum or 316 stainless steel
Conduit Entry Size	3/4 inch NPT or 25 mm.
Shipping Weight	Aluminum: 6 pounds (2.75 kg). Stainless Steel: 10 pounds (4.5 kg).
Part Numbers	Please contact the sales department or refer to the product catalogue.

Response Characteristics

Very High Sensitivity

Fuel	Size	Distance Feet (m)	Typical Response Time (seconds)	Mode
n-Heptane	1 x 1 foot	85 (25.9)	3	Low Arc
Methane	32 inch plume	100 (30.5)	2	Low Arc

NOTE: Refer to the X22AF instruction manual x22af_igb for details regarding detector response.

Certification



Class I, Div. 1, Groups B, C & D (T5);
 Class II, Div. 1, Groups E, F, & G (T5);
 Class I, Div. 2, Groups A, B, C & D (T3);
 Class II, Div. 2, Groups F & G (T3);
 Class III.
 Enclosure NEMA/Type 4X.

Increased Safety Model

CE 0539 Ex II 2 G
 Ex d e IIC T5–T6 Gb
 DEMKO 02 ATEX 132195X
 T6 (Tamb = –50°C to +60°C).
 T5 (Tamb = –50°C to +75°C).
 IP66

IECEx Certificate of Conformity

IECEx ULD 06.0018X
 Ex d e IIC T5–T6 Gb
 T6 (Tamb = –50°C to +60°C).
 T5 (Tamb = –50°C to +75°C).
 IP66

Flameproof Model

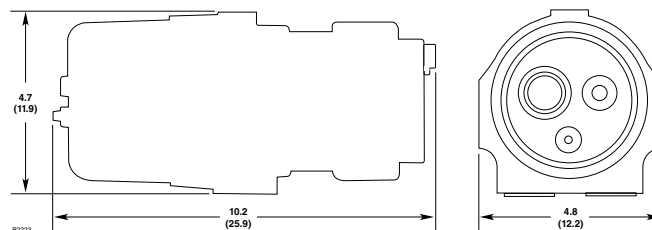
CE 0539 Ex II 2 G
 Ex d IIC T5–T6 Gb
 DEMKO 02 ATEX 132195X
 T6 (Tamb = –55°C to +60°C).
 T5 (Tamb = –55°C to +75°C).
 IP66

– or –

Ex d IIC T5–T6 Gb
 T6 (Tamb = –55°C to +60°C).
 T5 (Tamb = –55°C to +75°C).
 IP66.

Dimensions

Dimensions shown in inches (centimeters)



Wiring

14 AWG (2.08 mm²) or 16 AWG (1.31 mm²) shielded cable is recommended.

9	4-20 mA +	19	4-20 mA –	SPARE	29
8	4-20 mA + REF	18	4-20 mA – REF	SPARE	28
7	COM FIRE	17	COM FIRE	COM AUX	27
6	N.O. FIRE	16	N.O. FIRE	N.O. AUX	26
5	N.C. FIRE	15	N.C. FIRE	N.C. AUX	25
4	COM FAULT	14	COM FAULT	RS-485 A	24
3	N.O. FAULT	13	N.O. FAULT	RS-485 B	23
2	24 VDC +	12	24 VDC +	MAN O ₁	22
1	24 VDC –	11	24 VDC –	24 VDC –	21

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Wiring Terminal Identification for X22AF