

Features & Benefits

- FM 3260 (2000).
- ATEX Directive Compliant.
- TDSA (Time Domain Signal Analysis) for unequalled false alarm rejection.
- Responds to a fire in the presence of modulated blackbody radiation (i.e. heaters, ovens, turbines) without false alarm.
- High-speed capability — 40 milliseconds.
- Microprocessor controlled heated optics for increased resistance to moisture and ice.
- Automatic, manual or magnetic optical integrity (σ_i) testing — no external test lamp required.
- Easily replaceable σ_i 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).
- Tricolour LED indicates normal operation, fire and fault conditions.
- Operates under adverse weather conditions and in dirty environments.
- 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 AutoFlame X98 IR Flame Detector. AutoFlame X98 meets the most stringent requirements worldwide with advanced detection capabilities and immunity to extraneous sources, combined with a superior mechanical design. The detector is equipped with automatic, manual and magnetic σ_i test capability. The detector has Division and Zone explosion-proof ratings and is suitable for use in indoor and outdoor applications.



The standard output configuration includes fire, fault and auxiliary relays. An optional 4 to 20 mA output can be provided in addition to the three relays. A model with pulse output is available for easy retrofitting into existing controller-based systems. Auxiliary relay and 4 to 20 mA output are not available with the pulse model. A tricolour LED on the detector faceplate indicates detector status condition.

AutoFlame X98 housing is available in aluminium or stainless steel, with NEMA 4X and IP66 rating.

Typical applications include:

- Turbines
- Petrochemical applications
- Automotive applications
- Dirty environments

Technical specifications	
Operating Voltage	24 vdc. Operating range is 18 to 30 vdc.
Power Consumption	2.1 watts @ 24 vdc minimum. 16.5 watts @ 30 vdc with EOL resistor installed and heater on maximum.
Relays	Contacts rated 5 amperes at 30 vdc. <u>Fire Alarm</u> : - Form C (NO and NC contacts) - normally de-energized - latching/non-latching. <u>Fault</u> : - Form A(NO contacts) - normally energized - latching/non-latching. <u>Auxiliary*</u> : - Form C (NO and NC contacts) - normally energized - latching/non-latching.
Current Output* (Optional)	4–20 mA, with a maximum loop resistance of 500 ohms from 18–19.9 vdc, 600 ohms from 20–30 vdc.
Temperature Range	<u>Operating</u> : -40°F to +167°F (-40°C to +75°C). <u>Storage</u> : -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 X9800 has a 90 degree cone of vision with the highest sensitivity lying along its central axis.
Warranty	3 years, sensor and electronics.
Enclosure Material	Copper-free aluminum or 316 stainless steel.
Certification	Class I, Div. 1, Groups B, C & D; Class II, Div. 1, Groups E, F, & G; Class I, Div. 2, Groups A, B, C & D (T3); Class II, Div. 2, Groups F & G (T3); Class III. NEMA/Type 4X. <u>Increased Safety Model</u> 0539 II 2 GD EEx de IIC T5–T6 T86°C DEMKO 02 ATEX 132195 T6 (Tamb = -55°C to +60°C). T5 (Tamb = -55°C to +75°C). IP66. <u>Flameproof Model</u> 0539 II 2 GD EEx d IIC T5–T6, T86°C DEMKO 02 ATEX 132195 T6 (Tamb = -55°C to +60°C). T5 (Tamb = -55°C to +75°C). IP66.
Conduit Entry Size	3/4 inch NPT or 25 mm.
Shipping Weight (Approximate)	<u>Aluminium</u> : 6 pounds (2.7 kg). <u>Stainless Steel</u> : 10 pounds (4.5 kg).

Response Characteristics				
Sensitivity	Fuel	Size	Distance (Feet)	Typical Response Time (Sec.)
High	n-Heptane	1 x 1 foot	50	Under 15 Seconds
High	Methane	32 inch plume	35	Under 10 Seconds

NOTE: Refer to the AutoFlame X98 instruction manual for details regarding detector response.

Dimensions

Dimensions shown in inches (centimetres).



Wiring

12 AWG (2.5 mm²) to 22 AWG (0.3 mm²) shielded cable 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 AUX	27
6	N.O. FIRE	16		N.O. AUX	26
5	N.C. FIRE	15		N.C. AUX	25
4	COM FAULT	14		RS-485 A	24
3	N.O. FAULT	13		RS-485 B	23
2	24 VDC +	12		MAN OI	22
1	24 VDC -	11		24 VDC -	21

Wiring Terminal Identification for Standard X98

Order

Part number:	Description:
116-5861-011.3980	AUTROFLAME IR X98 SS REL + 4-20mA
116-5861-011.3981	AUTROFLAME IR X98 ALU REL + 4-20mA

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