Det-Tronics X9800 IR Flame Detector

Evolutionary Flame Detection

The evolution continues with the new X9800 IR Flame Detector. The X9800 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 oi® test capability. The detector has Division and Zone explosion-proof ratings and is suitable for use in indoor and outdoor powder coating applications.

The standard output configuration includes fire, fault, and auxiliary relays. A tricolor LED on the detector faceplate indicates normal condition and notifies personnel of fire alarm or fault conditions.

The X9800 housing is aluminum, with NEMA 4X and IP66/IP67 rating. Det-Tronics X9800 IR Flame Detector is the standard attachment for all Nordson powder coating systems.

DET-TRONICS

System Highlights & Benefits

- Automatic, manual, or magnetic oi® (optical integrity) testing — no external test lamp required
- Easily replaceable oi plate
- High speed capacity
- Fire, fault, and auxiliary relays standard
- Microprocessor controlled heated optics for increased resistance to moisture and ice
- A tricolor LED on the detector faceplate indicates normal condition and notifies personnel of fire alarm or fault conditions
- Mounting bracket allows easy sighting
- Integral wiring compartment for ease of installation
- Built in logging/event monitoring

Certifications

- Complies with FM 3260
- EN54 certified
- Certified SIL 2 capable
- ATEX Directive compliant
- TDSA (Time Domain Signal Analysis) false alarm rejection
- MODBUS RS-485 communication
- Class A wiring per NFPA-72
- Meets NFPA-33 response requirement for under 0.5 second
- RFI and EMC Directive compliant
- Responds to a fire in the presence of modulated blackbody radiation (i.e. heaters, ovens, turbines) without false alarm

Nordson

Det-Tronics X9800 IR Flame Detector

Specifications

Specifications	Model 1
Operating Voltage	24 Vdc nominal (18 Vdc minimum, 30 Vdc maximum). Maximum ripple is 2 volts peak-to-peak
Power Consumption	2.1 watts @ 24 Vdc nominal 16.5 watts @ 30 Vdc with EOL resistor installed and heater on maximum
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
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
Spectral Sensitivity Range	4 - 5 microns
Field of View	The detector has a 90-degree cone of vision (horizontal) with the highest sensitivity lying along its central axis
Warranty	3 years for electronic defects
Enclosure Material	Copper-free aluminum (painted)
Conduit Entry Size	3/4-inch NPT or M25
Shipping Weight	Aluminum: 7 pounds (3.2 kilograms)

Part Numbers

Det-tronics X9800	Part Number
Detector	1609504
Shield	1609231
Mounting Kit	1609232

Response Characteristics

Very high sensitvity, TDSA On

Fuel	n-Heptane	Methane	Propane
Size	1 x 1 foot	32-inch plume	Torch
Distance Feet (m)	85ft (25.9m)	60ft (18.3m)	2ft (0.6m)
Typical Response Time (seconds)	15	<10	0.04
Quick Fire	Off	Off	Off

NOTE: Refer to the X9800 instruction manual 95-8554 for details regarding detector response.

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