



Multi-Spectrum UV/IR/IR Flame Detector Model D232

Flame Detector for Finishing Industry

PRODUCT DESCRIPTION

The **Detectors Inc. Model D232** UV/IR/IR Multi-Spectrum Flame Detector is a new generation of High-speed optical flame detectors designed specifically for liquid spray and powder coating applications. The Model **D232** offers a fast and reliable fire detection and monitoring for detecting fires within half a second in compliance with NFPA 33 Standard. The Model **D232** senses Ultraviolet radiation in the UV spectrum and Infrared radiation in 2 discrete bands of IR spectrum for detecting fires.

The **Model D232** Flame detector will respond to a flash fire within 1/2 second (warning) and if the fire continues burning the detector will then declare an ALARM. The Model **D232** flame response and false source rejection is accomplished by utilizing a Neural Network Decision process in conjunction with hard coded Algorithms identifying specific wavelengths of Energy.

The **Model D232** is a stand-alone fire & flame detector in watertight NEMA 4 (IP66) and explosion-proof Aluminum enclosure designed for Class I, Div. 2 (Zone 2) Installations. The Detector features automatic self-test for continuously checking the optical path integrity while monitoring the electronics to ensure utmost reliable operation and fault reporting.

APPLICATIONS

- ▶ Powder coating booths
- ▶ Liquid paint spray
- ▶ Automotive Liquid or Powder spray lines
- ▶ Aerosol filling stations
- ▶ Paint & solvent storage
- ▶ Printing facilities
- ▶ Battery Rooms & Charging Facilities



FEATURES & BENEFITS

- ▶ Multi-Spectrum design UV/IR/IR
- ▶ Standard outputs: Warning/Alarm/Fault relays, 4-20 mA, and RS485 Modbus®
- ▶ Real-Time Clock
- ▶ 200 Event Logs with date & time stamped
- ▶ Automatic Self-Test for checking Optical Path Integrity and electronic circuitry
- ▶ Copper free Aluminum enclosure, powder coated finish
- ▶ Test Mode for manual testing or test lamp
- ▶ Cable harness for easy field wiring
- ▶ False Alarm immunity to external non-fire sources
- ▶ Manufactured in USA with 3-Year Warranty
- ▶ RFI & EMC compliant
- ▶ Designed to SIL 3 requirements

Model **D232** Flame Detector Technical Data

General

Field-of-View:	90° Field-of-View
Spectral Sensitivity:	UV: 180-260 nanometers IR: 2-5 microns (2 discrete bands)
Sensitivity Range:	Low, Medium, High
Response Time:	Warning: 0.5 Second Alarm: 3 Seconds
Detection Range:	1'x 1' n-Heptane fire : 50 ft. (15 m)

Electrical

Operating Voltage:	24 VDC nominal (18-30), Regulated
Power Consumption:	Standby: 60 mA @ 24 VDC Alarm: 90 mA @ 24 VDC

Relays Outputs:	Warning/Alarm / Fault SPDT—contacts rated 2A @ 24 VDC Warning & Alarm relays: De-Energized Fault relay:
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Analog Output:	0-20 mA Stepped - Source
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Communication:	RS485 ModBus
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Visual Indications:	Green LED - Normal Red LED - Alarm Amber LED - Fault
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Wiring:	Pre-Installed harness 10 ft. long 22 Gauge 10 conductor cable
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Mechanical

Enclosure Material:	Copper-free Aluminum Powder - coated
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Weight:	2.5 lbs. (1.1 kg)
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Mounting:	Bracket —Optional
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Weight:	1.5 lbs. (0.7 kg)
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Environmental

Humidity Range:	5 to 95% relative humidity, non-Condensing
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Temperature Range:	-40 to +185°F (-40 to +85 °C)
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Approvals & Certifications

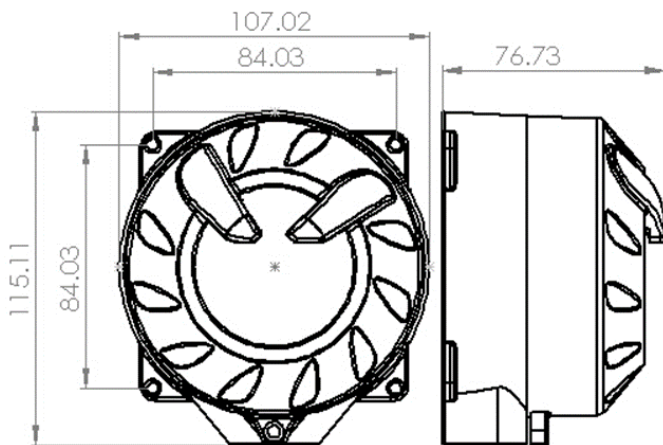
CERTIFICATIONS (IN PROCESS):

- Factory Mutual (FM/CSA)
- Class I, Div. 2, Groups B, C, D
 - Class II/III, Div. 2, Groups E, F, G

Ordering Information & Accessories:

D232-1A1-010	Detector w/ Aluminum enclosure, Relays & 4-20 mA outputs, FM/CSA, 10-ft. cable
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D-002	Bracket mounting Assy.
D-003	Air Shield



SENSE WITH PEACE OF MIND

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