

FD Series Flame Detector SPECIFICATIONS

Triple IR



Standard Specifications	
Operating Voltage Range	10 to 32 Vdc
Power Consumption (at 24 Vdc)	Analog: Nom 31 mA / 0.74 W Max 65 mA / 1.56 W Relay: De-energized - Nom 39 mA / 0.94 W Max 73 mA / 1.75 W Energized - Nom 53 mA / 1.22 W Max 86 mA / 2.06 W Digital: Nom 31 mA / 0.74 W Max 65 mA / 1.56 W Hart: Nom 57 mA / 1.34 W Max 123 mA / 2.96 W
Power Consumption (at 12 Vdc)	Analog: Nom 46 mA / 0.55 W Max 114 mA / 1.37 W Relay: De-energized - Nom 66 mA / 0.79 W Max 138 mA / 1.66 W Energized - Nom 93 mA / 1.12 W Max 165 mA / 1.98 W Digital: Nom 46 mA / 0.55 W Max 114 mA / 1.37 W Hart: Nom 79 mA / 1.15 W Max 181 mA / 2.57 W
Temperature Range	Certified: -40°C to +75°C (-40°F to +167°F) Operational: -50°C to +85°C (-58°F to +185°F)
Field of View	90° vertical / 90° horizontal
Spectral Range	Wavelengths between 2.5 – 5.5 microns
Time Delay	Dip switch selectable to 0, 3, 5, 7 seconds
Sensitivity Settings	Two adjustable settings via DIP switch (high / low)
Typical Response Time	<5 seconds
Enclosure Material	Yellow powdercoat with clear anodizing, copper-free aluminium (optional stainless steel), factory sealed housing
Humidity Range	0 to 95% RH, non-condensing
Weight (with swivel)	2.1 kg / 4.5 lb.; Stainless steel option: 3.4 kg / 7.5 lb.
Outputs	Analog: Digitally stepped analog output 0 to 20 mA into a maximum loop impedance of 800 Ohms at 32 Vdc or 150 Ohms at 10.5 Vdc. Isolated / non-isolated loop supply. Relay: Normally open/normally closed Form C contacts rated 5 Amps at 30 Vdc 125 VAC. Selectable energized / de-energized fire relay. Fault relay fixed as energized. Both fire and fault relays fixed as non-latching and cannot be modified. Digital: RS-485 RTU Modbus protocol Hart: HART Communication Protocol
Certifications/Approvals	CSA: Class I, Division 1, Groups A (Canada only), B, C and D - Temperature code T5 - CANADA: Class 1, Zone 1, Ex d IIB + H2 T5 ANSI-UL/ISA: Class I, Division 1, Groups B, C and D - Temperature code T5 - UNITED STATES: Class 1, Zone 1, AEx d IIB + H2 T5 ATEX: II 2 G Ex d II B+H2 T5; INMETRO: BR-Ex d II B+H2 T5 Factory Mutual (FM) 3260: Performance Certification; SIL2; NEMA Type 4X; IP66: Enclosure ratings
Warranty	Electronics: 3 years • Sensors: 2 years (see website for details)

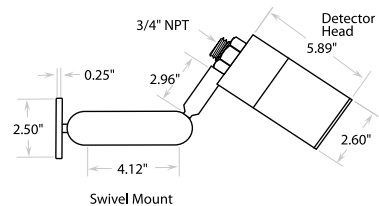
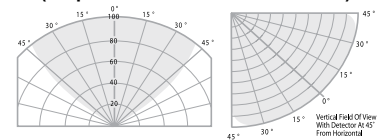
Summary of Distances

Fuel	Fire Size	Distance	Typical Response
n-heptane	1 ft. x 1 ft.	210 ft. max.	< 2sec @ 100 ft.
gasoline	1 ft. x 1 ft.	150 ft. max.	< 5sec @ 150 ft.
methane	32 in. plume	140 ft. max.	< 5sec @ 140 ft.

Immunity False Alarm Stimuli

Stimuli	Immunity Range
arc welding/sparking/arcing	10 ft.+
Direct/indirect sunlight	Total
Lightning	Total
Halogen, fluorescent, incandescent light	10 ft.+
250W Sodium Vapor, 250W Metal Halide Light	10 ft.+
1500W electric heater	10 ft.+
propane heater - mod./unmod. (27000w)	12 ft.+

**Field of View — Methane
(32" plume — distances indicated in feet)**



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