



**The FD Series UV/IR reacts to both UV and IR flame radiation, delivering accurate and reliable fire monitoring**

# FD Series UV/IR



## Reliable Operation

- 120° field of view
- Two radiation wavelengths necessary for alarm— minimize false alarm events from lightning, welding, sunlight and radiation
- Manual and automatic testing of optical surfaces— monitors internal electronics
- Operating Range of -50°C to +75°C
- 3 year electronics and 2 year sensor warranty

## Easy to Use

- Compact and lightweight for ease of installation
- Fully adjustable swivel mount is included
- User-defined sensitivity and time delay settings
- Built-in testing routines ensure continuous operation

## Durable Housing

- Rugged, explosion-proof housing
- Stainless steel option ideal for harsh environments

## Versatile Design

- Stand-alone operation or can be connected to a variety of control devices to create a dependable fire monitoring system

**The protection you need and trust. Protect your site and personnel with the FD Series UV/IR flame detector. Two spectrums of radiation must be recognized and confirmed by precisely tuned sensors for the detector to initiate a fire condition, which vastly reduces false alarms.**




The detector reacts to both UV and IR flame radiation delivering accurate and reliable fire monitoring, yet is immune to arc welding, hot body radiation, lightning or sunlight.

Enclosed in a rugged, explosion-proof housing, the FD Series UV/IR uses the latest in modular microprocessor and UV/IR sensor technology. Capable of stand-alone operation or can be connected to a variety of control devices to create a dependable fire monitoring system. User-defined sensitivity and time delay settings combine with built-in testing routines to ensure continuous, reliable operation.

# General Specifications



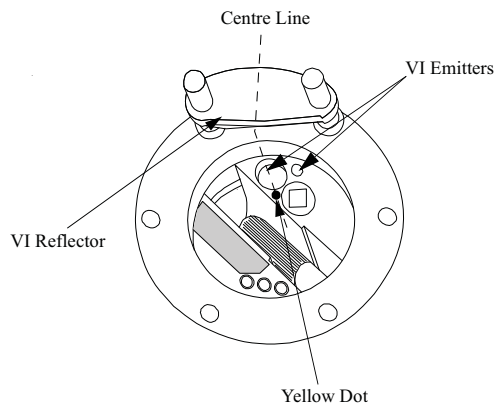
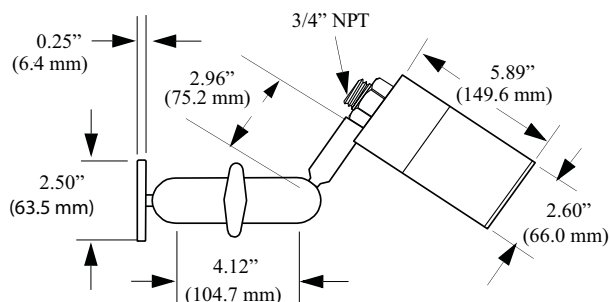
Standard Specifications	
<b>Operating Voltage Range</b>	10 to 32 Vdc
<b>Power Consumption</b>	A Version: Nominal 35 mA / 0.84 W   Maximum 65 mA / 1.6W (at 24 Vdc) Nominal 78 mA / 1.88 W   Maximum 112 mA / 2.7W (with heater) AR Version: Nominal 52 mA / 1.25 W   Maximum 84 mA / 2.02W (at 24 Vdc) Nominal 98 mA / 2.35 W   Maximum 130 mA / 3.12W (with heater)
<b>Temperature Range</b>	Certified -40°C to +75°C (-40°F to +167°F) Operational -50°C to +75°C (-58°F to +167°F)
<b>Field of View</b>	120° horizontal / 95° vertical @ 50% of maximum on axis distance
<b>Spectral Range</b>	UV Radiation 185 to 260 nanometres (1850 to 2600 angstroms)   IR Radiation in the 4.4 micron range
<b>Time Delay</b>	DIP switch selectable to 0, 3, 5, 7 seconds
<b>Sensitivity Settings</b>	DIP switch selectable to 8, 16, 24 or 32 counts per second
<b>Typical Response Time</b>	<6 seconds depending on fuel source, fire size and distance
<b>Enclosure Material</b>	Anodized, copper-free aluminum (optional stainless steel) factory sealed housing
<b>Humidity Range</b>	0 to 95% RH, non-condensing
<b>Weight (with swivel)</b>	2.1 kg / 4.5 lb. (stainless steel option 3.4 kg / 7.5 lb.)
<b>Outputs</b>	A Version: 0 to 20 mA - Into a maximum loop impedance of 800 Ohms at 32 V dc or 150 Ohms at 11.0 Vdc Non-isolated loop supply AR Version: Form C contacts rated 1 Amp at 30 Vdc, 0.5 Amp at 125 Vac Selectable energized/de-energized, latching/non-latching fire relay Fault relay factory set as energized/non-latching, cannot be modified
<b>Certifications</b>	CSA and NRTL/C certified for hazardous locations. Class I, Division 1, Groups B, C and D. Temperature code T5 Enclosure type NEMA 4X, IP67. Ex d II B+H2 T5 (Class I, Zone 1, Grp II B+H2 T5) For Canada only: CSA certified for hazardous locations. Class I, Division 1, Groups B, C and D. Temperature code T5 Enclosure type NEMA 4X. Ex d II B+H2 T5. CE Ex II 2 G, Ex d II B+H2 T5 Factory Mutual (FM) flame detector performance certification FM3260 

## Summary of Distances

Fuel	Fire Size	Typical Response
n-heptane	1 ft. x 1 ft.	< 11sec @ 140 ft.
gasoline	1 ft. x 1 ft.	< 6sec @ 120 ft.
methane	30 in. plume	< 6sec @ 100 ft.

## Immunity False Alarm Stimuli

Stimuli	Immunity Range
Direct/indirect sunlight	Total
1500W heater	10 ft.
Halogen, incandescent light	3 ft.
Florescent light	10 ft.
Arc welding (unmodulated)	10 ft.
Lightning	Total





# Honeywell Analytics Lines of Business



## Commercial

Vulcain-brand gas detection from stand-alone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

- » Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

## Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

- » Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

## Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

- » Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets



### Find out more

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## High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

- » Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry, research laboratories, emergency response

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## Technical Services

24/7 global network includes

post-sales service and Systems Integration teams

- » Emergency call out, service contracts, on/off-site repair, training and commissioning
- » Complete range of spares, consumables and accessories

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