

Features

- Meets or exceeds FM Specification Class Number 3260 (2002).
- Compatible with standard 4-wire interface.
- No moving parts or field modification required.
- Surfaces are smooth, non-shedding, scuff resistant, and accessible for wipe down.
- Compact Size

Description

The CFD1 is designed for use for indoor applications that do not have a hazardous area classification. It is ideal for use in areas where short line of sight is a factor. Because of its compact size, it is ideal for installation in production equipment.

The CFD1 uses stable, proven UV/IR sensing technology that responds to the early stages of a fire without troublesome false alarms.

The CFD1 is rated over a wide operating temperature range for those applications where drying or heating elements are used. All models interface to most control panels and fire protection systems using industry standard relay contacts.

Specifications

Sensitivity 1 square foot gasoline (heptane) pan fire (on-axis) @ 40 feet within 3 seconds

Field of View 120° conical (NFPA)

False Alarm Immunity Does not alarm to sunlight, fluorescent lights, incandescent lights, flashlights, or infrared heaters

Housing FR rated Polypropylene that meets the UL 94 flammability rating of V0

Input voltage range 12 to 32 volts DC @ 28 ma

Operating Temperature -40° to 85° C

Operating Humidity 10% to 90%

Footprint 3.4 in. wide by 5.6 in. long by 1 in. thick

Tested Fuels Gasoline (Heptane), Polypropylene, Isopropyl Alcohol, MEK, Hydrogen, and Silane

LEDs 2 red LEDs - Indicate Normal Operation, Trouble and Alarm

Alarm Relay 1.0 Amp @ 30 VDC resistive

Trouble Relay 1.0 Amp @ 30 VDC resistive

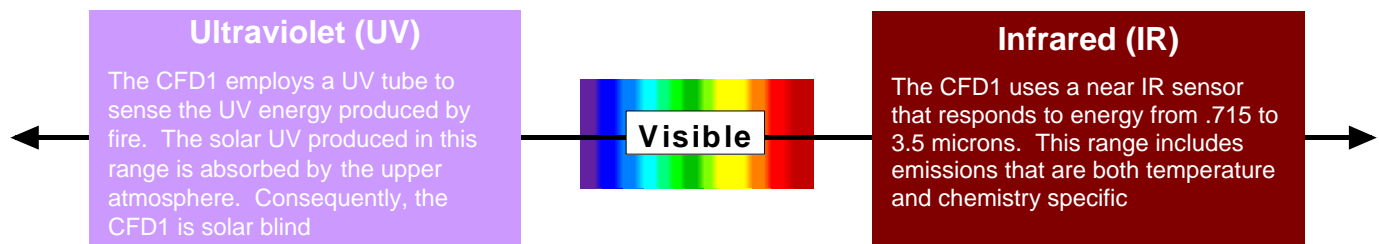
Spectral Response:

UV: 185 to 260 nm solar blind range

IR: .715 to 3.5 um band

Self-Test Model Incorporates an internal self-test

Enhanced Model Incorporates an internal self-test and an RS485 computer interface for downloading real time spectral data and pre-fire spectral data.



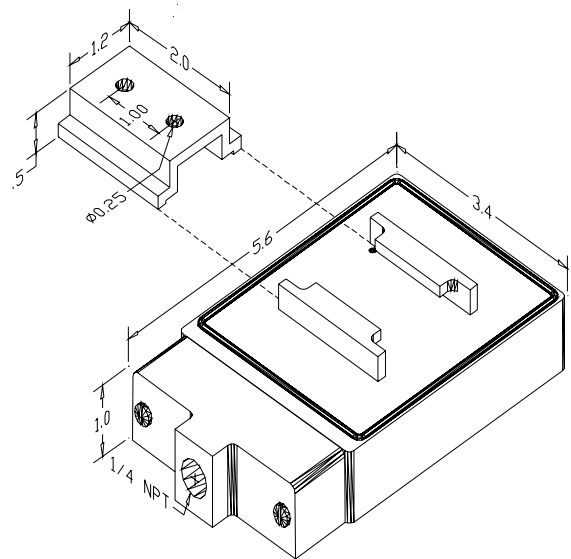
False Alarm And Fire Response

This table shows the detectors ability to tolerate both modulated and unmodulated false alarm stimuli and still to detect a fire in the presence of the false alarm source (all fire tests used a 1.75" diameter alcohol pan fire at 6 feet).

False Alarm Source	Distance	Unmodulated	Modulated	Response Time To Fire
Resistive Electric Heater 1320 Watt	6 Feet	No Response	No Response	Less than 3 Seconds
Fluorescent Lights 2 40 Watt Bulbs	6 Feet	No Response	No Response	Less than 3 Seconds
Halogen Light 500 Watt	10 Feet	No Response	No Response	Less than 3 Seconds
Incandescent Light 100 Watt	6 Feet	No Response	No Response	Less than 3 Seconds

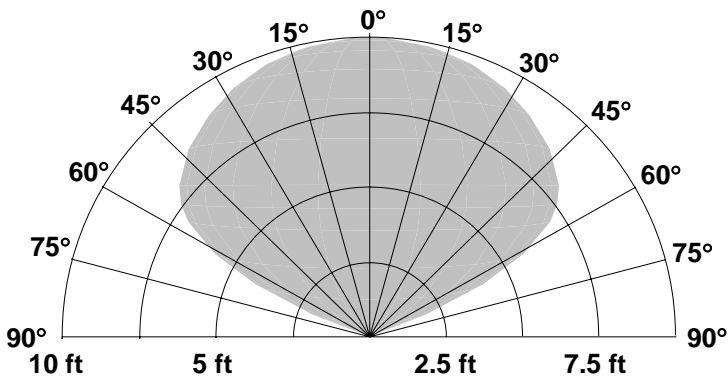
Detector Response To Various Fuels

Fuel	Distance	Fire Size	Response Time
Polypropylene	8 feet	4 inch diameter	Less than 3 Seconds
Isopropyl Alcohol (IPA)	10 feet	4 inch diameter	Less than 3 Seconds
Heptane	40 feet	1 square foot	Less than 3 Seconds
MEK	15 Feet	4 inch diameter	Less than 3 Seconds
Silane	30 feet	18 inch jet	Less than 3 Seconds
Hydrogen	15 Feet	18 inch jet	Less than 3 Seconds



Dimensions
(in inches)

Field Of View



Ordering Information

Model #	Configuration
CFD1-S	Standard
CFD1-T	Self Test
CFD1-E	Enhanced