

Detectors Inc. Flame Detectors

D371 3IR +UV Multi-Spectrum Fire & Flame Detection *2-3 weeks lead time!*



Applications:

OIL & GAS
FINISHING
HANGARS
WAREHOUSES
POWER PLANTS
TRANSPORTATION
MANUFACTURING



Representing a new generation of optical fire and flame detection.

Designed and optimized to respond to both the Hydrocarbon and Non-Hydrocarbon based fires while rejecting False Alarm Sources. The Protector D371 senses UV radiation in the Ultraviolet spectrum and Infrared radiation in 3 discrete bands of IR Spectrum for detecting fires.

Flame response and false source rejection for the detector is accomplished by utilizing the Convolution Method and Advanced DSP (Digital Signal Processing).

The D371 is a stand-alone fire & flame detector in a water-tight NEMA 4X (IP66/67) and explosion-proof Stainless Steel enclosure designed for indoor/outdoor Class I, Div. 1 (Zone 1) Installations. The detector features an automatic self-test for continuously checking the detector's optical path integrity while monitoring the electronics to ensure utmost reliable operation and fault reporting.

FEATURES & BENEFITS

- Multi-Spectrum design for detecting both Hydrocarbon and Non-Hydrocarbon fires
- Standard outputs: Alarm/Fault/Auxiliary relays, 4-20 mA, and RS485 ModBus®
- Real-Time Clock and Event recording
- 200 Event Logs with date & time stamped, and 6 Fire Graphs each 3 seconds long.
- Multiple selectable sensitivity levels
- Automatic Self-Test for checking electronic circuitry, and Optical Path Integrity test with OptiRadar®
- Standard 316 Stainless Steel enclosure
- Test Mode for manual testing
- Encased electronics module for easy field installation and removal
- Pluggable connector for wiring and ease of installation
- Separate (isolated) field wiring compartment
- Manufactured in USA with 3-Year Warranty
- RFI & EMC compliant
- Designed to SIL 3 requirements



Detectors Inc. Flame Detectors – D371 Technical Specifications

GENERAL

Field-of-View: 90° Horizontal and Vertical
Spectral Sensitivity UV: 180-260 nanometers
IR: 2-5 microns (3 discrete bands)

Detection Range: 12"x12" n-Heptane fire – 200 ft (61m)
36" Hydrogen Plume - 100 ft (30.5m)

Std Response time Typically 3-5 seconds

ELECTRICAL

Operating Voltage: 24VDC nominal (18-31), Regulated

Power Consumption: Standby: 60 mA @ 24 VDC
Alarm: 90 mA @ 24 VDC

Heater Option: 120 mA additional

Output Relays: Alarm / Auxiliary / Fault
SPDT—contacts rated 2A @ 24VDC
Alarm & Auxiliary relays: Programmable
Fault relay: Energized

Adjustable Time/ Verification Delay Aux relay setting .3, 3, 10, 20 seconds

Analog Output: 0-20 mA Stepped - Source

Communication: RS485 ModBus

Visual Indications: Green LED - Normal
Red LED – Alarm

Conduit Entries: Standard (2) M25
1 M25 x 3/4" NPT adaptor Included

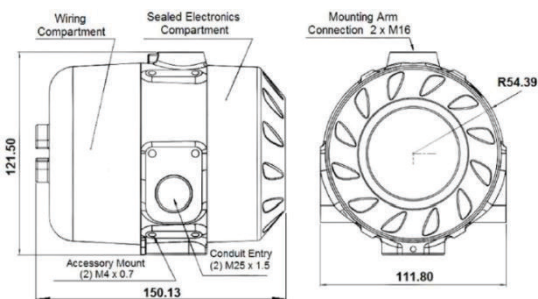
Wiring: 12 AWG (3.3mm²) – 22 AWG (.33mm²)

MECHANICAL

Enclosure Material: 316 Stainless Steel

Weight: 10 lbs. (4.5 kg)

Mounting: Stainless Steel Swivel Arm—
Order Separately #DA-001
6.6 lbs. (3 kg)



ENVIRONMENTAL

Humidity Range: 5 to 95% Relative humidity, non-Cond.

Temperature Range: -40° to +185° F (-40° to +85°C) FM
-55° to +185°F (-48.3° to + 85°C) with
Heater Option

Vibration: In compliance with FM 3260-2003,
Meets or Exceeds MIL-STD 810C

Enclosure Type: NEMA 4 & 4X, IP66/IP67

APPROVALS & CLASSIFICATIONS



Certification No: **FM17US0336X**
Class I, Div. 1, Groups A, B, C and D; Ta = -40°C to +110°C Class II/
T4 = -40°C to +85°C, T5 = -40°C to +75°C, T6 = -40°C to +60°C

Class I, Zone 1 AEx db eb IIC T4 Gb, Ta = -40°C to +110°C AEx tb
IIIC 135°C Db T4, Ta = Ta = -40°C to +110°C
T4 = -40°C to +85°C, T5 = -40°C to +75°C, T6 = -40°C to +60°C Type
4X and IP66/IP67



Certification No: **FM17CA0120X**
Class I, Div. 1, Groups A, B, C and D; T4, Ta = -40°C to +110°C Class II/
III, Groups E, F and G; T4, Ta = -40°C to +110°C T4
= -40°C to +85°C, T5 = -40°C to +75°C, T6 = -40°C to +60°C Class I, Db
T4, Ta = Ta = -40°C to +110°C

T4 = -40°C to +85°C, T5 = -40°C to +75°C, T6 = -40°C to +60°C Type 4X
and IP66,IP67

Meets or Exceeds MIL-STD 810C. In Compliance with
FM3260-2003



Part Number	Description
DGI-D371	D371 SS -3IR + UV Fire Detectors (FM - US & Canada - ATEX - IECEx)
DGI-DA-001	316 Stainless Steel Swivel Mounting Arm for D371 Detector
DGI-DA-005	Weather Shield for D371 Detectors (Color Red)
DGI-DA-006	Field of View Restrictor for D371 Detector (Color Red)
DGI-HW-AM25-0001	M25 Male to 3/4" Spare Female Adapter, 316 Stainless-Steel For D371 Detector (Flame Detector includes 1 adaptor installed)
DGI-WR-1164-0001	15 Conductor PTFE Shielded Cable (Flame Detector comes with a 10 foot cable pigtail. Additional Cable available in 5 ft increments)
DGI-DA-003-7	Air Purge Kit for D371 (Color Red)
DGI-DG-500	Multi Spectrum Detector tester for D371
DGI-DA-008-1	Remote Key Test Switch for Detector Test Function, SPST lock, with 2 keys (304 SS)
DGI-DA-009	Laptop pre downloaded with Software
DGI-DA-015	Field of View Laser Light. (200 foot distance)