GENERAL MONITORS
Protection for life.

MODEL FL3111HT

**High Temperature UV
Unitised Flame Detector**

Features

- Operates at high temperatures (125°C)

- Wide field of view (110° Horizontal)

- Continuous Optical Path Monitoring (COPM)

- Stainless steel construction

- Exe wiring compartment

- Fast response

Benefits

- Suitable for gas turbine applications

- Greater coverage for detecting fires utilising fewer detectors

- Checks optical path integrity and detector's electronic circuitry once every minute

- High level of corrosion resistance for marine environments

- Ease of field wiring connection

- 100 milliseconds for critical applications

Description

General Monitors' Model FL3111HT is a high temperature rated UV-only flame detector designed to detect unwanted fires while maintaining false alarm immunity. The FL3111HT detects in only the ultraviolet (UV) spectral range for optimized speed of response.

The detector can withstand ambient temperatures up to 125°C maximum. This is achieved by the use of a specially selected detector and electronic components and very low power consumption to reduce self-heating.

The detector's electronics are integral within an explosion – proof housing, allowing detector information to be processed at the point of detection. The electronics are fully separated from the Exe wire compartment, offering protection during installation and service. The FL3111HT is available with 4-20 mA stepped output.

The COPM (Continuous Optical Path Monitoring) self test feature checks the optical path integrity (window cleanliness) and the detector's electronic circuitry once every minute.

Applications

- Gas Turbines

- Compressor Stations

- Power Generation

- Generator Sets

- Solvent Extraction

- Drying Processes

- Paint Booths

Model FL3111HT

System Specifications

Wave Lengths: 185 to 260 nm

Field of View: 110° horizontal
115° vertical

Sensitivity: Approved performance specifications – 15.2 m **(**50 ft) distance for a 1 sq. ft. (0.092 m^2) N-heptane fire.

Typical Response Time: <1s @ 50 ft (FL3111HT)

Minimum Sensor Response Time: <100 ms

Classification: II 2 GD Ex de IIC T3, IP66

Warranty: Two years

Approvals: ATEX and CE Marking

Environmental Specifications

Operating Temperature Range: -40°C to +125°C
(-40°F to +257°F)

Storage Temperature Range: -40°C to +125°C
(-40°F to +257°F)

Operating Humidity Range: 0% to 100% RH, non-condensing

Pressure Range: 80 kPa (0.8 bar) to 110 kPa (1.1 bar)

Mechanical Specifications

Housing: Stainless steel

Diameter: 84 mm (3.3 in)

Length: 136 mm (5.3 in)

Weight: 2.27 kg (5 lbs)

Cable Entries: 2 x M20

Electrical Specifications

Input Power: 20-36 VDC
24 VDC @ 60 mA typ / 85 mA max.

Analogue Signal: 4-20 mA (350 Ohms max.)
Fault Signal: 0 mA
COPM Fault: 2.0 ± 0.4 mA
Ready Signal: 4.0 ± 0.4 mA
WARN Signal: 16.0 ± 0.4 mA
ALARM Signal: 20.0 ± 0.4 mA

Selectable Options: Sensitivity: 100%, 75%, 50%
Alarm Time Delay: 2, 4, 8 or 10 seconds

RFI/EMI Protection: Complies with EN50270, Type 2

Exe Terminal: 0.75 – 2.5 mm^2 (12-22 AWG)

Cable Requirements: 3 wire shielded cable minimum configuration. Maximum distance between FL3111HT and power source or remote sensor @ 24 VDC nominal (20 Ohms loop):

14 AWG – 2,250 m (7,400 ft)

Maximum distance for analog output (250 Ohms termination max):

14 AWG – 2,750 m (9,000 ft)

Status Indicators: Two LED's with status and fault cues

Fault Monitoring: Optics failure/blockage and low supply voltage

Standard Configuration: **FL3111HT-1-3-1**
100% sensitivity, 4 second time delay

Specifications subject to change without notice.

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