975UF UV/IR Flame Detector

| UV/IR Dual-Sensor | Fast Response-200 msec to flash fire | Solar blind | Automatic Built-In-Test (BIT)* and Manual-to assure continued reliable operation | | Heated window-for operation in harsh weather conditions(snow, ice, condesation) | Multiple output options for maximum flexibility and compatibility - Relays (3) for Alarm, Fault and Auxiliary - 0-20mA (stepped) - HART Protocol for maintenance and assetmanagement - RS-485, Modbus Compatible | High Reliability-MTBF-minimum 150,000 hours | Approved to Safety Integrity Level 2 (SIL2-TUV) | model 40/40LB only | 5-Year Warranty User Programmable via HART or RS-485 |

IMAGE

ACCESSORIES


Air Shield


Duct Mount


Mini Laptop Kit


Simulators


U-Bolt / Pole Mount


USB RS485 Harness


Laser Pointer


Tilt Mount


Weather Protector

SPECIFICATION

GENERAL SPECIFICATIONS	
Spectral Response	UV: 0.185 - 0.260 µm; IR: 2.5-3.0 µm
Detection Range (at highest Sensitivity Setting for 1ft2 (0.1m2) pan fire)	Fuel / ft / m: n-Heptane 66 / 20; Gasoline 65 / 20; Diesel Fuel 49 / 15; JP5 49 / 15; Kerosene 49 / 15; Ethanol 95% 25 / 7.5; Methanol 26 / 8; IPA (Isopropyl Alcohol) 43 / 13; Hydrogen* 37 / 11; Methane* 26 / 8; LPG * 43 / 13; Polypropylene Pellets 43 / 13; Ammonia** 20 / 6; Silane** 6 / 1.8; Office Paper 16 / 5 * 20" (0.5m) high, 8" (0.2m) width plume fire
Response Time	Typically 3 s. High speed 20 msec to flash fire
Adjustable Time Delay	Up to 30 seconds
Sensitivity Ranges	1 ft2 (0.1 m²) n-heptane pan fire from 65 ft (20m)
Field of View	Horizontal 100°; Vertical 95°
Built-in-Test (BIT)	Automatic (and Manual)
Temperature Range	Operating: -67℉ to +167℉ (-55℃ to +75℃) Option: -67℉ to +185℉ (-55℃ to +85℃) Storage: -67℉ to +185℉ (-55℃ to +85℃)
Humidity	Up to 95% non-condensing (withstands up to 100% RH for short periods)
Heated Optics	To eliminate condensation and icing on the window

ELECTRICAL SPECIFICATIONS	
Operating Voltage	24 VDC nominal (18-32 VDC)
Power Consumption	Standby: Max. 90mA (110mA with heated window) Alarm: Max. 130mA (160mA with heated window)
Cable Entries	2 x 3/4" - 14NPT conduits or 2 x M25 x 1.5 mm ISO
Wiring	12 - 22AWG (0.3㎟ - 2.5㎟)
Electrical Input Protection	According to MIL-STD-1275B
Electromagnetic Compatibility	EMI/RFI protected to EN61326-3 and EN61000-6-3
Electrical Interface	The detector includes twelve (12) terminals with five (5) wiring options (factory set)

OUTPUTS	
Relays	Alarm, Fault and Auxiliary SPST volt-free contacts rated 2A at 30 VDC
0-20mA (stepped)	Sink (source option) configuration Fault: 0 +1mA Warning: 16mA ± 5% BIT Fault: 2mA ± 10% UV: 12 mA ± 5 % Alarm: 20mA ± 5% Normal: 4mA ± 10% Resistance Loop: 100-600Ω IR: 8 mA ± 5 %
HART Protocol	Optional HART communications on the 0-20mA analog current (FSK) - used for maintenance, configuration changes and asset management, available in mA source output wiring options
RS-485	RS-485 Modbus compatible communication link that can be used in computer controlled installations

MECHANICAL SPECIFICATIONS	
Materials Enclosure options	Stainless Steel 316L with electro polish finish Heavy duty copper free aluminum (less than 1%), red epoxy enamel finish (not available in FM version)
Enclosure options	Stainless Steel 316L with electro polish finish
Mounting	Detector 4" x 4.6" x 6.18" (101.6 x 117 x 157 mm)
Dimensions	Detector (St.St.) 6.1 lb (2.8 kg) Detector, aluminum 2.8 lb (1.3 kg) Tilt mount 2.2 lb (1.0 kg)
Environmental Standards	Meets MIL-STD-810C for Humidity, Salt & Fog, Vibration, Mechanical Shock, High Temp, Low Temp
Water and Dust	IP66 and IP67 per EN60529, NEMA 250 6P

APPROVALS	
Hazardous Area	ATEX and IECEx : II 2 G D or Ex db eb op is IIC T4 Gb Ex db eb op is IIC T4 Gb Ex tb op is IIIC T96°C Db Ex tb op is IIIC T106°C Db (Ta -55°C to +85°C) (Ta -55°C to +75°C) FM/FMC/CSA : Class I Div. 1, Groups B, C, & D Class II/III Div.1, Groups E, F & G
Performance	EN54-10 (VdS) FM3260
Reliability	IEC61508 - SIL2 (TUV)
Marine	MED 'Wheelmark' approval (DNV)