

975UR UV/IR Flame Detector

| UV/IR Dual-Sensor | High Speed Response-20 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, condensation) | Multiple output options for maximum flexibility and compatibility - relays (2) for Alarm and Fault - Analogue output for fast detection - 0-20mA (stepped) - HART Protocol for maintenance and asset management - Designed to Safety Integrity Level 2 (SIL2-TUV) - 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 μ m; IR: 4.4-4.6 μ m					
Detection Range (at highest Sensitivity Setting for 1ft2 (0.1m2) pan fire)	Fuel	ft / m	Fuel	ft / m	Fuel	ft / m
	n-Heptane	93 / 28	Ethanol 95%	23 / 7	Polypropylene Pellets	60 / 18
	Gasoline	93 / 28	Methanol	57 / 17	Alcohol 95%	57 / 17
	Diesel Fuel	70 / 21	IPA (Isopropyl Alcohol)	70 / 21	Office Paper	33 / 10
	JP5	70 / 21	Methane*	60 / 18		
	Kerosene	70 / 21	LPG *	60 / 18		
	* 20" (0.5m) high, 8" (0.2m) width plume fire					
Response Time	Typically 5 s.					
Adjustable Time Delay	Up to 30 seconds					
Sensitivity Ranges	1 ft2 (0.1m2) n-heptane pan fire from 92 ft (28m)					
Field of View	Horizontal 100°; Vertical 95°					
Built-in-Test (BIT)	Automatic (and Manual)					
Temperature Range	Operating: -67°F to +167°F (-55°C to +75°C) Option: -67°F to +185°F (-55°C to +85°C) Storage: -67°F to +185°F (-55°C to +85°C)					
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 (0.3mm ² - 2.5mm ²)
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 \pm 5% BIT Fault: 2mA \pm 10% IR: 8 mA \pm 5 % Alarm: 20mA \pm 5% Normal: 4mA \pm 10% Resistance Loop: 100-600 Ω UV: 12 mA \pm 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	Stainless Steel 316L with electro polish finish Heavy duty copper free aluminum (less than 1%), red epoxy enamel finish (not available in FM version)
Mounting	Stainless Steel 316L with electro polish finish
Dimensions	Detector 4" x 4.6" x 6.18" (101.6 x 117 x 157 mm)
Weight	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)