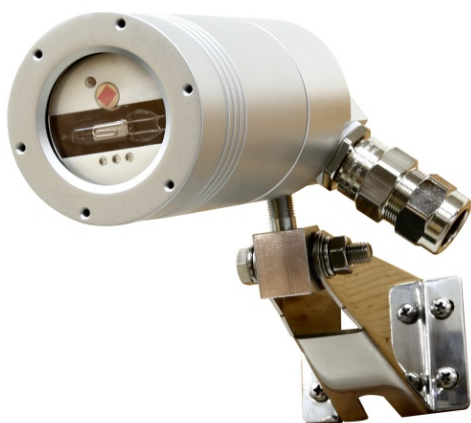


## NX-30UVIR-H

### UV/IR Flame Detector

*With dual-spectrum of ultraviolet and infrared sensors*



*The new-developed NX-30UVIR-H, UV/IR Flame Detector is designed for hydrocarbon –based flames.*

*Its new features includes an automatic visual integrity by means of “No External Reflector” as well as a heated windows to eliminate condensation and icing.*

*Due to increased reliability, the NX series is SIL-2 (TÜV) approved to IEC61508.*

*The NX-30UVIR-H is available with the following output configurations:*

- Alarm and fault relays
- 4-20mA stepped output
- RS 485 Modbus
- HART Communications (option)

#### Features & Benefits

- ◆ **UV/IR Dual-Sensor**
  - two radiation wavelength for alarm to minimize the false alarm events
- ◆ **Slim-sized & Light-weight design**
- ◆ **Increased detection coverage**
  - up to 40m or max.120°
- ◆ **Optical Path Monitoring without external reflector**
  - greatly reduces fault and maintenance where salt, heavy rain, sand or snow are constantly present
- ◆ **Approved to Safety Integrity Level 2 (SIL2-TÜV)**
- ◆ **Global Certifications**
  - ATEX / IECEx for hazardous areas
  - FM3260 for performance
  - SIL2(TUV) : IEC61508 for reliability

#### Applications

- Offshore/onshore Oil & Gas installations and pipelines
- Petrochemical & chemical plants
- Storage tank farms
- Power generation facility
- Refinery hydrogenation
- Explosive & munitions
- Waste disposal facility
- Automotive
- Warehouses
- Aircraft hangers

# Specification Data of Flame Detectors

## GENERAL SPECIFICATIONS

<b>Spectrum Response</b>	<b>UV: 0.185 – 0.260um / IR: 4.3um</b>					
Detection Range (at highest sensitivity setting for 1ft <sup>2</sup> (0.1m <sup>2</sup> ) pan fire)	<b>Fuel</b>	<b>ft(m)</b>	<b>Fuel</b>	<b>ft(m)</b>	<b>Fuel</b>	<b>ft(m)</b>
	n-Heptane	140(43)	Ethanol 95%	60(18)	LPG*	35(11)
	Gasoline	120(37)	Methanol	40(12)	Polypropylene Pelletes	16(5)
	Diesel	80(24)	IPA(Isopropyl Alcohol)	52(16)	Office Paper	23(7)
	JP5	90(27)				
	Kerosene	49(15)	Methane*	26(8)		
	*30"(0.75m) high, 10"(0.25m) width plume fire					
<b>Response Time</b>	Typically 5 seconds					
<b>Adjustable Time Delay</b>	Up to 20 seconds					
<b>Sensitivity Range</b>	4 sensitivity ranges for 1ft <sup>2</sup> (0.1m <sup>2</sup> ) n-heptane pan fire					
<b>Field of View</b>	Horizontally/vertically typical. max.120°					
<b>Built-in-Test</b>	Automatic self-check to verify the lens cleanliness/electronic circuits & etc					
<b>Temperature Range</b>	Operational/Storage : -40°C to +75°C (-40°F to +167°F)					
<b>Humidity</b>	0 to 95% RH, non-condensing					
<b>Heated Optics (Optional)</b>	To eliminate condensation and icing on the window					

## ELECTRICAL SPECIFICATIONS

<b>Operating Voltage</b>	24VDC nominal (18-32VDC)					
<b>Power Consumption</b>	Standby: max. 75mA (100mA with heated window) Alarm: max. 90mA (120mA with heated window)					
<b>Cable Entry</b>	2 x M20 x1.5mm (ISO)					
<b>Wiring</b>	AWG 26-16 (Str 0.13mm <sup>2</sup> to 1.5mm <sup>2</sup> )					
<b>Electromagnetic Compatibility</b>	Complies with EN 61000-6-4 and EN 50130-4					

## OUTPUTS

<b>Relays</b>	Alarm, Fault SPDT volt-free contacts rated 5A at 30VDC					
<b>0-20mA (analog)</b>	Sink/Source Configuration Fault: 0 +1mA      Normal: 4mA±10%A      Alarm: 20mA±5% BIT Fault: 2mA±10%      Warning: 16mA±5%					
<b>HART Protocol &lt;optional&gt;</b>	HART communications on the 0-20mA analog current(FSK) -used for maintenance, configuration changes and asset management					
<b>RS-485 &lt;optional&gt;</b>	RS-485 Modbus compatible communication link that can be used in computer controlled installations					

## MECHANICAL SPECIFICATIONS

<b>Enclosure Materials</b>	- Heavy duty copper free aluminum (less than 1%) with bright grey anodizing finish - Stainless Steel 316 with electro polish finish (Optional)					
<b>Mounting(Tilt Mount)</b>	Stainless Steel 316 with electro polish finish					
<b>Dimensions</b>	Detector: 66(D) x 161(L) mm					
<b>Weight</b>	Detector (Aluminum/SS316): 1.0 kg/1.7 kg,      Tilt mount (SS316.): 0.3kg					
<b>Water and Dust</b>	IP67 per EN60529					

## APPROVALS

<b>Hazardous Area</b>	ATEX and IECEx Exdb IIC T5 Gb (Ta -40°C to +75°C), Ex tb IIIC T100°C Db, IP67					
<b>Performance</b>	FM3260 , *EN-54-10 (pending)					
<b>Reliability</b>	SIL2 (TÜV) - IEC61508					

## ACCESSORIES

<b>Flame Simulator</b>	FS-TL-10Ex ( up to 25m for multi-IR and 15m for UV/IR)					
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