

Searchpoint Optima Plus SPECIFICATIONS



Searchpoint Optima Plus Specification		
Use	Searchpoint Optima Plus is an advanced, Point-Infrared, flammable gas detector certified for use in potentially explosive atmospheres	
Measuring Range	0-100% LEL, wide selection of Hydrocarbon gas and vapor calibrations. Different measuring ranges and solvent calibrations available for specialist applications	
Signal Output	4-20mA autosensing sink or source	
Inhibit	1-3mA (Default 2mA)	
Warning	0-6mA (Default 3mA *)	
Fault	0mA (HART® units adjustable to 1mA)	
Over Range	20-21.5mA (Default 21mA)	
Digital Output	Optional Multidrop Modbus RS485 (via DX100(M)), Optional HART® over 4-20mA output (HART® version 7)	
Material	316 stainless steel	
Weight	1.6kg	
Accuracy		
Optima Plus (Hydrocarbon)	Baseline < ±1% FSD, 50% FSD <±2% FSD	
Optima Plus (Ethylene)	Baseline < ±2% FSD, 50% FSD <±3% FSD	
Repeatability	< ±2% FSD at 50% FSD	
Linearity	< 5% FSD	
Response Time	T50 < 3 seconds, T90 < 4 seconds (methane)	
Operational and Certified	-40°C to +65°C temperature range	
Long Term Stability (as defined in EN 60079-29-1)	Baseline	Methane 100 %LEL Range: ≤ ± 2 %FSD Ethylene 100 %LEL Range: ≤ ± 4 %FSD
	50 %FSD	Methane 100 %LEL Range: ≤ ± 4 %FSD Ethylene 100 %LEL Range: ≤ ± 5 %FSD
Drift Over Temperature Range (-40 °C to 65 °C)	Baseline	≤ ± 2 %FSD
	50 %FSD	Methane 100 %LEL Range: ≤ ± 0.131 %FSD per °C Ethylene 100 %LEL Range: ≤ ± 0.078 %FSD per °C
Variation with Pressure	0.1% (of reading) per mbar	
Power Supply	18-32Vdc (24Vdc nom), < 4.5W max	
Environmental Protection	IP 66 / 67	
Diagnostics (and Re-calibration)	Via certified Hand-held Interrogator, or optional HART® communications	
Safety Approvals	UL / CSA: Class 1, Div 1, groups B, C, and D (-40°C to +65°C) IECEx: Ex d IIC tb IIIC T86°C (T _{amb} -40°C to +55°C) or T96°C (T _{amb} -40°C to +65°C) IP66/67 ATEX: BAS99ATEX2259X II 2 GD Ex d IIC Gb Ex tb IIIC Db T96°C (T _{amb} -40°C to +65°C) T86°C (T _{amb} -40°C to +55°C) IP 66/67	
Performance Approvals Functional Safety	CSA C22.2 152., FM ANSI/ISA-12.13.01., EN 60079-29-1 (BVS 03 ATEX G 016 X) IEC61508 Safety Integrity Level 2	
EMC Compliance Software	EN 50270:2006 EN 50271:2010	

* Note for ATEX compliance the warning value should not be set between 3 and 5mA

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