

# Searchpoint Optima Plus SPECIFICATIONS



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

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