

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

Find out more

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Protect people and processes, achieve maximum uptime and cost efficiencies with the industry's most reliable, advanced point infrared gas detector – now with HART® digital communication

Searchpoint Optima Plus



Why Infrared?

- Failsafe operation
- Fast speed of response
- Reduced routine maintenance
- Immune to catalytic poisons
- Long operating life
- Works in inert atmospheres

Why Searchpoint Optima Plus is the right choice

- Experience gained from over 100,000 units installed worldwide
- Improved reliability
- Optional HART® over 4-20mA output
- Can detect a wide range of hydrocarbon gases including solvents
- Increased reliability with no moving parts
- Increased stability from self compensating optics
- Immune to long term component drift
- Remote functional gas test facility
- Certified for North American and European Hazardous areas
- Increased false alarm rejection
- Increased uptime with contaminated optics warning
- Dynamic Heating Control ensures condensation free optics
- No undetected failures
- Improved diagnostics
- Integral event logging
- Reduced power consumption
- Certified to many hazardous area classification schemes including: UL, CSA, ATEX, IECEx and more

Take advantage of HART communication added to the proven performance of the market-leading hydrocarbon point infrared gas detector

With over 40 years experience in the design, manufacture, installation and maintenance of point infrared gas detection, Honeywell Analytics currently has a worldwide installed base of over 100,000 infrared point hydrocarbon gas detectors in a wide spectrum of applications from light industrial to the most demanding of offshore environments.

Searchpoint Optima Plus is an infrared point Hydrocarbon gas detector certified for use in potentially explosive atmospheres. The unit's infrared detection principle offers the fastest speed of response and fail-to-safe operation, ensuring that your plant is compliant, your personnel are protected and your production process can deliver maximum uptime. Reduced routine maintenance, when compared with conventional electro-catalytic based gas detectors, provides low ongoing cost of ownership. The development of advanced internal fault diagnostics and false alarm rejection algorithms ensures that the Searchpoint Optima Plus delivers the highest level of operational integrity.

Typical applications include environments that may suffer from the presence of catalytic bead poisons or inhibitors, or where there are harsh environmental conditions forcing increased time between routine maintenance:

- Offshore oil and gas platforms
- Floating production storage and offloading (FPSO) vessels
- Tankers
- Onshore oil and gas terminals
- Refineries
- LNG/LPG bottling plants
- Gas compressor/metering stations
- Gas turbine power plants
- Solvent printing and coating plants

Over 100 gas and vapor calibrations are available. For a list of detectable gases and vapors, please contact our Customer Support team or your local distributor.



HART: Reduce your operational costs and gain enhanced device visibility

Searchpoint Optima Plus is available with HART® over 4-20mA output. This communication aspect allows Searchpoint Optima Plus to deliver a wide range of added value benefits.

What is HART®?

HART® (Highway Addressable Remote Transducer) is a widely used digital communications protocol, which allows users to access live data, status indications and diagnostic information from intelligent field devices. It works by superimposing a digital signal on the existing analog signal.

A key benefit of HART® is the fact no additional field cabling is required, because HART® uses the device's 4-20 mA signal cable.

HART® can help to reduce costs in a number of ways. For example, it eliminates the need for proprietary handheld devices; a field engineer can use a single HART® handheld device to access any HART® enabled equipment on site. The HART® signal can be interrogated from anywhere in the current loop, and this users access diagnostic information without going into the field. This means that if maintenance is required, the scope of work is known before the engineer goes to the device, potentially helping to reduce ongoing maintenance costs.

Benefits of using HART®

- Access full information from Searchpoint Optima Plus, from anywhere in the current loop
- No associated infrastructural costs; additional communication is achieved without the need for extra cabling
- Eliminate the need for proprietary handheld devices
- Save on maintenance costs by enabling proactive maintenance – “know before you go”



Accessories



Termination / Mounting



XNX™ Universal Transmitter

The XNX offers a truly universal gas sensing and communications platform that expands communications functionality while reducing installation and cabling costs associated with a gas detection system. The XNX communications module includes standard HART, with optional Modbus, Fieldbus or three relays (two alarm, one fault). XNX enables multi-drop installations of the Optima, instead of the usual 'home run' required for each detector; for example, a single communications cable can be run between up to 32 detectors on a Modbus protocol. The XNX supports electrochemical, catalytic bead and infrared gas sensing devices.



DX 100(I)

This hazardous area certified enclosure is used to terminate Searchpoint Optima Plus field cabling and provide an interface for the Hand Held Interrogator (SHC-1) via an intrinsically safe connection socket. This provides in-situ one-man maintenance without the need for a hot work permit. Used in conjunction with a remote gas test point this provides the best solution for checking sensors in remote locations.



Duct Mounting Kit

This mounting plate arrangement enables installation of Searchpoint OPTIMA PLUS with a duct/ventilation system. It enables functional gas testing without removing the Searchpoint OPTIMA PLUS from the ducting system.



Certified Junction Boxes

A full range of hazardous area certified junction boxes are available

Field Interrogation



Multi Purpose Hand Held Interrogator (HHI)

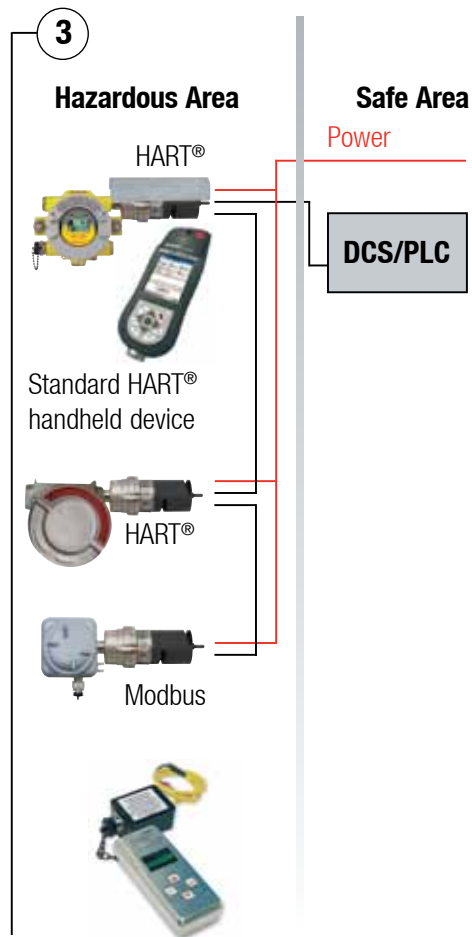
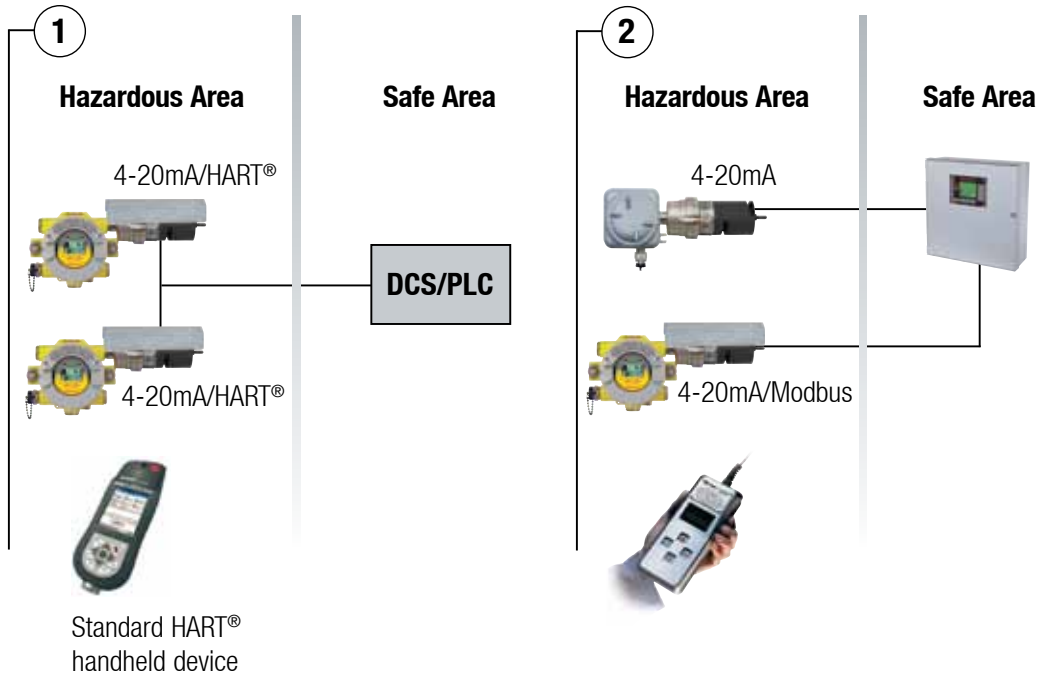
This versatile commissioning /maintenance tool is certified for hazardous areas and used to reconfigure Searchpoint OPTIMA PLUS for different gases and fault diagnostics. The same interrogator can be used with the original Searchpoint OPTIMA and Searchline Excel (open path gas detector) reducing operator training.



SHC-1 Protection Device

This device provides electrical protection for the HHI when used with conventional terminal housings under a gas free permit to work system.

Installation Options



Honeywell Analytics Lines of Business



Commercial

Gas detection from standalone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

- » Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

- » Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

- » Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets



Find out more

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- » Complete range of spares, consumables and accessories

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