



APPLICATIONS

The PointWatch Detector is a diffusion-based point-type infrared gas detector that provides continuous monitoring of combustible hydrocarbon gas concentrations in the range of 0 to 100% LFL. The detector provides a 4 to 20 milliamper output signal, corresponding to the detected gas concentrations.

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WARRANTY

PointWatch provides superior performance in applications where catalytic sensors have traditionally been applied for the detection of hydrocarbon gases:

- Confined spaces where gas/vapor leaks can concentrate to explosive levels (storage rooms, ducts).
- Known high risk leak locations (turbine enclosures, compressor buildings).
- General open area coverage (landfills, storage areas).

Applications for which PointWatch is the only choice are those in which catalytic detectors cannot perform satisfactorily or applications in which the performance of catalytic detectors is compromised.

BENEFITS AND FEATURES

IR TECHNOLOGY BENEFITS

- Reduced maintenance costs – routine calibration is not required.
- Continuously self-tests and automatically signals fault and fouled optics conditions.
- Immune to poisoning by silicone and hydrides.
- Impervious to etching by halogen compounds.
- Performance unimpaired in presence of high concentrations or prolonged exposure to hydrocarbons as well as in oxygen depleted atmospheres.

UNIQUE DESIGN

- Compact and lightweight.
- Built to withstand harsh environments.
- Multi-layered filter system protects optics from dirt and water.
- Optics heated to prevent condensation.

COST FLEXIBILITY

- Buy only what you need to best protect your facility.
- Use as a standalone unit, linked with a DCS or PLC, or retrofit to many existing gas detection systems.
- Fully compatible with Det-Tronics' R8471 Controller, Ininiti™ Transmitter or Eagle Quantum™ Systems.



SPECIFICATIONS

Input Voltage	24 vdc. Operating range is 18 to 32 vdc including ripple.	Certification	FM: Explosion-proof for Class I, Div. 1, Groups B, C & D per FM 3615. Performance per FM 6320.
Power Consumption	5 watts nominal, 7 watts maximum.		CSA: Explosion-proof for Class I, Div. 1, Groups B, C & D per CSA C22.2 No. 30. Performance per CSA C22.2 No. 152.
Current Output	Linear 4 to 20 ma current source (non-isolated) 4 to 20 ma output indicates 0 to 100% LFL detection range (standard) 23.2 ma indicates over-range condition (120% LFL) 0 to 2.4 ma levels indicate calibration, fault and fouled optics conditions.		CENELEC: CE 0539 Ex II 2 G EEx d IIB + H ₂ T4-T6 DEMKO 02 ATEX 131322 X T6 (Tamb -55°C to +50°C). T5 (Tamb -55°C to +60°C). T4 (Tamb -55°C to +75°C). Special conditions for safe use ("X"): Performance Tamb rating = -40°C to +75°C.
Detection Range	0 to 100% LFL.	Ingress Protection	IP66, NEMA 4.
Gases	Methane, Ethane, Propane, Butane, Ethylene, Propylene All devices are shipped with 0 to 100% LFL linear output for methane. 0 to 100% LFL outputs for the above standard gases are switch-selectable and can be set in the field. Response to other gases/vapors available.	Wiring	Five 22 AWG wires, 20 inches (50.8 cm) long.
Accuracy *	±3% LFL from 0 to 50% LFL, ±5% LFL from 51% to 100% LFL.	RFI/EMI Protection	EN50081-1. Class B, EN50270: 1999, Type 2. Operates properly with 5 watt walkie talkie keyed at 1 meter.
Stability (Temp) **	Zero: ±2% LFL from -40°F to +167°F (-40°C to +75°C). Span: ±5% LFL at 50% LFL from -13°F to +167°F (-25°C to +75°C) ±10% LFL at 50% LFL from -40°F to -13°F (-40°C to -25°C).	Shipping Weight	Aluminum: 3 pounds (1.3 kilograms). Stainless Steel: 4.8 pounds (2.2 kilograms).
Stability (Time) **	(12 months) ±2% LFL.	Materials	Aluminum (clear anodized) enclosure and weather protection baffles. Content: 0.8% to 1.2% Mg, 0.15% to 0.40% Cu. Stainless Steel (316 electropolished) enclosure. Polyphthalamide (PPA) weather protection baffle.
Repeatability *	Zero: ±1% LFL. Span: ±2% LFL at 50% LFL.	Dimensions	Aluminum: 8.95 inches (227 mm) long, 2.5 inches (64 mm) diameter. Stainless Steel: 9.5 inches (241 mm) long, 3.25 inches (82.6 mm) diameter.
Temperature Range	Operating: -40°C to +75°C (-40°F to +167°F). Storage: -40°C to +85°C (-40°F to +185°F).	Termination Boxes	Tall Cover/Window Termination Box (PIRTB) for one person, non-intrusive calibration. Short Cover Termination Box (PIRTB) requires two people to accomplish non-intrusive calibration. PIRTB performance conforms to EN61779 Series standards.
Humidity	0 TO 99% relative humidity (non-condensing)	Termination Box Terminals	UL/CSA rated for 14 to 22 AWG wire; DIN/VDE rated for 2.5 mm ² wire.
Response Time (seconds)			
		T50 T90	
	Multilayered aluminum weather baffle		
	With hydrophobic screen	7	14
	Without hydrophobic screen	5	10
	Polyphthalamide (PPA) weather baffle		
	With hydrophobic screen	6	16
	Without hydrophobic screen	2	3

* Based on a 0 to 100% LFL methane calibration at room temperature.
**Based on a 0 to 100% LFL methane calibration.



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Specifications subject to change without notice.