



NDIR POINT 3000

INFRARED GAS DETECTOR

NDIR Point 3000 is an explosion-proof infrared gas detector designed for reliable monitoring of combustible gases, CO₂, CO, N₂O, and other IR-detectable gases in hazardous environments.

Featuring advanced Multibeam Dual-Compensated IR technology with heated optics, it delivers rapid response, exceptional stability, and dependable performance.

Features and Benefits



Rapid Response

The NDIR Point 3000 delivers a response time of less than 5 seconds, making it up to **30% faster** than comparable detectors on the market. Powered by advanced Multibeam Dual-Compensated IR Absorption Technology with Heated Optics, the NDIR Point 3000 provides rapid and reliable gas detection.



Unmatched Versatility

More than just a hydrocarbon detector, the NDIR Point 3000 supports over 100 IR-detectable gases including **Flammable gases, CO₂, CO, N₂O**, and specialty gases. This unmatched versatility allows a single platform to address a broader range of applications while simplifying specification, deployment, and maintenance.



Long-Term Reliability

Advanced **Multibeam Dual-Compensated IR Absorption Technology with Heated Optics** ensures maximum reliability, minimal maintenance, and superior long-term stability. By reducing downtime, calibration drift, and service requirements, this helps customers lower operating costs while maintaining reliable protection.



Global Compliance

Backed by one of the industry's broadest certification portfolios, the NDIR Point 3000 is designed to meet the requirements of virtually any gas detection application. Combining **ATEX, IECEx, UL, SIL2, and leading marine certifications**, it delivers proven compliance, reliability, and global acceptance.



Built for Extreme Temperatures

With an operating temperature range of **-40°C to +80°C**, the NDIR Point 3000 delivers reliable performance in harsh environments, from freezing outdoor conditions to high-temperature industrial applications.



Seamless Communication

With **4-20 mA, RS-485 Modbus, and HART 7** communication, the NDIR Point 3000 makes it easy to access real-time data, diagnostics, and device status. Enhanced communication capabilities simplify commissioning, troubleshooting, and maintenance while reducing operational effort.

Product Specifications

Measuring Method	Multibeam Dual-Compensated Infrared Absorption with Heated Optics			
Measuring Gas	Flammable Gas	CO ₂	CO	N ₂ O
Measuring Range	0 - 100% LEL 0 - 9999 ppm 0 - 100% Vol	0 - 5.0% Vol	0 - 2.0% Vol	0 - 4000 ppm
Resolution	1% LEL 1 ppm 1% Vol	0.1% Vol	0.1% Vol	1 ppm
Response Time	T90 < 5 sec T50 < 3 sec	T90 < 5 sec T50 < 3 sec	T90 < 5 sec T50 < 3 sec	T90 < 5 sec T50 < 3 sec
Sensor Housing Material	SS316	SS316	SS316	SS316
Accuracy & Repeatability	±2% Full Scale			
Sensor Life	6 to 7 Years			
Parameter Control	Non-intrusive control with a Magnet bar (Calibration, Maintenance, Alarm setting)			
Operation Mode Display	4-LED (Power, 2-Stage alarm, 1-Trouble)			
Measuring Value Display	LCD display (Built-in back light 2-Line, 16 Characters) / OLED type (Option)			
Alarm Signal Output	2A@30VDC, 0.5A@125VAC (Resistive load) / 3-SPST Relay contact (2 Stage alarm, 1 Trouble)			
Output Signal	Analog: 4-20mA Analog output (Source / Sink) Maintenance signal: 3mA Calibration signal: 3mA Fault signal: 0mA Digital: RS-485 Modbus (Option) mA (HART 7, HART Device description language available, Option)			
Detector Housing Material	Aluminium alloy or Stainless steel			
Cable Entry Thread	Standard: PF 3/4", Option: PF 1/2", M20 × 1.5P, M25 × 1.5P, NPT 1/2", NPT 3/4"			
Mounting Type	2" Pole mount, Wall mount, Duct mount			
Operating Voltage	24V DC (18V DC to 32V DC)			
Operating Temperature	-40°C to +80°C			
Operating Humidity	5 ~ 99% RH (Non-condensing)			
Dimensions	156(W) × 322(H) × 110(D) mm			
Weight	3.2kg (Aluminium alloy) / 4.9kg (Stainless steel)			

Certification

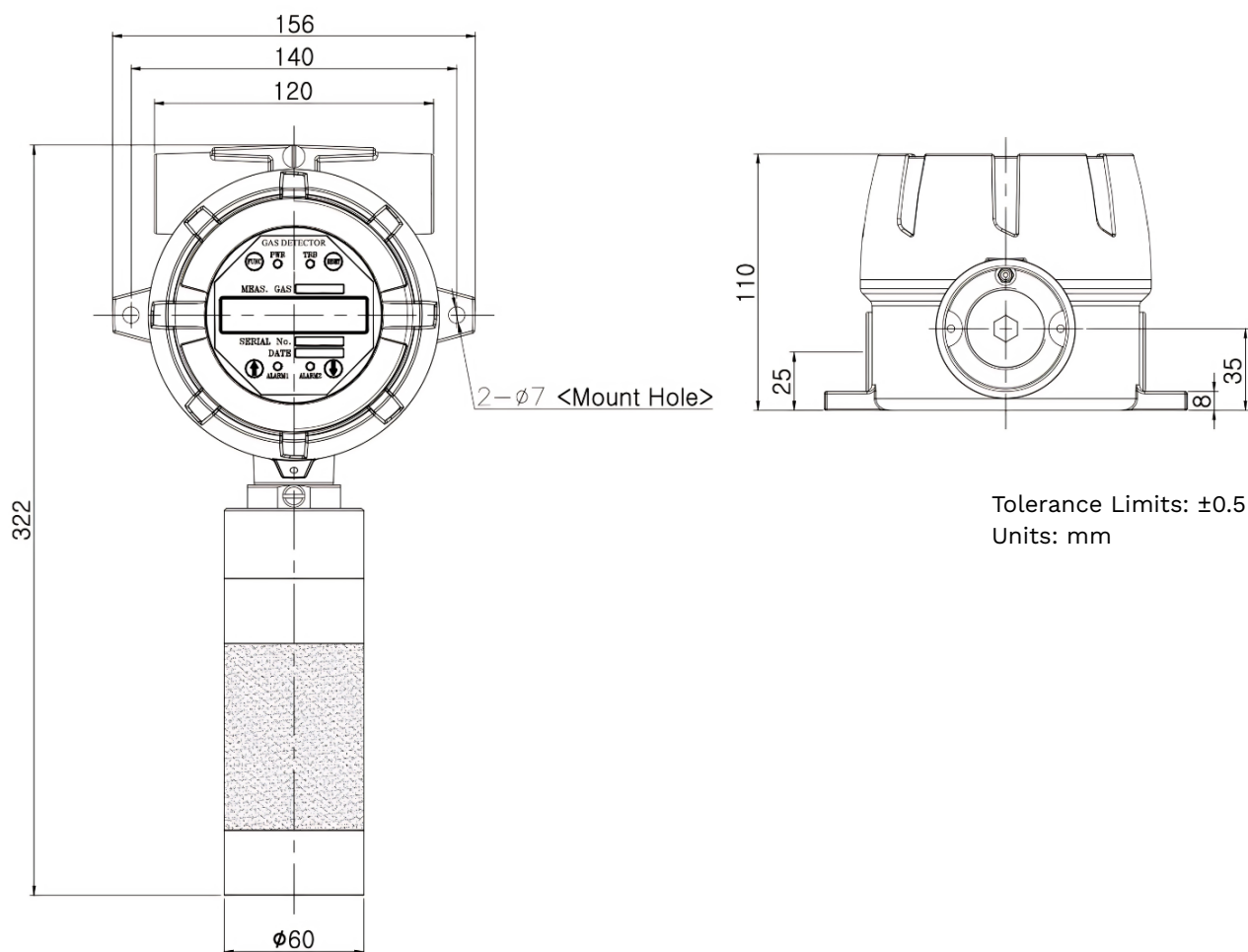
Hazardous Area Approvals	ATEX, IECEx, KCs, NEPSI, UL, PESO, TIIS, TR CU Ex, TS, ECAS Ex
Ex Marking	Ex db IIC Gb T6/T4
Marine Approvals	KR, MED, ABS, BV, DNV, CCS, RS, LR, RINA
Functional Safety	SIL2
Communication Protocols	HART
Regulatory Compliance	KC, CE (EMC), CE (RoHS), CPA, China S Mark, PAC
Ingress Protection	IP66/67

Detectable Gases

Category	Sample Gases	Measuring Range
Flammable Gases	Methane, Propane, Butane, Pentane, Hexane, Ethylene, Propylene, Acetone, Ethanol, IPA, MEK, Toluene, Xylene, Styrene	0 - 100% LEL
Carbon Monoxide	Carbon Monoxide (CO)	0 - 1 Vol.% 0 - 2 Vol.%
Carbon Dioxide	Carbon Dioxide (CO ₂)	0 - 1 Vol.% 0 - 2 Vol.% 0 - 5 Vol.% 0 - 20 Vol.%
Nitrous Oxide	Nitrous Oxide (N ₂ O)	0 - 4000 ppm
Specialty IR Gases	Fluoromethane (CH ₃ F), Hexafluorobutadiene (C ₄ F ₆), Octafluorocyclobutane (C ₄ F ₈)	Up to 2000 ppm

* This table highlights only a selection of available gases. Contact your WatchGas representative for information on our complete portfolio of detectable gases, measurement ranges, and sensor configurations.

Drawing



Accessories



**Explosion-Proof
Mini Beacon
Sounder**



**NDIR Point 3000
weather proof
cover**



**NDIR Point 3000
SS weather proof
cover**



**NDIR Point 3000
magnetic Bar**



**NDIR Point 3000
calibration cap**

Controllers



**GTC-100 Smart
Controller**



**COMBI Series
System**



**404+ Remote
Monitoring
System**

Other Fixed Detectors



**LEL Point
1000**
Flammable Gas
Detector



**TOX Point
1000**
Oxygen & Toxic Gas
Detector



**LEL Point
2000**
Flammable Gas
Detector



**TOX Point
2000**
Oxygen, Toxic & VOC
Gas Detector



VOC Point
PID Gas Detector



ATLAS Pump
Explosion-proof
Sampling Gas Detector

Beacon & Sounders



Beacon Sounder



**Beacon Sounder
ATEX**

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WatchGas is dedicated to continuously improving its products. Therefore, the specifications and features mentioned in this datasheet are subject to change without prior notice.

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