



POLI

MULTI-GAS DETECTOR

Applications

- Confined spaces
- Personal PID detector
- Installation market
- Soil remediation
- (Petro)chemical industry
- Environmental
- Transport
- Oil and Gas industry
- Beverages

Features and Benefits



Flexible Measurement Ranges

The WatchGas POLI offers several models, most with a built-in pump that allows a full selection of sensors for a wide range of applications, including Confined Space Entry, while a basic 4-gas diffusion detector option is available for worker safety at hazardous locations. Smart sensors carry calibration and ID information with them for quick exchange in the field during Hazmat response. Specific sensors include electrochemical (EC) sensors for carbon monoxide (CO), hydrogen sulfide (H₂S), ammonia (NH₃), hydrogen cyanide (HCN), chlorine (Cl₂), chlorine dioxide (ClO₂), nitric oxide (NO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ethylene oxide, methyl mercaptan, and others. Also available are pellistor sensors for LEL-level combustibles, non-dispersive infrared (NDIR) sensors for Vol% level CO₂ or methane, and photo-ionization detector (PID) sensors for ppm-level VOCs. Use of combination CO/H₂S or SO₂/H₂S and CH₄/CO₂ sensors allows up to 6 gas measurements in a single instrument.



Function Flexibility

The WatchGas POLI provides improved user flexibility, with features such as easy two-button operation, a pump-off function to extend run time, a 360-degree LED alarm bar, a Man-Down alarm, and a flip screen for easy viewing, making the WatchGas POLI extremely user-friendly.



Extended Capabilities

The WatchGas POLI provides a wide range of extended capabilities, ranging from wireless communication, allowing users to remotely observe the confined space, to advanced docking and calibration capabilities.



Inert Measurement

The WatchGas POLI, when fitted with an NDIR LEL sensor, is capable of operating in inert atmosphere applications.



Accessories

The WatchGas POLI is supported by a wide range of accessories designed to help you streamline sampling, calibration, charging, transport, and maintenance, helping improve efficiency, reduce overall ownership costs, and maximize detector uptime.



Built to Last

The WatchGas POLI features a durable double-shot outer case designed to withstand the demands of harsh industrial environments. Its rugged construction helps protect the instrument from everyday impacts and wear, improving reliability and extending service life.

POLI Specifications

Size	5.74 x 3.31 x 1.65 in (140 x 84 x 42 mm)
Weight	15.5 oz (435 g)
Sensors	Over 30 interchangeable and field-replaceable sensors including PID for VOCs, EC for Toxic and O ₂ , Pellistor for LEL, and NDIR for LEL, Vol% & CO ₂
Response Time (t₉₀)	15 seconds (LEL/CO/H ₂ S/O ₂); Others vary
Battery	Rechargeable Li-ion pack: 16 hours in diffusion mode, 12 hours with pump
Direct Readout	Real-time reading of gas concentration
	PID measurement gas and correction factor
	Visual compliance indicator
	Battery status
	Datalogging on/off
	STEL, TWA, peak and minimum values
	Man-Down alarm on/off
Display	128 x 128 graphical LCD, 1.77 x 1.73 in (45 x 44 mm), with LED backlight for enhanced readability. Automatic screen "flip" feature
Keypad	2 operation keys
Sampling	Sampling built-in pump (MP400P) or diffusion (MP400)
Calibration	Manual calibration or automated using POLI mono docking station
Alarms	Audible (95 dB @ 30 cm)
	Visual (flashing bright red LEDs)
	Vibration
	On-screen indication of alarm conditions
	Man-Down alarm with pre-alarm
	Panic Alarm (manual)
Datalogging	Continuous datalogging (6 months for 4 sensors at 1-minute intervals, 24 hours/day and 7 days/week)
Charging and Communication	Charging, data download, instrument setup and firmware upgrades on PC or laptop via PC comm, cradle, travel charger, or docking station
Temperature	-4° to 122°F (-20° to 50°C)
Humidity	0% to 95% Relative Humidity (non-condensing)
IP Rating	IP-65 (pump versions); IP-67 (diffusion versions)
Certifications and approvals	 cULus – Class I, Div 1, Group ABCD; T4, -20°C ≤ Tamb ≤ +50°C
	 IECEx – Ex ia IIC T4 Ga
	 ATEX – II 1G Ex ia IIC T4 Ga
	 CE – European Conformity
EMC/RFI	EMC Directive: 2014/30/EU
Warranty	2 Years on instruments
	2 Years on sensors for LEL, LEL/Vol, O ₂ , CO, CO ₂ , H ₂ S, SO ₂ , HCN, NO, NO ₂ and PH ₃
	1 Year on other sensors

Sensor Specifications

Gas	Sensor Type	Gas Measuring Range	Resolution
PID		0–200 ppm	0.01 ppm
PID		0–2000 ppm	0.1 ppm
PID		0–10000 ppm	1 ppm
Oxygen (O₂)	Lead Wool	0–30% Vol	0.1% Vol
	Lead-Free	0–30% Vol	0.1% Vol
Combustibles (LEL%)		0–100% LEL	0.1% / 1% LEL
NDIR Methane (LEL%)		0–100% LEL	1% LEL
NDIR Methane (Vol%)		0–100% Vol	0.1% Vol
Dual-Range LEL%/Vol%		0–100% Vol	1% LEL
NDIR Dual-gas (Methane + CO₂)	CH ₄	0–100% LEL	1% LEL
	CO ₂	0–50000 ppm	10 ppm
NDIR Bio-gas (Methane + CO₂)	CH ₄	0–100% Vol	1% Vol
	CO ₂	0–100% Vol	1% Vol
CO₂ (Carbon Dioxide)		0–50000 ppm	10 ppm
CO (Carbon Monoxide)		0–1000 ppm	1 ppm
H₂S (Hydrogen Sulfide)		0–100 ppm	0.1 ppm
		0–1000 ppm	1 ppm
CO + H₂S	CO	0–500 ppm	1 ppm
	H ₂ S	0–200 ppm	0.1 ppm
SO₂ + H₂S	SO ₂	0–20 ppm	0.1 ppm
	H ₂ S	0–100 ppm	0.1 ppm
NH₃ (Ammonia)		0–100 ppm	1 ppm
NH₃ (Ammonia)		0–500 ppm	1 ppm
Cl₂ (Chlorine)		0–50 ppm	0.1 ppm
ClO₂ (Chlorine Dioxide)		0–1 ppm	0.01 ppm
H₂ (Hydrogen)		0–1000 ppm	1 ppm
HCl (Hydrogen Chloride)		0–15 ppm	0.1 ppm
HF (Hydrogen Fluoride)		0–20 ppm	0.1 ppm
HCN (Hydrogen Cyanide)		0–100 ppm	0.1 ppm
NO (Nitric Oxide)		0–250 ppm	1 ppm
NO₂ (Nitrogen Dioxide)		0–20 ppm	0.1 ppm
N₂O (Nitrous Oxide)		0–1000 ppm	10 ppm
PH₃ (Phosphine)		0–20 ppm	0.01 ppm
PH₃ (Phosphine)		0–1000 ppm	1 ppm
SO₂ (Sulfur Dioxide)		0–20 ppm	0.1 ppm
SO₂ (Sulfur Dioxide)		0–100 ppm	0.1 ppm
ETO (Ethylene Oxide)		0–100 ppm	0.1 ppm
CH₃SH (Methyl Mercaptan)		0–10 ppm	0.1 ppm
THT (Tetrahydrothiophene)		0–40 ppm	0.1 ppm

For more information

www.watchgas.com / www.watchgasusa.com
info@watchgas.com / info@watchgasusa.com

WatchGas POLI DS EN V1.81 6.26 AB © 2026 WatchGas B.V.

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

Distributed by: