



Confined Space Entry Monitors



The POLI multi-gas meters offer 4- or 5-gas monitoring of toxic gases, oxygen (O₂), combustibles (LEL), carbon dioxide (CO₂) and volatile organic compounds (VOCs). The POLI MP400P is an advanced model with built-in pump that allows a full selection of sensors for a wide range of applications, including Confined Space Entry, while the POLI MP400 is a basic, 4-gas diffusion detector 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) for carbon monoxide (CO), hydrogen sulfide (H₂S), ammonia (NH₃), hydrogen cyanide (HCN), hydrogen chloride (HCl), hydrogen fluoride (HF), chlorine (Cl₂), chlorine dioxide (ClO₂), nitric oxide (NO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), ethylene oxide, methyl mercaptan, and others. Also available are pellistor for LEL level combustibles, non-dispersive infrared (NDIR) for Vol% level CO₂ or hydrocarbons, and photo-ionization detector (PID) for ppm level VOCs. Use of combination CO/H₂S or SO₂/H₂S sensors allow up to 5 gas measurements in a single instrument. The MP400P has rugged construction and easy-to-learn 2-button operation. The unique Man-Down alarm feature notifies nearby workers if the user becomes incapacitated.

Features, Functions and Benefits

- Wide selection of "plug-and-play" Smart Sensors
- 16-Hour rechargeable Li-ion battery
- Pump-off switch saves battery for longer operation time
- Automatic flow fault on pump
- 360-Degree LED alarm bar
- Man-Down alarm
- USB Micro charger & communications cable
- Flip screen
- 6 Months continuous datalogging
- Durable double shot outer case



Detector 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% and CO ₂		
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 display readability. Automatic screen "flip" feature		
Keypad	2 Operation keys		
Sampling	Bulit-in pump or diffusion		
Calibration	Manual calibration. CaliCase option allows automatic bump test and calibration on up to 4 units simultaneously		
Alarms	 Audible (90 dB @ 30 cm) Visual (flashing bright red LEDs) Vibration On-screen indication of alarm conditions Man-Down alarm with pre-alarm 		
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 CaliCase.		
Temperature	-4° to 122°F (-20° to 50°C)		
Humidity	0% to 95% Relative humidity (non-condensing)		
IP Rating	IP-54 (pump versions); IP-67 (diffusion versions)		
Safety Certifications	Class I, Div 1, Group ABCD (pending) T4, -20°C ≤ T _{amb} ≤ +50°C IECEX Ex ia IIC T4 Ga (pending) ATEXES II 1G Ex ia IIC T4 Ga (pending) C € European Conformity (pending)		
EMC/RFI	EMC directive: 2014/30/EU		
Warranty	 2 Years on instruments 2 Years on sensors for pellister LEL, and O₂, CO, H₂S, SO₂, HCN, NO, NO₂, and PH₃ EC sensors 1 Year on other sensors 		

Sensor Options

Sensor	Range	Resolution
PID	0-2000 ppm	0.1 ppm
Oxygen (O ₂)	0-30%Vol	0.1%Vol
Combustibles (LEL%)	0-100%LEL	1%LEL
Hydrocarbons (Vol%)	0-100%Vol	0.1%Vol
CO ₂ (Carbon Dioxide)	0-50000 ppr	m 100 ppm
CO (Carbon Monoxide)	0-1000 ppm	1 ppm
	0-100 ppm	0.1 ppm
H₂S (Hydrogen Sulfide)	0-1000 ppm	1 ppm
CO + H ₂ S CO	0-500 ppm	1 ppm
H ₂ S	0-200 ppm	0.1 ppm
SO ₂ + H ₂ S SO ₂	0-20 ppm	0.1 ppm
H ₂ S	0-100 ppm	0.1 ppm
NH ₃ (Ammonia)	0-100 ppm	1 ppm
Cl ₂ (Chlorine)	0-50 ppm	0.1 ppm
CIO ₂ (Chlorine Dioxide)	0-1 ppm	0.01 ppm
H ₂ (Hydrogen)	0-1000 ppm	10 ppm
HCI (Hydrogen Chloride)	0-15 ppm	0.1 ppm
HF (Hydrogen Fluoride)	0-10 ppm	0.1 ppm
HCN (Hydrogen Cyanide)	0-100 ppm	1 ppm
NO (Nitric Oxide)	0-250 ppm	1 ppm
NO ₂ (Nitrogen Dioxide)	0-20 ppm	0.1 ppm
PH ₃ (Phosphine)	0-20 ppm	0.01 ppm
SO ₂ (Sulfur Dioxide)	0-20 ppm	0.1 ppm
C ₂ H ₄ O (Acetaldehyde)	0-20 ppm	0.1 ppm
ETO (Ethylene Oxide)	0-100 ppm	0.1 ppm
CH₃SH (Methyl Mercaptan)	0-10 ppm	0.1 ppm

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^{*} Due to ongoing research and product improvement, specifications are subject to change without notice *