

POLI MULTI-GAS DETECTORS



POLI



CONFINED SPACE ENTRY MONITORS

The POLI multi-gas meters offer 4-gas monitoring of toxic gases, oxygen (O₂), combustibles (LEL), carbon dioxide (CO₂) and volatile organic compounds (VOCs).

Features, Functions and Benefits

Wide selection of "plug-and-play" Smart Sensors

4 Sensor slots for up to 6 gas measurements using combination sensors

16-Hour rechargeable Li-ion battery (diffusion version)

Pump-off switch and low-power sensor options save battery for longer operation

360-Degree LED alarm bar and Man-Down alarm; Flip screen

USB Micro charger & communications cable

Optional POLI MonoDock station for automated bump test and calibration

6 Months continuous datalogging

Durable double shot outer case

Wireless remote team communication available (see mSquad & mPlatoon datasheets)

Mobile App for POLI simulation and training in smartphone or tablet

MP400/MP400P Multi-Gas Detectors

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), 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 methane, and photo-ionization detector (PID) 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. The MP400/400P has rugged construction and easy-to-learn 2-button operation. The unique Man-Down alarm feature notifies team workers wirelessly if a user becomes incapacitated.



POLI MonoDock



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Sensor Specifications



Gas		Range	Resolution
PID		0-200 ppm 0-2000 ppm 0-10000 ppm	0.01 ppm 0.1 ppm 1 ppm
Oxygen (O2)	Lead Wool Lead-Free	0-30%Vol 0-30%Vol	0.1%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	CH4	0-100% LEL	1%LEL
Methane + CO2	CO2	0-50000 ppm	10 ppm*
NDIR Bio-gas	CH4	0-100%VOL	1%VOL
Methane + CO2	CO2	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 0-1000 ppm	0.1 ppm 1 ppm
CO + H2S	CO H2S	0-500 ppm 0-200 ppm	1 ppm 0.1 ppm
SO2 + H2S	SO2 H2S	0-20 ppm 0-100 ppm	0.1 ppm 0.1 ppm
NH3 (Ammonia)		0-100 ppm 0-500 ppm	1 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 0-1000 ppm	0.01 ppm 1 ppm
SO2 (Sulfur Dioxide)		0-20 ppm 0-100 ppm	0.1 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

Detector Specifications

Size	5.74 x 3.31 x 1.65 in (140 x 84 x 42 mm)	Calibration	Manual calibration or automated using POLI Docking Box
Weight	15.5 oz (435 g)	Alarms	<ul style="list-style-type: none"> 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)
Sensors	Over 30 interchangeable and field-replaceable sensors including PID for VOCs, EC for Toxic and O2, Pellistor for LEL, and NDIR for LEL, Vol% & CO2	Datalogging	Continuous datalogging (6 months for 4 sensors at 1-minute intervals, 24 hours/day and 7 days/week)
Response Time (t90)	15 seconds (LEL/CO/H2S/O2) Others vary – see TA Note 4 at www.mpowerinc.com	Charging and Communication	Charging, data download, instrument setup and firmware upgrades on PC or laptop via PC comm, cradle, travel charger, or docking station
Battery	Rechargeable Li-ion pack: 16 hours in diffusion mode, 12 hours with pump	Temperature	-4° to 122°F (-20° to 50°C)
Direct Readout	<ul style="list-style-type: none"> 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 	Humidity	0% to 95% Relative humidity (non-condensing)
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	IP Rating	IP-65 (pump versions); IP-67 (diffusion versions)
Keypad	2 Operation keys	Safety Certifications	<ul style="list-style-type: none"> UL US 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
Sampling	Sampling Built-in pump (MP400P) or diffusion (MP400)	EMC/RFI	EMC directive: 2014/30/EU
		Warranty	<ul style="list-style-type: none"> 2 Years on instruments 2 Years on sensors for LEL, LEL/Vol, O2, CO, CO2, H2S, SO2, HCN, NO, NO2, and PH3 1 Year on other sensors

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