

POLI MP400P Portable Gas Detector

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Portable Gas Detector

POLI MP400P Monitor

- ▶ **Wide Selection of Plug-and-Play Smart Sensors**
(Carry Calibration Data)
- ▶ **16-Hour Rechargeable Li-ion Battery**
USB Micro Charger & Communications cable
- ▶ **Pump-Off Switch and Low-Power Sensor Options**
- ▶ **Automatic Flow Fault on Pump**
- ▶ **360° LED Alarm Bar and Man-Down Alarm**
- ▶ **6 Month Continuous Datalogging**
- ▶ **Durable Double Shot Outer Case**
- ▶ **Wireless Remote Team Communication Available**
(See mSquad & mPlatoon Datasheets)
- ▶ **Mobile App**
For POLI Simulation and Training



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POLI MP400P

The POLI multi-gas meters offer monitoring of 4 or 5 toxic gases, oxygen (O₂), combustibles (LEL), carbon dioxide (CO₂) and volatile organic compounds (VOCs). An advanced model with built-in pump with a wide selection of sensors available for a wide range of applications.

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 sulphide (H₂S),
- ammonia (NH₃),
- hydrogen cyanide (HCN),
- hydrogen chloride (HCl),
- hydrogen fluoride (HF),
- chlorine (Cl₂),
- chlorine dioxide (ClO₂),
- nitric oxide (NO),
- nitrogen dioxide (NO₂),
- sulphur dioxide (SO₂),
- ethylene oxide,
- methyl mercaptan,
- and others.

Also available are pellistors 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.

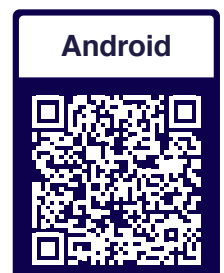
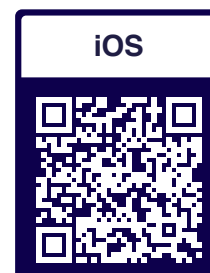
The MP400P has rugged construction and easy-to-learn 2-button operation. The unique Man-Down alarm feature notifies team workers wirelessly if a user becomes incapacitated.



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Mobile App

Scan the QR code to download the POLI Training App, this simulates all the functions and alarms of an actual POLI monitor.



Sensor Options

Sensor	Range	Resolution				
PID	0-200 PPM	0-01 PPM	Chlorine Dioxide (CLO2)	0-1 PPM	0.01 PPM	
	0-2000 PPM	0.1 PPM		Phosgene (COCL2)	0-1 PPM	0.01 PPM
	0-10000 PPM	1 PPM			Hydrogen (H2)	0-1000 PPM
Oxygen (O2)			Hydrogen Chloride (HCL)	0-15 PPM	0.1 PPM	
Lead Wool	0-30% VOL	0.1% VOL	Hydrogen Fluoride (HF)	0-20 PPM	0.1 PPM	
Lead-Free	0-30% VOL	0.1% VOL	Hydrogen Cyanide (HCN)	0-100 PPM	0.1 PPM	
Combustibles (LEL%)	0-100% LEL	1% LEL	Nitric Oxide (NO)	0-250 PPM	1 PPM	
Hydrocarbons (Vol%)	0-100% VOL	0.1% VOL	Nitrous Oxide (N2O)	10-1000 PPM	10 PPM	
Dual-Range LEL% / VOL %	0-100% VOL	1% LEL	Nitrogen Dioxide (NO2)	0-20 PPM	0.1 PPM	
Carbon Dioxide (CO2)	0-50000 PPM	100 PPM	Phosphine (PH3)	0-20 PPM 0-1000 PPM	0.01 PPM 1 PPM	
Carbon Monoxide (CO)	0-1000 PPM	1 PPM	Sulphur Dioxide (SO2)	0-20 PPM 0-100 PPM	0.1 PPM 0.1 PPM	
Hydrogen Sulphide (H2S)	0-100 PPM	0.1 PPM	Acetaldehyde (C2H4O)	0-20 PPM	0.1 PPM	
	0-1000 PPM	1 PPM	Ethylene Oxide (ETO)	0-100 PPM	0.1 PPM	
CO + H2S	0-500 PPM	1 PPM	Methyl Mercaptan (CH3SH)	0-10 PPM	0.1 PPM	
	0-200 PPM	0.1 PPM	Tetrahydrothiophene (THT)	0-40 PPM	0.1 PPM	
SO2 + H2S	0-20 PPM	0.1 PPM				
	0-100 PPM	0.1 PPM				
Ammonia (NH3)	0-100 PPM	1 PPM				
	0-500 PPM	1 PPM				
Chlorine (CL2)	0-50 PPM	0.1 PPM				

Order Codes

#	Gas	Range	Pump	Note
0	Empty	-	-	-
1	PID	200 PPM	Required	-
2	PID	2000 PPM	Required	-
3	CO2	50.000 PPM	-	Low Power
4	CO2	15.000 PPM	-	-
5	VOL Hydrocarbons	100% LEL CH4	-	-
6	LEL/VOL Dual Range CH4	100% LEL 100% VOL CH4	-	-
7	LEL Hydrocarbons	100% LEL CH4	-	-
8	LEL Hydrocarbons	100% LEL CH4	-	-
9	LEL Combustible Pellistor	100% LEL	-	-
A	LEL Combustible Pellistor	100% LEL	-	Low Power
B	O2	30% VOL	-	-
C	O2	30% VOL	-	-
D	H2S	100 PPM	-	-
E	H2S	1000 PPM	-	-
F	CO	1000 PPM	-	-
G	CO	1000 PPM	-	Low H2 cross sensitivity
H	SO2	20 PPM	-	-

I	SO2	100 PPM	-	-
J	NO	250 PPM	-	-
K	NO2	20 PPM	Preferred	-
L	CL2	50 PPM	Preferred	-
M	HCN	100 PPM	Preferred	-
N	NH3	100 PPM	Preferred	-
O	NH3	500 PPM	Preferred	-
P	PH3	20 PPM	-	-
Q	PH3	1000 PPM	-	-
R	CLO2	1 PPM	Required	-
S	HCL	15 PPM	Required	-
T	HF	20 PPM	Required	-
U	CH3SH	20 PPM	-	-
V	H2	1000 PPM	-	-
W	CO + H2S	500 PPM - 200 PPM	-	-
X	H2S + SO2	100 - 20 PPM	-	-
Y	C2H4O	20 PPM	Preferred	-
Z	ETO	100 PPM	Preferred	-
&	N2O	1000 PPM	Required	Training video provided

Specifications

Size	5.74 x 3.31 x 1.65 in (140 x 84 x 42 mm)
Weight	15.5 oz (435g)
Sensor	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	15 seconds (LEL/CO/H ₂ S/O ₂) Others vary—see sensor specification sheet
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 44mm), LED backlight for enhanced readability Automatic screen “flip” feature
Keypad	2 Operation keys
Sampling	Built-in pump or diffusion
Calibration	Manual calibration or automated using POLI Docking Box. CaliCase option allows automatic bump test and calibration on up to 4 units simultaneously
Alarms	Audible (95dB @ 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 comms, cradle, travel charger, or CaliCase
Temperature	4° to 122°F (-20° to 50°C)
Humidity	0% to 95% Relative humidity (non-condensing)
IR Rating	IP-65 (pump versions); IP-67 (diffusion versions)
Safety Certification	Class I, Div 1, Group ABCD T4, -20°C ≤ T _{AMB} ≤ +50°C Ex ia IIC T4 Ga II 1G Ex ia IIC T4 Ga European Conformity
EMI/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 , PH ₃

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