

# POLI MP400P Portable Gas Detector

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## Portable Gas Detector

# POLI MP400P Monitor

- ▶ **Wide Range of Plug-and-Play Smart Sensors**
- ▶ **Rechargeable, 16-Hour Li-ion Battery**  
Charging & Communications by Micro USB
- ▶ **360° LED & 95dB Audible Alarm**
- ▶ **6-Month Continual Data Logging**
- ▶ **Durable, Double Shot Outer Case**



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# POLI MP400P

The POLI multi-gas meter offers monitoring for 4 or 5 toxic gases, oxygen (O<sub>2</sub>), combustibles (LEL), carbon dioxide (CO<sub>2</sub>) and volatile organic compounds (VOCs). An advanced portable gas detector, with a built-in pump and a wide selection of sensors available.

Smart sensors carry calibration and ID information, for quick and easy exchange in the field during a HAZMAT response. The MP400P has a rugged construction and an easy-to-learn 2-button operation. The unique man-down alarm feature notifies team workers wirelessly if a user becomes incapacitated.



YouTube

## Sensors

- Electrochemical (EC) for Carbon Monoxide (CO)
- Hydrogen Sulphide (H<sub>2</sub>S)
- Ammonia (NH<sub>3</sub>)
- Hydrogen Cyanide (HCN)
- Hydrogen Chloride (HCl)
- Hydrogen Fluoride (HF)
- Chlorine (Cl<sub>2</sub>)
- Chlorine Dioxide (ClO<sub>2</sub>)
- Nitric Oxide (NO)
- Nitrogen Dioxide (NO<sub>2</sub>)
- Sulphur Dioxide (SO<sub>2</sub>)
- Ethylene Oxide (C<sub>2</sub>H<sub>4</sub>O)
- Methyl Mercaptan (CH<sub>4</sub>S)

For full list, see page 4 of this data sheet.

## Pellistors

- LEL level combustibles
- Non-dispersive infrared (NDIR) for Vol% level CO<sub>2</sub> or hydrocarbons
- Photoionization detector (PID) for ppm level VOCs

Using a combination CO/H<sub>2</sub>S or SO<sub>2</sub>/H<sub>2</sub>S sensors allows up to 5 gas measurements in a single instrument.

## Mobile App

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



iOS



Android



# Specification

|  |  |  |   |
|--|--|--|---|
| <p><b>Size</b></p> <p>140 × 84 × 42 mm<br/>(5.74 × 3.31 × 1.65")</p>   | <p><b>Weight</b></p> <p>435g<br/>(15.5oz)</p>  | <p><b>IR Rating</b></p> <p>IP-65 (pumped)<br/>IP-67 (diffused)</p>   | <p><b>Temperature</b></p> <p>-20° to 50°C<br/>(-4° to 122°F)</p>  |
| <p><b>Keypad</b></p> <p>2 Operation keys</p>   | <p><b>Humidity</b></p> <p>0% to 95% Relative Humidity (Non-Condensing)</p>   | <p><b>EMC Directive</b></p> <p>2014/30/EU</p>  | <p><b>Sampling</b></p> <p>Built-in Pump or Diffusion</p>  |
| <p><b>Battery</b></p> <p>Rechargeable Li-ion:<br/>16 hours in diffusion mode<br/>12 hours with pump</p>  | <p><b>Safety Certification</b></p> <p>Class I, Div 1, Group ABCD<br/>T4, -20°C ≤ T<sub>AMB</sub> ≤ +50°C<br/>Ex ia IIC T4 Ga<br/>II 1G Ex ia IIC T4 Ga<br/>European Conformity</p> | <p><b>Visual</b></p> <p>128 × 128 graphical LCD, 45 × 44mm (1.77 × 1.73")<br/><br/>LED Backlight<br/><br/>Screen Flip</p>  | <p><b>Sensors</b></p> <p>Over 30 interchangeable and field-replaceable sensors including PID for VOCs, EC for Toxic &amp; O<sub>2</sub>, Pellistor for LEL, &amp; NDIR for LEL, Vol% &amp; CO<sub>2</sub></p> |
| <p><b>Calibration</b></p> <p>Manual calibration or automated using POLI Docking Box<br/>CaliCase option allows automatic bump testing and calibration on up to 4 units simultaneously</p>                      |  | <p><b>Charging and Communication</b></p> <p>Charging, Data Download, Instrument Setup and Firmware Upgrades on PC or Laptop via PC Comms., Cradle, Travel Charger, or CaliCase</p>   |   |
| <p><b>Warranty</b></p> <p>2 Years on instruments<br/>2 Years on sensors for LEL, LEL/Vol, O<sub>2</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>S, SO<sub>2</sub> HCN, NO, NO<sub>2</sub>, PH<sub>3</sub></p>        | <p><b>Note</b></p> <p>Due to ongoing research and product improvement, specifications are subject to change without notice</p>   | <p><b>Response Time</b></p> <p>15 Seconds (LEL/CO/H<sub>2</sub>S/O<sub>2</sub>)<br/><br/>Others Vary (See Sensor Specification Sheet)</p>  | <p><b>Data Logging</b></p> <p>Continuous<br/><br/>6 Months for 4 Sensors at 1-Minute Intervals, 24 Hours/Day and 7 Days/Week</p>  |
| <p><b>Alarms</b></p> <p>Audible (95dB @ 30 cm)<br/>Visual (Flashing Bright Red LEDs)<br/>Vibration<br/>On-Screen Indication of Alarm Conditions<br/>Man-Down Alarm with Pre-Alarm<br/>Panic Alarm (Manual)</p> |  | <p><b>Direct Readout</b></p> <p>Real-Time Reading of Gas Concentration<br/>PID Measurement Gas and Correction Factor<br/>Visual Compliance Indicator<br/>Battery Status<br/>Data Logging On/Off<br/>STEL, TWA, Peak and Minimum Values<br/>Man-Down Alarm On/Off</p> |   |

# Sensor Options

| Sensor                      | Range                                  | Resolution                               | Pump*      |
|-----------------------------|--|--|------------|
| PID                         | 0–200 PPM                              | 0-01ppm                                  | <b>REQ</b> |
|                             | 0–2000 PPM                             | 0.1ppm                                   | <b>REQ</b> |
|                             | 0–10000 PPM                            | 1ppm                                     | <b>REQ</b> |
| Carbon Dioxide (CO2) (NDIR) | 0–50000ppm                             | 100ppm                                   |            |
| Methane (CH4) (NDIR)        | 0-100% VOL                             | 1% VOL                                   |            |
| CH4 (LEL) + CO2 (NDIR)      | 1-100% LEL (CH4)<br>50-50000 PPM (CO2) | 1% LEL<br>50ppm                          |            |
| CH4 (VOL) + CO2 (NDIR)      | 1-100% VOL (CH4)<br>1-100% VOL (CO2)   | 1% VOL<br>1% VOL                         |            |
| CH4 (LEL) (NDIR)            | 1-100% LEL (CH4)<br>1-100% VOL (CH4)   | 1% LEL<br>1% VOL                         |            |
| Combustibles (Pellistor)    | 0–100% LEL                             | 1% LEL                                   |            |
| High Reslution (Pellistor)  | 0–100% LEL                             | 0.1% LEL                                 |            |
| Nitrous Oxide (N2O) (NDIR)  | 100–1000ppm                            | 100ppm                                   |            |
| Oxygen (O2)                 |  |  |            |
| Lead Wool                   | 0–30% VOL                              | 0.1% VOL                                 |            |
| Lead-Free                   | 0–30% VOL                              | 0.1% VOL                                 |            |
| Hydrogen Sulphide (H2S)     | 0–100ppm<br>0–1000ppm                  | 0.1ppm<br>1ppm                           |            |
| Carbon Monoxide (CO)        | 0–1000ppm<br>0–1000ppm                 | 1ppm<br>1ppm (low H2, cross-sensitivity) |            |
| Sulphur Dioxide (SO2)       | 0–20ppm                                | 0.1ppm                                   |            |
|                             | 0–100ppm                               | 0.1ppm                                   |            |
| Nitric Oxide (NO)           | 0–250ppm                               | 1ppm                                     |            |
| Nitrogen Dioxide (NO2)      | 0–20ppm                                | 0.1ppm                                   | PREF       |
| Chlorine (CL2)              | 0–50ppm                                | 0.1ppm                                   | PREF       |
| Hydrogen Cyanide (HCN)      | 0–100ppm                               | 0.1ppm                                   | PREF       |
| Ammonia (NH3)               | 0–100ppm                               | 1ppm                                     | PREF       |
|                             | 0–500ppm                               | 1ppm                                     | PREF       |
| Phosphine (PH3)             | 0–20ppm                                | 0.01ppm                                  |            |
|                             | 0–1000ppm                              | 1ppm                                     |            |
| Chlorine Dioxide (CLO2)     | 0–1ppm                                 | 0.01ppm                                  | <b>REQ</b> |
| Hydrogen Chloride (HCL)     | 0–15ppm                                | 0.1ppm                                   | <b>REQ</b> |
| Hydrogen Fluoride (HF)      | 0–20ppm                                | 0.1ppm                                   | <b>REQ</b> |
| Methyl Mercaptan (CH3SH)    | 0–10ppm                                | 0.1ppm                                   |            |
| Hydrogen (H2)               | 0–1000ppm                              | 1ppm                                     |            |
| Dual Tox<br>CO + H2S        | 0–500ppm                               | 1ppm                                     |            |
|                             | 0–200ppm                               | 0.1ppm                                   |            |
| Dual Tox<br>SO2 + H2S       | 0–20ppm                                | 0.1ppm                                   |            |
|                             | 0–100ppm                               | 0.1ppm                                   |            |
| Ethylene Oxide (ETO)        | 0–100ppm                               | 1ppm                                     | PREF       |
| Tetrahydrothiophene (THT)   | 0–40ppm                                | 0.1ppm                                   | PREF       |