

## POLI Multi-Gas Detectors

The POLI multi-gas detectors (MP400/MP400P/MP400S) offer 4 or 5-gas monitoring of oxygen (O<sub>2</sub>), combustible (LEL), toxic, carbon dioxide (CO<sub>2</sub>) gases and volatile organic vapors (VOCs). The MP400 and MP400P are basic models of O<sub>2</sub>, LEL, carbon monoxide (CO) and hydrogen sulfide (H<sub>2</sub>S) configuration in diffusion and pump for compliance application. The MP400S adopts a full range of sensor selection, e.g. electrochemical (EC), pellistor, non-dispersive infrared (NDIR) and photo-ionization detector (PID) in pump. An option of wireless communication enable real-time monitoring of gas readings and alarm status including Man Down Alarm from remote locations for better visibility and faster response.



### Features

- Available in diffusion or pump version
- Man Down Alarm with real-time remote wireless notification
- IP-65/67 water and dust resistant case
- Real-time gas concentration readings and alarm status enabled by state-of-the-art wireless technology
- Large graphical display icon-driven user interface through intuitive, simple-to-operate two-button user interface
- Easy access to pump, sensor, filter and battery
- Over 30 interchangeable sensor options, including PID for VOC, NDIR and catalytic for combustibles, and NDIR for CO<sub>2</sub>
- Intelligent sensors store calibration data, so they can be swapped in the field

### Applications

Confined space entry and general safety compliance in:

- Industrial safety
- Oil and gas
- Fire ground "Toxic Twins" detection
- Environmental
- Chemical
- Pharmaceutical
- Telecommunications

Multi-gas leak detection in industries such as chemical, food and beverage, oil and gas (downstream)

# POLI Specifications

Detector Specifications	
<b>Size</b>	5.74 x 3.31 x 1.65 in (140 x 84 x 42 mm)
<b>Weight</b>	14 oz (400 g)
<b>Sensor</b>	Over 30 interchangeable and field-replaceable sensors including PID for VOCs, EC for Toxic and O <sub>2</sub> , Pellistor for LEL, and NDIR for LEL & CO <sub>2</sub>
<b>Battery</b>	Rechargeable Li-ion pack: 18 hours in diffusion with no wireless, 16 hours in diffusion with wireless, 12 hours in pump with no wireless, and 10 hours in pump with wireless
<b>Direct Readout</b>	Real-time reading of gas concentration, PID measurement gas and correction factor, Man Down Alarm on/ off, visual compliance indicator, battery status, datalogging on/off, wireless on/off and reception quality STEL, TWA, peak and minimum values
<b>Display</b>	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
<b>Keypad</b>	2 operation keys
<b>Sampling</b>	Built-in pump or diffusion
<b>Calibration</b>	Manual or automatic bump test and calibration with CaliCase (separate orders)
<b>Alarm</b>	Wireless remote alarm notification, audible (90dB@30cm), vibration, visual (flashing bright red LEDs), and on-screen indication of alarm conditions Man Down Alarm with pre-alarm and real-time remote wireless notification
<b>Data logging</b>	Continuous datalogging (6 months for 4 sensors at 1 minute intervals, 24 hours a day and 7 days a week)
<b>Charging and Communication</b>	Charging, data download, instrument setup and firmware upgrades on PC or laptop via PC comm, cradle, travel charger, or CaliCase Wireless data and alarm status transmission via built-in RF modem (optional)
<b>Temperature</b>	-4° to 122°F (-20°C to 50°C)
<b>Humidity</b>	0% to 95% relative humidity (non-condensing)
<b>IP Rating</b>	IP-65 (pump); IP-67 (diffusion)
<b>Safety Certifications</b>	UL/cUL: Class I, Div 1, Group A, B, C, D T4, -20° C ≤ Tamb ≤ +50° C (pending)
<b>EMC/RFI</b>	EMC directive: 2004/108/EC
<b>Warranty</b>	2-year including most sensors

Sensor Specifications		
Sensor	Range	Resolutions
PID	0-1000ppm	0.1ppm
Oxygen	(O <sub>2</sub> ) 0-30%Vol	0.1%Vol
Combustible (LEL)	0-100%LEL	1%LEL
Carbon Monoxide (CO)	0-1000ppm	1ppm
Hydrogen Sulfide (H <sub>2</sub> S)	0-100ppm	0.1ppm
Ethylene Oxide (ETO)	0-100ppm	0.1ppm
Hydrogen Fluoride (HF)	0-10ppm	0.1ppm
Nitric Oxide (NO)	0-250ppm	1ppm
Methanethiol (CH <sub>3</sub> SH)	0-10ppm	0.1ppm
Sulfur Dioxide (SO <sub>2</sub> )	0-20ppm	0.1ppm
Hydrogen Cyanide (HCN)	0-100ppm	1ppm
Ammonia (NH <sub>3</sub> )	0-50ppm	1ppm
Phosphine (PH <sub>3</sub> )	0-5ppm	0.01ppm
Chlorine (Cl <sub>2</sub> )	0-10ppm	0.1ppm
Nitrogen Dioxide (NO <sub>2</sub> )	0-20ppm	0.1ppm
Hydrogen Chloride (HCl)	0-15ppm	0.1ppm
Chlorine Dioxide (ClO <sub>2</sub> )	0-1ppm	0.01ppm
Acetaldehyde (C <sub>2</sub> H <sub>4</sub> O)	0-20ppm	0.1ppm
Combustible (Vol%)	0-100%Vol	0.1%Vol
Carbon Dioxide (CO <sub>2</sub> )	0-50000ppm	100ppm



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