VOXI PID

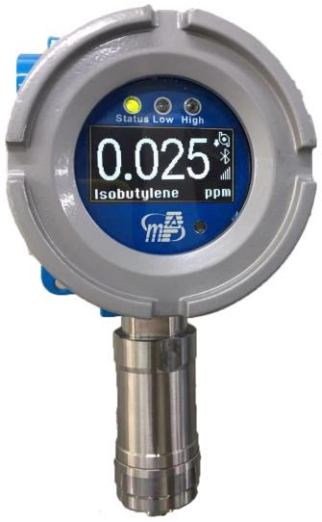
mPower Electronics
Making Powerful Senses
1-866-mPower7

Fixed VOC Monitors

The **VOXI PID** series of fixed transmitters utilize Photo-ionization Detection (PID) technology to monitor Volatile Organic Compounds (VOCs) at resolutions of 1 ppb with the MP812 and 10 ppb with the MP815. A built-in heater prevents condensation of moisture in the transmitter under high-humidity conditions. Innovative designs of the ultraviolet (UV) 10.6 eV lamp and electrometer reduce contamination, producing more accurate and stable readings and extending maintenance intervals. Mobile apps and a Bluetooth controller make on-site configuration, testing, and trouble-shooting easy and handy. The OLED display is visible from a distance even under strong lighting or darkness, while data and alarms are continuously sent to a controller wirelessly or via cables. Major applications include VOC emission monitoring around petrochemical plants, manufacturing and processing facilities.

Features, Functions and Benefits

- VOC emissions monitoring
- Several hundred gas correction factors
- 1 ppb or 10 ppb resolution (separate models)
- Outstanding linearity over full measurement range
- Auto-ranging and auto-zeroing
- Wide temperature range of -40° to +70°C
- Built-in heater to prevent condensation
- OLED display for maximum visibility outdoors
- Mobile App and Bluetooth controller for handy configuration and testing
- Outputs: 4-20 mA, CAN/Modbus, 3 Relays and output to strobe or horns
- Lamp glow indicator
- Rugged, explosion-proof housing
- Easy access to clean lamp & sensor
- Innovative PID for performance & long life



Reverse Display
in low light

VOXI PID Specifications

Detector Specifications

Size	8.4 x 7.1 x 5.0 in (213 x 180 x 127 mm)
Weight	3.3 lbs. (1.5 kg)
Sensor	Photo-ionization detector with standard 10.6 eV lamp (Optional 9.8 eV lamp for BTEX screening)
Detectable Chemicals	Volatile Organic Compounds (VOCs): fuels, solvents, paints, fumigants, ammonia, etc.
Calibration	Two-point calibration
Response Time (for isobutylene)	t_{90} ≤30 seconds (with standard glass-fiber filter) t_{90} ≤5 seconds (w/o glass-fiber filter)
Temperature	-40° to 158°F (-40° to 70°C)
Humidity	0% to 100% Relative humidity
Power	<5W; 12-30 VDC supply
Sampling Pump	Diaphragm pump ≥400 cc/min when responding chemicals are present. Pump duty cycling to ≥130 cc/min when PID response is below pre-set threshold. Sample from up to 100 ft (30 m).
Display	128×64 OLED: • Real-time readings (auto-ranging 4 digits) • Gas type • Measurement unit • Pump status • Bluetooth and wireless statuses if available
Communication	Remote Bluetooth programmer and Android App
Outputs	• Analog: 4-20 mA (3 wires) • Digital: RS-485, • CAN or ModBus • 3 relays • 1 port to external strobe and horn
Alarms	OLED flashing, external strobe and horn
Housing	Aluminum alloy
Housing Entries	2 Conduit entries ¾" NPT
IP Rating	IP-65
EMI/RFI	Highly resistant to EMI/RFI Compliant with EMC Directive 2014/30/EU
Safety Certifications	**IECEx** Ex db ib IIC T6 Gb Ex ib tb IIIC T80°C Db CE European Conformity INMETRO Ex db ib IIC T6 Gb Ex ib tb IIIC T80°C Db
	IECEx Ex ia IIC T4 Ga (MP210 BLE programmer) -20° C ≤ T_{amb} ≤ +50°C
Installation	Pipe bracket, wall mount
Warranty	2 Years including PID sensor, 1 year on 10.6 eV lamp, 6 months on 9.8 eV lamp

Model Options

Model	VOC Range (ppm)	Accuracy	Part No.
MP812	0.001-200 10.6eV 0.05-200 9.8eV	±2% full scale	M008-0001-000
MP815	0.01-5,000	±5% full scale	M008-0003-000
Options	• Calibration gas & regulator • Filter pack • Mounting bracket • Remote programmer • 9.8 eV lamp as specified		

Applications

- Fence-line & Environmental monitoring
- Air Quality control
- Oil, gas & refineries
- Chemical plants
- Manufacturing & processing
- Paints, coatings & adhesives
- Pharmaceuticals & food processing
- Solvent recovery
- Paper pulp and wastewater treatment
- Fumigation

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