



## 3M™ GMI™ PS200

Portable 4 Gas Monitor

### Description

The PS200 Series combines quality, ruggedness and advanced technology in a user friendly, portable gas monitor. It is compact, lightweight, water resistant, extremely robust, and is certified to multiple international and regional standards.

The PS200 can measure any combination of LEL, O<sub>2</sub>, CO and H<sub>2</sub>S making it suitable for a wide range of personal monitoring and confined space applications.

In addition to extensive datalogging capabilities, the PS200 is available with an optional internal pump and an extensive range of accessories to meet a wide variety of user applications.

Importantly, the PS200 has been designed to enable easier user maintenance which includes a fully automatic calibration station to simplify product compliance.

### Features

- Simple 2-button operation
- Any combination of LEL/O<sub>2</sub>/CO/H<sub>2</sub>S
- Audible, visual and vibrating alarms
- Fully certified
- Internal pump (optional)
- Datalogging capabilities (up to 6 months)
- Run-time up to 80 hours, when using low power LEL sensor (optional)
- Configurable operations
- Quick field calibration (optional)
- Lightweight
- Sensor integrity checking
- Robust construction
- Ease of maintenance

# 3M™ GMI™ PS200

## Portable 4 Gas Monitor

### Technical Specification

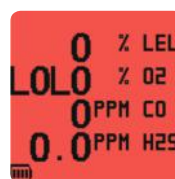
Size:	121 × 59 × 32mm (4.8" × 2.3" × 1.3")
Weight:	230g (8oz) with pump 215g (7.6oz) without pump
Temperature:	-20°C to +50°C (-40°F to 122°F)
Humidity:	0 to 95% R.H non-condensing
Alarms:	Highly visible flashing LED, piercing >90dB audible, vibrating
Display:	Green and red LCD backlight display
Datalogging	Timed: Minimum of 6 months timed datalogging* Session: Minimum of 360 logs Calibration: Minimum of 8 calibration logs Bump: Minimum of 360 logs
Battery:	Lithium Ion rechargeable battery Run Time: Up to **80 / 14 hrs (diffusion) Up to **20 / 8 hrs (pumped) Charging Time < 4 hrs
Enclosure:	High impact rubberized polycarbonate case
Drop Test:	3m (10 ft)
IP Rating:	IP67
Response Times (T90):	LEL = 15 secs (IEC 60079-29-1) O <sub>2</sub> = 12 secs (BSEN 50104) CO < 20 secs H <sub>2</sub> S < 20 secs
Approvals:	ATEX  II 2G Ex ia d IIC T4 Gb IECEX Ex ia d IIC T4 Gb ATEX  II 1G Ex ia IIC T4 Ga* IECEX Ex ia IIC T4 Ga*  CSA Combustible Instruments: Class I, Div. 1 Groups A,B,C,D Class I, Zone 1 AEx d ia IIC T4 Gb, Ex ia d IIC T4 Gb Class I, Div. 1 Groups C,D** Class I, Zone 0 AEx ia IIB T4 Ga, Ex ia IIB T4 Ga** Non-combustible instruments: Class I, Zone 0 AEx ia IIC T4 Ga, Ex ia IIC T4 Ga  MED (0038/YY) — Module B & E *** CE
Warranty:	2 years standard warranty against faulty goods or workmanship from date of shipment from 3M. Consumable parts are not included. Warranty covers monitor assembly, power supply, and sensors.

\* This is based on a gas event every 1-hour during a typical 8-hour shift with a datalog interval of every 1 minute.

\*\* Low Power LEL sensor

\*\*\* Only applicable to marine variants with "M" prefix.

### Features



Red display in alarm conditions



Configurable calibration options



Configurable bump options

# 3M™ GMI™ PS200 Portable 4 Gas Monitor

## Automatic Bump Testing and Calibration

To complement the Personal Surveyor product line, 3M has developed a compact, robust and easy to use Auto Bump & Calibration Station that can provide full bump and calibration options. Data transfer is facilitated using a USB memory stick with Standalone software that is simple to set up and customise based on end users' specifications. Standalone, PC, and ethernet versions are available.



Coloured 'rubber boot' for multi-site or multi-application working (7 colours available)

## Auto Bump & Calibration Station technical specification

Size:	200 × 140 × 135mm (7.9" × 5.5" × 5.3")
Weight:	1.2kg (43oz)
Interfaces:	Standalone / USB / Ethernet
LED Indicators:	Power (Green) / Testing (Yellow) / Pass (Green) / Fail (Red)
Testing Time:	Bump Test 60 secs Calibration Test 90 secs
Data Storage:	up to 5000 Bump & Calibration results
Power Supply:	12V dc, 2A
Operating Temperature:	-10°C to 40°C (14°F to 104°F)
Gas Ports:	3 (Air, Combi Gas & Exhaust)

## Standalone

By adding the Auto Bump & Calibration Station to your PS200 package, test data can be easily retrieved using specific software in a user-friendly time logged format. This gives you the ability to create and print your personalised calibration certificate.

## PC

Allows easy configuration (bump test or calibration) of Auto Bump & Calibration Station and allows all results to be automatically stored to a database on the PC. The stored results can be easily viewed and calibration certificates produced. The history of all results can be easily viewed and reports of instruments can be easily compiled.

## Ethernet

Same as PC except multiple units can be connected to a network allowing one PC to control and receive data.

## Sensor specification

Gas	Ranges	Increments	Sensor Type
LEL	0-100% LEL	1% LEL	Catalytic Bead
O <sub>2</sub>	0-25%	0.1%	Electrochemical
CO	0-1000 ppm	1 ppm	Electrochemical
H <sub>2</sub> S	0-9.9 ppm 10-100 ppm	0.1 ppm 1 ppm	Electrochemical

## Combustible sensor options

LEL Sensor	Benefit	Gases Detected	Certification Gas Groups	Division / Zone
Standard Filtered	Detects most combustible gases	C1 – C8 Hydrocarbons Includes, but not limited to: Methane, Ethane, Propane, Butane, Pentane, Hexane, Heptane, Octane, Hydrogen	IIC A,B,C and D	Class I, Div. 1,2 Zones 1,2
Enhanced Filtered	Enhanced H <sub>2</sub> S and Silicone poisoning resistance	C1 – C6 Hydrocarbons Includes, but not limited to: Methane, Ethane, Propane, Butane, Pentane, Hexane, Hydrogen	IIC A,B,C and D	Class I, Div. 1,2 Zones 1,2
Low Power	Improved battery life	C1 – C5 Hydrocarbons Includes, but not limited to: Methane, Ethane, Propane, Butane, Pentane	IIB C and D	Class I, Div. 1,2 Zones 0,1,2

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## Portable 4 Gas Monitor

### Ordering information & accessories

Accessories supplied with the instrument	
64260	USB Charging / Comms Clip
64247	Universal Power Plug (Mains – USB)
64172	Quick Operating Instructions

### Software

64197	Data downloading CD-ROM (c/w Handbook)
64184	Auto Bump & Calibration Station USB Flash Drive (c/w Handbook)

### Recommended spare parts

64254	Hydrophobic Filter
64084	Sample Inlet Filter
64825	LEL sensor (c/w Enhanced Filter)
66725	LEL sensor
66750	LEL sensor (Low Power)
64066	O <sub>2</sub> sensor (2 years)
*	O <sub>2</sub> sensor (3 years)
64067	Dual Toxic CO/H <sub>2</sub> S Sensor
64176	CO sensor
64128	H <sub>2</sub> S sensor
64255	Pump Assembly

\* contact 3M GMI to verify instrument compatibility

### Additional accessories

66123	Hand Aspirator
66478	Hand Aspirator (c/w 10 ft. tubing)
66112	Sample Line Extender
66485	In-Line Hydrophobic Filter Assy
66545	Ball Float
64151	PS200 Confined Space Probe
64100	Rugged Carry Case
64150	PS200 Confined Space Demonstration Kit
64160	PS200 Field Kit

### Charging accessories

64248	In-Vehicle Charging Adaptor (12V/24V – USB)
64138	5 Way Multi-Charger
64491	In-Vehicle Charging Cradle

### Automatic Bump & Calibration (ABC)

64052	Auto Bump & Calibration Station (6mm. fittings & incl. PSU and USB stick with Standalone software)
64052Q	Auto Bump & Calibration Station (1/4 in. fittings & incl. PSU and USB stick with Standalone software)
99553	flexiCal Plus software for PC
99118	Demand Flow Regulator
64265	Tubing with 6mm Push Fit Connector

### Manual Bump & Field Calibration Kits

64051	Manual Bump Kit (no power required) (c/w Combi Test Gas 99146, Direct Flow Regulator, tubing & sample line connector)
943-000QBK-4M9	Combi-Gas EcoBump Kit

### Gas Kits for Auto Bump & Calibration Station

99146	Combi Test Gas Cylinder (2.5% CH <sub>4</sub> , 500ppm CO, 50ppm H <sub>2</sub> S, 18% O <sub>2</sub> , balance N <sub>2</sub> )
64060	Test Gas Kit (6mm fittings) (Combi Test Gas 99146, Demand Flow Regulator 99118 c/w 6mm tubing)
64060Q	Test Gas Kit (1/4 in Fittings) (Combi Test Gas 99146, Demand Flow Regulator part no. 99118 c/w 1/4" tubing)

