



Knowledge Beyond Measure.

Gas Monitor

Model GM460



TSI's Gas Monitor Model GM460 is a powerful hand-held instrument capable of simultaneously monitoring up to 6 gases.

In addition to the standard 4 confined space gases which include combustibles, O₂, CO, & H₂S, the GM460 has two additional smart channels that accept PID, IR or super toxic sensors. The GM460 has a rugged design, built for the harshest environments. It is equipped with a removable impact-resistant rubber boot and a dust- and water-resistant enclosure with an IP-67 rating. With 5 bright LED lights on 3 sides of the instrument, alarms are easily seen from a variety of perspectives. With vibration and loud audible alarm, GM460 will easily alert users when needed.

Features and Benefits

- Monitor up to 6 gases
- 2 smart sensor slots auto recognize PID, IR, and super toxic sensors
- 6 operating modes: normal, leak check, benzene select mode, inert, snap log and bar hole
- Library of over 600 VOCs
- PPM Leak Check mode
- Man-down and panic alarms
- Auto display rotation
- LED light source
- Internal sample pump
- Glove friendly, glow-in-the-dark buttons
- Light weight, small, rugged IP-67 design
- Interchangeable battery packs Li-ion / alkaline
- Operates up to 14 hours on Li-ion battery pack, fully recharges in 3 hours
- Field replaceable sensors, batteries and filters

Applications

- Remediation sites
- Perimeter monitoring
- Leak detection
- Landfill monitoring
- Hazmat response teams
- Arson investigation
- Confined space entry
- Wing tank entry

Equipped with a strong internal sample pump, a man-down alarm, a panic alarm, an LED flashlight, and large auto rotating LCD display, the GM460 can operate as a single gas PID unit or a multifunctional tool utilizing all 6 channels. The GM460 with a PID sensor will come equipped with a library of over 600 VOC gases to choose from as standard. Choosing from the library is easy, with a personalized favorites list of 30 commonly used VOC's as well as a list of 8 of the most recently used VOC's. A benzene-specific version is available using a pre-filter tube for detecting low levels of benzene.

Measure PM2.5, PM10, and gas in one enclosure

The GM460 easily mounts into the DustTrak™ Environmental Monitor. Measure both mass and gas in any outdoor application.



Gases & Detectable Ranges

Gas	Measuring Range	Reading Increment	Alarm Set Points	Accuracy (which ever is greater)	
PID Sensors					
10.6 Lamp	600 VOC's	0 - 50,000 ppb	1 ppb: (< 5000 ppb) 10 ppb: (> 5,000 ppb)	A1: 5,000 ppb A2: 10,000 ppb	
		0 - 6,000 ppm	0.1 ppm: (< 600 ppm) 1 ppm: (> 600 ppm)	A1: 5,000 ppb A2: 1,000 ppm	
10.0 Lamp	Benzene Specific	0.1 - 50 ppm	0.01 ppm (0 ~ 10 ppm) 0.1 ppm (10 ~ 50 ppm)	No Alarms	10% of reading, ± 1 digit
	300 VOC's	0 - 100 ppm	0.01 ppm (0 ~ 10 ppm) 0.1 ppm (10 ~ 100 ppm)	A1: 5 ppm A2: 10 ppm	
11.7 Lamp	High Voltage Lamp	0- 1000 ppm	0.1 ppm	A1: 400 ppm A2: 1,000 ppm	
Galvanic					
Oxygen (O ₂)	0 - 40.0% Vol.	0.1% Vol.	A1: 19.5 Vol. A2: 23.5 Vol.	± 0.5% O ₂	
Electro Chemical					
Carbon Monoxide (CO)	0 - 500 ppm	1 ppm	A1: 25 ppm A2: 50 ppm TWA 25 ppm STEL 200 ppm	± 5% of reading or ± 5 ppm	
Hydrogen Sulfide (H ₂ S)	0 - 100.0 ppm	0.5 ppm	A1: 5.0 ppm A2: 30.0 ppm TWA 1.0 ppm STEL 5.0 ppm	± 5% of reading or ± 2 ppm	
Toxics (EC Sensors)					
Ammonia (NH ₃)	0 - 400.0 ppm	0.5 ppm	A1: 25 ppm A2: 50 ppm		
Chlorine (Cl ₂)	0 - 10.00 ppm	0.05 ppm	A1: 0.5 ppm A2: 1.0 ppm		
Hydrogen Cyanide (HCN)	0 - 15.0 ppm	0.1 ppm	A1: 5 ppm A2: 10 ppm	± 10% of reading or ± 5% of full scale	
Nitrogen Dioxide (NO ₂)	0 - 20.00 ppm	0.05 ppm	A1: 3 ppm A2: 6 ppm		
Sulfur Dioxide (SO ₂)	0 - 99.90 ppm	0.05 ppm	A1: 2 ppm A2: 5 ppm		
IR Sensors					
Carbon Dioxide (CO ₂)	0 - 10,000 ppm	20 ppm	A1: 5,000 ppm TWA 5,000 ppm		
	0 - 10.00% Vol.	0.02%	A1: 0.50% Vol A2: 3.00% Vol STEL 3.00% Vol TWA 0.50% Vol	± 5% of reading or ± 2% of full scale	
Methane (CH ₄)	0 - 100% LEL 0 - 100% Vol.	Vol. 1% LEL/	A1: 10% LEL		
Hydrocarbons	0 - 100% LEL 0 - 30% Vol.	0.5% Vol	A2: 50% LEL		
Catalytic					
Hydrocarbons (CH ₄ .std)	0 - 100% LEL	1% LEL	A1: 10%LEL A2: 50%LEL	± 5% reading or ± 2% LEL	



Specifications

Gas Monitor

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Common Specifications			
	Gas Alarm	Man-Down	Trouble
Alarm Types	Low and High Adjustable	1st - self reset 2nd - latching	Low flow Sensor connection Low battery Circuit error Calibration range
Sample Method	Sample draw pump, flow rate 0.45 LPM, 50 foot sample range		
Display	Digital LCD, auto backlight, peak bar display, auto display rotation, and customize order of gases		
Audible Alarm	95 dB at 1 ft.		
Languages	English, Spanish, French, German, Italian, Japanese, Korean, Portuguese, Russian		
Continuous Operation	14 hours on Lithium-ion battery pack. Complete recharge in 3 hours. 8 hours Alkaline battery pack (3 AA size within each pack)		
Operating Temp. & Humidity	-4°F to 122°F (-20°C ~ +50°C), 0- 95% RH non-condensing		
Dimensions	2.6" W x 7.8" H x 2" D (68 x 200 x 52 mm) 14 ounce (400g) (with lithium battery pack)		
Case Material	Dust and water resistant with IP-67 approval (exclude sample hose and probe)		
Safety Design / Approvals	Explosion proof: IECEx , ATEX , TIIS , cCSAus Explosion class: Ex ia IIC T4 Ga Others: CE Marking		
Standard Features	<ul style="list-style-type: none"> 2 Smart sensors slots auto recognize sensor changes Library of over 600 VOC's User defined VOC list. Up to 30 frequently used Recent VOC list for last 8 selected gases Pump and circuit status indicators User & station ID selection menu Datalogging (interval, alarm trend, station and user ID) 	<ul style="list-style-type: none"> Snap logging - on demand data logging Demand zero / Auto zero BUMP and CAL expiration alarm Flashlight IrDA communication LEL sensor protection mode 	
Standard Accessories	<ul style="list-style-type: none"> Rubber boot Belt clip Hand strap Tapper nozzle 	<ul style="list-style-type: none"> Probe with hydrophobic & dust filter 3' teflon lined hose Benzene pre-filter tubes and holder (benzene versions) 	
Optional Accessories	<ul style="list-style-type: none"> CS460 calibration station Bundles with instrument carrying case and accessories Flexible probes 	<ul style="list-style-type: none"> Up to 40 foot sample hoses Filter set IrDA cable 	
Warranty	Two years material (including sensors) and workmanship. One year for PID sensor (two months for 11.7eV Lamp)		

Specifications are subject to change without notice.

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TSI Incorporated - Visit our website www.tsi.com for more information.

USA	Tel: +1 800 874 2811	India	Tel: +91 80 67877200
UK	Tel: +44 149 4 459200	China	Tel: +86 10 8219 7688
France	Tel: +33 1 41 19 21 99	Singapore	Tel: +65 6595 6388
Germany	Tel: +49 241 523030		