



## MSA PrimaX<sup>®</sup> Gas Monitor

*Versatile gas detection to meet you needs.*

**MSA**  
The Safety Company



# PrimaX™ Gas Monitor

*Ease of use, versatility, and reliability*

MSA's new PrimaX Gas Monitor offers proven quality and reliability and is available in explosion-proof and intrinsically-safe versions. Innovative enclosure design, ease of use, fast installation, and suitability for both indoor and outdoor installations make the PrimaX Gas Monitor your choice for versatile gas detection.

## PrimaX I Gas Monitor

*Intrinsically-safe detection of toxic gases or oxygen*



- Robust, anti-static, reinforced nylon, IP66-rated housing
- Integral mounting plate for quick, easy installation



- Large, easy-to-read LCD display
- Plain-text display of menu, gas concentration, and error messages



- Plug-in replacement sensor
- Quick-release connector



- 4–20 mA output signal and SIL 2 certification
- HART digital communication option

## Features



One-handed use keypad



Plug-in replacement sensor



Accessible terminals for easy wiring



Sensors & accessories

### Dependability

- *Versatile and reliable monitoring*

Innovative modular design for detection of toxic gases, oxygen, or combustible gases

### Simplicity

- *Easy to use*

Large display with clear, plain text provides information at a glance

Additional LED indicators (PrimaX P Monitor only) provide clear status notification

- *Easy installation*

Integrated mounting plate allows for simple, secure installation

- *Easy calibration*

Calibration via convenient, built-in keypad

### Adaptability

- *Communication interfaces*

4-20mA output signal and 2-relay option

Optional HART digital communication provides configuration, calibration, and diagnostics

- *Plug-in replacement sensors*

Plug-in connector for easy and rapid sensor replacement, simplifying routine maintenance

- *Accessories*

A wide range of accessories is offered to suit various industrial applications, including flow cap, duct-mount kit, and pipe-mount kit

### Economics

- *Uncompromising value*

PrimaX Gas Monitor features and specifications together offer the value expected from MSA

## Specifications

Description	Values	PrimaX P Monitor	PrimaX I Monitor
<b>Sensors</b>			
Combustible	Catalytic	■	
Oxygen & toxic	Electrochemical	■	■
<b>Performance</b>			
Typical response time*	t50 ≤ 10 sec. / t90 ≤ 30 sec. (combustible) t20 ≤ 12 sec. / t50 ≤ 30 sec. (oxygen & toxic)	■	■
Sensor operating life*	up to 3 years in clean air	■	■
Operating temperature*	–40°C to +70°C (–40°F to +160°F)	■	■
Storage temperature*	–40°C to +70°C (–40°F to +160°F)	■	■
Operating humidity range	5% to 95% RH non-condensing	■	■
Operating pressure range	80–120 kPa (600–900 mm Hg)	■	■
<b>Electrical</b>			
Supply voltage	10 to 28 VDC (24 VDC nominal)	■	■
Output signal	4–20mA (max. load 200 ohm)	■	■
Power consumption	3 watt typical at 24VDC	■	
	0.7 watt typical at 24VDC		■
Terminals	3 or 4 wire – up to 12 AWG	■	
	2 wire – up to 12 AWG		■
<b>Display &amp; Indicators</b>			
Display	Alphanumeric LCD	■	■
LED status indicators	Green, yellow, and red	■	
<b>Options</b>			
HART digital protocol	Diagnostics and configuration	■	■
Relay output	Alarm and fault – 2 A / 30 VDC SPDT	■	
<b>Physical</b>			
Ingress Protection	IP66	■	■
Weight	1.6 kg (3.5 lbs)	■	
	0.7 kg (1.5 lbs)		■
Dimensions (H x W x D)	220 x 162 x 100 mm (8.6 x 6.4 x 3.9 in)	■	
	220 x 162 x 81 mm (8.6 x 6.4 x 3.2 in)		■
Material	Powder-coated aluminum	■	
	Anti-static reinforced nylon		■
Conduit entries	3/4" NPT or M25 x 1.5 mm	■	
<b>Approvals</b>			
ATEX / IEC	Gas - Ex d IIC T4 Gb Dust - Ex ib IIIC Tx Db	■	
	Gas - Ex ia IIC T4 Ga Dust - Ex ia IIIC T130° Db		■
UL	Class I, Div 1, Group B, C, D	■	■
CSA	Class I, Div 1, Group B, C, D	■	■
Safety Integrity Level	SIL2	■	■

\* Sensor-dependent



## Applications

*PrimaX Gas Monitors are well-suited to many industrial applications:*

- Oil and gas facilities
- Chemical plants
- General industry
- Agriculture
- Construction
- Laboratories
- Utilities
- Power plants
- Steel plants
- Automotive
- Waste water
- Food and beverages

## PrimaX P Gas Monitor

*Explosion-proof detection of combustibles, toxic gases, or oxygen*



- Powder-coated aluminum enclosure (IP66)
- Integral mounting plate for fast, easy installation



- Easy menu navigation using integrated 4-way keypad
- Large, easy-to-read LCD display, 3 LED status indicators



- 3- or 4-wire connection
- Plug-in replacement sensor



- 4–20mA output signal and SIL 2 certification
- HART digital communication and 2 relay options



## Gases, Options, & Accessories

Description	PrimaX P Monitor	PrimaX I Monitor
<b>Gases and Ranges</b>		
Methane (100% LEL)	■	—
Propane (100% LEL)	■	—
Oxygen (25%, 10%)	■	■
Hydrogen sulfide H <sub>2</sub> S (10, 20, 50, 100 ppm)	■	■
Carbon monoxide CO (100, 200, 500, 1000 ppm)	■	■
Ammonia NH <sub>3</sub> (50, 100, 500, 1000 ppm)	■	■
Chlorine Cl <sub>2</sub> (5, 10 ppm)	■	■
Sulfur dioxide SO <sub>2</sub> (10, 20, 50, 100 ppm)	■	■
Hydrogen cyanide HCN (10, 20, 30, 50 ppm)	■	■
Hydrogen chloride HCl (10, 20, 30 ppm)	■	■
Hydrogen H <sub>2</sub> (1000 ppm)	■	■
Nitrogen dioxide NO <sub>2</sub> (10, 20, 100 ppm)	■	■
Nitric oxide NO (100 ppm)	■	■
<b>Options</b>		
HART	■	■
Relays	■	—
Galvanic-isolated output	■	—
<b>Accessories</b>		
Flow adapter	■	■
Duct-mount flange	■	■
Pipe-mount kit	■	■
Sensorgard	■	■
Calibration cap	■	■
Sunshield	■	■
Sensor tag	■	■

**Note:** This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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