



MSA SafeTOX™ Gas Monitors

for monitoring toxic gases or oxygen deficiency

MSA SafeTOX™ Gas Monitors

for monitoring toxic gases or oxygen deficiency

SafeTOX Gas Monitors are used in a variety of industrial applications. The monitors are easy to install and operate; just apply power to the SafeTOX Gas Monitor and it is ready for operation.

Applications

SafeTOX Monitors can be applied in any indoor and outdoor application where there is a threat of toxic gases or oxygen deficiency including:

- Refineries
- Chemical and petrochemical facilities
- Steel mills
- Water and waste water
- Mining
- General industry

Design and Operation

All SafeTOX Gas Monitors, regardless of the gas selected for detection, are designed for maximum performance and reliability.

All monitors are:

- Housed in a rugged, metal enclosure designed for NEMA 4X
- Designed with the sensor mounted external to the enclosure, it is easily replaced by simply unscrewing the sensor housing and removing the plug-in sensor
- Factory calibrated, making them ready for installation and immediate operation
- Uniquely designed to eliminate all potentiometers, or any other type of internal adjustment
- Shipped with a unique Sensorgard which protects the sensor from dirt, water, etc., while allowing gas to penetrate into the unit. The Sensorgard also acts as a baffle in windy environments

Standard Features

- Large, 1.75", four-digit LED display
- Three levels of alarm
- Large LED alarm indicators

- Internal relay contacts for FAULT, CAUTION, WARNING and ALARM
- A normally-energized fault relay provides a contact output for any condition that would not be considered NORMAL
- Failsafe fault relay output
- Diagnostics that appear on the display
- Audible alarm
- 4-20 mA output

Advanced Features

The advanced features of the SafeTOX Monitor provide:

- Date of last successful calibration recorded within the SafeTOX Monitor
- "Replace Sensor" indication when sensor nears its end-of-life
- Real-time clock for time and date stamping of events
- Logging of minimum, maximum and average gas concentrations over predetermined time intervals
- Selectable lock-out of output signals during calibration to inhibit alarms and control actions

Calibration

Although the SafeTOX Gas Monitor features tremendous stability, it is essential, as with all gas monitors, that it be calibrated periodically with the gas of interest to ensure proper operation.

The SafeTOX Monitors simplify calibration by:

- Providing an internal 2-button keypad for access to all set-up parameters and stored values, including initiation of calibration
- Allowing two types of remote communication devices for calibration
- Providing easy to follow instructions on the LED display
- Instructing the user when to apply zero and span gas
- Automatically making any necessary adjustments
- Displaying the actual gas readout during calibration
- Returning to normal operation immediately after calibration



SafeTOX Monitors are available in a variety of models to meet individual monitoring needs.

The Standard, Plus and Advanced models offer varying features to cater to specific applications. The SD2 model is specifically designed for Class I, Division 2 Groups B,C,D.



Standard

- Bottom-mount sensor
- 70 db Piezo buzzer alarm
- Diffusion sampling
- NEMA 4X metal enclosure
- Internal relays



SD2

- Bottom-mount sensor
- 70 db Piezo buzzer alarm
- Diffusion sampling
- No internal relays
- NEMA 4X metal enclosure
- Class I, Division 2 Groups B,C,D



Plus

- Bottom-mount sensor
- 85 db Federal alarm horn
- Diffusion sampling
- NEMA 4X metal enclosure
- Two top-mounted strobes (yellow and red) are activated from the warning and alarm levels
- Internal relays



Advanced

- Bottom-mount sensor
- 85 db Federal alarm horn
- Internal pump sampling system for remote sample draw
- NEMA 4X metal enclosure
- Two top-mounted strobes (yellow and red) are activated from the warning and alarm levels
- Internal relays

Accessories



Controller

The SafeTOX Controller provides complete password-protected access to all features through its full-function keypad.

Use the Controller to:

- Set alarm levels
- Change span-gas values
- Display date of last calibration
- Display minimum, maximum and average gas values



Calibrator

The SafeTOX Calibrator is an economical solution basic calibration operations for the SafeTOX Gas Monitors.

The SafeTOX Calibrator offers:

- The industry's simplest method of calibration
- Easy-to-use, three-button control

Specifications

Gas Types:	Oxygen; toxics
Temperature Range:	-20° to +50°C; -4° to +122°F (Range on some models may differ.)
Drift:	
Zero Drift:	<5%/Yr., typically
Span Drift:	<10%/Yr., typically
Noise:	Less than 1% FS
Accuracy:	
Repeatability:	±1% FS
Linearity:	±2% FS (O ₂ ; CO) ±10% FS or 2 ppm (others)
Step Change Response:	T20 O ₂ and toxics < 12 sec. (Typ. 6 sec.) T50 O ₂ and toxics < 30 sec. (Typ. 12 sec.)

Humidity:	0-95% RH, non-condensing
Sensor Life:	
Toxics and O ₂ :	2 years typically
Full replacement warranty:	1 year
Hazardous Area Rating:	General Purpose
Power Input:	110-220 VAC power input
Signal Output:	4-20 mA: 2-wire current source
Internal Relays:	Fault, Caution, Warning, Alarm
Internal Relay Contact Rating:	5 amp @ 125 VAC; 5 amp @ 30 VDC
Physical:	
Dimensions:	
Enclosure:	10"W x 12"H x 5"D
Weight:	13 lbs.
Approvals:	NEMA 4X- All Class 1, Div. 2- SD2

Ordering Information

Gas Selection and Range	Standard	SD2	Plus	Advanced
Carbon Monoxide 0-100 PPM	10062821	10062824	10062822	10062823
Carbon Monoxide 0-500 PPM	10062825	10062828	10062826	10062827
Oxygen 0-25%	10062829	10062832	10062830	10062831
Hydrogen Sulfide 0-10 PPM	10062833	10062837	10062835	10062836
Hydrogen Sulfide 0-50 PPM	10062838	10062841	10062839	10062840
Hydrogen Sulfide 0-100 PPM	10062842	10062845	10062843	10062844
Chlorine 0-5 PPM	10062846	10062849	10062847	10062848
Sulfur Dioxide 0-25 PPM	10062850	10062853	10062851	10062852
Nitric Oxide 0-100 PPM	10062854	10062857	10062855	10062856
Nitrogen Dioxide 0-10 PPM	10062858	10062862	10062860	10062861
Hydrogen Cyanide 0-50 PPM	10062863	10062866	10062864	10062865
Hydrogen Chloride 0-50 PPM	10062867	10062870	10062868	10062869
Chlorine Dioxide 0-3 PPM	10062871	10062875	10062873	10062874
Eto 0-10 PPM	10062889	10062892	10062890	10062891
Accessories				
Calibrator			809997	
Controller			809086	

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.



Corporate Headquarters
P.O. Box 426, Pittsburgh, PA 15230 USA
Phone 412-967-3000
www.MSAnet.com

U.S. Customer Service Center
Phone 1-800-MSA-INST
Fax 1-724-776-3280

MSA Canada
Phone 1-800-672-2222
Fax 1-800-967-0398

MSA Mexico
Phone 01 800 672 7222
Fax 52 - 44 2227 3943

MSA International
Phone 412-967-3354
FAX 412-967-3451