

MSA Chemgard® Gas Monitor

For Monitoring and Detection of Ethylene Oxide



Description

The NEMA 4 wall-mount Chemgard Monitor is easy to use and maintain, with only 4 front-panel pushbuttons to configure the instrument. For most installations, gas monitoring begins after simply mounting the instrument, connecting sample lines, and powering the unit.

The instrument typically draws the gas sample via an internal pump. This process allows the unit to be mounted conveniently for operators if the area to be monitored is inaccessible. A pressurized sample can also be delivered to the unit, eliminating the necessity for an internal pump. An internal flow switch alerts operators if the gas sample is blocked by a dirty end-of-line filter or clogged sample line.

The direct-reading display shows actual gas value as well as alarms and diagnostic messages.

Cross-sensitivity to water vapor, a common problem with other types of infrared analyzers, does not occur with this instrument. Its proprietary sensing technique determines the amount of water vapor in the sample and subtracts it from the gas reading. This permits the gas reading to be extremely stable, with no compromise of the unit's sensitivity.

Application

The Chemgard Photoacoustic Infrared Gas Monitor using photoacoustic infrared (PIR) sensing technology, provides precise, low-cost, high-performance monitoring for detection of ethylene oxide. This wall-mounted unit gives accurate, multi-point monitoring with an easy-to-read display. The Chemgard Gas Monitor is suitable for ETO detection in hospital environments as well for many other applications.

Technology

The Chemgard Gas Monitor is extremely stable and highly selective to the gas of interest. The Chemgard Monitor can operate for months with virtually no zero drift. The long-life sensor has no consumable parts. The instrument has detectability as low as 3 ppm for ethylene oxide.

Data Logging

The Chemgard Monitor can log data, giving users access to date-stamped information on key events including gas readings, alarms, and fault conditions. Gas readings can be logged as maximum or average readings over 15-minute or 1-hour time periods. Data is accessible through the front panel display or the RS-232 port.

Expandability

Simply by adding the multi-point sequencer option, the Chemgard Monitor can be expanded to monitor up to 8 locations. The display indicates the monitored location and corresponding gas concentration at each location.

Options

- Heated enclosure for special applications
- Z-purged enclosure available for special applications
- Remote relay module provides 3 discreet levels of alarm per monitoring point
- Remote display option

Ordering Information

P/N	Description
A-3800-20-1-1-1-0-2-1-0-D-O-N-O	Single-point Chemgard Monitor for EtO (without beacon)
A-3800-20-1-1-1-5-2-1-0-D-O-N-O	Single-point Chemgard Monitor for EtO (with beacon)
A-3800-20-4-1-1-0-2-4-0-D-O-N-O	4-point Chemgard Monitor for EtO (without beacon)
A-3800-20-4-1-1-5-2-4-0-D-O-N-O	4-point Chemgard Monitor for EtO (with beacon)
A-3800-20-8-1-1-0-2-8-0-D-O-N-O	8-point Chemgard Monitor for EtO (without beacon)
A-3800-20-8-1-1-5-2-8-0-D-O-N-O	8-point Chemgard Monitor for EtO (with beacon)

Contact your local MSA representative to discuss other options available for the Chemgard Infrared Gas Monitor.

Specifications

For 0-1000 ppm range	
Accuracy	0-100 ppm $\pm$ 2 ppm; 100-1000 ppm $\pm$ 10% reading
Linearity	0-100 ppm linear, 100-1000 $\pm$ 2% of full scale
Sensitivity	2 ppm
Resolution	1 ppm
Reproducibility	$\pm$ 2 ppm over 12 months at specified operating conditions
Response	Updated reading every 7 seconds
Operating temperature	0-50°C, 32-122°F
Temperature effect	$\pm$ 0.3% per °C of reading
Relative humidity	0-99% non-condensing - no effect on reading
Sample flow rate	1.5 liter/minute
Maximum total tubing length	150 feet with 1/8" ID 500 feet with 3/16" ID
Operating power requirements	120 VAC $\pm$ 10% at 0.56 Amps, or 240 VAC; $\pm$ 10% at 0.3 Amps
Alarm relays	3 relays @ 8 Amps resistive
Approvals	UL 2075
Physical enclosure information	
NEMA 4	
Dimensions	18" H x 16" W x 7" D
Weight	40 lbs.

Features

- › Photoacoustic infrared technology
- › Easy to install, operate, and maintain
- › Operates over wide temperature ranges
- › Can be installed in numerous environments and configurations
- › Easy-to-read display showing gas concentration(s) and alarms
- › 3 alarm levels with relay output
- › UL 2075 safety and performance approval
- › All user functions are configurable through front panel
- › Monitor 1, 4, or 8 sampling points per instrument
- › Long-life sensor has no consumable parts
- › Normally energized trouble relay for fail-safe operation
- › Adjustable alarm set points from 3 to 999 ppm
- › Signal outputs:
 - Sourcing 4-20mA current output
 - 0-10 VDC signal output
 - Voltage output can be configured to indicate monitored sample point
 - RS-232
- › Auxiliary input accepts 4-20 mA analog current signal
- › Audible alarm output for standard 85 dB buzzer or user-supplied horn
- › Switch connection resets alarms remotely

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 1-800-967-0398

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