

CGM II 900

AutoCal[®] Series

Multi-gas Monitor with ToxAlert



- 4 gas monitor plus ToxAlert (protection from hundreds of gases)
- AutoCal[®] automatic calibration
- Smart sensor technology
- PTO connection for accessories and datalogging
- Limited lifetime warranty

ToxAlert

Electrochemical sensors are standard in virtually all portable confined space monitors because they can identify specific known gases. However, in many environments such as sewers or storage vessels, unknown gases may be present. For protection in these cases, a **broad range** sensor is essential. The ToxAlert sensor literally protects you from hundreds of toxic gases with no false alarms. Today's CGM remains the only instrument to successfully combine the unique characteristics and benefits of both electrochemical and broadrange MOS sensors.

The New Standard in Safety

The CGM combines smart sensor technology with advanced electronics for a truly superior confined space instrument. The groundbreaking ToxAlert sensor, without false alarms, ensures superior protection from hundreds of unknown toxic gases. The AutoCal® feature simplifies and reduces the time required for calibration. With these key features and a power take off (PTO) port for datalogging, an optional mini-pump, remote alarms and other useful accessories, the CGM provides you with the protection and convenience you need.

A misconception

It is true that the combustible sensor in conventional gas monitors will also detect most of the gases or vapors listed below. But the concentration levels at which these gases are combustible is usually far in excess to the level at which they pose a threat to health. Some extremely dangerous gases, such as trichloroethylene, are not combustible and would therefore never be detected.

What does OSHA think about broad range sensors?

"Where the employer has already identified (atmospheric) hazards, substance-specific sensors are preferable, because they accurately indicate the concentrations of identified air contaminants. By contrast, where the employer has not been able to identify the specific atmospheric hazards present or potentially present in a sewer, **broad range sensors are preferable** because they indicate that the hazardous threshold of a class (or classes) of contaminants (i.e. hydrocarbons) in the sewer have been exceeded."

The broad range ToxAlert sensor protects you from hundreds of gases!

Conventional toxic gas detectors can protect you from only two or three gases.

acetic acid (C₂H₄O₂)
acetone (C₃H₆O)
acrylonitrile (C₃H_{3.5}N)
ammonia (NH₃)
benzene (C₆H₆)
butanone (mek) (C₄H₈O)
butyl acetate (C₄H₁₀O)
butyl alcohol
(C₄H₉OH)
carbon monoxide (CO)
carbon tetrachloride (CCl₄)
chlorobenzene (C₆H₅Cl)
cyclohexene (C₆H₁₀)
dichlorobenzene (C₆H₄Cl₂)
dichloroethylene (C₂H₂Cl₂)

diisobutyl ketone (C₉H₁₈O)
dimethylamine ((CH₃)₂NH)
ethanol (C₂H₆O)
ethanolamine
(NH₂CH₂CH₂OH)
ethyl acetate (C₄H₈O₂)
ethyl chloride (C₂H₅Cl)
ethyl ether (C₄H₁₀O)
ethyl mercaptan (C₂H₅SH)
ethylamine (CH₃CH₂NH₂)
flouorotrichloromethane
(CCl₃F)
formaldehyde (CH₂O)
heptane (C₇H₁₆)
hexane (C₆H₁₄)

hexone (C₆H₁₂O)
hydrogen chloride (HCl)
hydrogen cyanide (HCN)
hydrogen peroxide (H₂O₂)
hydrogen sulfide (H₂S)
isoamyl acetate (C₇H₁₄O₂)
isobutyl alcohol (C₄H₁₀O)
isopropyl alcohol (C₃H₈O)
isopropylamine (C₃H₉N)
jp8
lpg
methanol (CH₃OH)
methyl acetate (C₃H₆O₂)
methyl alcohol (CH₄O)
methyl chloride (CH₃Cl)

methyl chloroform
(C₂H₃Cl₃)
methyl ketone (C₄H₈O)
methyl mercaptan (CH₃SH)
methyl styrene (C₉H₁₀)
methylene chloride (CH₂Cl₂)
naphthalene (C₁₀H₈)
nitropropane (C₃H₇NO₂)
nitrotoluene (C₇H₇NO₂)
propyl alcohol ((CH₃)₂CHOH)
styrene (C₈H₈)
sulfur dioxide (SO₂)
tetrachloroethylene (C₂Cl₄)
toluene (C₇H₈)
trichloroethylene (C₂HCl₃)

turpentine (UVCB)
vinyl chloride (C₂H₃Cl)
xylene (C₈H₁₀)
xylydine ((CH₃)₂C₆H₃NH₂)
...and dozens more

Technical Data

CGM 900 multi-gas monitor

Gases

Carbon monoxide (CO)
Combustible gases (CH₄)
Hydrogen sulfide (H₂S)
Oxygen (O₂)
ToxAlert (broad range)

Detection range

Broad range 0-20 ppm
CH₄ 0-100% LEL
CO 0-500 ppm
H₂S 0-100 ppm
O₂ 0-25% volume

Detection principles (sensors)

CH₄ Catalytic combustion
CO, H₂S and O₂ Electrochemical
ToxAlert Metal oxide sensor (MOS)

Response time

4 to 30 seconds depending on type of gas

Expected sensor life

CH₄ 1 year
CO, H₂S, O₂ and ToxAlert 2 years

Gas supply

Diffusion / sampling pump (optional)

Display

Auto-backlight, graphic alpha-numeric display

Operation

Touch keys for on / off, auto-zeroing, peak values, TWA and STEL readings, pump / display functions

Alarms

Visual – red LED, flashing gas readings
Audible – buzzer

Operation time

10 to 12 hours (depending on sensors, alarms, and sampling time)

Power source

Rechargeable NiMH battery pack

Temperature range

+25 to +110°F / -4 to +44°C continuous
0 to +120°F / -18 to +49°C intermittent

Casing

RF resistant, reinforced carbon fiber

Weight

18 ounces (504 grams)

Dimensions

6.2X3.5x1.8 inches (199x90x60 mm) (HxWxD)

Ratings and certifications (intrinsic safety)

UL Class I, Groups A B C D

Accessories / options

12 VDC charger
Dosimeter PC program and cable
Easy-to-grip rubber boot
Hand aspirator
Protective soft carrying case
Universal pump

Specifications subject to change without notification

Distributed by:



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