

G Series Carbon Monoxide Sensors



G Series carbon monoxide sensors control ventilation systems in parking garages and other settings where air quality is a concern. Energy and maintenance costs are reduced by running the ventilation fan only as needed, rather than continuously. The relay output is normally-open to provide failsafe activation of the ventilation fan in conjunction with a normally-closed fan contactor. Both audible and visual alarms alert those in the vicinity of excess CO levels.

Relay Output: Relay contact closes when CO level is below 35ppm. Relay contact opens when CO level is above 35ppm. Removal of sensor, interruption of power, or cut wires cause relay circuit to open and start fan. Minimum relay cycle time is 3 minutes to prevent fan short-cycling.

Audible Alarm: 85dB alarm sounds if CO level rises above 100ppm for 30 minutes.

APPLICATIONS

Control ventilation for energy savings and OSHA compliance

- Parking garage ventilation control
- OSHA air quality compliance in commercial buildings and factories

GM Monitoring Station

The GM monitoring station accepts digital inputs from up to four sensors to provide alarm status indication for each channel, and a Form C (SPDT) fan actuation relay. If any of the sensors detects CO levels above 35ppm, or if a fault is detected, the corresponding alarm status indicator lights and the fan relay de-energizes (failsafe). A 24VDC internal power supply can operate four sensors, eliminating the need for external power supplies or transformers.

High accuracy and stability

- Microprocessor controlled...high accuracy, excellent stability
- No calibration required
- Metal oxide semiconductor (MOS) sensor

Low total installed cost

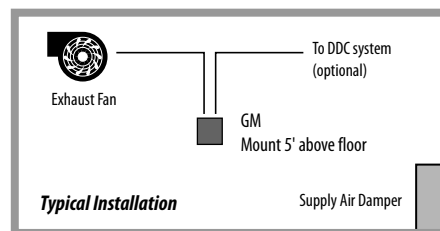
- Low-profile package mounts directly to conduit—no mounting hardware or concrete anchors required
- Long life replaceable sensing element—tamper resistant

Versatile outputs for popular applications

- Interface to DDC system, GM panel, or direct fan control
- Onboard relay for direct ventilation fan control—failsafe
- Selectable output: 4-20mA, or 0-5V/0-10VDC
- Audible exposure limit alarm

Ventilation control in parking garages for energy savings

- 5-year, long-life replaceable sensor element
- Interface to control system via 4-20mA or 0-5/0-10VDC output
- Fail safe alarm relay handles 5 amps for direct fan control
- Audible exposure alarm 100ppm, 30 minutes per UL 2034



Ventilation control for energy savings and OSHA compliance in parking garages and service bays

ORDERING INFORMATION

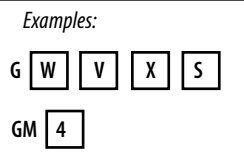
<p>G (Enclosure)</p> <p>□</p> <p>D = CO Duct W = CO Wall</p>	<p>(Output)</p> <p>□</p> <p>V = Field-selectable, 0-5/0-10VDC M = 4-20mA R = Relay only</p>	<p>(Auxiliary Alarm Output)</p> <p>□</p> <p>A = Auxiliary Contact X = None</p>	<p>(US or EU)</p> <p>□</p> <p>S = Standard</p>
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(Sensors) = GWRAS

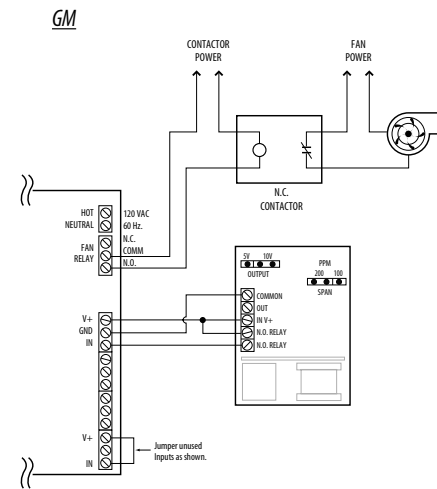
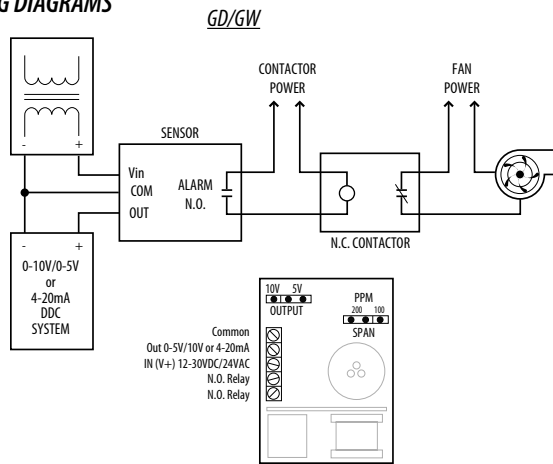
<p>GM</p> <p>Gas Monitoring Station</p>	<p>□</p> <p>0 = Station Only 1 = 1 Sensor 2 = 2 Sensors 3 = 3 Sensors 4 = 4 Sensors</p>
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ACCESSORIES

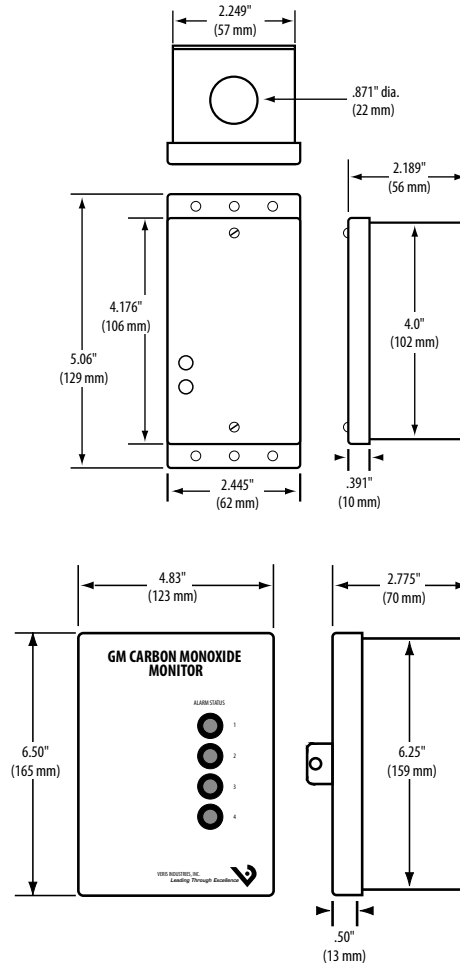
Verification Kits, replacement modules...
See page 205



WIRING DIAGRAMS



DIMENSIONAL DRAWINGS



SPECIFICATIONS G Series

Sensor	Digitally profiled Metal Oxide Semiconductor (MOS)
Sensor Life	5-10 years typical, replaceable
Supply Power	12-30VDC/24VAC, 0.2A@12VDC, 0.1A@24VDC
Detection Range	0 to 200ppm
Analog Output	3-wire sourcing 4-20mA, or user-selectable 0-5/0-10V (Specify mA or voltage)
Output Scaling	User-selectable 100ppm F.S. or 200ppm F.S.
Response Time	2 minutes 30 second sample interval cycle
Relay Setpoint	35ppm
Relay Output	N.O. Form A (SPST) 5A @120/240AC; (Use with N.C. contactor)
High Limit Setpoint	100ppm for 30 minutes
High Limit Alarm	Audible, 85dB, resets below 100ppm (Solid-state contact for -A version)
LED Indicators	Normal=Green; Call for ventilation=Red; High-limit alarm=Flashing Red
Operating Environment	-20°C to 50°C (-10° to 125°F); 0 to 90% RH non-condensing
Coverage	5000 sq. ft. typical
Physical	5.0" x 2.5" x 2.3" (125mm x 65 mm x 60 mm); 1 lb.; white powder coat over steel

SPECIFICATIONS GM Series

Supply Power	120VAC, 60 Hz, 1 amp max. Replaceable fuse
Inputs	Detect contact closure from sensor relay. Four channels. 24VDC loop
Output	Form C (SPDT) relay. 5A@125VAC
Sensor Power Output	24VDC, 1A max. Short circuit protected. UL recognized
Alarm Indicators	Four, 10mm Red LED; indicates alarm status
Power Indicator	Green LED; indicates power supply operation
Operating Environment	-20°C to 50°C (-10° to 125°F); 0 to 90% RH non-condensing
Physical	NEMA 1, metal enclosure, 6.3" x 4.5" x 2.0", white