

Carbon Monoxide Sensors

Easy Control of Ventilation in Parking Garages and Mechanical Areas



DESCRIPTION

G Series carbon monoxide sensors maximize energy savings, while ensuring optimal ventilation in parking garages and other mechanical areas. The sensors allow ventilation systems to be controlled by the amount of CO present in a location. The G Series detects fluctuations in CO levels, and it signals air systems to provide an inlet of fresh air optimal for the space at a given time. In this manner, the ventilation fan does not need to run continuously, saving energy and reducing maintenance costs. Upon alarm, the G Series will alert those in the area with both an audible and a visual alarm.

The G Series devices are equipped with a relay contact that closes when CO level is below 25 ppm and opens when the CO level is above 25 ppm. Sensor removal, power interruption, or cut wires cause the external contactor (normally closed) to open and start the fan. Minimum relay cycle time is 3 minutes to prevent fan short-cycling. Audible Alarm: 85 dB alarm sounds if CO level rises above 100 ppm for 30 minutes.

APPLICATIONS

- Controlling parking garage ventilation
- Ensuring OSHA air quality compliance in commercial buildings and factories
- Vehicle bays (ambulance/fire/taxi stations)
- Mechanical rooms
- Sally ports

SPECIFICATIONS (G Series Sensor)



Input Power	12-30VDC/24VAC, 0.3A@12VDC, 0.3A@24VDC
Sensor	Digitally-profiled Metal Oxide Semiconductor (MOS)
Sensor Life	5-10 years typical, replaceable
Detection Range	0 to 200 ppm
Analog Output	3-wire sourcing 4-20mA or user-selectable 0-5V/0-10V (Specify mA or voltage)
Output Scaling	User-selectable 100 ppm F.S. or 200 ppm F.S.
Response Time	2 minutes 30 second sample interval cycle
Relay Output	N.O. Form A (SPST) 8A@30VAC/VDC (use with N.C. contactor)
Relay Setpoint	25 ppm
High Limit Setpoint	100 ppm for 30 minutes
High Limit Alarm	Audible, 85 dB, resets below 100 ppm; (Solid-state contact for -AS version)
High Limit Contact (-AS models)	250 VAC/DC, 120 mA max. Ron 35 Ω
LED Indicators	Normal=Green; Call for ventilation=Red; High-limit alarm=Flashing Red
Operating Environment	-20° to 50°C (-4° to 122°F); 0 to 90% RH non-condensing
Coverage	5000 sq. ft. typical (465 sq. m)
Physical	white powder coat over steel

SPECIFICATIONS (GMxA Monitor)

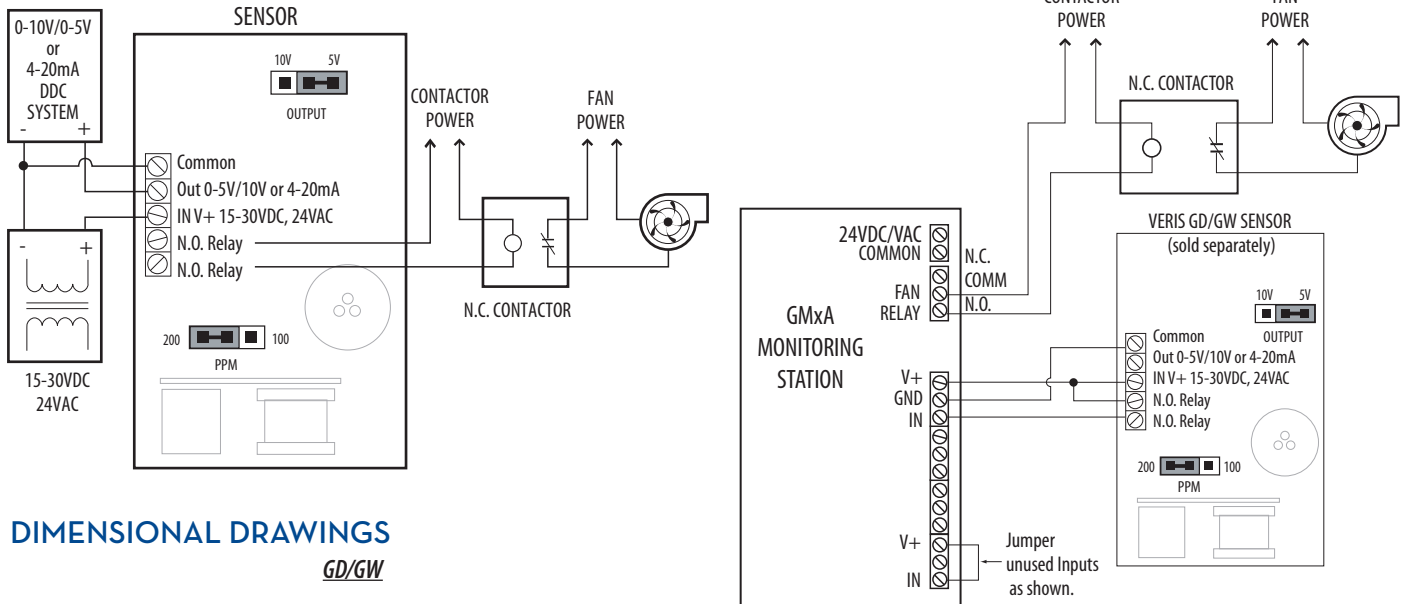
Input Power	24VAC/VDC@0.5A
Inputs	Detect contact closure from sensor relay. Four channels. 24VDC loop
Output	Form C (SPDT) relay. 5A@30VAC
Alarm Indicators	Four, 10 mm red LED indicates alarm status
Power Indicator	Green LED indicates power supply operation
Operating Environment	-20° to 50°C (-4° to 122°F); 0 to 90% RH non-condensing
Physical	NEMA 1, metal enclosure, white

FEATURES

- Long-life replaceable sensor element
- Microprocessor controlled...excellent stability
- No calibration required...easy maintenance and worry-free operation
- Metal oxide semiconductor (MOS) sensor
- Interface to DDC system, GM panel, or direct fan control...easy integration with existing systems
- Onboard fail-safe 5 Amp alarm relay for direct ventilation fan control...simple operation
- Interface to control system via selectable 4-20mA or 0-5/0-10VDC output...application flexibility
- Audible exposure alarm 100 ppm, 30 minutes per UL 2034...easy troubleshooting

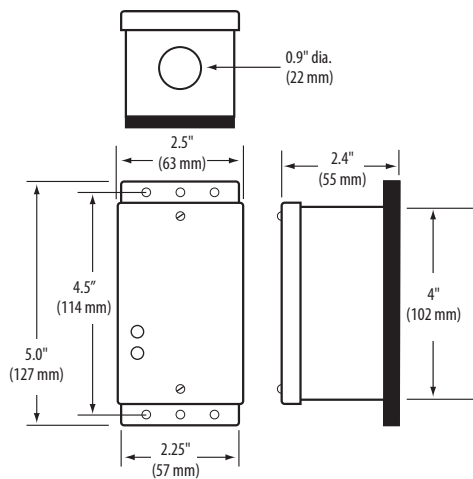
APPLICATION/WIRING DIAGRAMS

GD/GW

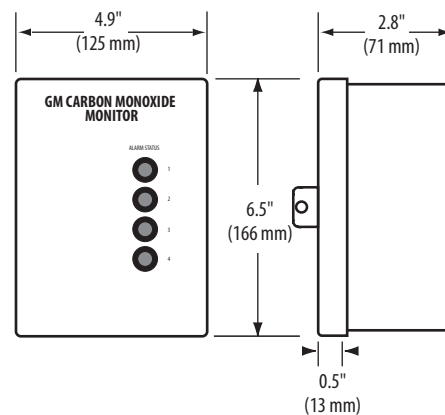


DIMENSIONAL DRAWINGS

GD/GW

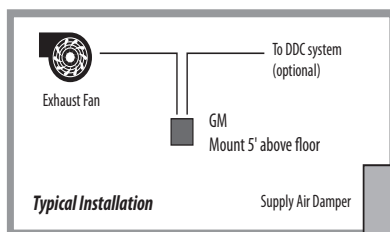


GM



GMxA Monitoring Station

The GMxA 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 25 ppm, or if a fault is detected, the corresponding alarm status indicator lights and the fan relay de-energizes (failsafe).



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

ORDERING INFORMATION

Sensor

Enclosure	Output	Auxiliary Alarm Output	US or EU
G <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D = Duct mount W = Wall mount	V = Field-selectable, 0-5/0-10VDC M = 4-20mA R = Relay only	A = Auxiliary Contact X = None	S = Standard

Monitoring Station

Sensors = GWRXS	
GM <input type="checkbox"/>	<input type="checkbox"/>
Gas Monitoring Station	0 = Station Only 1 = Includes 1 Sensor 2 = Includes 2 Sensors 3 = Includes 3 Sensors 4 = Includes 4 Sensors

Example:
G W V X S

Example:
GM 4 A

ACCESSORIES

- Verification Kits (AA32, AA39)
- Replacement sensors (AA09)
- Calibration gases (AA37, AA38)
- Power Supplies: For a complete product offering check out our PS Series

