

# GASGUARDIAN EM

## ENTRANCE MONITOR



### Key Features

- At-a-glance visual indication of gas concentrations before room entry
- For stand-alone or feed-through applications
- Onboard 10A relay with adjustable alarm setpoint
- 10-segment LED bargraph display of gas concentration
- Electronics completely potted to protect against water damage and corrosion
- Status LEDs display gas concentration, sensor power, alarm, and fault conditions
- Industry standard linear 4/20 mA input
- Calibration mode allows alarm inhibiting during maintenance or calibration
- Watertight NEMA 4X enclosure designed for washdown areas and outdoors
- Use with GasGuard sensor line or any other 4/20 mA gas sensor

## What's lurking behind your doors?

Protect your personnel from entering potentially dangerous areas.

The GasGuardian EM provides plant personnel an at-a-glance visual indication before entering potentially dangerous areas. Features include a ten-segment LED bargraph display; power, alarm and fault indication; and one relay output with a simple alarm setpoint adjustment. Great for engine rooms, air handlers, and stand-alone applications.

The GasGuardian EM can be used as a stand-alone monitor, or in series with the sensor signal to provide remote display / remote relay operation. As a feed-through device, the sensor signal is re-transmitted back to any industry standard 4/20 mA device such as a PLC or gas detection control panel.

The watertight polycarbonate enclosure will stand up to corrosive washdown, temperature swings, and any other harsh environment encountered in the food industry. The electronics are completely potted to protect against corrosion, allowing for installation in washdown areas and outdoors.

### Applications

- Compressor Room Entrances
- Rooftop Air Handling Units
- Stand Alone Gas Detection
- Oxygen Deficiency Monitoring
- Remote Relay Activation and Readout

### Benefits

- Low cost solution
- Remote gas concentration display
- Remote relay output



The **GasGuardian EM** is a low cost solution that provides multiple configurations to meet many needs for remote display and alarm applications. Use the GG-EM as a stand-alone device, or a feed-through device to provide remote display and alarm output capability located at or near the sensor.

Since sensors often end up in wet and harsh environments, an onboard relay is not always ideal. The **GasGuardian EM** provides alarm activation remote of the sensor, in a safe enclosure out of harm's way. The onboard relay is rated at 8A @ 24VDC or 10A @ 120VAC.

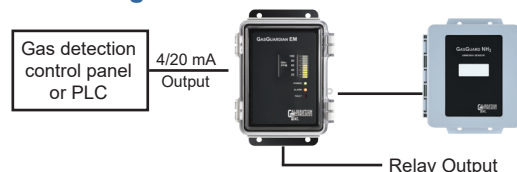
The **GasGuardian EM** provides an at-a-glance indication of dangerous gas concentrations with a 10-segment LED. An alarm indication is displayed by a flashing status LED. A 10-position rotary switch allows for easy setpoint selection in 10% increments. Calibration mode is selected via an onboard switch, and prevents relay activation during maintenance or calibration. The analog output signal is also held at 4 mA to prevent alarm conditions at the control panel or PLC.

## Ordering Information

The **GasGuardian EM** is delivered ready to install. Use the model numbers below to order. The **GG-EM-PS** option allows the unit to be hardwired for 120VAC power.

**Order #:** **GG-EM** (does not include sensor or power supply)  
**GG-EM-PS** (24VDC, 0.625A power supply mounts inside of GG-EM (for stand-alone or OEM installations))

### Feed-through Installation



### Stand-Alone Installation



### OEM Installation



## SPECIFICATIONS

Due to ongoing research and product improvement, specifications are subject to change

### Power Requirements:

24 VDC, 125mA (does not include other connected devices)

### Signal Input:

4/20 mA, 100 Ohm input impedance

### Dimensions:

5.1" high x 4.2" wide x 4" deep

### Weight:

1 lb

### Enclosure:

Polycarbonate NEMA 4X, with neoprene gasket. Hinged lid with dual clasps. For non-classified areas

### Temperature Range:

-40°F to +122°F (-40°C to +50°C)

### Humidity Range:

0-100% RH, condensing

### Sensor Inputs:

(1) 4/20 mA, 100 Ohm input impedance

### Alarm Level Setting:

10% increments by 10-position rotary switch. Downscale alarm mode provides a precise 19.5% alarm setpoint for 0-25% and 15-25% O2 sensor ranges

### Relay Output:

(1) SPDT relay, Form C contacts, 8A @ 24 VDC or 10A @ 120/240 VAC  
 10 Second On/Off delays  
 Non-Latching  
 Status LED shows relay state  
 Normally energized  
 An alarm condition, fault condition, or loss of power will de-energize the relay

### Terminal Block Plugs (Field Wiring):

12-26 AWG, torque 4 lbs-in

### Wiring Connections:

3 conductor, shielded, stranded, 20 AWG cable (General Cable C2525A or equivalent) up to 1500 ft (for sensor and analog output wiring).

### Analog Output:

4/20 mA (max input impedance: 700 Ohms)

### Monitor Functions:

**Calibration Mode:** Locks relay outputs for sensor calibration or maintenance

**Relay Test Function:** Allows for easy testing of relay output functions

### Adjustable Alarm Setpoint

**Downscale Alarm Setting:** for Oxygen Monitoring

**Real-Time Status Display:** Displays gas concentrations and any current alarm conditions

### Certification:

ETL listed to UL standard 61010-1, and CSA standard C22.2 No. 61010-1-12

### Warranty:

2 years

