

# Model 20X Series Gas Sensor Monitors

Model 201 - Combustible Gas Model 203 - Hydrogen Sulfide Model 206 - Carbon Monoxide

The Model 20X Series are all-weather, solid-state, fixed-installation single-alarm monitors designed for continuous area monitoring of Combustible Gas, Hydrogen Sulfide or Carbon Monoxide.

The Model 20X Series consists of 3 gas sensor modules, Model 201 for Combustible Gas, Model 203 for Hydrogen Sulfide and Model 206 for Carbon Monoxide. The monitors provide 0.5 Amp dry contract relay that is activated when the concentration of gas exceeds the factory-set (and user-adjustable) level. A TTL signal can be user configurable to interface with Sierra Monitor's alarm panels. This signal may be used to activate a remote alarm, fan or process controller.

The standard configuration has a normally operating open relay but a fail-safe normally operating closed relay is field selectable. A durable, cast aluminum explosion-proof enclosure houses the sensor electronics. The enclosure provides sealing for hazardous areas - Class I, Division 1, Groups C, D. The sensor with porous metal cover is assembled in an aluminum housing that screws directly into the electronics enclosure. The cover both protects the sensor and acts as a flame-arrestor. The monitor can be installed up to 500 feet from the power source.

### Semiconductor-Type Sensor

A solid-state semiconductor-type sensor and associated electronic circuitry ensure trouble-free, long-term operation. There are no pumps, filters, or chemical cells to replace or maintain. Except periodic calibration to verify the alarm setting, no attention is required after installation. The user may adjust the alarm level by using calibration gas with concentration equal to the alarm level.



#### Remote Alarm Available

If a remote alarm is desired (required for 20X-00), the Model 2102 Dual Channel Alarm Panel can be connected up to 500 feet away from the monitors.

#### Model 201 - Combustible Gas

The Model 201 can detect a wide range of combustibles. Typical applications include combustible gas monitoring in manholes, tanks, natural gas fields, parking garages and vehicle maintenance facilities, sewage treatment plants, laboratories, chemical plants, and more.

#### Features Benefits

- Explosion-proof enclosure
- No chemical cells to replace, no periodic maintenance required other than routine calibration
- All the electronic circuitry needed to operate panel the monitor contained in a compact unit

Can operate continuously in work areas where hazardous gases could be present

Maintenance free operation

Quick easy installation and connection to alarm

## Model 203 - Hydrogen Sulfide

The Model 203 can be used in such typical applications as wastewater treatment plants, laboratories and chemical plants.

#### Model 206 - Carbon Monoxide

The Model 206 Carbon Monoxide Gas Sensor Module can be used to provide an early warning of Carbon Monoxide accumulation in tanks, laboratories, chemical plants, parking garages, vehicle test facilities and more.

## **SPECIFICATIONS**

SENSOR TYPE: Solid-State Metal Oxide Semiconductor

RANGE: (at 50% relative humidity) Model 201 300 - 2,000 ppm Hydrogen

500 - 10,000 ppm Methane

Model 203 10-50 ppm Hydrogen Sulfide (H S) Model 206 50 - 500 ppm Carbon Monoxide (CO)

RESPONSETIME:

Model 201 Less than 30 seconds

Model 203 For 50 ppm alarm, if 50 ppm H2S is present:

1-4 minutes, if >250ppm H2S is present:

30-90 seconds

Less than 30 seconds Model 206

**PERIODIC** 

MAINTENANCE: None, other than routine calibration

**OPERATING TEMPERATURE** 

RANGE:

-4°FTO 158°F

(-20°C TO 70°C)

INPUT: 9 - 24 VDC (± 1V), 250 mA

**OUTPUT:** 0.5 amp dry contact, 100 VDC, 130 VAC

Nominal 5 volts DC (TTL), source 25mA.

SAFE and ALARM signals.

INDICATORS: Internal LED for calibration

**ENCLOSURE:** Class I, Division 1, Groups C, D

**ENCLOSURE** Cast aluminum for protection against

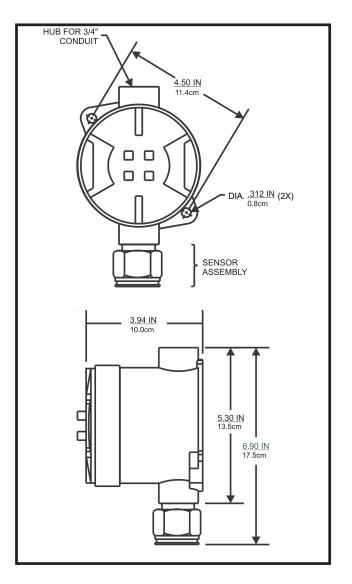
MATERIAL: galvanic corrosion

SIZE: 6.75 x 4.0 x 3.5 in

(17.1 x 10.2 x 6.0 cm)

WEIGHT: 24 oz (678 g)

APPROVAL: UL 60950



## ORDERING INFORMATION

Combustible Gas 201-00 Hydrogen Sulfide 203-00 Carbon Monoxide 206-00



© 2007 by Sierra Monitor Corporation Printed in U.S.A.