

# EX-6100 SERIES GAS SENSOR/TRANSMITTERS

**EX-6100 Catalytic Hydrocarbon Sensor**  
**EX-6165 Infrared Carbon Dioxide Sensor**

**EX-6120 Infrared Hydrocarbon Sensor**  
**EX-6175 Electrochemical Toxic & Oxygen Sensors**

## Description

The EX-6100 Series are 24 VDC, 4-20 mA sensor/transmitters. They are ATEX and IECEx certified explosionproof for use in hazardous areas. They consist of an epoxy painted aluminum transmitter enclosure for the electronics supporting an LC display, two alarm and fault relays, and a choice of four sensor types in a stainless steel housing. Electrochemical type sensors are available for oxygen and several toxic gases. IR sensors are available for hydrocarbons or CO<sub>2</sub>. And a catalytic type sensor is offered for % LEL hydrocarbons.



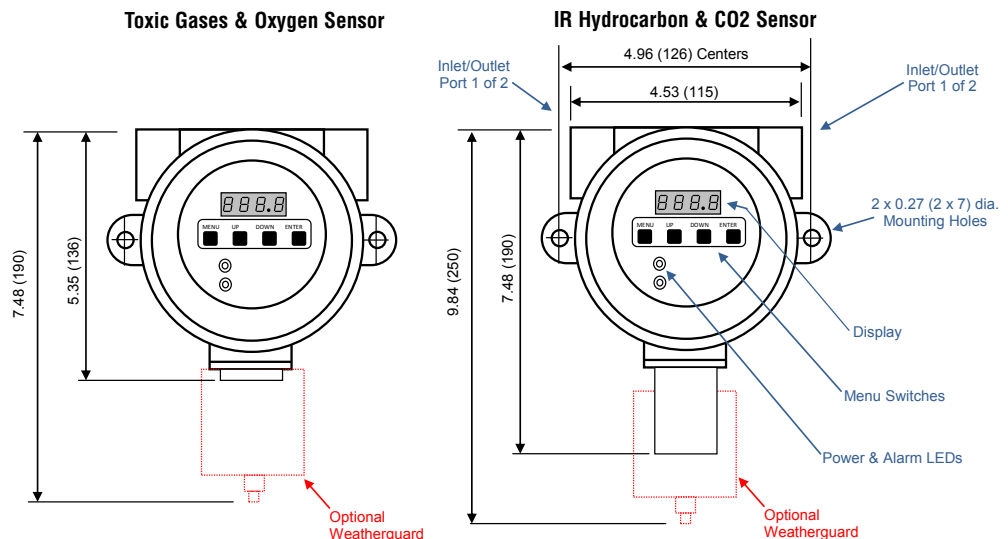
## FEATURES

- Internal Alarm Relays
- Certified Explosionproof
- Two Inlet/Outlet Ports
- Plug-in Replaceable Sensors
- Non-intrusive Calibration
- Liquid Crystal Display
- IR, Catalytic or Electrochemical
- 24 VDC, 4-20mA

## OPTIONS

- Sensor Weather Guard
- Remote Sensor Option
- 316 SS Enclosure Available
- Infrared, Catalytic or Electrochemical Sensor

## DIMENSIONS AND FEATURES



Approximate Measurements in Inches (mm)  
 Maximum Depth = 5 inches (127 mm)



# EX-6100 SERIES GAS SENSOR/TRANSMITTERS

## SPECIFICATIONS

<b>Materials:</b>	<b>Transmitter Body:</b> Epoxy painted aluminum optional 316 SS
	<b>Sensor Housing:</b> <b>for Catalytic &amp; Electrochemical:</b> 316 SS <b>IR Sensor Housing:</b> 303 SS
	<b>Optional Weatherguard:</b> 304 SS & Nylon 66
<b>Inlet/Outlet Ports:</b>	2 @ 3/4" NPT-F, or optional 2 @ 20 mm
<b>Weight:</b>	Approximately 4.5 lbs. (2 Kg)
<b>Input Voltage:</b>	8 to 24 VDC
<b>Internal Fuse:</b>	1 Amp antisurge nanofuse
<b>Relay Contact Rating:</b>	3 Amps, 300 VAC
<b>Analog Output:</b>	4-20 mA
<b>IP Rating:</b>	Enclosure IP68, Sensor IP65
<b>Display:</b>	4 Digit, 7 segment liquid crystal
<b>Keypad:</b>	4-button, magnetically operated
<b>Operating Temperature:</b>	-4°F to +140°F (-20°C to +60°C)
<b>Humidity Range:</b>	0 to 95% RH non-condensing
<b>Operating Pressure:</b>	Atmospheric + or - 10%

## Hazardous Area Certification:

<b>Certificate numbers:</b>	IECEX SIR 08.0009X, Code Ex d IIC SIRA 08ATEX1031X, Code Ex d IIC
<b>Standards:</b>	IEC 60079-0 : 2004 (Edition 4) EN 60079-0 : 2006 IEC 60079-1 : 2007-04 (Edition 6) EN60079-1 : 2007
<b>Temperature Codes:</b>	T4 (Ta -20 to +60 deg C) T5 (Ta -20 to +50 deg C) - not applicable to infrared versions. T6 (Ta -20 to +35 deg C) - not applicable to infrared versions.
<b>Zones:</b>	1 & 2
<b>Equivalent Rating:</b>	Class I, Division 1, Groups A, B, C & D

*Specifications subject to change without notice*

**NOTE:** Loss of primary power renders continuous gas monitors inoperative. Contact factory for specifications and pricing for backup battery systems compatible with ENMET monitors.

## GASES MONITORED – OPTIONS BY SENSOR TYPE – Partial List

Toxic Gases & Oxygen Electrochemical Sensor		Hydrocarbons Infrared Sensor		Hydrocarbons Catalytic Sensor		Carbon Dioxide Infrared Sensor	
Gas	Range	Gas	Range	Gas	Range	Gas	Range
Ammonia, NH <sub>3</sub>	100 ppm	Methane, CH <sub>4</sub>	100% LEL	Hydrogen, H <sub>2</sub>	100% LEL	Carbon dioxide, CO <sub>2</sub>	0-2,000 ppm
Carbon monoxide, CO	500 ppm	Methane, CH <sub>4</sub>	100% by Vol.	Methane, CH <sub>4</sub>	100% LEL	Carbon dioxide, CO <sub>2</sub>	0-5,000 ppm
Hydrogen sulfide, H <sub>2</sub> S	100 ppm	Propane, C <sub>3</sub> H <sub>8</sub>	100% LEL	Propane, C <sub>3</sub> H <sub>8</sub>	100% LEL	Carbon dioxide, CO <sub>2</sub>	0-10,000 ppm
Nitric oxide, NO	100 ppm	Propane, C <sub>3</sub> H <sub>8</sub>	100% by Vol.	Butane, C <sub>4</sub> H <sub>10</sub>	100% LEL	Carbon dioxide, CO <sub>2</sub>	0-2% by Vol.
Nitrogen dioxide, NO <sub>2</sub>	30.0 ppm	Butane, C <sub>4</sub> H <sub>10</sub>	100% LEL	Hexane, C <sub>6</sub> H <sub>14</sub>	100% LEL	Carbon dioxide, CO <sub>2</sub>	0-5% by Vol.
Oxygen, O <sub>2</sub> (% by Vol.)	30.0%	Pentane, C <sub>5</sub> H <sub>12</sub>	100% LEL	Ethylene, C <sub>2</sub> H <sub>4</sub>	100% LEL	Carbon dioxide, CO <sub>2</sub>	0-10 to 0-100
Sulfur dioxide, SO <sub>2</sub>	30.0 ppm	Ethane, C <sub>2</sub> H <sub>6</sub>	100% LEL	Toluene, C <sub>7</sub> H <sub>8</sub>	100% LEL		(in increments of 10% by Vol.)

## ORDERING INFORMATION – Partial List

Gas	Model	Part Number	Sensor Type*	Range	Typical Alarms	Typical Sensor Life in Years
Ammonia, NH <sub>3</sub>	EX-6175	10016-2400	EC	100 ppm	25 & 50 ppm	1
Carbon monoxide, CO	EX-6175	10016-1200	EC	500 ppm	35 & 50 ppm	2-3
Hydrogen sulfide, H <sub>2</sub> S	EX-6175	10016-0200	EC	100 ppm	10 & 20 ppm	2-3
Nitric oxide, NO	EX-6175	10016-1750	EC	100 ppm	25 & 50 ppm	1-2
Nitrogen dioxide, NO <sub>2</sub>	EX-6175	10016-1700	EC	30 ppm	3 & 5 ppm	1-2
Oxygen, O <sub>2</sub>	EX-6175	10016-1100	EC	30%	17 & 19.5%	1.5-2
Sulfur dioxide, SO <sub>2</sub>	EX-6175	10016-0500	EC	30 ppm	2 & 5 ppm	1-2
Methane, CH <sub>4</sub>	EX-6100	10016-001	CAT	100% LEL	10 & 20% LEL	2-5
Methane, CH <sub>4</sub>	EX-6120	10016-003-002	IR	100% LEL	10 & 20% LEL	3-5
Methane, CH <sub>4</sub>	EX-6120	10016-003-004	IR	100% by Vol.	2.5 & 20% by Vol.	3-5
Carbon dioxide, CO <sub>2</sub>	EX-6165	10016-024-027	IR	5000 ppm	1000 & 2000 ppm	3-5
Carbon dioxide, CO <sub>2</sub>	EX-6165	10016-024-059	IR	100% by Vol.	75 & 90% by Vol.	3-5

\* Sensor Type: EC= Electrochemical, CAT= Catalytic, IR= Infrared

