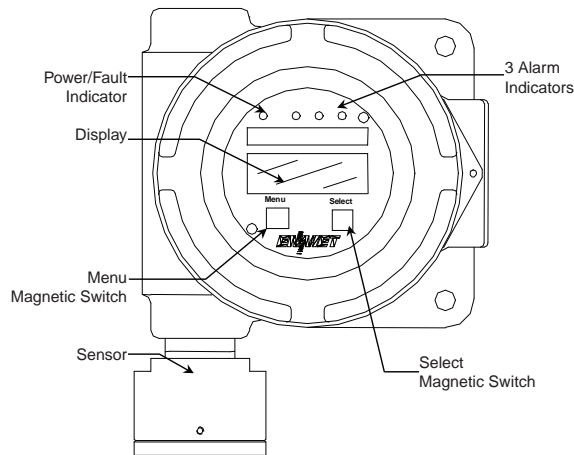


# EX-5130

## Sensor/Transmitter For Reactive Gases In Hazardous Locations

### FEATURES

- Three Alarm LEDs
- 24 VDC, 4-20 mA
- NEMA 4X and NEMA 7 Transmitter Enclosure
- Liquid Crystal Display
- Non-intrusive Calibration
- Designed for Class I, Division 1, Groups B, C, & D



### THE EX-5130\* IS AVAILABLE FOR:

GAS	RANGE
Arsine, AsH <sub>3</sub>	0.50 ppm
Bromine, Br <sub>2</sub>	10.0 ppm
Chlorine, Cl <sub>2</sub>	10.0 ppm
Ethylene oxide, ETO	10.0 ppm
Hydrogen bromide, HBr	30.0 ppm
Hydrogen chloride, HCl	30.0 ppm
Hydrogen fluoride, HF	10.0 ppm
Ozone, O <sub>3</sub>	1.00 ppm

### BASIC SPECIFICATIONS

- Voltage:** 24 VDC powered
- Output:** 4-20 mA
- Display:** Backlit LCD
- Alarm Indicators:** 3 LEDs at programmable set points
- Menu/Calibration:** Magnet-actuated switches
- Sensor Type:** Electrochemical Cell
- Installation:** 3-wire
- Connection:** 1/2 inch NPT, conduit
- Weight:** 5.5 lbs (2.5 Kg)
- Design:** Explosionproof transmitter enclosure, with sensor connected to internal intrinsic safety barrier

The EX-5130 Series Sensor/Transmitters utilize electrochemical type cells to detect the target gas. These cells consist of electrodes, electrolyte and an air/liquid separation barrier. To enable the reactive gases to reach the sensor, the normal sintered metal disk is removed from in front of the sensor. The sensor is connected to an internal intrinsic safety barrier. Gas molecules enter the cell and, as a result of an oxidation/reduction reaction, generate an electrical current proportional to the gas concentration. This current is measured, conditioned, converted to the gas concentration, digitally displayed and transmitted as a 4-20 mA output signal. ENMET offers venturi-type gas samplers and a variety of multi-channel controller/alarm modules that provide the 24 VDC power and receive the 4-20 mA signal from the sensor/transmitters. These systems can also be connected to various computer-based instrumentation, PLCs, etc.

\* It is recommended that a gas sampler be used with the sensor/transmitter for detecting these gases.



Creative Gas Detection Solutions

# EX-5130 Sensor/Transmitter For Reactive Gases In Hazardous Locations

## SPECIFICATIONS

Gas	Range	LED	LDL (1)	Typical
	PPM	Alarms, PPM	PPM	Sensor Life
Arsine, AsH <sub>3</sub> (2)	0.50	0.05, 0.1, 0.4	0.04	1-1.5 yrs
Bromine, Br <sub>2</sub> (2)	10.0	0.5, 1, 5	0.4	1-2 yrs
Chlorine, Cl <sub>2</sub> (2)	10.0	0.5, 1, 5	0.4	1-2 yrs
Ethylene oxide, ETO (3)	10.0	3, 5, 9	1.2	1-2 yrs
Hydrogen bromide, HBr (2)	30.0	5, 10, 20	0.8	1-2 yrs
Hydrogen chloride, HCl (2)	30.0	5, 10, 20	0.8	1-2 yrs
Hydrogen fluoride, HF (3)	10.0	3, 6, 9	0.8	1-1.5 yrs
Ozone, O <sub>3</sub> (3)	1.00	0.1, 0.5, 0.75	0.04	1-1.5 yrs

- (1) Lower Detectable Limit calculated from baseline noise level, thermal drift and interference data used to derive zero point deviation estimates.
- (2) For best performance, it is recommended that a sample draw system be used for monitoring these gases.
- (3) Monitoring of these gases requires the use of a sample draw system.

**Sensor:** Electrochemical cell, disposable, plug-in type

**Temperature Range:** -4° to 104°F (-20° to 40°C)

**Humidity Range:** 5 to 90% rH, non-condensing

**Pressure Range:** Atmospheric ± 10%

**Display:** 8-character, single-line, backlit LCD

**Alarm Indicators:** 3 LEDs at programmable set points

**Menu/Calibration:** Magnet-actuated switches

**Installation:** 3-wire, typically 16 to 20 AWG, depending upon distance  
Max. loop resistance: 300 ohms @ 24 VDC  
Typical installation wire: 18 AWG (0.8 mm<sup>2</sup>)

**Sensor Location:** Up to 2,000 feet (600 m) from controller;  
Consult factory for greater distance

**Voltage:** 24 VDC powered

**Output:** 4-20 mA

**Current Draw:** 45 mA maximum

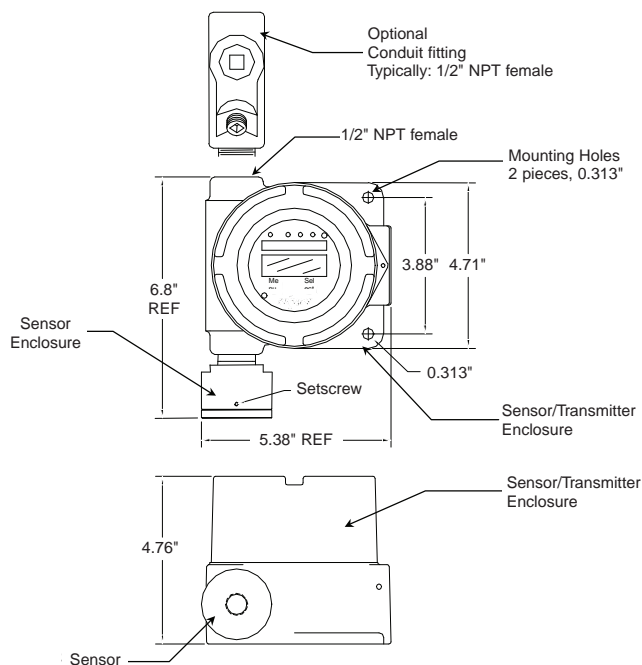
**Connection:** 1/2 inch NPT, conduit

**Weight:** 5.5 lbs (2.5 Kg)

**Materials:** Transmitter Enclosure: Polyester Coated Aluminum.  
Sensor Enclosure: Stainless Steel

**Design:** Transmitter enclosure is approved for Class I, Div. 1, Groups B,C, & D  
The electrochemical sensor is connected to an internal intrinsic safety barrier.

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



## ORDERING INFORMATION

Sensor/Transmitter supplied with magnet and instruction manual

Description	Part Number
EX-5130 Sensor/Transmitter, AsH <sub>3</sub> .....	See note..... 10013-4001
EX-5130 Sensor/Transmitter, Br <sub>2</sub> .....	See note..... 10013-0100
EX-5130 Sensor/Transmitter, Cl <sub>2</sub> .....	See note..... 10013-0100
EX-5130 Sensor/Transmitter, ETO.....	See note..... 10013-5200
EX-5130 Sensor/Transmitter, HBr.....	See note..... 10013-0400
EX-5130 Sensor/Transmitter, HCl.....	See note..... 10013-0400
EX-5130 Sensor/Transmitter, HF.....	See note..... 10013-0700
EX-5130 Sensor/Transmitter, O <sub>3</sub> .....	See note..... 10013-0800

**NOTE: Gas samplers— contact ENMET**

### Replacement Parts & Accessories

Sensor Sampling Adapter.....	03700-034
Replacement Magnet.....	50030-001
Instruction Manual.....	80003-093
Optional Splash Guard.....	04546-007
Optional Sealing Fitting.....	73152-000

### Replacement Sensors — See Price List

### Calibration Equipment

Gas Regulator Assembly for 34 liter Aluminum Gas Cylinder	02506-002
Calibration Adapter for Sensor.....	03700-034
Case – Holds Calibration Hardware and up to two.....	73083-000
34 liter Gas Cylinders	

**Calibration Gas Cylinders, Ozone Generator and HF Permeation Tube Kits — See Price List**

