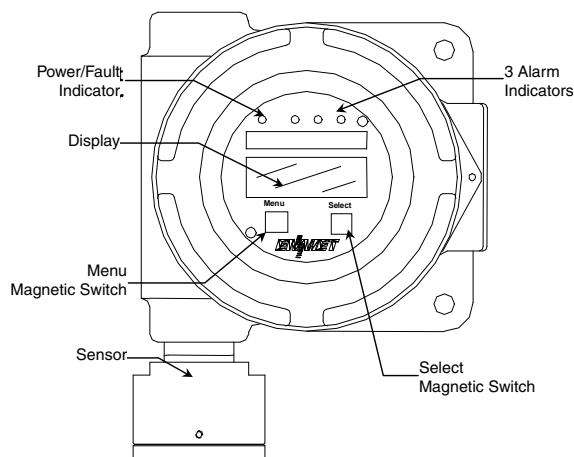


# EX-5120

## Infrared Hydrocarbon Sensor/Transmitter

### FEATURES

- Infrared Sensor
- Three Alarm LEDs
- NEMA 4X, NEMA 7 and IP66 Rated Enclosure
- 24 VDC, 4-20 mA
- Immune to Poisoning
- Operates in Anaerobic Atmospheres
- Minimal Maintenance
- Liquid Crystal Display
- Non-intrusive Calibration
- Designed for Class I, Division 1, Groups B, C, & D
- Non-contact Sensor Technology
- Operates in Continuous Hydrocarbon Environment
- Long-term Stability



### EXAMPLES of Some Typical Calibrations

Gas/Vapor	Range: % Vol.	Range: % LEL
Methane, CH <sub>4</sub>	0-5.0	0-100
Methane, CH <sub>4</sub>	0-100	—
Propane, C <sub>3</sub> H <sub>8</sub>	0-2.1	0-100
Propane, C <sub>3</sub> H <sub>8</sub>	0-100	—
Propylene, C <sub>3</sub> H <sub>6</sub>	0-2.0	0-100
Butane, C <sub>4</sub> H <sub>10</sub>	0-1.6	0-100
Pentane, C <sub>5</sub> H <sub>12</sub>	0-1.5	0-100
Ethane, C <sub>2</sub> H <sub>6</sub>	0-3.0	0-100

#### Some other calibrations (% by volume) available:

Ethylene	0-3%	Ethanol	0-5%
Isopropanol	0-2%	ETO	0-3%
Hexane	0-1%	Acetic acid	0-4%
Methanol	0-5.5%	Toluene	0-1.1%

Also, Methyl bromide, CH<sub>3</sub>Br, 0-25,000 ppm.



### Description/Operation

The EX-5120 incorporates a sensor that operates on the NDIR principle to monitor the concentration of hydrocarbon gas. It can be calibrated for a specific gas, such as methane, but it also responds to some other hydrocarbon gases, including propane, butane, etc. The sensor features an integral semiconductor for temperature compensation, a durable tungsten filament IR light source, filter and a dual temperature-compensated pyroelectric infrared detector.

The EX-5120 Sensor/Transmitter operates on 24 VDC power and features three LED alarm point indicators, 4-20 mA output and optional alarm relay board. This sensor/transmitter can be connected to various ENMET controllers or computer-based instrumentation, such as PLCs, etc.



# EX-5120 Infrared Hydrocarbon Sensor/Transmitter

## SPECIFICATIONS

**Voltage:** 24 VDC powered  
**Output:** 4-20 mA  
**Installation:** 3-wire, typically 16 to 18 AWG, depending upon distance  
**Connection:** 1/2 inch NPT, conduit  
**Humidity:** 0-95%rH, non-condensing  
**Temperature Range:** -4 to +122°F (-20 to +50°C)  
**Response Time, T<sub>90</sub>:** <30 seconds, @500 cc/min.  
**Display:** 8-character, single-line, backlit LCD  
**Alarm Indicators:** 3 LEDs at programmable set points  
**Menu/Calibration:** Magnet-actuated switches  
**Sensor Type:** Infrared (IR)  
**Accuracy:** ± 2% @68°F, 1 bar, 2.5% CH<sub>4</sub>  
**Performance:** ± 2% FSD, or ± 10% of reading to mid-scale, ± 15% of reading from 50 to 100% FSD, whichever is greater, over range of -4 to +122°F.

## Approvals & Certifications\*

### Enclosure:

Class I, Groups B, C, D  
Class II, Groups E, F, G  
Canelec: EEx d IIC, IP66

### IR Sensor:

ATEX certifications:  
I M2 EExd I  
II 2 G EEx d IIC

### Certifications:

FM Standard 3615  
CSA Standard C22.2 No. 30  
UL Standard 1203  
CENELEC EN 50014, 50018

### IECEx certifications:

Ex d I and/or Ex d IIC

### UL Recognized:

Class I, Groups A, B, C, D  
T4 with 60°C ambient

## OPTIONS & RELATED PRODUCTS

### CONTROLLERS:

CP-10, CP-60 and LC Series  
Controllers are available, 1 to 8 Channels.

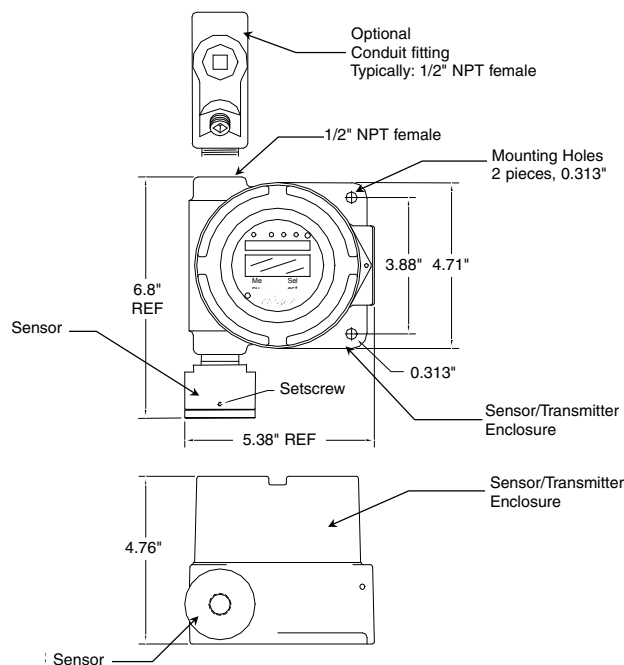
### TOXIC GAS SENSOR/TRANSMITTER:

The EX-5175 utilizes electrochemical sensors for oxygen, CO, H<sub>2</sub>S and other toxic gases.

### MOS SENSOR/TRANSMITTER:

The EX-5155 utilizes a metal oxide semiconductor (MOS) sensor ppm (toxic) level detection of organic solvents and hydrocarbons.

**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

Description	Part Number
EX-5120 Sensor/Transmitter..... supplied with magnet and instruction manual	10014-003
<b>Replacement Parts &amp; Accessories</b>	
Replacement Magnet.....	50030-001
Instruction Manual.....	80003-092
Sensor Sampling Adapter.....	03700-034
Optional Splash Guard.....	04546-004
Optional Sealing Fitting.....	73152-000
Sensor (gas/calibration dependent, consult ENMET).....	03056-XXX

### Calibration Equipment

Gas Regulator Assembly for 34 liter steel gas cylinders.....	02506-004
Also order P/N 03700-034	
Sampling/Calibration Adapter for Sensor.....	03700-034
Case – Holds Calibration Hardware and up to two 34 liter Gas Cylinders.....	73083-000
Calibration Gas, 34 liter steel cylinder, 50%LEL Methane....	03220-050
Calibration Gas, 34 liter steel cylinder, 50%LEL Propane.....	03221-050
Calibration Gas, 34 liter steel cylinder, 50%LEL Butane.....	03282-050

### See Price List for other Calibration Gases

\*Approvals and certifications apply to the sensor and enclosure as individual components, not for the combined unit.

Specifications subject to change without notice

