ENMET

Creative Gas Detection Solutions

EX-5100

Combustible Hydrocarbon Detection

PRODUCT HIGHLIGHTS

- **Catalytic sensor**
- **Three alarm LEDs**
- **24 VDC, 4-20 mA**
- **NEMA 4X, NEMA 7, IP66**
- **Poison resitant**
- **Non-intrusive calibration**
- **Instrinsically Safe**

EX-5100 is an LEL (lower explosive limit) gas monitor that uses a pellistor or catalytic bead sensor to detect combustible gases. This sensor consists of a matched pair of elements, one active and the other for compensation. The active bead is coated with a catalyst that when in contact with a combustible hydrocarbon or solvent, causes the gas or vapor to "burn" or oxidize at concentrations below the Lower Explosive Limit (LEL). This oxidization process raises the temperature of the active bead and increases the resistance of the internal wire coil. The second bead has no catalytic coating and compensates for environmental conditions, including temperature and humidity. When these elements are connected in a Wheatstone bridge-type circuit, a usable signal is produced that is proportional to the gas concentration.

The standard EX-5100 calibration is 0-100% LEL methane. Therefore, methane is considered to have a coefficient or relative response of (1.00) one. Calibration coefficients relative to methane have been generated for over 30 combustible hydrocarbons and solvents. In addition to these established coefficients, ENMET can generate calibration data for other common combustible gases and vapors.

The EX-5100 sensor transmitter operates on 24 VDC power and features three LED alarm point indicators, 4-20 mA output, and an optional alarm relay board. This sensor transmitter can be connected to various single and multi-channel ENMET controllers or computer-based instrumentation, such as PLCs, SCADAs, BMSs, etc.
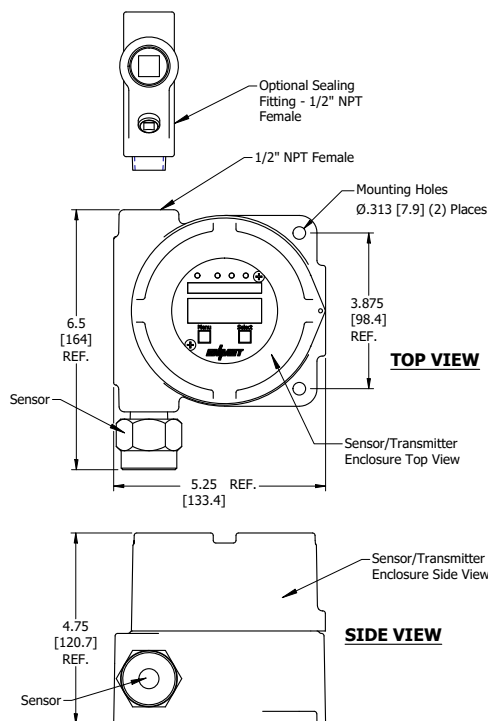
EX-5100

GENERAL SPECIFICATIONS

Sensor Type:	Catayltic Sensor
Display:	Backlit LCD
Alarm Indicators:	3 LEDs at programmable set points
Menu/Calibration:	Magnet-actuated switches
Voltage:	24 VDC powered
Output:	4-20 mA
Installation:	3-wire
Connection:	1/2 inch NPT, conduit
Humidity Range:	0-95% rH, non-condensing
Temperature Range:	-4 to +158°F (-20 to +70°C)
Weight:	4.8 lbs (2.2 Kg)

Approvals & Certifications*:
Enclosure:
Class I, Groups B, C and D; Class II, Groups E, F and G; Class III Type 4X
Class I, Zone 1, AEx d IIC
Ex d IIC IEC 60529 IP66

IR Sensor:
ATEX Approved: Ex I M2, Ex d I Mb and Ex II2 G, Ex d IIX Gb
Certificate No.: Sira 04ATEX1357U

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

DIMENSIONS

ORDERING INFORMATION

Description	Part No.
EX-5100 Sensor, calibrated, supplied with calibration magnet and manual	10014-001
Calibration Adapter for EX-5100	03620-015
Sampling Adapter for EX-5100	03045-002
Gas Regulator Assembly for 34 liter steel gas cylinders (Also order Calibration Adapter P/N 03700-034)	02506-004
Optional Splash Guard for EX-5100	04546-005
Optional Sealing Fitting	73152-000
Replacement Combustible Sensor	03070-003
Replacement Magnet	50030-001

GASES MONITORED

Range 0-100% LEL

- Acetone
- Ammonia
- Benzene
- Butane
- Combustible Gas
- Ethane
- Ethanol
- Ethyl alcohol
- Ethylene
- Gasoline
- Heptane
- Hexane
- Hydrocarbons
- Hydrogen
- Isobutane
- Isopropanol
- Isopropyl alcohol (IPA)
- Methane
- Methanol
- Methyl alcohol
- Methyl ethyl ketone
- Natural Gas
- Octane
- Organic solvents
- Pentane
- Propane
- Propylene
- Solvents
- Styrene
- Toluene
- Trichloroethylene
- Xylene

Contact ENMET regarding ranges and custom calibration requirements.

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

This brochure is for information purpose
and is subject to change without notice.

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