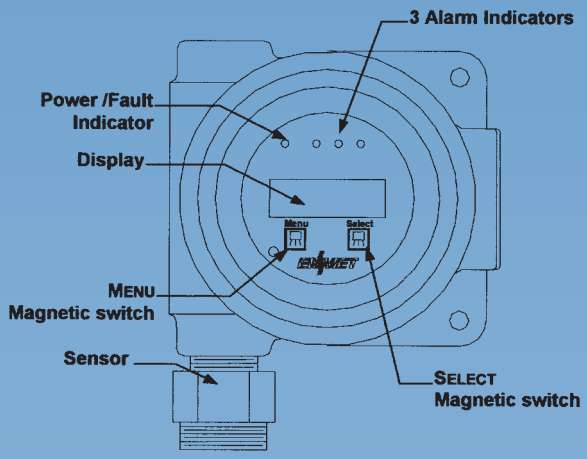
EX-5100

COMBUSTIBLE GAS SENSOR/TRANSMITTER
0 – 100% LEL

FEATURES

- Range: 0-100% LEL
- Digital display
- 4-20 mA output
- Catalytic sensor
- Non-intrusive calibration
- Explosionproof
- Calibration coefficients for over 30 gases/vapors
- Magnetically activated calibration/ programming switches
- Linear response
- Good poison resistance
- Long-term stability
- Fast response
- Rated for harsh environments
- Large temperature and humidity range
- Backlit display
- 3 alarm LEDs
- RS-485 available



The EX-5100 incorporates a pellistor or catalytic bead sensor. 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 does not have the catalytic coating and provides compensation for environmental conditions including temperature and humidity. When these elements are connected in a Wheatstone bridge type circuit, a useable signal is produced that is proportional to the gas concentration. The transmitter is 24 Vdc loop powered and provides a 4-20 mA output signal that can be connected to a controller, PLC or similar instrumentation.

Standard Calibration Coefficients

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 different combustible hydrocarbons and solvents. A partial list of these gases and vapors includes the following: **Propane, Ethylene, Methanol, Xylene, Hexane, Pentane, Ethanol, Ethyl acetate, Butane, Ethane, Isopropanol, MEK, Hydrogen, Acetone, Toluene, etc.**

In addition to the over 30 established coefficients, ENMET can generate calibration data for most common combustible gases and vapors for which a sample can be readily obtained.

ENMET CORPORATION

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EX-5100

COMBUSTIBLE GAS SENSOR/TRANSMITTER 0 – 100% LEL

TRANSMITTER & GENERAL SPECIFICATIONS

Voltage:	24 Vdc, loop powered
Power:	Maximum 7.5 watts at 24 volts
Output:	4-20 mA
Installation:	3-wire (24 Vdc, ground, 4-20 mA), normally 16 to 18 AWG (1.5 to 0.75 mm2) depending upon distance, typically up to 300 ft. (100 meters)
Connection:	1/2 inch NPT female. Sealing fitting available as an option.
Display:	8-character, single-line, backlit LCD
Range:	0-100% LEL
Alarm Indicators:	3 LEDs, independent of 4-20mA output
Menu/Calibration Buttons:	Magnet actuated switches

SENSOR SPECIFICATIONS

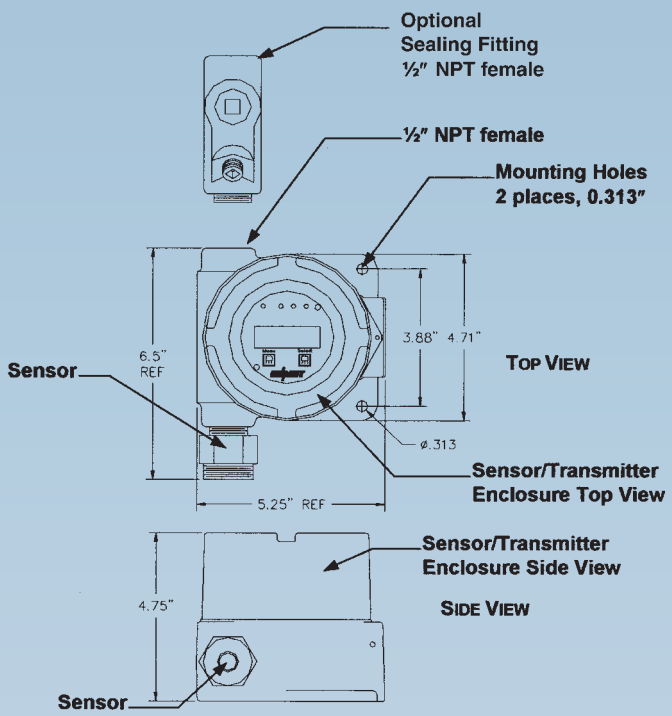
Range:	0-100% LEL
Accuracy:	+/- 1% LEL (CH4)
Maximum Long Term Drift	
Span:	<+/-1% LEL/Month
Zero:	1% LEL/year
Response Time:	T_{50}: 12 sec T_{90}: 40 sec
Temperature Range:	-20° C to +70° C
Humidity:	0-100% RH, non-condensing
Humidity Response:	+/-2% LEL
Linearity:	Effectively Linear to 60% LEL

Approvals & Certifications:

Sensor Head:
ATEX Approved:
CESI 01 ATEX 066 U

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

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



ORDERING INFORMATION

Description	Part Number
EX-5100 Sensor/transmitter	10014-001
Replacement Sensor (Check Manual)	03070-003
Instruction Manual	80003-096
Optional Sealing Fitting	73152-000
Optional Relay PC Board	05006-001
Calibration Adapter (Check Manual)	03620-015
Gas Regulator Assembly	02506-004
Calibration Equipment Case	73083-000
Calibration Gas (Standard, Check Manual), 17 liters, 50% LEL Methane	03220-050

RELATED PRODUCTS FROM ENMET

CONTROLLERS: MX-32, MX-42A, MX-48 and MX-52 Controllers are available, 1 to 16 Channels.

TOXIC GAS SENSOR/TRANSMITTERS:
SDS-XXXX-97D Series Sensor/Transmitters are available for monitoring oxygen and a wide range of toxic gases.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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