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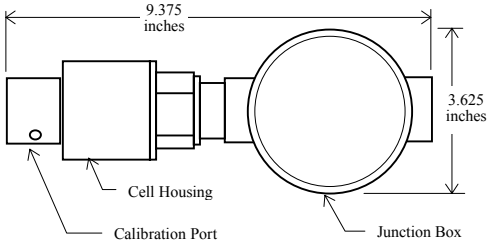
Product Specifications

Ethylene Oxide Sensor for SmartMaxII



Standard Specifications

Part Number	SNR479
Standard Range	0–20 Parts Per Million (PPM)
Accuracy	± 1 PPM
Response Time T_{90}	< 140 seconds
Repeatability	± 1% full scale
Drift	< 5% over one year
Assembly Rating	Class I, Division 1
Assembly Material	Aluminum
Operating Life	2 years in air
Temperature Limits	-20°C (-4°F) to 50°C (122°F)
Operating pressure	Ambient ±10%
Humidity range	15% to 90% RH non-condensing
One-way line length	5,000 feet 14 AWG
Interconnection wiring	3 wires
Input Voltage	24VDC
Output	mADC into SmartMaxII monitor

Cross Sensitivity to:	**SNR479 Response**
Ethanol	≈55%
Toluene	≈20%
Methyl-ethyl-ketone	≈10%
Carbon Monoxide	≈40%

Sensor Design

The Ethylene Oxide Sensor employs electrochemical technology. The sample diffuses into a micro fuel cell, where it chemically reacts to produce an electrical current. The micro fuel cell is designed so that the current produced is proportional to the concentration of ethylene oxide present. The output signal is a linear mA output and readings are displayed as percent by volume.

Construction

The sensor assembly consists of the micro fuel cell housed in an aluminum sensor body which connects to a junction box for field wiring. A collar protects the sensor from environmental conditions and also provides a means of introducing calibration gas.

The micro fuel cell employs a capillary diffusion barrier which eliminates the possibility of puncturing the membrane and destroying the cell. The cell is a rugged and stable design that is less sensitive to temperature and pressure variations than other electrochemical cells.

Performance

The Ethylene Oxide Sensor exhibits high accuracy, excellent repeatability, and long-term stability for zero and span readings.

Factory Tested as a Complete System

The sensor is completely factory assembled, calibrated and tested with its control monitor prior to shipment.

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