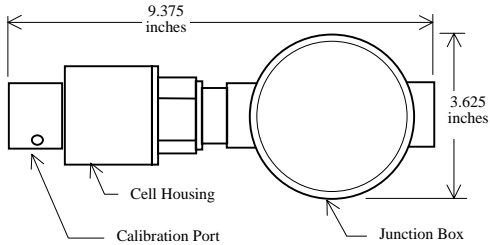




Chlorine Sensor for SmartMaxII



Standard Specifications

Part Number	SNR473
Standard Range	0-10 Parts Per Million (PPM) 0-5 PPM also available
Accuracy	± 1 PPM
Response Time	20 seconds to 50% of scale
Repeatability	± 1% full scale
Drift	<0.2 PPM/month
Assembly Rating	General Purpose
Assembly Material	Aluminum
Operating Life	2 years
Storage life in container	6 months
Temperature Limits	
Operating	-20°C to 50°C
Operating Pressure	Ambient ±10%
Pressure effect	Negligible
Humidity Range	15% to 90% RH
One way line length	5,000 feet 14 AWG
Interconnection wiring	3 wires
Input voltage	24 VDC
Output	mA DC into SmartMaxII monitor

Sensor Design

The Chlorine 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 chlorine present. The signal is then amplified into a mA output. The output signal is linear. Readings can be displayed in parts per million concentrations on a display monitor.

Construction

The sensor assembly consists of a micro fuel cell that plugs into the electronics. The cell and electronics are housed in an aluminum sensor body that 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 barrier that 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.

An on-board heater protects the cell and extends its useful operating range in sub-freezing temperature.

Performance

The Chlorine 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.

Cross Sensitivity to:	SNR473 Response
35 PPM Nitric Oxide	0
100 PPM Carbon Monoxide	0
100 PPM Hydrogen	0
15 PPM Hydrogen Sulfide	-1.5
5 PPM Sulfur Dioxide	0