

EMD-485 OEM Oxygen Transmitter



Well Suited for OEM Installations
 Precision Fuel Cell Oxygen Sensor Technology
 Trace or Percent Configuration
 Measure Oxygen from 0.1ppm to 100%
 4 - 20mA, 0 - 1V DC, 0 - 10V DC Outputs
 Updated Microprocessor Based Design
 Cost Effective, Compact and Low Maintenance
 Bi-directional Modbus RS485 3-wire Protocol

Configurations:

User Selectable Ranges (Pre-Configured):
 0 - 10ppm/100/1000ppm/1%/5%/10%/25%/100%
 Digital Push Buttons to Perform Local Span Cal
 Sensor Housings: H1 KF-40 or H3 Flow Through
 Graphical Display with Backlight
 Many additional customized options available
 Integral Span Pot to Adjust 4mA Offset



H1 KF-40
 Sensor Housing



H3 Flow Throw
 Sensor Housing



Oxygen Sensor

Specifications:

Accuracy:	< 1% Full Scale Range*
Calibration:	2 - 3 months or as needed
Classification:	General Purpose
Digital Communication:	Bi-Directional RS485 Modbus
Dimensions (PCB):	3.25 x 2.00 inch
Display:	Optional
Temperature:	0 - 50 deg C
Temperature Compensation:	Integral
Output:	4 - 20mA, 0 - 1VDC, 0 - 10VDC
Sensor Housing:	Optional, H1 or H3
Flow Sensitivity:	0 - 5.0 SCFH
Sensor Type:	Precision Fuel Cell
Warranty:	12 Months Sensor
Warranty:	12 Months Electronics

*Accuracy at constant conditions

Applications:

- Inert Glove Box Systems
- Nitrogen and O2 PSA Generators
- Laboratories & Universities
- Beverage Grade CO2 Monitoring
- Air Separation Plants
- & Many Others

"Inquiry for Application Expertise"

EMD-485 Oxygen Transmitter

Product Specifications

Oxygen Transmitter:

The model EMD-485 oxygen transmitter combines a rugged electronic design with SSO2's precision oxygen sensors. The result is a highly reliable and cost effective compact design with easy-to-use user interface.

The transmitter comes with a variety of options, which makes it configurable for a large array of applications. These options include custom ranges from 0 - 10ppm through 0 - 100%, a local display, sensor housings for flow through applications and ambient monitoring, as well as a variety of oxygen sensors. See the below ordering guide for complete options.

Bi-Directional 3-wire MODBUS RS485 protocol is pending and should be available shortly.

Power Requirements:

Input Power: 12 - 24 V DC
Current Draw: 40 mA (max)

Oxygen Sensor Technology:

The oxygen sensor used in the EMD-485 is based on the galvanic electrochemical fuel cell principal. All oxygen sensors are manufactured in house by Southland Sensing Ltd. under a strict quality program.

The standard cells are unaffected by other background gases such as H₂, He or Hydrocarbons. The acidic cells work well when acid gases such as CO₂ or Natural Gas are present.

The sensors are self-contained and minimal maintenance is required - no need to clean electrodes or add electrolyte.

The SSO2 precision oxygen sensors offer excellent performance, accuracy and stability while maximizing the expected life.

Oxygen Sensors:

TO2-1x PPM Oxygen Sensor: Trace Analysis, Standard
TO2-2x PPM Oxygen Sensor: Trace Analysis, Acidic
PO2-160 Percent Oxygen Sensor: Percent Analysis, Standard
PO2-24 Percent Oxygen Sensor: Percent Analysis, Acidic

Oxygen sensors should be periodically calibrated. Factory recommendation is every 2 - 3 months or as the application dictates. Sensors offer excellent linearity with an air calibration, or calibrate to a certified span gas to maximize accuracy.

Order Information:

Record Part Number with selected options in Blank Indicated Area of Form

Model Number:

EMD-485 Oxygen Transmitter

Optional Display:

D Local Display with Backlight
X No Display, Blind

Area of Analyzers

T Trace Analysis
P Percent Analysis

Optional Sensor:

1 Trace Analysis Standard (TO2-1x): 0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 1%, 0 - 25%
2 Trace Analysis Acidic (TO2-2x): 0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 1%, 0 - 25%
5 Percent Analysis Standard (PO2-160): 0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, 0 - 100%
6 Percent Analysis Acidic (PO2-24): 0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, 0 - 100%

Optional Sensor Housing:

8 H3 Flow Through with 1/8" Swagelok Tube Fittings
4 H3 Flow Through with 1/4" Swagelok Tube Fittings
6 H3 Flow Through with 6mm Swagelok Tube Fittings
K H1 KF-40 Sensor Housing (ideal for Ambient Monitoring or Glove Box Applications)

Optional Factory Pre-Set 2nd Range:

If you want the factory to pre-set a 2nd range, please list the value here:
| (i.e. 0 - 10ppm, 0 - 100ppm, 0 - 10%, etc.)

Use This Part Number When Ordering

** For assistance when ordering, contact our inside sales specialist **

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