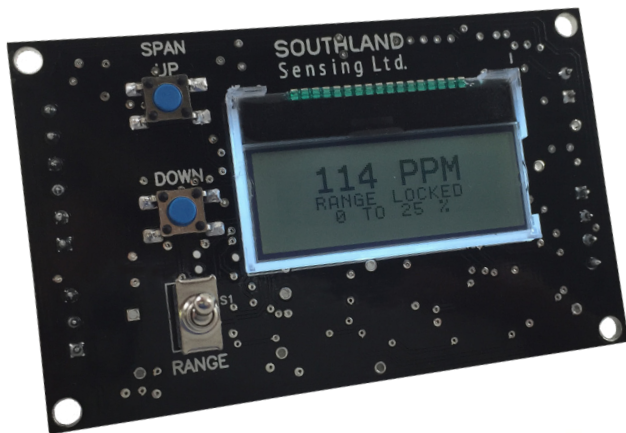


## EMD-485 OEM Oxygen Transmitter



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

### 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



H1 KF-40  
 Sensor Housing



H3 Flow Throw  
 Sensor Housing



Oxygen Sensor

### Applications:

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

## 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 H<sub>2</sub>, He or Hydrocarbons. The acidic cells work well when acid gases such as CO<sub>2</sub> 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 \*\*

EMD-485 - - - - -