

OSS-2 Electrochemical Oxygen Sensor

Product Specification Sheet

Electrochemical Galvanic Fuel Cell Percent Oxygen Sensor



Measures Oxygen From 0 to 100%

Electrochemical Fuel Cell Sensor Technology

Self-Contained, No Need To Add Electrolyte

Excellent Stability, Performance, & Linearity

Competitive Drop-In Field Replacement

The OSS-2 oxygen sensor provides high levels of accuracy, reliability, and linearity throughout its measurement ranges. The oxygen sensor is based on the galvanic electrochemical fuel cell principle and is manufactured in-house under a strict quality procedure.

Backed with excellent customer service and an industry proven product design, our sensors excel in performance and quality while reducing the cost of ownership.

Varying performance advantages to the Southland Sensing Ltd. sensors can be attributed to minor modifications in dimensions, connections, and packaging. However, the principle of operation and the basic components remain the same.

Along with excellent performance and exceptional quality, Southland Sensing offers rapid delivery times to a global customer base for most oxygen sensors.

Intended Use:

These oxygen sensors are designed to be used to monitor the partial pressure of oxygen in automotive exhaust, safety, flue gas and other general oxygen monitoring applications.

Specifications:

Sensor Technology	Electrochemical
Signal Output ¹	9 - 13 mV
Measuring Range	0 - 100 Percent
Response Time T90	6 Seconds
Accuracy Full Scale ²	± 1% of Signal
Repeatability F.S.	± 0.5%
Temperature:	Compensated
Operating Temp	0 to 50 °C
Storage Temp	0 to 45 °C
Recommended Flow	0.4 - 20 SCFH
Housing Material:	White ABS
Humidity	0 - 100% RH (Non - Condensing)
Expected Life ³	< 60 Months
Storage	12 Months
Warranty ⁴	12 Months
Zero Signal in N ₂ @ 20 °C	< 200 uV

Electrical & Gas Connection:

M16 x 1.0mm Thread w/ O-ring

3-Pin Molex Header (MOLEX 22-29-2031)

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Compatibility

The OSS-2 Percent Oxygen Sensor is designed to be a drop-in replacement for a variety of OEM equipment. See the following lists for compatible equipment and sensors.

If you do not see a cross reference for your sensor, our experienced team of engineers and technicians would be happy to help you pick the right sensor for your application.

Need something different? Southland Sensing Ltd. can design custom sensors to fit your application by modifying aspects such as packaging, signal outputs, or temperature compensation while providing the same precision and quality offered by our stock sensors.

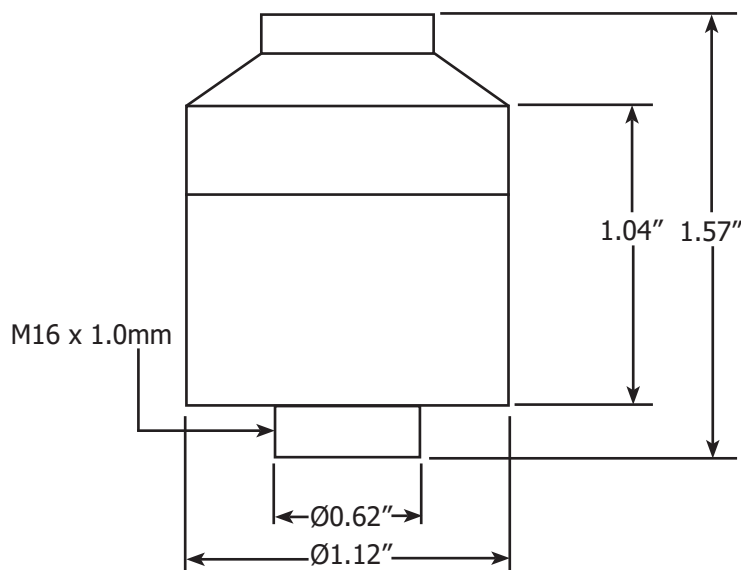
Cross Sensitivity

The OSS-2 has been tested with a number of gases which may be present in industrial gas streams. Common gases such as Carbon Monoxide, Carbon Dioxide, and most hydrocarbons pose no risk of cross-sensitivity.

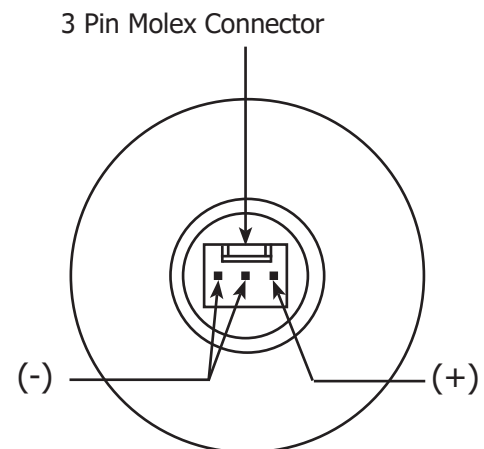
Sensor Compatibility

City Technology: AO2
Teledyne: R-22AV

Dimensions



Pinout Diagram



1. Signal output is measured in air at 25 °C, sea level.
2. Full Scale accuracy is calculated with constant pressure, temperature and proper calibration (80% O₂ value on full scale range). Drastic temperature change can result in a maximum error of $\pm 10\%$.
3. Expected life is calculated when O₂ < 20.9% @ 25 °C, sea level.
4. Southland Sensing Ltd. warrants the sensors for the period noted above to be free from defects in materials and workmanship. Southland Sensing will not be held liable for sensors damaged due to customer neglect.
4. Southland Sensing Ltd. sensors are tested and validated to BSI Standard BS EN 50104:2010