

Online Oxygen Analyzer, 1/4 DIN Package, Remote Sensor Housing



Precision Electrochemical Sensor Technology

Intuitive User-Friendly Interface

Trace, Percent, and Purity Analysis Ranges

Auto-Ranging or Manual Range Mode

Two Adjustable Alarm Contacts w/ delay mode

1/4 DIN Panel Mount Compact Design

Optional Isolated Outputs



H6 KF-40
Sensor Housing



H3 Flow Through
Sensor Housing



Oxygen Sensor

Specifications:

Accuracy:	+/- 1% Full Scale Range*
Display:	LCD with Backlight
Dimensions:	1/4 DIN (96 x 96 x 65mm)
Enclosure:	Anodized Aluminum
Classification:	General Purpose
Temperature Rating:	0 - 50 deg C
Temperature Compensation:	Integral
Alarms:	2 Adjustable w/ delay mode
Power:	10 - 28 VDC or 100 - 240 VAC
Output (Analog):	4 - 20mA or 1-5 VDC
Communication:	Bi-Directional MODBUS RS485 ASCII
Range ID:	1 - 5 VDC (Optional 4 -20mA)
Sensor:	Configurable
Sensor Type:	Precision Electrochemical
Calibration:	Periodically
Temperature Compensation:	Integral
Flow Sensitivity:	0.5 - 5 SCFH
Pressure:	0.1 - 50 PSIG
Warranty:	12 Months Sensor 12 Months Electronics

*Accuracy at constant conditions

Applications:

- Inert Glove Box Systems
- Nitrogen and O2 PSA Generators
- Laboratories & Universities
- Medical Grade Oxygen Concentrators
- Air Separation Plants
& Many Others

The OMD-501X is offered with either a 4-20 mA or 1-5 VDC analog output which can be configured in the factory or easily changed in the field by simply switching a jumper on the board.

Optical isolation is also now offered for both the analog output as well as the range ID. This allows the OMD-501X to be used easily with a wider range of PLCs by eliminating the need for a separate isolator on PLC systems that use a shared ground.

"Inquiry for Application Expertise"

Oxygen Analyzer:

The model OMD-501X oxygen analyzer combines a rugged in-line design with SSO2's precision oxygen sensors. The result is a highly reliable and cost effective compact design with easy-to-use user interface.

Trace ranges include 0 - 10 ppm, 0 - 100 ppm, 0 - 1000ppm, 0-10000ppm and 0-25%. Percent ranges include 0 - 1%, 0 - 5%, 0 - 10%, 0 - 25%, and 0 - 100%. The analyzer can be configured for trace (parts-per-million), percent, and purity applications by the user by selecting the desired ranges in the built-in menu and using the appropriate sensor.

The analog output can be manual range selected through the on board menu or the user can take advantage of the auto-range feature using the RANGE ID output allowing easy interface with a PLC, DCS or other control system.

Gas connections are made with compression tube fittings or a direct fit KF-40 Housing.

Power Requirements:

Input Power: 10 - 28 V DC
 Input Power: 100 - 240 V AC
 Current Draw: 50 mA

Oxygen Sensor Technology:

The oxygen sensors used in the OMD-501X are 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
- TO2-19 Hybrid Oxygen Sensor: Percent or Trace Analysis
- PO2-160 Percent Oxygen Sensor: Percent Analysis, Standard
- PO2-24 Percent Oxygen Sensor: Percent Analysis, Acidic
- PO2-1120 Purity Oxygen Sensor: Purity Analysis

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:

OMD-501X Oxygen Analyzer

Selected Range & 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% |
| 8 | Purity Analysis (PO2-1120): | 0 - 100% |
| 9 | Hybrid Analysis (TO2-19): | 0 - 1000 ppm, 0 - 10000 ppm, 0 - 25% |

Power Option:

- A 100 - 240 V AC Analyzer + Bidirectional MODBUS RS485 ASCII
- D 10 - 28 V DC Analyzer + Bidirectional MODBUS RS485 ASCII
- IO Optically Isolated 4-20 mA or 1-5 VDC Output and Range ID

Gas Connections:

- 8 1/8" Compression Tube Fittings Flow Through Sensor Housing
- 4 1/4" Compression Tube Fittings Flow Through Sensor Housing
- 6 6mm Compression Tube Fittings Flow Through Sensor Housing
- KF KF-40 (NW40F) Fitting (Inert Glovebox Applications)

OMD-501X - ____ - ____ - ____ Use This Part Number When Ordering