

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



Oxygen Sensor



H3 Flow Through  
Sensor Housing



H6 KF-40  
Sensor Housing



H6 Long KF-40  
Sensor Housing

#### Applications:

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

Precision Electrochemical Sensor Technology

Intuitive User-Friendly Interface

Trace, Percent, or Purity Analysis Ranges

Auto-Ranging or Manual Range Mode

Two Adjustable Alarm Contacts w/ delay mode

1/4 DIN Panel Mount Compact Design

Measure Oxygen from 0.01ppm to 100%

#### Specifications:

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

\*Accuracy at constant conditions

"Inquiry for Application Expertise"

Published: 3/30/2026

Designed, Tested, and Assembled in California, USA

4405 E. Airport Dr. #100 Ontario, CA 91761 USA : 1-949-398-2879 : sales@sso2.com : www.sso2.com

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 which sensor is in use in the built-in menu.

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. Sensor housings come standard with a 72 inch Cable.  
\*Due to signal degradation max cable length possible is 72”  
\*Sensor cable should not be spliced.

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
- PO2-160 Percent Oxygen Sensor: Percent Analysis, Standard
- PO2-24 Percent Oxygen Sensor: Percent Analysis, Acidic
- PO2-1120 Purity Oxygen Sensor: Purity Analysis
- TO2-19 Hybrid Oxygen Sensor: Percent or Trace 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 - 10000ppm, 0 - 25% |
| 2 | Trace Analysis Acidic (TO2-2x):      | 0 - 10ppm, 0 - 100ppm, 0 - 1000ppm, 0 - 10000ppm, 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   |

Gas Connections:

- |     |                                |
|-----|--------------------------------|
| 4   | 1/4" Compression Tube Fittings |
| 6   | 6mm Compression Tube Fittings  |
| 8   | 1/8" Compression Tube Fittings |
| KF  | (NW40F) Fitting                |
| KFL | "Long" KF-40 Sensor Housing    |

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

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