



## Item # 07-0048, O2L Oxygen, Single Channel, Table Top

The Model O2L analyzer is a versatile, high-accuracy oxygen analyzer designed to adapt to a wide range of measurement needs, from low-level oxygen detection to high-purity gas monitoring and process control. It measures oxygen concentrations from 0% to 100%, with 0.01% resolution for 0-10% and 0.1% from 10-100%, giving users the precision needed for their specific application. Using laser diode absorption technology, the O2L delivers fast response times, long-term stability, and smooth, interference-free readings, making it a dependable choice for industries requiring precise and consistent oxygen analysis, especially at lower concentrations.



# Features

## **Precision Oxygen Measurement Across a Wide Range**

The Model O2L is designed to measure oxygen concentrations from 0% to 100%, with an industry-leading 0.01% resolution in the 0-10% range and 0.1% resolution in the 10-100% range. This high level of precision ensures accurate oxygen analysis in critical applications such as fuel combustion efficiency, industrial process control, and pharmaceutical gas monitoring.

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## **Low-Noise Mode (LN) for Smooth, Stable Readings**

Operating in LN (Low Noise) mode, the Model O2L provides stable, interference-free readings, reducing fluctuations and ensuring smooth data acquisition. This is particularly beneficial for scientific research, medical applications, and process control environments where consistent, high-precision measurements are required.

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## **Pressure-Independent Oxygen Measurement**

Unlike many conventional sensors, the Model O2L's oxygen measurement is independent of sample pressure, ensuring accurate readings regardless of variations in gas flow or pressure changes. This makes it ideal for engine testing, fuel monitoring, and environments where pressure fluctuations are common.

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## **Unaffected by Gas Temperature and Background Gases**

The Model O2L provides consistent and accurate oxygen readings regardless of sample gas temperature or the presence of other gases, including CO<sub>2</sub> and H<sub>2</sub>O. In most cases, gases other than oxygen do not affect the measurement, except for their dilution effect in a gas mixture. This makes the Model O2L ideal for combustion analysis, pharmaceutical applications, and industrial gas processing, where gas compositions frequently change.

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## **Ultra-Fast Response Time for Immediate Process Adjustments**

With a sub-150 millisecond response time, the Model O2L provides instantaneous detection of oxygen concentration changes, allowing for real-time adjustments in industrial combustion systems, food packaging processes, and laboratory experiments. This rapid feedback enhances efficiency, safety, and product quality.

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## **Leak-Free Gas Pathway for Contaminant-Free Oxygen Analysis**

The Model O2L features a sealed gas pathway, preventing external contamination and unwanted gas dilution. This is critical for applications in air separation, cryogenic gas processing, and research environments, where even minor leaks can compromise oxygen purity and measurement accuracy.

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## **Multiple Output Options for Seamless System Integration**

Featuring analog (0-1V DC, 4-20mA) and digital (RS-232) outputs, the Model O2L integrates easily into industrial automation systems, research platforms, and aerospace applications. These communication options allow for real-time monitoring and process optimization.

## Accessories



### Calibration Kit

Two Regulator Valves, two tanks of calibrating gases (21.00 and 99.99% +/- 0.05%) with Cal Kit Tubing Assembly and hard plastic carry case. (35 Liter bottles: approx 100 calibrations).

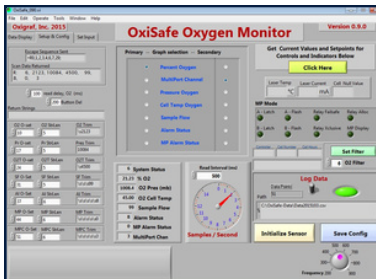
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### Sensor Inlet Filter

PTFE moisture barrier/dust barrier for sensor, no fittings . (Package of 5). 25MM (package of 1)

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### OxiSafe Software

Oxisafe is a control and status monitoring application for the Oxigraf Model O2iM Oxygen Deficiency Monitor. Useful in control room applications, Oxisafe provides a complete remote monitoring and control suite for the single or multiple O2iM units. Oxisafe provides a graphical interface for displaying O2 levels, unit status, and control of the O2iM units from a remote location over the RS-232/485 interface.

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## Technical Data

Performance Conditions	
Ambient Temperature (Operating)	5 to 40 °C 40 to 102 °F
Ambient Temperature (Storage)	-20 to 60 °C -2 to 140 °F
Cell Pressure	10.2 to 17.4 psi 70 to 120 kPascal 500 to 900 mmHg
Warm-up for Full Accuracy	10 min
Altitude	Two point calibration required after change in altitude of 2000 feet
Humidity	0 to 95% non-condensing
Performance Specifications	
Range	0 to 100% (with serial locking cell)
Resolution	0.01 % for 0-10% range and 0.1% for 10-100% range
Accuracy - Stability (8 Hrs)	±0.3%
Input Pressure	
Flow (Using Pump)	
Response Time	150ms at 150ml/min and filter 3
Sample Inlet	CPC O-ring quick connects, 1/8 " flex tubing barbs std
Analog Output	0 to 1.0 volts for 0 to 100% oxygen, 1.00K - 1% output resistance
Digital Output	RS232: 9600 baud default, 8 bit, no parity
Electrical Specifications	
Power Requirements	0.4 A typical at 24 VDC 1.4 A max 15 to 32 VDC
External Power Supply	100 to 230 VAC 50 to 60 Hz
Mechanical Specifications	
Dimensions (W x H x D)	10.375 x 12.25 x 7.375 in
Weight Instrument	8 Pound 5 kg

