



# OXIGRAF

## Oxigraf Model O2 Oxygen Analyzer for Fast Response and Research Applications



The Model O2 is a versatile research grade oxygen analyzer for measuring 5-100% oxygen concentrations. The unit features an easy to use and feature bright LED displays, touch panel controls, easy calibration, and a CPC front panel fittings. The Model O2 has a built-in sampling pump, flows of 50 or 150 ml/min may be selected via the front panel keypad.

### **Step-Up from other measurement technologies:**

- NO errors due to vibration and movement
- NO errors due to temperature changes
- NO errors due to changes in barometric pressure
- Fast response in seconds to conserve gas

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## FEATURES:

- **All FDA requirements** for U.S.P. oxygen analysis have been met or exceeded.
- **Corrects** measurements for pressure changes and temperature automatically.
- **Single mode laser diode** absorption spectroscopy oxygen analysis.
- **Easy to calibrate** - no screwdrivers, no waiting: **Zero** not required.
- **Electronic** sample gas flow meter and pump included.
- **Annual factory re-certification** not required.
- **Measurement range** from 5% to 100%.
- **Effortless** setup and operation.
- **Bright LED** display.

## APPLICATIONS:

- **Verification of transfilled oxygen purity.**
- **Oxygen equipment performance analysis.**
- **Welding gas mixture oxygen analysis.**
- **Oxygen atmosphere monitoring.**
- **Food packaging monitoring.**
- **Area Monitoring.**

(The Model O2 has a CE clearance and can be used in research and other applications, but not approved for human medical use or diagnostics)

## SPECIFICATIONS:

Accuracy and Precision of the O2 to  $\pm 0.1\%$  compared to the U.S.P. approved standard (ORSAT), as required by the FDA

Orsat O <sub>2</sub> Analysis	NA	NA	NA	NA	NA	99.18	99.39	99.68	99.84	99.9
Test gas % O <sub>2</sub> (to 0.03%)	12.00	21.00	40.00	90.00	99.00	99.18	99.35	99.72	99.84	99.99
	% O <sub>2</sub> *	% O <sub>2</sub>	% O <sub>2</sub> *	% O <sub>2</sub> *	% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>	% O <sub>2</sub>
Sample 1	12.0	20.9	40.0	90.1	99.0	99.2	99.4	99.6	99.8	99.8
Sample 2	12.1	20.9	40.1	90.1	99.0	99.2	99.4	99.6	99.8	99.8
Sample 3	12.1	21.0	40.0	90.1	99.0	99.2	99.4	99.6	99.7	99.8
Sample 4	12.1	20.9	40.0	90.0	99.0	99.3	99.4	99.6	99.8	99.9
Sample 5	12.0	21.0	40.1	90.0	99.0	99.3	99.5	99.6	99.8	99.9
Mean	12.06	20.94	40.04	90.06	99	99.24	99.42	99.6	99.78	99.84
SD	0.05	0.05	0.05	0.05	0	0.05	0.04	0	0.04	0.05

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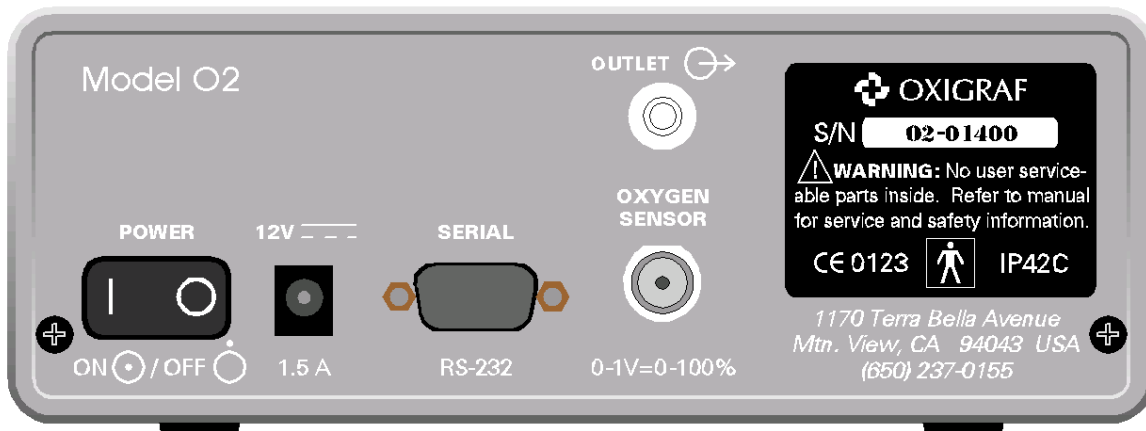


## **PERFORMANCE SPECIFICATIONS:**

Range:	5 to 100% oxygen.
Resolution:	0.1%
Sample Flow:	0 to 250 ml/min adjustable.
Response Time:	Approximately 150 ms @ 250 ml/min flow (depending on electronic filter setting).
Stability (4hrs):	±0.2% after 5 minute warm up (in LN mode)
Dimensions:	7.5 x 3.0 x 11.0 inches (190 x 76 x 280 mm) WxHxD
Weight:	5 pounds (2.25 kg)
Warranty:	One year repair or replace - limited warranty.

## **Back Panel Interface:**

The power on/off switch (Press “I” for on, “O” for off), 12 VDC power input jack, service interface, and a gas outlet port are located on the instrument back panel. Power is supplied by an external 12 volt, 2 amp CSA Level 3 power supply. The Service interface (RS232) is for use by authorized service personnel only using Oxigraf software.



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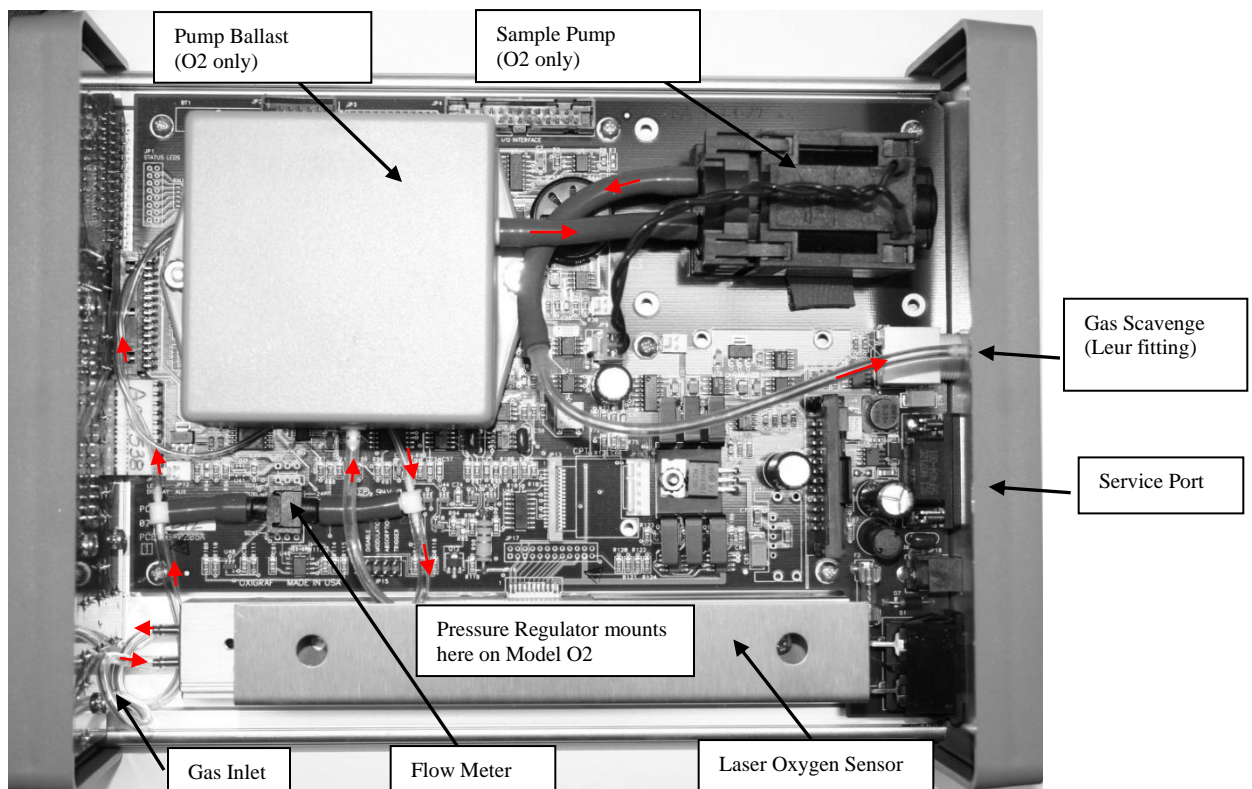
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## **Gas Sampling System:**

A water/dust barrier filter (Oxigraf P/N 07-0018 or equivalent) must be installed at the inlet. This filter does not change the humidity (water vapor pressure) of the gas. Gas may be flowed under pressure with the pump off or on. If flow exceeds pump settings the pump will automatically turn off. Gas flow should be adjusted between 50 and 250 ml/min if an external flow regulator is used. If the internal sample pump is installed/used, flow may be adjusted from 0 to 250 ml/min via the front panel keypad (the pump is factory set to 50 ml/min). The major components, pneumatic circuit, and flow path are shown in the block diagram below.



## **Calibration Kit:**

The Calibration Kit includes: two regulator valves, two tanks of calibrating gases (0, 5, 21.00 and 99.99% available) with calibration kit tubing assembly. (35 Liter Disposable Tanks: approx. 100 calibrations.)

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