



## O2Cap Oxygen & CO<sub>2</sub> Analyzer for Capnography

The O2Cap family integrates an Oxigraf oxygen sensor with a NDIR CO<sub>2</sub> sensor for dual gas measurements for research, industrial and laboratory measurements. Measure Oxygen concentrations from 5-100% and CO<sub>2</sub> from 0-10%. Perform capnography tests with fast breath by breath measurement. The units come with a pump for gas sampling system, bright vacuum fluorescent alphanumeric display (VFD), touch panel keypad, a rear 0-1VDC analog output for O<sub>2</sub> readings, and either a rear terminal strip with limit detection relays and 4 – 20 mA analog outputs or a second CO<sub>2</sub> analog output, and a RS232 digital interface.



### Model O2 Capnography versions

#07-0193 O2Cap comes with LUER fitting and gas sampling pump.

#07-0387 O2CapB replaces Terminal Strip w/ second BNC analog output for CO<sub>2</sub> on the regular O2Cap.

#07-7035 O2Cap(AL) comes with CPC O-ring fitting & gas sampling pump to handle lower pressure inputs.

#07-7037 O2Cap(AL-S) comes with Swaglok fittings

## Features

### **Self-Calibrating Oxygen & CO<sub>2</sub> Analysis for Continuous Monitoring**

The Cap Series analyzers utilize laser diode absorption technology to deliver high-speed, high-accuracy CO<sub>2</sub> and O<sub>2</sub> measurements for medical ventilation, anesthesia monitoring, and industrial gas analysis. Designed for continuous, real-time gas monitoring, these compact and energy-efficient analyzers provide fast response times, long-term stability, and seamless OEM integration, making them an ideal choice for critical care and industrial applications.

---

### **Ultra-Fast Response Time for Real-Time Monitoring**

With a sub-150 millisecond response time, the Cap Series delivers near-instantaneous detection of CO<sub>2</sub> and O<sub>2</sub> concentration changes. This rapid measurement capability ensures precise real-time ventilation monitoring, enabling immediate adjustments in anesthesia, emergency medicine, and industrial process control

---

### **Self-Calibrating for Long-Term Stability**

Unlike sensors that require frequent recalibration, the Cap Series features a self-normalizing system that maintains accuracy over extended periods. This eliminates downtime due to manual calibration, ensuring continuous, reliable operation in high-demand medical and industrial environments.

---

### **High Accuracy in Complex Gas Mixtures**

Designed to maintain precise readings even in the presence of multiple gases, the Cap Series ensures stable and interference-free measurements in anesthesia monitoring, respiratory care, and industrial CO<sub>2</sub> monitoring. This makes it a trusted solution for applications requiring consistent accuracy in varying gas conditions.

---

### **Compact & Low-Power for Seamless OEM Integration**

With a lightweight, energy-efficient design, the Cap Series is optimized for integration into portable medical ventilators, anesthesia machines, and industrial monitoring systems. Its low power consumption makes it an excellent choice for battery-powered and mobile applications, ensuring continuous monitoring without excessive energy demands.

---

### **Long-Term Reliability Without Sensor Degradation**

Built for continuous operation, the Cap Series is engineered to provide years of stable performance without sensor drift or degradation. This reliability ensures consistent gas analysis in life-critical applications, reducing the need for frequent replacements or recalibrations.

---

### **Versatile Data Outputs for Easy System Integration**

Featuring both analog (0-1V DC) and digital (RS-232) outputs, the Cap Series allows seamless integration into medical monitoring systems, industrial process controls, and laboratory data acquisition platforms. These multiple output options ensure compatibility with a wide range of existing systems.

## 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).

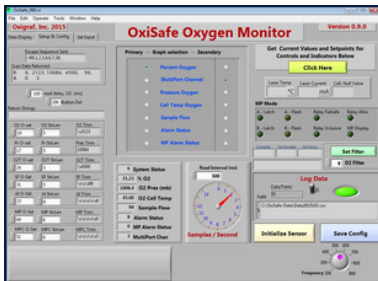
---



### Sensor Inlet Filter

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

---



### 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.

# O2Cap Oxygen & CO<sub>2</sub> Analyzer for Capnography

## 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	5 min
Altitude	Two point calibration required after change in altitude of 2000 feet
Humidity	0 to 95% non-condensing
Performance Specifications	
Range	5 to 100% Oxygen, 0 to 10% CO <sub>2</sub> .
Resolution	0.1% in 5 to 100% range (O <sub>2</sub> ), 0.01% in 0 to 10% ranges (CO <sub>2</sub> )
Accuracy - Stability (4 Hrs)	±0.1% CO <sub>2</sub> after 5 minute warm up± 0.1% in Oxygen LN mode± 0.3% Oxygen in XC mode
Input Pressure	-0.03 to 1.3 psi
Flow (Using Pump)	50 to 250 ml/min adjustable.
Response Time	150ms at 150 ml/min, filter setting 0 to 3.
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	Voltage (DC)- 12 V Current- 1.5 A
External Power Supply	95 to 250 VAC, 47 to 63 Hz
Mechanical Specifications	
Dimensions (W x H x D)	7.5 x 3.0 x 11.0 in 190 x 76 x 280 mm
Weight Instrument	Instrument 5 lbs (2.3Kg), power module 1.5 lbs (0.7Kg)

### Model O2 Capnography versions

#07-0193 O2Cap comes with LUER fitting and gas sampling pump.

#07-0387 O2CapB replaces Terminal Strip w/ second BNC analog output for CO<sub>2</sub> on the regular O2Cap.

#07-7035 O2Cap(AL) comes with CPC O-ring fitting & gas sampling pump to handle lower pressure inputs.

#07-7037 O2Cap(AL-S) comes with Swaglok fittings

