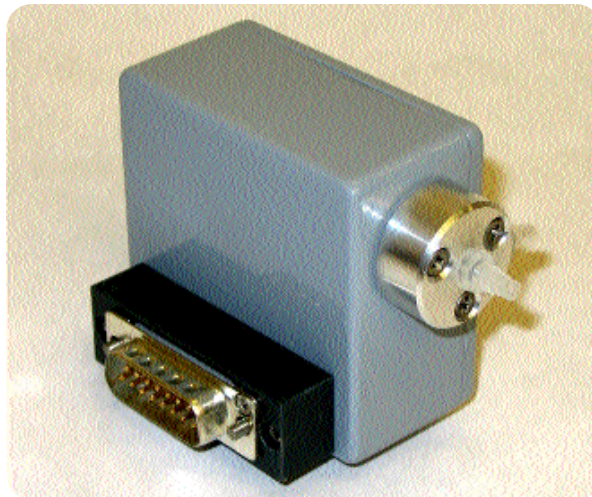


OP-1 Oxygen Probe



For over 20 years, PP Systems has been manufacturing high quality instrumentation for researchers worldwide.

An OP-1 Oxygen Probe is available for use with our range of CO₂ infrared gas analyzers. It is commonly used with our EGM-4 Environmental Gas Monitor for CO₂ and WMA-4 CO₂ Gas Analyzer.

This rugged probe plugs directly into the analyzer and is designed to sample the air which is drawn directly over the sensor. The probe itself consists of the sensor and associated electronics and is mounted in a powder coated metal case.

Probe Features

- Uses an electro-chemical cell of exceptional life
- Detection range up to 100%
- Operation from unregulated power supplies
- Voltage output is linear with O₂ concentration
- Virtually no influence from CO₂, CO, H₂S, NO_x, SO₂ and H₂

The OP-1 probe has a lead anode and gold anode and uses an acid electrolyte. The oxygen diffuses through a non-porous PTFE membrane into the cell and is reduced at the cathode. Lead Oxide, formed as the anode, dissolves in the electrolyte. The electrical circuit is completed by an external resistor in series with a thermistor for temperature compensation. The current is proportional to the oxygen concentration. The voltage across the external resistor is amplified by a high impedance instrumentation amplifier and then measured by the CO₂ gas analyzer and displayed.

The lifetime of the probe is determined by the time it takes to saturate the electrolyte with lead oxide. The OP-1 probe has a lifetime of 900,000 hours (approx. 5 years at ambient oxygen concentration).

**For Further Information, Please
Contact Us At:**

North America

PP Systems
110 Haverhill Rd., Suite 301
Amesbury, MA 01913 U.S.A.

Tel: +1 978-834-0505
Fax: +1 978-834-0545

Europe

PP Systems
Unit 2, Glovers Court
Bury Mead Rd.
Hitchin, Herts SG5 1RT UK

Tel: +44 1462-453411
Fax: +44 1462-431090

Email: sales@ppsystems.com

URL: www.ppsystems.com

Technical Specification

Probe Construction	Powder coated metal enclosure
Measurement Range	0-30% 0-100% optional
Accuracy	Typically 1% of calibration range
Sensor Lifetime	Approximately 900,000 hours
Calibration Interval	Every 3 months
Power Supply	12V DC (Unregulated)
Output	0-1V
Operating Temperature	5-40° C
Dimensions	60 mm (W) x 30 mm (D) x 55 mm (H)
Weight	160 g.

PP Systems is continuously updating its products and reserves the right to amend product specifications without notice.



11/02/05