



ALPHA OMEGA
INSTRUMENTS

Series 3500 Trace Oxygen Transmitter

Now
CE
Approved!



FEATURES



Wide Number of Ranges



Exceptional Speed of Response



Rugged and Versatile Construction



Economically Priced



Patented Electrochemical Sensor



Sealed Sensor

BENEFITS

Measure from <1 ppm to 10,000 ppm Oxygen

Responds Instantaneously to Changes in Oxygen

NEMA 4 Housing Withstands Harsh Environments

Save Thousands of Dollars vs Other Methods

Offers Exceptional Accuracy and Stability

Eliminates Having to Handle Liquid Caustic



General System Description

The Series 3500 Trace Oxygen Transmitter is a true two wire transmitter offering an economical way to make accurate and dependable measurements of trace oxygen in a variety of gases. The Series 3500 Trace Oxygen Transmitter is both dustproof and waterproof, and is rated for NEMA 4 (IP66) service. The instrument is loop powered from 14-32 VDC, and provides a 4-20 mA DC output that can be transmitted to a datalogger, recorder, PLC, DCS, etc. Internal shielding of the electronics offers excellent protection from EMI/RFI noise. Accessories for the Series 3500 Trace Oxygen Transmitter include a pressure regulator and in-line sample filter. Additional sample conditioning is available through Alpha Omega Instruments Corp.



Advanced Oxygen Sensor

The Series 3500 Trace Oxygen Transmitter features an advanced electrochemical oxygen sensor that provides exceptional performance, accuracy, and stability. In addition, the enhanced mechanical design of the sensor ensures longer life, and virtually eliminates leakage of caustic electrolyte, a nagging (and expensive) problem associated with sensors that require periodic electrolyte maintenance. And, because the sensor is sealed, it is not position sensitive. In addition, the Series 3500 Trace Oxygen Transmitter **does not** require an adjustment in readings when the gas composition changes as do some other analyzers. The output from the sensor is **temperature corrected** to provide optimum performance over a wide range of operating conditions.

SPECIFICATIONS

Performance

Measurement Ranges (parts per million)

0-10, 0-50, 0-100, 0-500, 0-1,000, 0-5,000 and 0-10,000 (special ranges available upon request).

Accuracy¹ ±1% of full scale.

Linearity ±1% of full scale.

Response Time 90% of full scale in less than 10 seconds typical.

Sensor Type Patented Electrochemical Sensor.

Temperature Compensation Standard.

Operating Temp. Range 32°-122°F (0° to 50°C).

Sample Gas Pressure Limits 0.1 to 1.0 psig (1.4 to 14.2 kg/cm²).

Sample Flow Rate 1.0 to 2.0 SCFH (0.5 to 1.0 liters/min.)

Electrical Input/Output 14-32 VDC @ 4-20 mA DC.

Loop Resistance R_L (K ohms max) = $\frac{\text{Input VDC} - 12}{20}$

Warranty 2 years electronics/1 year sensor.

CONSTRUCTION

Enclosure Polycarbonate-rated NEMA 4 (IP66).

Gas Connections ¼" Compression fittings

Dimensions 5.5 in. (139.9 mm) length.
8.8 in. (223.5 mm) width.
3.4 in. (86.4 mm) deep.

¹Stated at constant temperature and constant pressure.

Alpha Omega Instruments reserves the right to change specifications at any time

APPLICATIONS

- ◆ Heat Treating
- ◆ Air Separation
- ◆ Glove Boxes
- ◆ Inert Gas Generators
- ◆ Chemical Manufacturing
- ◆ Process Dryers
- ◆ Vessel Blanketing
- ◆ Petrochemical Processing
- ◆ Pharmaceutical Manufacturing
- ◆ Anaerobic Chambers
- ◆ Food Processing
- ◆ Beverage Processing



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