

# Oxygen Deficiency Monitor

*A complete state-of-the-art solution for Oxygen Deficiency Monitoring*



Our standard Model 221R is outfitted with a complete package of electronic features and utilizes a very accurate and reliable 10-year life zirconium oxide sensor. This combination provides unmatched stability and is virtually maintenance free over its entire life.

Competitive models generally suffer from undesirable stability issues causing frequent and expensive false/nuisance alarms. The undesirable drift usually results from just slight ambient temperature change or the unavoidable decline in electrochemical sensor outputs. Our innovative engineering and sensor technology guarantees unmatched stability and performance over a wide temperature range of 0-130 degrees F, thereby eliminating costly nuisance alarm issues.

Our sensor requires no support gases and can be easily and accurately calibrated using compressed air. A standard calibration takes approximately one minute and only needs to be performed every six months.

Given the remarkable stability over an extreme temperature range, complete electronics package and compact water tight NEMA 4X enclosure, the Model 221R is a perfect fit for a wide range of applications, including: clean rooms, control rooms, confined spaces, refrigerator/freezers, and applications that are susceptible to routine hose down requirements.

## SPECIFICATIONS MODEL 221R

**Measurement Range:** 0-25%

**Red Backlit Digital Display:** High resolution 3 ½ digit LCD. Reads full scale from 00.0% to 25.0%

**Alarms:** Two fully adjustable oxygen concentration alarms. Preset for OSHA standards, 20.0% Caution and 19.5% Danger. Dry contacts 3 A. @24VDC/115VAC

**Status LED:** Indicates Power, Safe Operation, Alarm Conditions and Loss of AC power

**Danger Alarm:** 95dB danger alarm preset for 19.5%

**Battery Back-up:** One hour

**Analog Output Signal:** Isolated 4-20mA

**Data Logger:** Logs data for 15 days @ one minute intervals, 30 days @ two minute intervals, etc.

**Communications:** RS-485 bi-directional

**Power Requirements:** 115 VAC < 10 watts

**Repeatability:** +/-0.1% of range or +/-0.1% of oxygen, whichever is greater

**Operating Temperature Range:** 0°-130°F

**Diurnal Temperature Specification:** < ±1% of scale over temperature range

**90% Full Scale Response Times for Specified Range:** 0-25% < 12 seconds

**Long Life Zirconium Oxide Sensor:** 10 year life expectancy

**Weather Tight NEMA 4X Package**

**Area Classification:** Designed to meet General Purpose UL 61010-1 standard and IP 65 requirements. Approval pending.

**Gas Connection:** Diffusion screen. No pump or fittings required

**Mounting:** Wall mount or 2.0" pipe mount

**Dimensions:** 7.0" W x 5.7" H x 4.5" D

**Weight:** 4 lbs

The Model 221R is a rugged piece of safety equipment designed for industrial applications.