

## Specifications

Range: 0 to 1000 ppm Oxygen

Resolution: 1 ppm Oxygen

Response Time: 7 seconds from 1000 to 100 ppm; 15 seconds from 100 to 10 ppm.



### Model ZR1000 O2 Analyzer (0-1000ppm)

#### Overview

The Quantek Model ZR1000 is a trace oxygen analyzer used for the measurement of trace oxygen in all types of inert environments. The ultra-fast zirconia sensor will respond from 1000 to 10 ppm in about 23 seconds, as opposed to other instruments which may take minutes to reach 10ppm.

This unit is powered by an AC to 12Vdc power supply/adaptor, or an optional Ni-MH rechargeable battery pack, with 8-10 hours of operation before recharging is required.

#### Sensor Design

The sensor in the Model ZR1000 is a robust, heated zirconia element with typical lifetime of 5 years, with an excellent response to trace O2 levels down to single numbers, in all types of inert gas environments. The inlet and outlet are isolated from ambient air by double check valves on both sides, protecting the sensor from high O2 levels when not in use.

Unlike electrochemical ppm oxygen sensors, the ZR1000 sensor will not degrade when the instrument is powered off, and exposed to room air. This eliminates the need to flush the instrument with a gas such as nitrogen, and keep the instrument completely sealed from the environment.

Electrochemical ppm sensors can have a lifespan as short as 3 months, which requires constantly purchasing and installing new sensors. Even worse, if the replacement sensor is not stored properly, you may end up with a sensor that has already degraded. Our zirconia sensor eliminates these problems entirely.

Accuracy: 5 ppm  
Minimum Detection Limit: 1 ppm  
Drift: Less than 1% per month  
Sensor: Proprietary zirconia cell, expected lifetime 4-5 years  
Sample Pump: Optional; Internal, with adjustable timer  
Sample Connection: quarter inch tubing to Swagelok fitting.  
Calibration: Calibrates with standard gas; adjusters on back of analyzer  
Calibration Frequency: Two years after initial shipment, recommended once a year thereafter  
Power Supply: 100 to 240 VAC, internationally compatible  
Backup Power: 10 cell NiMH pack (optional)  
Input Voltage: 100-240V, 50-60Hz  
Battery Life: 10-14 hours before recharging  
Size: 9.8in x 4in x 10in. (249 x 102 x 254 mm)  
Weight: 8 lb. (3.6kg)  
Warranty: One Year  
Standards: RoHS, CE  
Included Documentation: NIST Traceable calibration certificate  
Origin of Goods: USA

## Applications

Gas Blending  
Biotech  
Detection of ppm oxygen in welding gases  
Process monitoring of ppm oxygen  
Glove boxes  
Trace oxygen measurements of all kinds  
Gas mixers  
Detection of ppm oxygen in nitrogen generators  
Air separation  
Reflow ovens  
Measurement of trace oxygen in insulated glass (IG) filling  
Nitrogen purged enclosures  
Inert gas systems  
3D printing oxygen monitoring

## What's Included

Internationally compatible (100-240V) power supply / charger  
Swagelok inlet fitting