



FEATURES	BENEFITS
<b>Advanced Solid State Sensor</b>	<b>Provides High Precision Oxygen Measurements</b>
<b>Measures PPB to 100%</b>	<b>One Instrument Does It All</b>
<b>Response in Milliseconds</b>	<b>Provides Exceptional Tracking of Process Conditions</b>
<b>Non-depleting Sensor</b>	<b>Designed to Provide Years of Operation</b>
<b>User Scalable Analog Outputs</b>	<b>Better Defines the Concentration Range of Interest</b>
<b>Dual User Adjustable Alarms</b>	<b>Set Critical Process Limits</b>
<b>Microprocessor Controller</b>	<b>Helps to Ensure Dependable and Accurate Reading</b>
<b>Built-in Sample By-Pass gas</b>	<b>Helps to promote rapid transport of the sample gas</b>
<b>Factory Calibration</b>	<b>Factory calibration and certificate included at no additional charge</b>

## Product Description

The Series ZrO2000 Fast Response Oxygen Analyzer is a microprocessor based instrument designed to measure gas phase oxygen concentrations over a range of 0-100%. The non-depleting sensor used in the Series ZrO2000 Fast Response Oxygen Analyzer is a zirconium type that exhibits fast response times. The analyzer is housed in a NEMA 1 enclosure rated for general purpose use. The front panel contains five switches that provide access to the analyzer's settings. Oxygen values are displayed on a 0.7"(17.8 mm) high 6 digit liquid crystal display (LCD). The instrument is equipped with two oxygen alarm relays. Both relays are Form C (SPDT) types rated at 10 amps at 115/230 VAC/ 30 VDC and are user configurable for fail-safe operation. In addition to the alarm relays, the Series ZrO2000 Fast Response Oxygen Analyzer has a built-in audible alarm and red LEDs for visual indication of an oxygen alarm condition. There are also two green LEDs to indicate whether the LCD is displaying parts per million (PPM) or percent (%).

The audible alarm may be manually canceled at anytime. If the audible alarm is canceled and the alarm event continues, indications of this condition will still be available through the front panel LEDs and relay contact(s). Two flow meters are standard equipment for the Series ZrO2000 Fast Response Oxygen Analyzer, one for the "Sample Flow" and another for the "Bypass Flow".

The Series ZrO2000 Fast Response Oxygen Analyzer comes equipped with two standard analog outputs. These can be configured for 0-20 mADC or 4-20 mADC separately. Both are scalable by the user. The analyzer accepts a universal input of 90VAC to 264VAC @ 50-60Hz. The Series ZrO2000 Fast Response Oxygen Analyzer incorporates standard features that make it suitable for many applications. However, for certain requirements, the user may desire to augment the capabilities of the instrument by equipping it with a sample pump or pressure regulator.

## Specifications

### PERFORMANCE

Measurement Ranges:	0% to 100%
Accuracy:	Percent: $\pm 2\%$ of reading or 0.05% absolute whichever is greater. Trace: $\pm 2\%$ of reading or $\pm 0.5$ ppm absolute whichever is greater. NOTE: The sample gas used with the ZRO2000 must not contain any hydrocarbon vapors, hydrogen, carbon monoxide, or other reducing gases. Sample tubing should be cleaned for oxygen service. Please consult the factory for additional information.
Response Time:	< 5 seconds at 0.15 liters per minute (LPM) over 1 decade. The response time for measurements of less than 50 PPM or less depend to a great extent on the design of the sample delivery system including the materials used.
Sensor Type:	Zirconium Oxide
Operating Temperature of Analyzer:	50° to 104°F (10° to 40°C)
Warranty:	2 years electronics/1 year sensor
<b>ELECTRICAL</b>	
Display:	0.7" (17.8 mm) high 6 digit liquid crystal display
Resolution:	0.01 on highest reading & 0.001 ppm on lowest reading
Input Power:	Universal 90-264 VAC, 50 or 60 Hz

Standard Outputs:	(2) Selectable 0-20 mA DC or 4-20 mA DC, both scalable by user
Oxygen Alarm Relays:	Two (2) SPDT Form C contacts rated 10 A @ 30 V DC /115/230 VAC. Alarms may be cleared manually or automatically, by user selection.
Audible Alarm:	Internal audible alarm
Audible Alarm:	Cancel Front panel switch
<b>SAMPLE GAS CHARACTERISTICS</b>	
Maximum Sample Temperature:	122°F (50°C)
Maximum Sample Pressure:	0.1 to 0.5 (psig) / (0.007 to 0.035 kg/cm <sup>2</sup> ).
Sample Gas Moisture Limits:	85% RH
<b>CONSTRUCTION</b>	
Enclosure:	Aluminum, rated NEMA 1.
Enclosure Dimensions:	13 inches (330 mm) - length 10.71 inches (272 mm) - width 6.3 inches (160 mm) - height Note: All dimensions are without optional equipment
Gas Connections:	1/4" stainless steel compression fittings
Weight:	(Bench top Configuration) 9.4 pounds (4.26 kg.) / 10.4 pounds (4.72 kg.) with optional sample pump

Alpha Omega Instruments Corp. reserves the right to change or modify its product specifications without notice.

## Applications

Modified Atmosphere Packages (MAP)	Glove Boxes	Biological Reactors	Critical Welding
Pharmaceutical Processing	Heat Treating	Semiconductor Manufacturing	
Leak Detection	Vessel Blanketing	Air Separation	
<b>Optional Equipment</b>			
Pressure Regulators	Sample Pumps		



### THE AMERICAS

4140 World Houston Pkwy,  
Suite 180, Houston, TX 77032  
Tel: +1 631 618 9826  
+1 401 333 8580  
+1 800 262 5977  
Email: c.service@cosaxentaur.com  
Web: aoi-corp.com

### EMEA

ATRICOM Lyoner Straße 15  
60528 Frankfurt  
Germany  
Tel: +49 69 20436910

### APAC

Wujiang Economic and Technology  
Development Zone  
No. 258 Yi He Road  
215200 Suzhou, Jiangsu Province  
China  
Tel: +86 21 5068 8521

