

SERIES 3000RS

OXYGEN ANALYZERS



The RS Series represents Teledyne's benchmark online oxygen analyzer platform in its smallest yet most powerful form factor yet. 3000RS analyzers may be configured to work with micro-fuel cells or paramagnetic type sensors for analysis of trace or percent oxygen in a common form factor. A front panel dimension of approximately 4.3"W x 5.1"H x 16.8"D (109 x 129 x 426 mm) allows for mounting of up to four (4) RS-series analyzers in a single 19-inch 3U bezel. Key parameters are displayed on the 3.5" touchscreen color LCD. All gas connections and I/O are accessible at the rear panel.

Features

- Trace or percent oxygen analysis
- Touchscreen color LCD displays reading and key parameters
- Integral MEMS flow sensor
- 316 Stainless Steel tubing and fittings
- Auto-calibration and remote calibration ready (integral valves optional)
- EMI/RFI shielded

I/O

- Analog Outputs: 4-20 mADC (isolated) or 0-1 VDC
- 1 x System Fault Alarm, Form-C relay contact
- 2 x Concentration Alarms, Form-C relay contact
- Range ID: 4-20 mADC (isolated) or 0-1 VDC
- Range ID Contacts: 4 x Form-A (normally open)
- Profibus-DP or RS-232 communications



Sensor Types

Micro-Fuel Cell

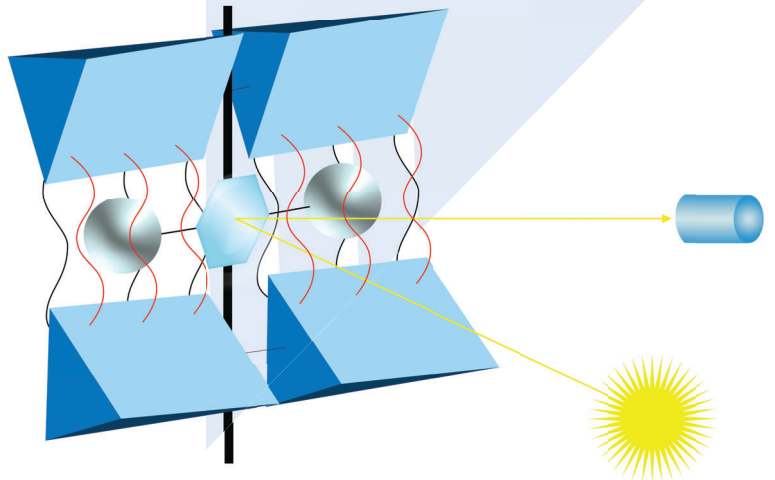
Excellent for ppm or percent detection, micro-fuel cells absorb and react with oxygen to generate a linear electrical signal proportional to O₂ concentration. They are suitable for operation in a variety of backgrounds, insensitive to changes in flow and maintenance-free.



Teledyne's patented Insta-Trace® sensors shield the sensing membrane from high ambient oxygen exposure during installation, resulting in a much faster initial recovery time to low ppm levels.

Paramagnetic Sensor

Detects percent O₂ levels by leveraging oxygen's ability to induce a magnetic field, rotating a suspended mirror assembly which deflects a light source being applied to a photo-diode detector. Paramagnetic sensors offer long-life, oxygen specificity and high accuracy



SPECIFICATIONS

	3000RS-T	3000RS-P	3000RS-M
Sensor	Micro-Fuel Cell	Micro-Fuel Cell	Paramagnetic
Ranges	0-10 ppm to 0-9,999 ppm (0-1 ppm with -XL option)	0-1% to 0-100%	0-5% to 0-100%
Approvals	CE marked; conforms to EN61326:2013 and EN61010-1:2010		
Repeatability	1% FS	1% FS	0.1% FS
Linearity	1% FS	1% FS	0.1% O2
Response Time	<10s for 0-1000 ppm range <60s for 0-10 ppm range <100s for 0-1 ppm range (-XL only)	<10 seconds	<10 seconds
Temperature	A-Class Sensor: 32° to 104°F (0° to 40°C) B-Class Sensor: 32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)	32° to 113°F (0° to 45°C)
Inlet Flow	1-2 SCFH (0.5 - 1.0 SLPM)	1-2 SCFH (0.5 - 1.0 SLPM)	1 SCFH Nominal (0.5 SLPM)
Display	3.5" Touchscreen Color LCD		
I/O	4-20 mADC (isolated) or 0-1 VDC 1 System Fault and 2 Concentration Alarms, Form-C relay contact Range ID: 4-20 mADC (isolated) or 0-1 VDC Profibus-DP communications standard (RS-232 is optional)		
Voltage	24 VDC (optional 100-240 VAC 50/60 Hz with AC adapter)		
Power	10 W Nominal	10 W Nominal	50 W Max
Dimensions	4.3"W x 5.1"H x 16.8"D (109 x 130 x 427 mm)		



TELEDYNE ANALYTICAL INSTRUMENTS

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