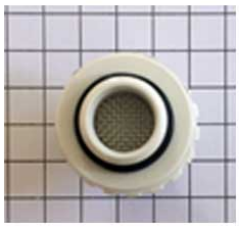
info@biopac.com
support@biopac.com
www.biopac.com

TSD301 – GALVANIC OXYGEN TRANSDUCER 0-100%

The TSD301 Galvanic Oxygen Transducer is used to measure ambient or flow stream oxygen levels in a range of 0-100%. The TSD301 has a response time of approximately 12 seconds for measuring changes in oxygen levels for input gases at a flow rate of 0.2-2.0 L/min with approximately 2% linearity. The TSD301 transducer, interfaces with a DA100C, and incorporates a detachable sensor (RX301). The sensor operates via the electrochemical (galvanic) principle and is replaceable. The sensor has an expected operational lifetime of 5 years.

RX301 – GALVANIC OXYGEN SENSOR 0-100%

Grid is in square centimeters



The RX301 sensor attaches to the TSD301 transducer. The expected lifetime of the RX301 is approximately 5.5 years after first exposure to oxygen. Keep the sensor sealed in its airtight container or pouch until needed. The RX301 has a response time of approximately 12 seconds for measuring changes in oxygen levels for air flow rates of 0.2-2 L/min. The sensor incorporates a threaded neck to allow mounting in a housing or pipe wall to sense oxygen concentrations in a sealed chamber or directed flow stream.

For inline coupling of the TSD301/RX301 transducer/sensor combination with breathing or ventilator circuits, use the AFT301 coupler.

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SPECIFICATIONS

Operating principle:	Electrochemical (galvanic)
Range:	0-100% Oxygen Concentration
Output:	8.0-12.0 mV nominal (dry air at 25° C)
Response Time:	(10% to 90%): < 12 seconds @ flow range 0.2 – 2.0 liters/min
Operating Temperature:	0 to 45° C
Linearity:	+/- 2% of Full-Scale Range, applied for 5 minutes
Stability:	< 1% of Full-Scale Range, 8-hour period, constant Temperature, Pressure, Humidity
Humidity:	5% - 95% Relative, Non-condensing
Temperature Compensation:	NTC (internal)
Warm-up Time:	< 30 minutes, after sensor replacement
Expected Life:	More than 1,000,000 oxygen hours (approx. 5.5 years after first exposure to ambient air)
Zero Offset:	< 200 uV (100% Nitrogen – 5 minutes)
Storage Temperature Range:	-20 to 50° C (recommended 5 to 30° C)
Electrical Connector:	3.5 mm female mono phone jack
Sensing port threads on RX301:	Tap size is M16-1 (15 mm)
Interface:	DA100C, via TSD301 cabling
Cable length:	3 meters (TSD301)
Load Resistance:	10k ohms (TSD301 assy.)
Replacement Sensor:	RX301 (detachable from TSD301)
Calibration:	Sensor is typically calibrated from 20.93% oxygen in ambient “fresh” air to 100% oxygen from a tank source