

In-Situ RDO® Blue Optical Dissolved Oxygen Sensor

The RDO Blue is a dissolved oxygen sensor that features optical luminescence-quenching technology used in air or aquatic applications. Optical sensors do not consume oxygen, so water movement past the sensor is not needed to obtain accurate measurements. RDO is low power consuming and low maintenance making the RDO Blue ideal for either attended or unattended monitoring.

FEATURES

- Made with Ryton – a chemical, corrosion, and UV resistant material
- Smart Sensor Cap – easy to install and factory calibrated
- Liquid or Gas applications
- Connectivity with transmitters, controllers, data loggers or telemetry
- Hand-held configuration with Wireless Troll Com and VuSitu™

APPLICATIONS

- Ground and Surface Water Monitoring
- Pond Aquaculture
- Recirculating Systems
- Aeration
- Remote Monitoring via Telemetry



CALL GEOTECH TODAY (800) 833-7958

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SPECIFICATIONS

SENSOR RATINGS

Sensor Type	Optical Dissolved Oxygen Sensor
Range, DO	0-60 mg/L; 0-600% Saturation
Accuracy, DO	±0.1 mg/L (0-20 mg/L) ±2% (20-60 mg/L)
Resolution, DO	0.01 mg/L
Response Time, Cap	T63<5s, T90<45s, T95<60s (RDO-X cap)
Units, DO	mg/L, ppm, % saturation
Range, Temp.	-5°C to 50°C (23°F to 122°F)
Accuracy, Temp.	±0.1°C
Resolution, Temp.	0.01°C
Units, Temp.	Celsius, Fahrenheit
Salinity Comp.	Fixed or real-time capable
Barometric Comp.	Fixed or real-time capable
Methods	EPA-approved In-Situ® RDO methods 1002-8-2009, 1003-8-2009, 1004-8-2009 Standard Methods 4500-O

ENVIRONMENTAL RATINGS

Pressure	150 psi from 0° to 50°C
Depth	100m (328 ft.) @ 25°C
Operating Temp. (Non-Freezing)	-5.0°C to +50.0°C (23°F to 122°F)
Storage Temp.	-40°C to +65°C (-40°F to 149°F)
Compliance	EMC 2014/30/EU IEC 61000-6-2:2005 EN 55011:2009
IP Rating	IP-67 with sensor cap off; IP-68 with sensor cap installed

CHEMICAL RATINGS

Interferences	Alcohols >5%; hydrogen peroxide >3%; sodium hypochlorite (commercial bleach) >3%; gaseous sulfur dioxide; gaseous chlorine. Do not use in organic solvents (e.g., acetone, chloroform, methylene chloride, etc.), which may swell the sensing element (foil matrix) and destroy it.
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GENERAL RATINGS

Dimensions	L 22.06 cm (8.69 in.) x D 2.95 cm (1.16 in.)
Weight	205 g (0.5 lb.) (without cable)
Wetted Materials	Ryton® (PPS), Cycoloy® (PC/ABS), PC/PMMA
Communication Output	Modbus/RS485
Reading Rate	1 reading every 1 second
Power Requirements	8 to 36V DC
Power Consumption	Maximum (measurement): 50 mA at 12V DC Idle (communication only): 2 mA at 12V DC
Warranty	2 years from date of shipment

NOTES: Ryton is a registered trademark of Solvay SA. Cycoloy is a registered trademark of SABIC GLOBAL Technologies B.V.



The removable RDO Nose Guard protects the RDO Cap during deployment.

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