
Dissolved Oxygen Sensor

Model CS510

The CS510 is a rugged, low-maintenance sensor that is manufactured by OxyGuard. It consists of a self-polarizing galvanic cell that generates a millivolt signal proportional to the amount of oxygen present in the measured medium (typically water). Oxygen diffuses through its membrane onto a cathode which produces a chemical reaction. An electrical current is produced by this reaction which is converted from microamps to millivolts by an in-line resistor. An in-line thermistor provides automatic temperature compensation.

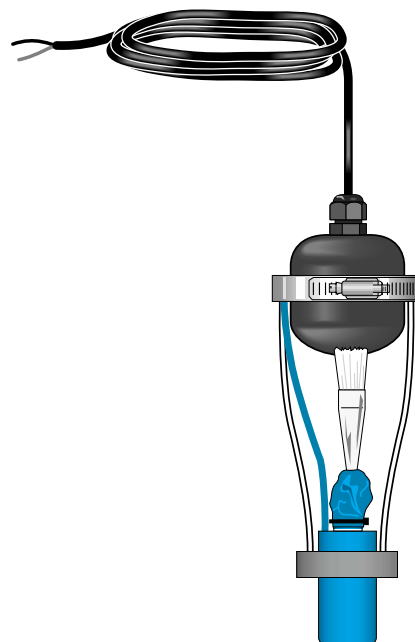


Options

The PT4 agitator is for applications where the water velocity is less than 1 inch per second (2.5 cm s^{-1}). Service kits are available for easy replacement of sensor components in the field; contact a CSI water resources applications engineer for details.

Ordering Information

CS510-L	Dissolved oxygen sensor. Enter lead length in feet after the L.
PT4	Agitator with repeat cycle timer and bracket. Specify cable length below.
13838	Cable for PT4. Specify lead length in feet.
13803	Single Set Service Kit. Includes five membranes with O-rings, one large O-ring, and 250 ml electrolyte.
Service Kit for Multiple Probes	Includes 25 membranes with O-rings, two large O-rings, 1 liter electrolyte, two anodes and one spare membrane cap with fitted membrane.



CS510 probe with the optional PT4 agitator and bracket.



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Specifications

Range:	0 to 50 mg l ⁻¹ dissolved oxygen or 0 to 100% volume gaseous oxygen
Output:	~6 mV per mg l ⁻¹ or 2.5 mV per % volume
Repeatability:	better than ±0.2 mg l ⁻¹
Minimum Water Velocity:	1 in s ⁻¹ (3 cm s ⁻¹); assumes the agitator is not used
Minimum Submersion Depth:	2.5 in (6.3 cm)
Operating Temperature Range:	0° to 50°C
Datalogger Compatibility:	CR510, CR10X, CR23X, CR5000, CR7, CR9000; call for compatibility with older dataloggers
Dimensions:	diameter: 2.25 in (5.72 cm); probe length: 2.25 in (5.72 cm)
Weight:	0.75 lb. (0.34 kg); (includes 10 feet of 2-conductor, 16-gage cable)
Power Requirements for optional PT4 Agitator:	12 Vdc, 0.9 A



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