

RELIANT Water Technologies

Model 2100SC No-Maintenance Dissolved Oxygen Analyzer



Model 2100SC DO System

The **Reliant Model 2100SC Dissolved Oxygen (DO) Monitoring and Control System** is the first no-maintenance DO analyzer/sensor system available for rugged wastewater treatment, mining, and other industrial applications. A full featured, high-quality analyzer controls a unique Laminar Galvanic® DO sensor and a rugged self-contained air sensor cleaning system. This combination of proven, reliable components are guaranteed to perform flawlessly for years without sensor maintenance.

For almost 4 decades galvanic dissolved oxygen measurement devices have been proven to be the most reliable, most accurate, and most rugged DO sensing technology available. Finally, Reliant Water Technologies has advanced this highly-proven technology to allow DO monitoring and control to be as reliable and maintenance-free as any industrial grade pump, valve or flow meter available.

How Does It Work?

The entire **Model 2100SC DO Monitoring and Control System** is delivered in 3 pieces. First, the analyzer and Self-Cleaning Module (SCM) are mounted in their preferred locations. Both are supplied with 1-1/4" standard rail mounting brackets but can be installed on any flat surface as well. The SCM should be mounted as close to the sensor as possible. A 10 meter air/water-line with quick disconnect connectors is supplied. Once electrical connections are made to the Analyzer and SCM, just connect the sensor via terminal blocks inside the Analyzer, and the air-line. A factory sensor bracket system can be supplied. Once all connections are made, run through the program parameters on the analyzer to set altitude, salinity, and any desired control outputs required. The sensor should be mounted approximately 15 degrees from the vertical and 1 meter deep into the water. With the sensor in air, press the Calibration button on the Analyzer. In under 5 minutes the Analyzer will note that the sensor is calibrated against the parameters programmed into the Analyzer. Put the sensor in the water at least 1 meter from the surface of the water. Your DO system is now operational for years, no sensor cleaning, and only minimal recalibration is required. Years later, or at any time, if a sensor becomes damaged just call Reliant and a new, ready-to-use sensor is supplied overnight. In many areas of the world, our representatives will have the sensors in stock. Once you receive the new sensor just put it in service exactly the same as before – attach all connections, calibrate it, and you are set for years more of trouble free duty.



The **Model 2100 Analyzer** is the brains of the System. Performing all required DO/temperature calculations, while providing multiple input and output capabilities, 72 hour trending, sensor cleaning timing and control, and multiple alarm and automatic warning diagnostics.



The **Sensor Cleaning Module** consists of an industrial-grade centrifugal air pump that will operate trouble free for years. A vibration dampening platform provides long term protection from damage to the pump and connections. If house air or water are available, this pump system can be replaced by an automated solenoid system.



The **Model 20SC DO sensor** utilizes proven galvanic sensing technology – without a question the most accurate and reliable DO sensing technology ever developed. But the Model 20SC incorporates an Armored Laminar® semi-permeable pane over a pure platinum cathode that makes the sensor practically indestructible and incapable of being poisoned by other gases. Perfect for continuous denitrification applications.

Model 2100SC System Specifications

Analyzer

DO Range: 0 – 99 mg/l
 Resolution: .01 mg/l – full range
 Accuracy: +/- .1 mg/l – full range
 Stability: .1mg/l
Temperature: 0 – 60°C x 0.1°C or
 32° - 122° F x 1°F
 Accuracy: +/- 1% of reading
Display: Multi-line, backlit, graphical
Input Power: 115V/230V selectable,
 fuse protected
Outputs: Analog - 2 isolated 0-20mA
 configurable -1 DO and 1 Temp
 Digital: Isolated RS232
Relays: 2, Form C, 250V, 10A – includes
 hysteresis for latching/unlatching,
 1 with various functions
Enclosure: NEMA 4X: IP-65

Sensor

Type: Galvanic
Sensing Medium: Armored Laminar® Pane
Cathode: 99.9% non-poisonous Platinum
Anode: Lead
Temperature compensated

Sensor Cleaning Module

Generated Air: 1/2 HP centrifugal air pump
Input power: 115V/60Hz, 5A or
 230V/50-60Hz, 2.5A
Enclosure: NEMA 4X, vent protected
Dimensions: 17.5"Wx16"Hx10.5"D
House air or water: 115/230V Solenoid

Weights

Analyzer and Sensor: 3 lbs (1.4 Kg)
SCM: Solenoid 1 lb (.45 Kg), Gen: 34 lb (15.4 Kg)

RELIANT

Water Technologies

141 Robert E. Lee Blvd. - #284
 New Orleans, LA 70124
 Tel 504-242-8340
 FAX 504-242-8887

sales@reliantwater.us.com
www.reliantwater.us.com

Represented by -