Dissolved Oxygen Analyzer (Single Channel)

Optical Sensor Technology

The dissolved oxygen analyzer is a unique system that combines advanced electronics with a solid-state, optical sensor. No other dissolved oxygen system can compare with the features and benefits of this revolutionary design. The sensor utilizes an optical technique that does not consume oxygen like all the standard membrane sensors.

No Membranes
No Fill Solutions
No Routine Calibration
No Routine Maintenance

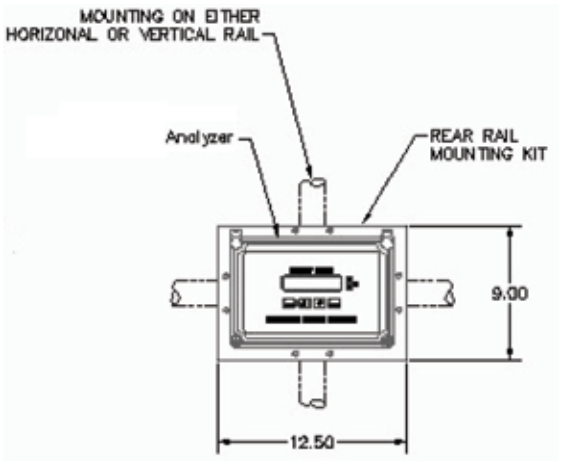
Features:	Benefits:
Optical Sensor Technology	Eliminates membranes and fill solutions. No requirement for weekly or monthly calibrations. No weekly or monthly sensor cleaning. Works in low flow / no flow applications. Extremely accurate in anoxic zones.
Advanced microprocessor design	Automatic error detection. Analyzer self-test. Simple user interface. Simple start-up.
Advanced Electronics	Not damaged by direct or indirect exposure to sunlight.

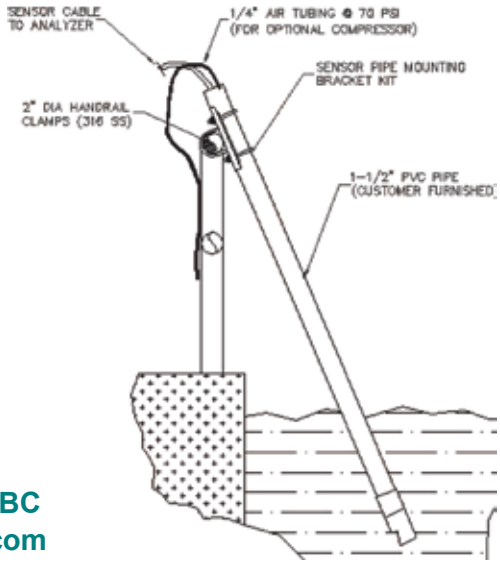
Fluorescence Dissolved Oxygen - Theory Of Operation

A very specific energy wavelength is transmitted to a ruthenium compound immobilized in a sol-gel matrix. The ruthenium will absorb this energy, changing the outer electron's energy level. The electron will then collapse back to its original energy state, emitting the energy as a photon with a different specific wavelength. This is called fluorescing. If the intensity of the transmitted wavelength is tightly controlled, the amount of fluorescing is both predictable and repeatable. If oxygen molecules are present the amount of fluorescing is reduced, referred to as fluorescence quenching. By measuring the amount of quenching it is possible to determine the amount of oxygen present.

Dissolved Oxygen Analyzer Specifications:

Measuring Range:	0 to 25 ppm
Accuracy:	1% of reading or .02 ppm, whichever is greater
Sensitivity / Resolution:	.01 ppm below 4.00, .1 ppm above 4.0
Repeatability:	.01 ppm
Sensor Drift:	Less than 1% per year
Temperature Range:	0 to 60 degrees C
Response Time:	95% in less than 60 seconds
Sensor Check:	Automatic self diagnostics
Outputs:	Optically isolated 4-20 milliamp for DO Optically isolated 4-20 milliamp for temperature Optically isolated RS-485 modbus RS-232 serial 4 dry contact 10 amp relays
Memory Backup:	Yes
Display:	Backlit graphical LCD display with UV protection Contrast adjustment via keypad Continuously displays both DO and temperature
Sensor Cable Length:	25 feet standard (optional lengths up to 2000 ft)
Ambient Temperature:	minus 20 degrees C to 70 degrees C
Ambient Humidity:	0 to 100 percent
Enclosure Rating:	NEMA 4X
Wetted Materials:	Epoxy, polyurethane, and PVC
Maximum Pressure:	100 psi





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