

MODEL 1000

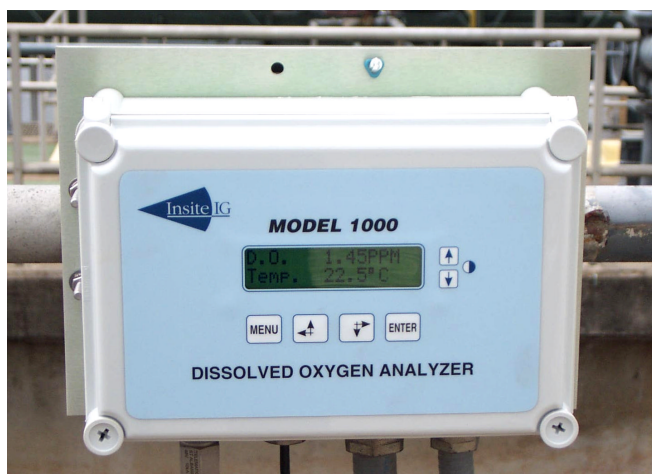
DATA SHEET

DISSOLVED OXYGEN ANALYZER

No Membranes—No Fill Solution—No Routine Calibration—No Routine Maintenance

NOT DAMAGED BY DIRECT OR INDIRECT EXPOSURE TO SUNLIGHT

The Insite Instrumentation Group Model 1000 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 standard membrane sensors.



MODEL 1000 DO ANALYZER

FEATURE

Optical sensor technology

BENEFITS

- 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

FEATURE

Advanced microprocessor design

BENEFITS

- Automatic error detection
- Analyzer self test
- Simple user interface
- Simple start-up

FLUORESCENCE DISSOLVED OXYGEN —THEORY OF OPERATION

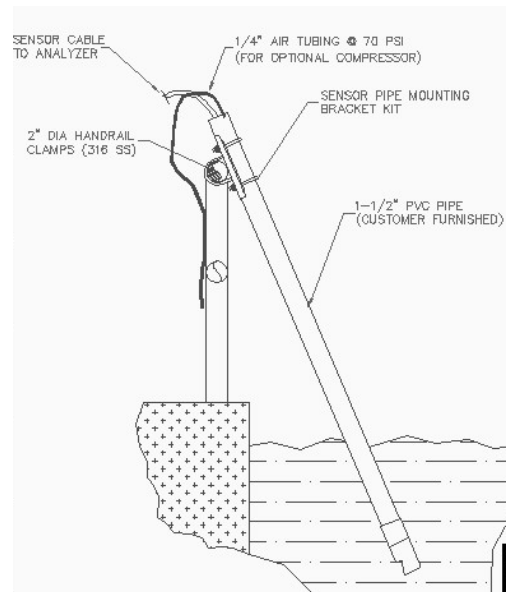
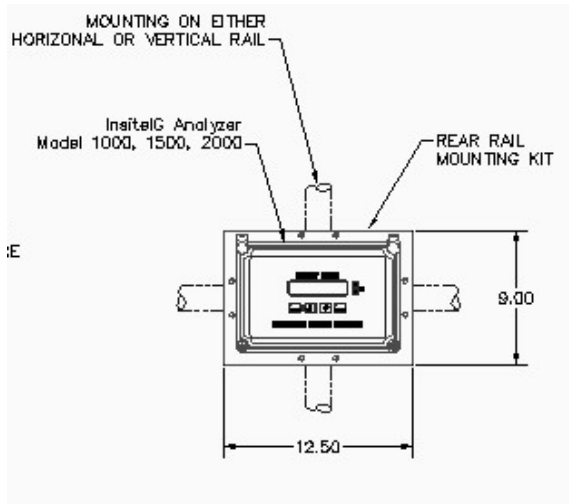
A very specific energy wavelength is transmitted to a ruthenium compound immobilized in a sol-gel matrix. The ruthenium will absorb this energy, changing the outer electron's energy level. The electron will then collapse back to its original energy state, emitting the energy as a photon with a different 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.

Insite Instrumentation Group
80 Whisperwood Blvd., Suite 107
Slidell, LA 70458
Phone - 985-639-0006
Fax - 985-639-0014
e-mail - info@insiteig.com
Website— www.insiteig.com



MODEL 1000 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
Stability	.01 ppm
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 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



Insite Instrumentation Group
 e-mail - info@insiteig.com
 Website- www.insiteig.com
 OR CONTACT YOUR LOCAL TECHNICAL REPRESENTATIVE AT:

