ENVITECH

OPTICAL DISSOLVED OXYGEN

OptoDOSys:3100

OptoDOSys 3100 is a portable hand held optical Dissolved Oxygen sensing system from InsiteIG, ideal for use in wastewater treatment works and environmental field monitoring. The technology is based on the quenching of Ruthinium salt fluorescence by the presence of D.O. It is “Non consumptive” and therefore does not require movement of the medium past the sensor. It is also very accurate at low DO levels enabling use in anoxic and anaerobic environments.
The sensor has no end caps, membranes or replaceable chemicals and is not affected by ambient light or drying out. This makes the I-3100 an ideal tool for sewage works operatives and environmental field officers alike. It may be supplied with an optional rugged carrying case for extra protection.
Individual readings may be logged in the internal memory together with identifier and date/time stamp. It may also be deployed for unattended logging of upto 50 readings over 12 hrs. If longer term remote deployment Is required we would recommend an alternative model, the D-Opto range.

Hand Held Portable fluorescent DO sensor with rugged weatherproof carry case

Features:

Optical sensor technology
Advanced microprocessor design
No replacement parts required
Backlit LCD display
Data logging
Serial interface for data download
Waterproof
Rechargeable batteries
Real time clock

A portable unit in use in a wastewater facility

Benefits:

Low cost of ownership
No frequent calibrations needed
Minimal maintenance
Accurate in low DO environments
No regular sensor refurbishment needed

Applications:

Activated sludge monitoring & control
Final effluent monitoring
Process monitoring
River & lake monitoring

System Specification

Operational Principle:	Based on an optical sensor utilising the measurement of fluorescence and quenching reactions of a Ruthenium complex immobilised in a sol-gel matrix
Range:	0-25 mg/l D.O., 0-60 °C
Resolution:	0.01 mg/l (for 0-3.99 mg/l), 0.1mg/l (for 4-20 mg/l), & 0.1 °C for 0-50 °C
Repeatability:	0.01 mg/l
Accuracy:	1% of reading or 0.02 mg/l DO whichever is greater
Sensor Drift:	<1% per year
Response Time:	95% in < 60 secs
Temperature compensation:	0-60 °C

Transmitter/Controller Specification

Mechanical Construction:	Dimensions lxhxd	260x85 (120)x55(60) mm (approx) lxbxd
	Weight:	0.8 kg (approx)
	Materials:	ABS
	Ambient conditions:	-20 to 55 °C, 0-100% Humidity
	Weather Protection:	NEMA 4X
	CE:	Compliant
Outputs:	Data interface:	RS 232serial
	Display:	LCD graphic display with UV protection. Contrast adjustment via keypad. On demand backlighting
Power requirements:	Supply voltage:	240V battery charger Rechargeable Batteries: 1pack comprising 8 off 1.5V AA NiMH

Sensor assembly Specification

Mechanical Construction:	Materials:	Epoxy, silicone, Polyurethane
	Dimensions:	38mm dia(nominal)
	Weight:	1Kg including cable (approx)
	Cable length:	6.1m
Process conditions:	Medium Temp	0-60 °C
	Medium Pressure max	100PSI
	Quality:	Must be free of abrasives

Ordering Information

When ordering please request:

OptoDOSys I-3100 Portable hand held optical DO logger, including 6m cable, sensor, battery charger

If you would like to have the carrying case and PC download software please request:

1 off SCIM 2200 Carrying case &
1 off INDWNL1 PCdownload kit

Supplied by: Envitech Ltd. Unit S7, Capital Business Park, Parkway, Cardiff, CF3 2PU
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