



## InsitelG 3100 - Optical DO Portable

The **3100** is a portable hand held optical Dissolved Oxygen sensing system from InsitelG, ideal for use in Wastewater treatment works and environmental field monitoring. The technology is based on the quenching of Ruthenium 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 InsitelG 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 up to 50 readings over 12 hrs.

If longer term remote deployment is required we would recommend an alternative model from our range of dissolved oxygen monitors.



### A portable unit in use in a wastewater facility

#### Applications:

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



### 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

#### Benefits:

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



### System Specification

Operation 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 Specification

Construction	Dimensions (h x w x d)	260 x 85(120) x 55(60) mm (approx.)
	Weight	0.8 kg
	Materials	ABS
	Protection class	NEMA 4X
	Ambient conditions	-20 to 55 °C, 0-100% Humidity
Software		
Outputs	Data Interface	Two line back lit LCD with extended temp range and UV resistant
	Display	LCD graphic display with UV protection. Contrast adjustment via keypad. On demand backlighting
Power Requirements	Supply voltage	240V Battery charger
		Rechargeable batteries: 1 pack comprising of 1.5V AA NiMH

### Optional

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

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