



OD03000

DISSOLVED OXYGEN SENSOR

Description

The Model OD03000 is a complete self contained Dissolved Oxygen measurement and data logging system for environmental applications. The advanced electronics and solid state optical sensors ensure long term reliable and accurate operation.

The internal data logger provides long term unattended data collection at remote sites, and can be directly connected and powered by **Data Acquisition Transmission Unit Model HYDRODATA-2000C**.

The sensor can be fitted with an external cable, or with an on board battery pack for true stand alone operation. Other cable options can provide serial output in SDI12 format for connection to external data loggers or process controller.

The sensor is ideal for use in environmental water monitoring applications, including tidal and estuary monitoring and process water discharge monitoring. A durable acetal body with double Oring design ensures suitability for the harshest environment applications.

The OD03000 sensor is easy to configure and provides a reliable solution for long term monitoring. For more information please contact GEONICA.

Dimensions



Features

- Fluorescence DO sensor technology
- No membranes, fill solutions, or cartridges
- Not damaged by exposure to sunlight
- 'Fast response' to 'Rapid do' changes
- Low power energy requirements
- Telemetry communication options (**HYDRODATA-2000C**)

Benefits

- High reliability and minimal field servicing means lower costs
- Operation for up to 12 months at remote site.
- Data transmission with **HYDRODATA-2000C Unit**.

Applications

- Monitoring of streams and rivers, lakes and urban waterways
- Water quality studies and catchment management
- Water supply storages including stratification studies
- Water and wastewater treatment monitoring
- Groundwater analysis and monitoring
- Tidal, estuary and oceanographic monitoring
- Industrial process and licence discharge water monitoring

OD03000 Specification

Measurement technique	Oxygen fluorescence detection method
Sensor range (factory calibrated)	0-200% saturation (0-20ppm)
Sensor outputs	Internal data logger — serial output via software Optional adaptor provides SDI12 serial output (3 wire)
Resolution	Dissolved oxygen 0.1 %, temperature 0.050C
Accuracy	Oxygen 1% of reading or 0.02ppm whichever is greater Temperature + 0.2°C Battery volts + 0.5V
Response time	95% of DO change within 60 seconds
Cable type	Polyurethane sheathed cable, OD 8mm, with 3mm vent tube, moulded entry, bare wire connection
Cable lengths	10, 20, 30, 50,100, 150m
Power supply	8 to 16 Vdc External supply by HYDRODATA-2000C Unit
Reverse polarity protection	Yes
Surge current protected	To 2kV
Warm up time to stable reading	2 sec
Current consumption	Sleep 0.5 mA, Logging 10mA, Communicating 30mA
On-board battery pack (option)	Housing screws to sensor size (L x OD) 250mm x 47mm
Battery capacity	9 x Lithium AA (3.6Volt)— total capacity 5.2Ah 10.8v
Typical field life (Battery pack)	Over 6 months remote operation 30 min logging.
Internal data logger	Non-volatile, battery backed RAM with real time clock
Memory size	2Mb capacity, with user selectable wrap function
Measuring units	User definable
Data storage	250,000 readings (typically 5 minute data for >12 months)
Logging frequency	User selectable from 1 second up to once per day
Averaging alarms,	User selectable connected to HYDRODATA-2000 Unit
Operating temperature	0-50°C
Storage temperature	From -5°C to 60°C
Depth rating (water column)	100m
Weight	800g plus cable weight (665g per 10m length)
Dimensions (L x OD)	404.5mm x 47mm; 619.5 mm x 47mm with battery housing
Wetted materials	UPVC, aceta1,316 passivated stainless steel, polyurethane, viton

Optional Extras and Accessories

- Moulded cable (specify required length above)
- On-board battery pack (includes housing and battery pack)
- SDI12 Adaptor (connects to end of sensor cable for serial output to logger.

How to Order

- Model OD03000
- Moulded cable length (m)
- **Optional Datalogger and transmitter Model HYDRODATA-2000C.**



HYDRODATA-2000C