



D-Opto Dissolved Oxygen Instruments

The D-Opto Sensor and D-Opto Logger dissolved oxygen instruments are based on a field proven optical technology that has been successfully used for many years. The instruments enable long term accurate monitoring of dissolved oxygen levels in streams, rivers, lakes and marine environments with minimal on-site maintenance and servicing.

D-Opto instruments are very rugged, and all feature a copper bio-fouling control ring around the sensor window.

D-Opto Sensor

The D-Opto sensor is a rugged low power dissolved oxygen sensor.

The low power consumption, and low sensor drift make the D-Opto an ideal choice for remote battery and solar powered installations.

The D-Opto is available with either an SDI-12, 4-20mA or 0-5 volt signal output.

The D-Opto features a rugged interface panel for simple connection to the data logger, and is supplied with D-OptoCom software for calibration and setup.



D-Opto Logger

The D-Opto Logger is a fully self-contained dissolved oxygen logger.

It incorporates the dissolved oxygen sensor, temperature sensor, battery and low-power data logger in a rugged compact and easy to deploy underwater housing.

The D-Opto Logger can operate for up to 3 months on a single user replaceable 9 volt battery, logging dissolved oxygen saturation (%), content (PPM) and temperature.

The D-Opto Logger is supplied with D-OptoLog software for deployment setup, data offload and calibration.





Specifications

D-Opto Sensor

Accuracy

Dissolved Oxygen; 1% of measurement or 0.02ppm (whichever is greater)
Temperature; +/- 0.1 Deg C

Resolution

DO Saturation; 0.01%
DO Content; 0.001 PPM
Temperature; 0.01 Deg C
Signal options; SDI-12, 4-20mA or 0-5 volts
Output signals; DO%, PPM, Temperature Deg C

Physical

Size; 48mm diameter x 150mm long
Depth rating; 30 meters
Bio-fouling control: Copper guard around sensor window. Optional shutter system (see below)

Power

Power requirements; 8-24 volts DC
0.5mA between measurements, 20mA during measurement (plus 4-20mA signal if relevant)
Cable; Upto 100m. EPDM sheathed, fully screened

Software: D-OptoCom, supplied at no charge

D-Opto Logger

Accuracy

Dissolved Oxygen; 1% of measurement or 0.02ppm (whichever is greater)
Temperature; +/- 0.1 Deg C

Resolution

DO Saturation; 0.01%
DO Content; 0.001 PPM
Temperature; 0.01 Deg C

Memory

Logger memory; Non-volatile, 10080 data records
Logged record; Time, date, DO% and DO PPM

Physical

Size; 48mm diameter x 200mm long
Depth rating; 30 meters
Bio-fouling control; Copper guard around sensor window.

Power

Battery; 1 x 9 volt alkaline (PP9)
Battery endurance; Around 3 months at 15 minute logging interval, DO PPM, Temperature Deg C.
Software: D-OptoLog supplied at no charge

D-Opto Shutter

For situations where bio-fouling is extreme, the D-Opto Sensor can be fitted with the D-Opto Shutter.

The D-Opto Shutter is a mechanical device that simply attaches to the side of the D-Opto Sensor, and is controlled by the same data logger that is attached to the D-Opto Sensor.

The Shutter opens when a measurement is required, and closes between measurements so completely protects the optical sensing window from bio-fouling, sediment build up and physical damage.

