D-Opto

Optical Dissolved Oxygen Logger

Specification:
D-Opto Logger

D-Opto sensing utilizes fluorescence to measure dissolved oxygen. A stable electronic circuit has been designed to firstly excite the ruthenium, then measure the intensity of the resulting fluorescence. Using this circuitry, D-Opto provides accurate dissolved oxygen measurements over long term deployments without re-calibration.

D-Opto Logger benefits

- Logs time/date, temperature, percent saturation and ppm
- Long battery life from field replaceable 9 volt battery
- Copper bio fouling control ring around the optical window
- Windows software for sensor calibration
- Sensor life expectancy in excess of 5 year

D-Opto

ZEBRA-TECH LTD

www.zebra-tech.co.nz

Dissolved Oxygen Logger

Highly accurate and stable
Very low maintenance requirements and costs
Flow insensitive technology, completely unaffected by water velocity
Low power consumption
Long calibration interval

D-Opto Logger

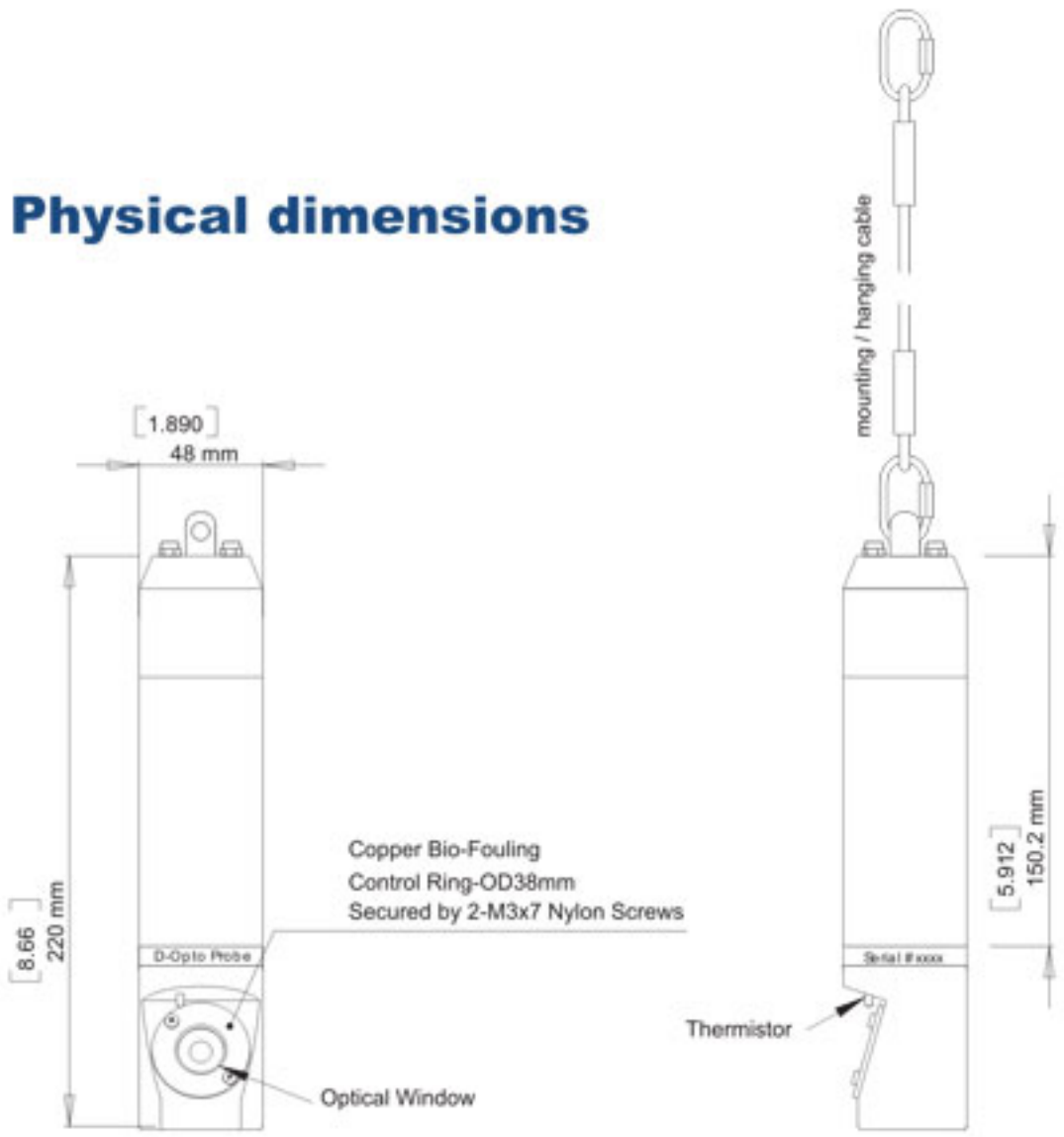
The D-OptoLogger is a fully self contained dissolved oxygen logger, incorporating an Optical DO sensor, battery, and low power data logger in a rugged compact underwater housing. The D-OptoLogger uses a field-proven solid-state optical sensing system to measure dissolved oxygen that is highly stable over long periods of time, even in harsh conditions. The data is stored onboard in non-volatile memory. The D-OptoLogger is setup, and data offloaded using simple Windows based software, supplied with the instrument.

D-Opto Logger record set contains

- Time and date
- Oxygen content (PPM)
- Dissolved oxygen (% Saturation)
- Temperature (Degrees C)
- Battery Voltage

Recording Intervals (minutes)	Memory Endurance (days)	Records / Day
1	3	1440
5	15	288
10	31	144
15	46	96
30	93	48
60	186	24

Physical dimensions



Dissolved Oxygen

Accuracy	1% of reading or 0.02ppm, whichever is greater
Resolution	0.01% Saturation, 0.001ppm
Range	0.00 to 25.00 ppm
Repeatability	0.01ppm
Response time	90% in less than 60 seconds
Temperature	compensated 0 to 50 Deg c
Sensor drift	Less than 1% per year

Temperature

Accuracy	+/- 0.1 Deg C
Resolution	0.01 Deg C
Range	0 to 50 Deg C

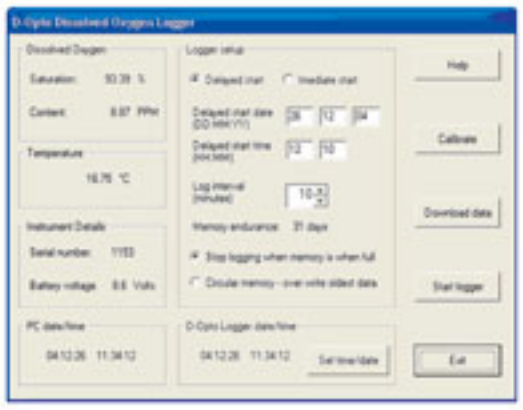
Physical Specifications

Logger dimensions	48mm (1.89") diameter, 220mm (8.66") long
Probe construction	Acetyl, stainless steel, cast epoxy
Ambient conditions	-40 to 55 Deg C, 0 to 100% humidity, 0 to 10,000 feet
Pressure rating	100 psi
Communication cable	9 pin serial plug to3.5mm jack plug

Electrical Specifications

Power requirement	1 x 9 volt alkaline battery (PP9)
Protection	Reverse polarity, fully surge protected

D-OptoCom Software



D-OptoLogger is supplied with the custom designed Windows based communication software program "D-OptoLog".

- Communicate with the D-OptoLogger via a computer
- Used to setup a D-OptoLogger prior to deployment
- Download data from the D-OptoLogger to the PC