RBR

MEASURE THE BLUE PLANET

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RBR*coda*³ T.ODO

TEMPERATURE AND OPTICAL DISSOLVED OXYGEN

LOW POWER, HIGH STABILITY

The RBR*coda*³ T.ODO is an optode with high stability and low power consumption, with three time constant options available: 1s, 8s, and 30s. The |fast (1s time constant) variant is well suited for profiling applications. The |slow (30s time constant) version has a protective layer to facilitate automated cleaning by a wiper to keep it biofouling free during long-term moored deployments.

FEATURES

- High accuracy
- Low power consumption
- Long deployments
- Optical stability
- RS-232 output
- Depths up to 6000m

The following configurations are available:

RBR*coda*³ T.ODO	temperature and optical dissolved oxygen, 8s time constant
RBR*coda*³ T.ODO|slow	temperature and optical dissolved oxygen, 30s time constant, can be used with wiper
RBR*coda*³ T.ODO|fast	temperature and optical dissolved oxygen, 1s time constant

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Specifications

Physical

Connector	MCBH-6-MP
Depth rating	6000m
Diameter	28mm
Length	~125mm (instrument only) ~160mm (instrument plus connector)
Weight	180g in air, 110g in water

Power

Supply voltage	7 – 15V (12V nominal)
Sampling current	10mA for 300ms (36mJ/sample) | fast 10mA for 300ms (36mJ/sample) standard 10mA for 500ms (60mJ/sample) | slow
Sleep current	60µA

Interface

RS-232 polled or autonomous streaming

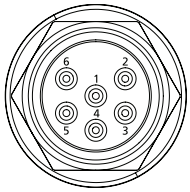
Temperature

Range	-5°C to 35°C
Initial accuracy	±0.002°C
Resolution	<0.00005°C
Typical stability	±0.002°C / year
Time constant	<1s

Dissolved oxygen

Measurement range	0-1000µmol/L
Calibrated range	0-500µmol/L concentration 0 – 120% saturation 1.5°C to 30°C temperature
Initial accuracy	Max of ±8µmol/L or ±5% | fast Max of ±2µmol/L or ±1.5% standard Max of ±2µmol/L or ±1.5% | slow
Resolution	<1µmol/L (saturation 0.4%) | fast <0.5µmol/L (saturation 0.2%) standard <0.1µmol/L (saturation 0.04%) | slow
Time constant	<1s | fast, <8s standard, or <30s | slow
Sampling rates	24hr to 1Hz

MCBH-6-MP connector pinout



- Pin 1 - Ground
- Pin 2 - Power
- Pin 3 - Serial data from sensor
- Pin 4 - Serial data to sensor
- Pin 5 - N/C
- Pin 6 - N/C

Output Values

- Temperature (°C)
- Dissolved O_2 concentration (µmol/L)
- Dissolved O_2 concentration (salinity compensated, µmol/L)
- Dissolved O_2 saturation (%)
- Dissolved O_2 phase (°)

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