

# TEMPERATURE AND OPTICAL DISSOLVED OXYGEN



LOW POWER,  
HIGH STABILITY

The RBRcoda<sup>3</sup> T.ODO is an optode with high accuracy and low power consumption. The |fast variant has a time constant of only 1s and is well suited for profiling applications. The |slow version has a protective layer to facilitate automated cleaning by a wiper, which keeps 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:

- ▶ RBRcoda<sup>3</sup> T.ODO temperature and optical dissolved oxygen, 8s time constant
- ▶ RBRcoda<sup>3</sup> T.ODO|slow temperature and optical dissolved oxygen, 30s time constant, used with wiper
- ▶ RBRcoda<sup>3</sup> T.ODO|fast temperature and optical dissolved oxygen, 1s time constant

## TEMPERATURE AND OPTICAL DISSOLVED OXYGEN

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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, 100g in water

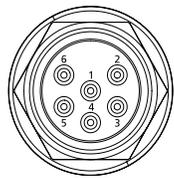
#### Power

Supply voltage	7 – 15V (12V nominal)
Sampling current	10mA for 300ms (36mJ/sample) at 12V
Sleep current	58µA

#### Interface

RS-232 polled or autonomous streaming
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#### 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

#### Dissolved oxygen

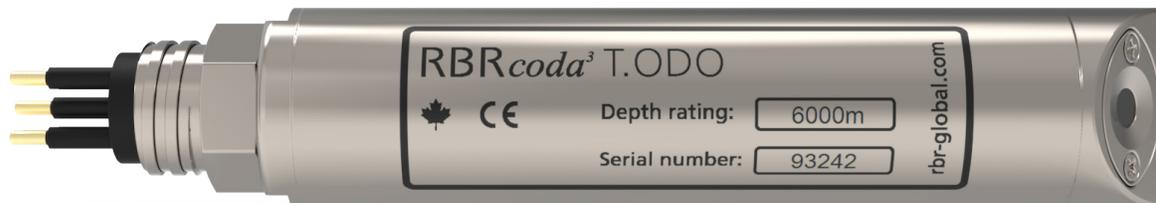
Calibrated range	0-500µM concentration 0 – 120% saturation 1.5°C to 30°C temperature
Initial accuracy	Maximum of ±8µM or ±5%
Resolution	<1µM (saturation 0.4%)
Time constant	<1s  fast, <8s standard, ~30s  slow
Sampling rates	24hr to 1Hz

#### 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

#### Output Values

- Temperature (°C)
- Dissolved O<sub>2</sub> concentration (µmol/L)
- Dissolved O<sub>2</sub> concentration (salinity compensated, µmol/L)
- Dissolved O<sub>2</sub> saturation (%)
- Dissolved O<sub>2</sub> phase (°)



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