

TEMPERATURE & OXYGEN RECORDER



LOW POWER & HIGH STABILITY

The RBRduet³ T.ODO is a small and versatile temperature and optical oxygen logger with exceptional performance for long deployments in coastal or deep environments. The marine thermistor provides the highest accuracy temperature measurement with 1s time constant. The optical oxygen sensor provides high stability for very long deployments where accurate DO measurements are critical. The |slow version has a protective layer over the optical foil to allow it to be cleared of biofouling for long-term moored applications. The logger is designed with large memory for extended deployments, and USB-C download for large data files.

FEATURES

 <p>Compact and lightweight</p>	 <p>Depths up to 6000m</p>	 <p>20M measurements</p>	 <p>Optical stability</p>	 <p>USB-C download</p>	 <p>Cabled RBRcoda³ variant available</p>
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The RBRduet³ T.ODO recorder is available in the following configurations:

- ▶ RBRduet³ T.ODO temperature and dissolved oxygen, 8s time constant
- ▶ RBRduet³ T.ODO|slow temperature and dissolved oxygen, 30s time constant, used with wiper
- ▶ RBRduet³ T.ODO|fast temperature and dissolved oxygen, 1s time constant

The RBRduet³ T.ODO series has two channels: temperature and optical dissolved oxygen. Its large data storage capacity is matched to high battery capacity to facilitate long deployments with higher sampling rates. Downloads are quick with USB-C. A dedicated desiccant holder makes it simple to replace desiccant before each deployment. The calibration coefficients are stored with the logger and only one software tool, Ruskin, is required to operate the loggers. Datasets can be read directly in Matlab, or exported to Excel or ASCII files.

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Compact and
lightweight



Depths up to
6000m



20M
measurements



Optical
stability



USB-C
download



Cabled RBRcoda³
variant available



Specifications

Physical

Power:	Any AA cell
Communication:	USB-C
Clock drift:	±60 seconds/year
Diameter:	~28mm
Length:	~300mm
Weight (air):	200g (OSP), 400g (Ti)
Weight (water):	20g (OSP), 240g (Ti)

Temperature

Range:	-5°C to 35°C
Accuracy:	±0.002°C
Resolution:	<0.00005°C
Time Constant:	<1s
Typical stability:	0.002°C/year

Oxygen

Calibrated range:	0-500µM concentration
Calibrated range:	0 – 120% saturation
Calibrated range:	1.5°C to 25°C temperature
Accuracy:	Maximum of ±8µM or ±5%
Resolution:	<1µM (saturation 0.4%)
Time constant:	~1s fast, ~8s standard, ~30s slow
Sampling rates:	24hr to 2Hz

Deep variant

Explore up to 6000m deep with the RBRduet³ T.ODO|deep.



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