RBR
MEASURE THE BLUE PLANET

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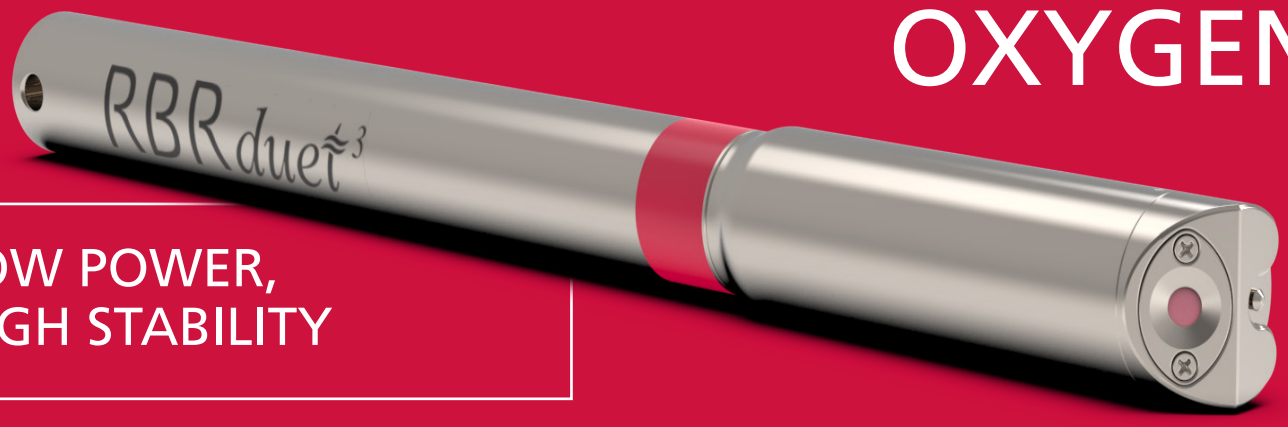
TEMPERATURE AND OPTICAL DISSOLVED OXYGEN



LOW POWER, HIGH STABILITY

The RBR*duet*³ T.ODO is a small temperature and optical dissolved oxygen instrument with low power consumption and high stability. 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
- Optical stability
- Long deployments
- Depths up to 6000m
- USB-C download
- Compact and lightweight

The following configurations are available:

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

Deep variant:

- RBR*duet*³ T.ODO|deep — temperature and optical dissolved oxygen, depths up to 6000m

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The RBR*duet*³ T.ODO instrument has two channels: temperature and optical dissolved oxygen. Its large data storage capacity and reliable battery power facilitate long deployments with higher sampling rates. Downloads are quick with USB-C. A dedicated holder makes it simple to replace desiccant before each deployment. The calibration coefficients are stored with the instrument, and only one software tool, Ruskin, is required to operate it. Datasets can be read directly in Matlab, or exported to Excel, OceanDataView®, or text files.

Specifications

Physical

Storage	~165 thousand samples*
Power	An AA cell (alkaline or lithium iron)
Communication	USB-C
Clock drift	±60 seconds per year
Depth rating	1000m (plastic), 6000m (Ti)
Diameter	~25mm (housing), ~30mm (at sensor)
Length	~310mm
Weight (air)	200g (plastic), 400g (Ti)
Weight (water)	40g (plastic), 235g (Ti)

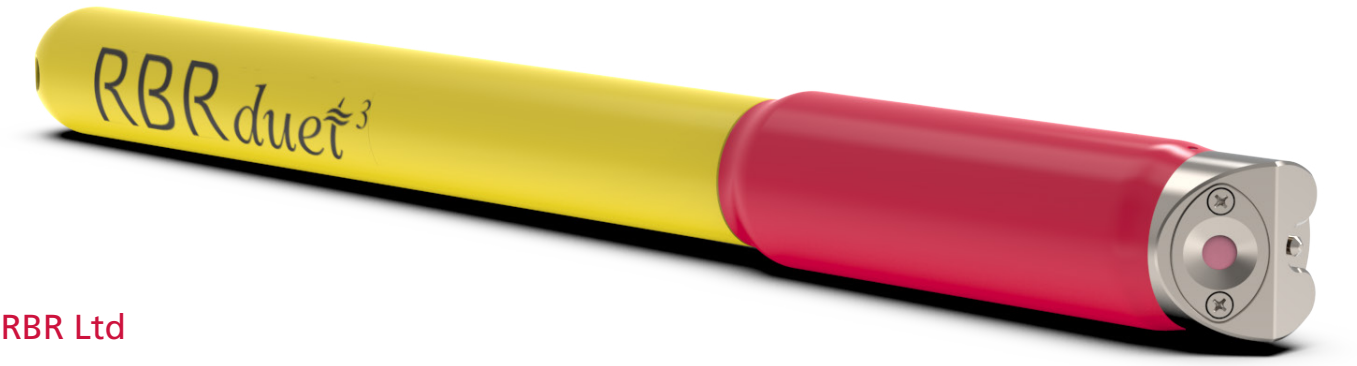
*A sample may include multiple readings.

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

Optical dissolved oxygen

Calibrated range	0-500µM concentration 0 – 120% saturation 1.5°C to 30°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 1Hz



RBR Ltd

+1 613 599 8900
info@rbr-global.com
rbr-global.com