RBR

MEASURE THE BLUE PLANET

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RBR*duraturo*^{4}

EXPANDED LOGGER

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DEPLOY LONGER,
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The RBR*duraturo*^{4} delivers high-accuracy measurements with flexible sampling schedules and a significantly extended battery life. Sampling rates of up to 32Hz support data-intensive acquisition of raw temperature and/or pressure. By averaging pressure measurements over extended intervals, the instrument provides precise tide-level data. Configurable intermittent and continuous wave-burst sampling enables the characterisation of wave conditions—including wave energy, $H_{1/3}$, $T_{1/3}$, T_{ave}, H_{ave} to support the detection of infrequent events such as vessel wakes.

FEATURES

- Flexible tide averaging
- Low frequency wave detection
- Twist activation
- Infinite memory*
- Up to 32Hz sampling
- Extended battery capacity

* not really, but we stopped counting at billions of samples.

Available configurations

- RBR*duraturo*^{4} T.D — temperature and pressure; up to 2Hz continuous sampling
- RBR*duraturo*^{4} T.D|fast — temperature and pressure; up to 32Hz continuous sampling
- RBR*duraturo*^{4} T.D|tide32 — temperature and pressure; continuous sampling or tidal averaging
- RBR*duraturo*^{4} T.D|wave32 — temperature and pressure; continuous sampling, tidal averaging, or wave burst

The RBR*duraturo*^{4} facilitates optimal measurement schedules. Large storage capacity and reliable battery power enable 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, Ocean Data View®, or text files.

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Specifications

Physical

Storage	Infinite memory*
Power	Six D cells
Communication	USB-C
Clock drift	±60 seconds / year
Housing	Plastic
Diameter	100mm
Length	246mm
Weight	2.4kg
Depth rating	300dbar
Sampling rate	2Hz; options up to 32Hz
Operating temperature	-5 to 35°C
Storage temperature	-20 to 50°C

* not really, but we stopped counting at billions of samples.

Pressure

Range[1]	20 / 100 / 300dbar
Initial accuracy	±0.01% full scale
Resolution	<0.001% full scale
Typical stability	±0.01% full scale / year
Time constant	<10ms

[1] Recommended pressure ranges for wave measurements are 20 and 100dbar.

Temperature

Range*	-5 to 35°C
Initial accuracy	±0.002°C
Resolution	<0.00005°C
Typical stability	±0.002°C / year
Time constant	<0.1s |fast, <1s standard, <60s |slow

* A wider temperature range is available upon request.

Deployment configurations

RBR*duraturo*⁴ T.D|tide32

Sampling rate	24h to 2Hz (continuous mode) 1, 2, 4, 8, 16 or 32Hz (tide mode)
Averaging duration	1s to 24h
Averaging interval	1s to 24h

RBR*duraturo*⁴ T.D|wave32

Sampling rate	24h to 1s and 2, 4, 8, 16 or 32Hz (continuous, tide, and wave modes)
Burst (samples)	512 to 32768 (powers of 2)
Burst interval	1s to 24h



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