RBR

MEASURE THE BLUE PLANET

rbr-global.com

SMALL TIDE AND WAVE LOGGERS



MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

The RBR*solo*^{4} and RBR*duet*^{4} | tide32 and | wave32 are compact and lightweight instruments. By taking averages of pressure readings over extended periods of time, they provide accurate tide level data. Intermittent and continuous wave bursts allow for obtaining wave characteristics (wave energy, $H_{1/3}$, $T_{1/3}$, T_{ave}, H_{ave}) and detecting infrequent phenomena, like boat wakes.

FEATURES

- Flexible tide averaging
- Low frequency wave detection
- Intermittent & continuous burst
- 32Hz sampling
- USB-C download
- Infinite memory*

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

Available configurations

| tide32	tidal averaging
| wave32	tidal averaging; intermittent and continuous wave burst

Variants

| 2x	double the autonomy of RBR*solo*^{4} and RBR*duet*^{4}

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The RBR*solo*^{4} and RBR*duet*^{4} | tide32 and | wave32 are built for long, accurate field use with low effort. Delivering high accuracy in a compact, field-ready form factor, they combine lab-grade performance with deployment simplicity. USB-C enables fast configuration and data download, while support for standard AA battery chemistry provides global power options. Paired with Ruskin software for intuitive setup and retrieval, these instruments are designed for exceptionally long deployments, using RBR's latest ultra-low-power electronics to maximise endurance without compromising precision. Data are stored in RSK format and are accessible using RBR's open Python and MATLAB toolboxes, enabling direct integration into workflows and automated processing pipelines. Ruskin provides Excel exports and publication-ready charts in PNG and PDF formats, ensuring straightforward reporting, analysis, and archiving.

Specifications

Physical

Storage	Infinite memory[1]
Power	Any AA cells, any chemistry
Communication	USB-C
Clock drift	±60 seconds per year
Depth rating[2]	up to 1700m (plastic)
Diameter	<34mm (plastic), <37mm (Ti)
Length	Varies per sensor
Weight	Varies per sensor

[1] Not really, but we stopped counting at billions of samples.
[2] Actual depth rating is determined by pressure sensor.

Pressure

Range[1]	20 / 100 / 300 / 1000dbar
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°C 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

* A wider temperature range is available upon request. Contact RBR for more information.

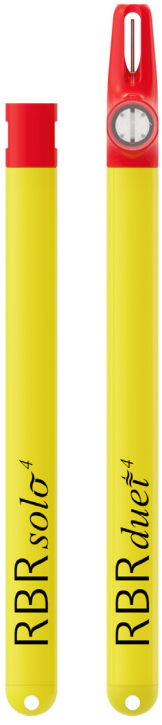
Deployment configurations

RBR*solo*^{4} | tide32, RBR*duet*^{4} | 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*solo*^{4} | wave32, RBR*duet*^{4} | 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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