Your Path Through the Sea

RBRduo/RBRvirtuoso

Tide and Wave Loggers

Measure more, deploy longer, download faster

RBR tide and wave loggers offer flexible measurement schedules, long wave burst samples, expanded memory and power for extended deployments, and faster download of large data files.

Features

- 6Hz sampling
- 30M measurements
- Flexible tide averaging
- USB 2.0 download speed
- Low-frequency wave detection
- Intermittent and continuous burst ability



Configurations:

RBR*virtuoso* **D**|**tide** pressure logger with tidal averaging

RBRduo T.D | tide pressure and temperature logger with tidal averaging

RBRvirtuoso D | wave pressure logger with intermittent and continuous wave burst and tidal averaging

RBRduo T.D | wave pressure and temperature logger with intermittent and continuous wave burst and

tidal averaging

The tide and wave loggers provide the ease and flexibility to establish the best sampling regime for your measurements. Both instruments take averages of the pressure readings over longer periods of time and at rates up to 6Hz to provide accurate tide level readings. The wave logger bursts continuously or intermittently making it easier to measure boat wakes or other infrequent phenomena. The large number of burst samples makes low frequency waves easier to detect, while the fast sampling resolves high frequency waves. Wave data exports to Matlab®, Excel® or text files make post processing with your own algorithms simple. The included Ruskin software performs wave analysis, to provide basic information about the wave composition (e.g. wave energy, $H_{1/3}$, $T_{1/3}$ T_{ave} and H_{ave}). Like all RBR products, the RBR wave and tide loggers are designed to be easy to configure.



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Specifications

Physical

Power: 8 or 16 3V CR123A cells Communication: USB 2.0 and RS-232/485

Storage: ~30M readings

Clock accuracy: ± 60 seconds per year
Size: ~260mm x Ø63.3mm
Weight: 960g in air, 430g in water

Housing: Plastic

Tide

Averaging rate: >1s, 1 to 6Hz Averaging duration: 1s to 24h Sampling period: 1s up to 24h

Waves

Burst rate: >1s, 1 to 6Hz

Samples per burst: 512 to 32768 (powers of 2)

Temperature

Range: -5°C to 35°C Initial accuracy: $\pm 0.002^{\circ}\text{C}$ Resolution: 0.00005°C

Time constant: ~1s (standard) or 0.1s (option)

Drift: ~0.002°C per year

Pressure

Range: 20/50m

Accuracy: $\pm 0.05\%$ FS (full scale)

Resolution: 0.001% FS or 0.001 dbar w.i.g.

Time constant: 0.01s

Typical stability: ~0.05%/year

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