

# TIDE AND WAVE LOGGERS

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The RBR*virtuoso*<sup>3</sup> D and RBR*duo*<sup>3</sup> T.D, |tide and |wave, offer high accuracy and flexible schedules. 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



The following configurations are available:

- ▶ RBR*virtuoso*<sup>3</sup> D |tide16      pressure, tidal averaging
- ▶ RBR*virtuoso*<sup>3</sup> D |wave16      pressure, tidal averaging, intermittent and continuous wave burst
- ▶ RBR*duo*<sup>3</sup> T.D |tide16      temperature and pressure, tidal averaging
- ▶ RBR*duo*<sup>3</sup> T.D |wave16      temperature and pressure, tidal averaging, intermittent and continuous wave burst

The RBR*virtuoso*<sup>3</sup> D and RBR*duo*<sup>3</sup> T.D, |tide and |wave, facilitate optimal measurement schedules. Large 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.

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### Specifications

#### Physical

Storage	240M readings*
Power	8 AA cells
External power	4.5 to 30V
Communication	USB-C or RS-232/485
Clock drift	±60 seconds/year
Housing	Plastic
Diameter	63.3mm
Length	338mm (RBR <i>virtuoso</i> <sup>3</sup> D) 368mm (RBR <i>duo</i> <sup>3</sup> T.D)
Weight	~1kg in air, ~0.1kg in water
Max depth rating	1000m

\*A sample may include multiple readings.

#### Pressure

Range*	20 / 50 / 100 / 200 / 500 / 1000dbar
Initial accuracy	±0.05% full scale
Resolution	<0.001% full scale
Typical stability	±0.05% full scale / year
Time constant	<10ms

\*Recommended depth for wave measurements is less than 50m.

#### 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*virtuoso*<sup>3</sup> D|tide16, RBR*duo*<sup>3</sup> T.D|tide16

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

#### RBR*virtuoso*<sup>3</sup> D|wave16, RBR*duo*<sup>3</sup> T.D|wave16

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

### Options

- ▶ Wi-Fi communication
- ▶ External data and power connection via connectorised end-caps

### RBR Ltd

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

