

# Small Two Channel Recorder

## Temperature and depth, tides and waves

The RBR*duet* T.D is our compact, light, and versatile dual channel temperature and depth recorder. The standard temperature and depth logger samples up to 2Hz and optionally up to 16Hz. Tide and wave versions are available. The loggers are designed with large memory for extended deployments, and fast USB download of large data files.

### Features

- Light
- Compact
- High accuracy
- Over 20M measurements
- Up to 16 Hz sampling
- Fast USB download speed



The RBR*duet* T.D recorder is available in the following configurations:

<b>RBR<i>duet</i> T.D</b>	temperature and depth, up to 2 Hz continuous sampling
<b>RBR<i>duet</i> T.D fast16</b>	temperature and depth, up to 16 Hz continuous sampling
<b>RBR<i>duet</i> T.D tide</b>	temperature and tide recorder, up to 16Hz averaging
<b>RBR<i>duet</i> T.D wave</b>	temperature, tide, and wave recorder, up to 16Hz burst and continuous sampling

The RBR*duet* T.D series is our latest small form factor logger with two channels, temperature and pressure. Its large data storage capacity is matched to the battery capacity to facilitate long deployments with higher sampling rates. Large data files can be downloaded quickly using a true USB interface. The tide recorder averages the pressure readings provide accurate tide level and tidal slope readings.

The wave recorder measures tides and bursts continuously or intermittently to measure high frequency waves (wave heights and periods per burst) over long deployment periods. A dedicated desiccant holder makes it easy to replace desiccant before each deployment. The calibration coefficients are stored with the logger and only one software tool, Ruskin, is required to operate the loggers. Datasets can be read directly in Matlab™, or exported to Excel™ or ASCII files.



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## Specifications

### Physical

Power:	3.6V LiSOCl <sub>2</sub> AA cell
Communication:	Fast USB
Storage:	Over 20M readings
Clock Accuracy:	±60 seconds/year
Depth Rating:	1000m
Diameter:	25.4mm
Length:	265mm
Weight (air):	136g
Weight (water):	<10g

### Temperature

Range:	-5°C to 35°C
Accuracy:	±0.002°C
Resolution:	<0.00005°C
Time Constant:	~1s (standard) or ~0.1s ( fast16)
Drift:	0.002°C/year

### Depth

Range:	20 / 50 / 100 / 200 / 500 / 1000m (dbar)
Accuracy:	±0.05% full scale
Resolution:	<0.001% full scale
Time constant:	<10ms
Drift:	~0.1%/year

## Sampling Rates

### RBRduet T.D

Sampling rate: 24hr to 1s and 2Hz

### RBRduet T.D|fast16

Sampling rate: 24hr to 1s and 2, 4, 8 or  
16Hz

### RBRduet T.D|tide

Averaging rate: 24hr to 1s and 2, 4, 8 or  
16Hz

Averaging duration: 1s to 24h

Averaging interval: 1s to 24h

### RBRduet T.D|wave\*

Sampling rate: 24hr to 1s and 2, 4, 8 or  
16Hz

Burst duration 512 to 32768 (powers of 2)  
(samples):

Burst interval: 1s to 24hr

\*Tide values are the average of the burst readings

