

Small Two Channel Recorder

Temperature and depth, tides and waves

The RBRduet T.D is our accurate, small, 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 for large data files.

Features

- Light and compact
- Depths up to 10,000m
- Over 20M measurements
- Up to 16Hz sampling
- Fast USB download
- Cabled realtime variant available



The RBRduet T.D recorder is available in the following configurations:

RBRduet T.D	temperature and depth, up to 2Hz continuous sampling
RBRduet T.D fast16	temperature and depth, up to 16Hz continuous sampling
RBRduet T.D tide	temperature and tide recorder, up to 16Hz averaging
RBRduet T.D wave	temperature, tide, and wave recorder, up to 16Hz burst and continuous sampling
RBRduet10k T.D	temperature and depth, up to 2Hz continuous sampling and up to 10,000m depth

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

The wave recorder records tides and bursts continuously or intermittently to measure high frequency waves (wave heights and periods per burst) over long deployment periods. 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.



Small Two Channel Recorder

Temperature and depth, tides and waves

Specifications

Physical

Power:	3.6V LiSOCl ₂ AA cell
Communication:	USB 2.0
Clock Accuracy:	±60 seconds/year
Depth Rating:	Up to 10,000m
Diameter:	25.4mm
Length:	265mm
Weight (air):	136g (OSP), 334g (Ti)
Weight (water):	<10g (OSP), ~200g (Ti)

Temperature

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

Depth

Range (OSP):	20 / 50 / 200 / 500 / 1000m
Range (Ti):	1000 / 2000 / 4000 / 6000 / 10,000m
Accuracy:	±0.05% full scale
Resolution:	<0.001% full scale
Time constant:	<10ms
Typical stability:	~0.1%/year

Sampling Rates and Storage

RBRduet T.D

Sampling rate:	24hr to 1s and 2Hz
Storage (@ 2Hz):	~10M samples

RBRduet T.D|fast16

Sampling rate:	24hr to 1s and 2, 4, 8 or 16Hz
Storage (@ 16Hz):	~20M samples

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
Storage (@ 2Hz):	~20M samples

RBRduet T.D|wave*

Sampling rate:	24hr to 1s and 2, 4, 8 or 16Hz
Storage (@ 2Hz):	~20M samples
Burst duration (samples):	512 to 32768 (powers of 2)
Burst interval:	1s to 24hr

*Tide values are the average of the burst readings

