

## ABYSSAL RECORDERS

TEMPERATURE,  
DEPTH & TIDES



The RBRsolo<sup>3</sup> T|deep, RBRsolo<sup>3</sup> D|deep, and RBRduet<sup>3</sup> T.D|deep in titanium are small but incredibly strong. Deployable to the bottom of the Marianas Trench, they still provide temperature accuracy of  $\pm 0.002^{\circ}\text{C}$  and are capable of storing 25 million readings on a single battery. Flexible measurement schedules, standard sampling up to 2Hz, optionally up to 32Hz, and USB-C download complement the raw capabilities of this design.

### FEATURES



Any AA  
battery



~25M  
readings



Up to 32Hz  
sampling



USB-C  
download



Cabled RBRcoda<sup>3</sup>  
variant available

The RBR |deep series is available in a number of configurations. Examples:

- ▶ RBRsolo<sup>3</sup> T|deep      temperature recorder with up to 2Hz sampling
- ▶ RBRsolo<sup>3</sup> T|fast32|deep      temperature recorder with up to 32Hz sampling
- ▶ RBRsolo<sup>3</sup> D|deep      depth recorder with up to 2Hz sampling
- ▶ RBRduet<sup>3</sup> T.D|deep      temperature and depth recorder with up to 2Hz sampling
- ▶ RBRduet<sup>3</sup> T.D|tide16|deep      temperature and tide recorder with up to 16Hz sampling
- ▶ RBRduet<sup>3</sup> T.D|fast32|deep      temperature and depth recorder with up to 32Hz sampling

Designed for deployments in the most challenging environments the two-part titanium alloy housing resists all forms of marine corrosion. Available with either an embedded thermistor that has a 10s time constant or an open thermistor with a 1s time constant, its long deployment autonomy means less ship time is required. Newly designed circuitry provides exceptional signal-to-noise measurement, negligible power consumption, and extended schedules. A dedicated desiccant holder makes it simple to replace desiccant before each deployment.

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### TEMPERATURE, DEPTH AND TIDES

The RBRsolo<sup>3</sup> T|deep, RBRsolo<sup>3</sup> D|deep, and RBRduet<sup>3</sup> T.D|deep are three of the most flexible recorders available from RBR and, like all RBR instruments, the calibration coefficients are stored with the logger. Dataset export to Matlab, Excel, OceanDataView®, or text files makes post processing with your own algorithms effortless.

### Specifications

#### Physical

Storage:	~25M readings
Power:	Any AA cell
Communication:	USB-C
Clock drift:	±60 seconds/year
Diameter:	25mm
Length:	230mm
Weight (air):	<400g
Weight (water):	<70g

#### Temperature

Range:	-5°C to 35°C
Accuracy:	±0.002°C
Resolution:	<0.00005°C
Time constant:	1s (open) 10s (embedded)
Typical stability:	0.002°C/year

#### Pressure

Range:	1000/2000/4000/6000/10km
Initial accuracy:	±0.05% FS
Resolution:	0.001% FS
Time constant:	<0.01s
Typical stability:	0.05% FS

### Sampling rates and Autonomy

#### RBRsolo<sup>3</sup> T|deep

Sampling rate:	24hr to 1s, and 2Hz		
Autonomy:	Rate	Duration	# samples
	5s	6 years	40M
	2Hz	150 days	25M

#### RBRsolo<sup>3</sup> D|deep

Sampling rate:	24hr to 1s, and 2Hz		
Autonomy:	Rate	Duration	# samples
	5s	5 years	30M
	2Hz	60 days	10.7M

#### RBRduet<sup>3</sup> T.D|deep

Sampling rate:	24hr to 1s, and 2Hz		
Autonomy:	Rate	Duration	# samples
	5s	4 years	25M
	2Hz	60 days	10M

### Realtime variant

Cabled realtime variant available as the RBRcoda<sup>3</sup>.



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