

# ABYSSAL LOGGERS



The RBRsolo<sup>3</sup> T|deep, RBRsolo<sup>3</sup> D|deep, and RBRduet<sup>3</sup> T.D|deep in titanium housing are small but highly durable. Deployable to the bottom of the Marianas Trench, they provide accurate and stable measurements in the most challenging environments. Low power consumption allows for extended schedules.

# **FEATURES**



## The following configurations are available:

- ▶ RBR*solo*<sup>3</sup> T|deep
- ▶ RBR*solo*<sup>3</sup> T|fast|deep
- ▶ RBR*solo*<sup>3</sup> D|deep
- ► RBR*solo<sup>3</sup>* D|fast|deep
- RBRduet<sup>3</sup> T.D | deep
- ► RBR*duet*<sup>3</sup> T.D|tide16|deep
- ► RBR*duet<sup>3</sup>* T.D|fast32|deep

temperature, up to 2Hz sampling

- temperature, up to 32Hz sampling
  - pressure, up to 2Hz sampling
- pressure, up to 32Hz sampling
- temperature and pressure, up to 2Hz sampling
- eep temperature and tide, up to 16Hz sampling
  - temperature and depth, up to 32Hz sampling



# ABYSSAL LOGGERS EXTREME DEPTHS, HIGH PERFORMANCE

The RBRsolo<sup>3</sup> T | deep, RBRsolo<sup>3</sup> D | deep, and RBRduet<sup>3</sup> T.D | deep are designed to endure harsh conditions. Titanium housing resists all forms of marine corrosion. Specialized circuitry ensures exceptional signal-to-noise ratio. Large data storage capacity and reliable battery power facilitate long deployments with higher sampling rates. Downloads are quick with USB-C. A dedicated desiccant 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<sup>®</sup>, or text files.

# Specifications

#### Physical

Storage	~65 million samples (RBR <i>solo³</i> D) ~130 million samples (RBR <i>solo³</i> T) ~45 million samples (RBR <i>duet³</i> T.D)
Power	Any AA cell
Communication	USB-C
Clock drift	±60 seconds per year
Diameter	~25mm
Length	~230mm (RBRsolo <sup>3</sup> D deep)
	~225mm (RBRsolo <sup>3</sup> T slow deep)
	~240mm (RBRsolo <sup>3</sup> T deep)
	~266mm (RBRduet <sup>3</sup> T.D deep)
Weight	<400g in air, <70g in water

#### 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) <15s ( slow, embedded thermistor)

#### Pressure

Range	1000/2000/4000/6000/10000dbar
Initial accuracy	±0.05% full scale
Resolution	<0.001% full scale
Typical stability	±0.05% full scale / year
Time constant	<10ms

### **RBR Ltd**

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## **Deployment estimates**

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

Sampling rates	24hr to 1s, 2Hz, 8Hz, 16Hz, 32Hz		
Autonomy	Speed	Time	# samples 25M 130M
	2Hz	150 days	25M
	32Hz	50 days	130M

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

Sampling rates	24hr to 1s, 2Hz, 8Hz, 16Hz, 32Hz		
Autonomy	Speed	Time	# samples
	2Hz	62 days	10M
	32Hz	24 days	25M

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

Sampling rates	24hr to 1s, 2Hz, 8Hz, 16Hz, 32Hz		
Autonomy	Speed	Time	# samples
	2Hz	60 days	# samples 10M
	32Hz	16 days	45M

#### **Realtime variants**

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

