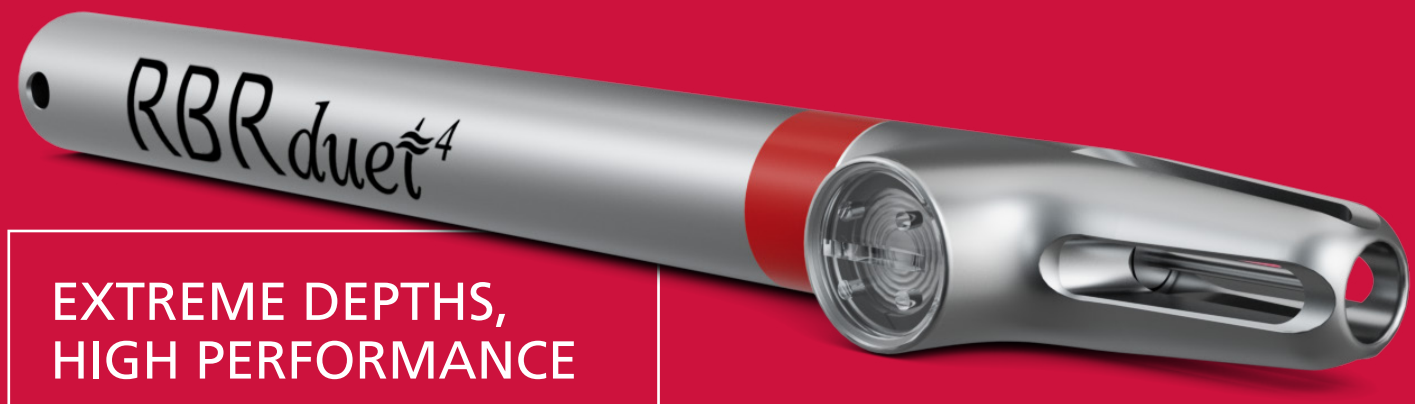
RBR

MEASURE THE BLUE PLANET

rbr-global.com

RBR*solo*^{4}|deep, RBR*duet*^{4}|deep

ABYSSAL LOGGERS



EXTREME DEPTHS, HIGH PERFORMANCE

The RBR*solo*^{4}|deep and RBR*duet*^{4}|deep in titanium housing are small but highly durable. Deployable to the bottom of the Mariana Trench, they provide exceptional accuracy and resolution with extremely low power consumption, enabling multi-year deployments using any standard AA battery chemistry. Engineered for durability in harsh marine conditions, the |deep delivers reliable, long-term performance across a wide range of oceanographic applications.

FEATURES

- Depths up to 10000m
- Any AA battery
- Long deployments
- Up to 32Hz sampling
- USB-C download
- Infinite memory*

* not really, but we stopped counting at billions of samples.

Available configurations

RBR*solo*^{4} T|deep	temperature; up to 2Hz sampling
RBR*solo*^{4} T|fast|deep	temperature; up to 32Hz sampling
RBR*solo*^{4} D|deep	pressure; up to 2Hz sampling
RBR*solo*^{4} D|fast|deep	pressure; up to 32Hz sampling
RBR*duet*^{4} T.D|deep	temperature and pressure; up to 2Hz sampling
RBR*duet*^{4} T.D|fast|deep	temperature and pressure; up to 32Hz sampling

2x variant

|2x	double the autonomy of RBR*solo*^{4} and RBR*duet*^{4}

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The RBR*solo*^{4} T|deep, RBR*solo*^{4} D|deep, and RBR*duet*^{4} T.D|deep are designed to endure harsh conditions. Titanium housing resists all forms of marine corrosion. Specialised circuitry ensures exceptional signal-to-noise ratio. USB-C enables fast configuration and data download, while support for standard AA battery chemistry provides global power options. Paired with Ruskin software for intuitive setup and retrieval, these loggers are designed for exceptionally long deployments, using RBR's latest ultra-low-power electronics to maximise endurance without compromising precision. Data are stored in RSK format and are accessible using RBR's open Python and MATLAB toolboxes, enabling direct integration into workflows and automated processing pipelines. Ruskin provides Excel exports and publication-ready charts in PNG and PDF formats, ensuring straightforward reporting, analysis, and archiving.

Specifications

Physical

Storage	Infinite memory[1]
Power	Any AA cell
Communication	USB-C
Clock drift	±60 seconds / year
Diameter	25mm (T, D) 37mm (T.D)
Length[2]	232mm (RBR*solo*^{4} D|deep) 245mm (RBR*solo*^{4} T|deep) 278mm (RBR*duet*^{4} T.D|deep)
Weight	<400g in air, <316g in water
Sampling rates	Up to 32Hz

[1] Not really, but we stopped counting at billions of samples.
[2] For |2x variant + ~70mm

Temperature

Range*	-5 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)

* A wider temperature range is available on request.

Pressure

Range	1000 / 2000 / 6000 / 10000dbar
Accuracy	±0.01% full scale
Resolution	<0.001% full scale
Typical stability	±0.01% full scale / year
Time constant	<10ms

Example deployment estimates

RBR*solo*^{4} T|fast|deep

Speed	Time	# samples
2Hz	150 days	25M
32Hz	55 days	153M

RBR*solo*^{4} D|fast|deep

Speed	Time	# samples
2Hz	244 days	42M
32Hz	17 days	47M

RBR*duet*^{4} T.D|fast|deep

Speed	Time	# samples
2Hz	97 days	16M
32Hz	14 days	39M



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