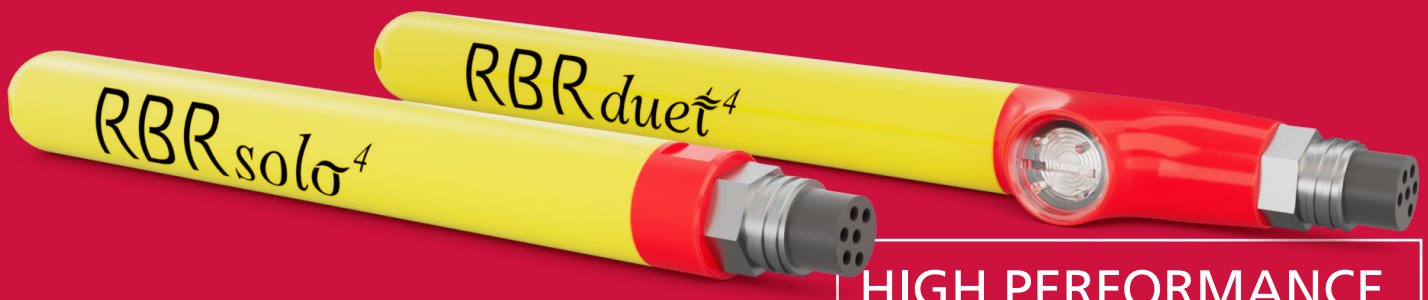
RBR

MEASURE THE BLUE PLANET

rbr-global.com

RBR*solo*^{4} x, RBR*duet*^{4} D.x

SMALL EXCHANGEABLE LOGGERS



HIGH PERFORMANCE, LONG DEPLOYMENTS

The RBR*solo*^{4} x|2x and RBR*duet*^{4} D.x|2x are compact, lightweight exchangeable loggers designed for high-precision oceanographic measurements in demanding environments. It combines exceptional accuracy and resolution using any standard AA battery chemistry. Engineered for durability in harsh marine conditions, these loggers delivers reliable, long-term performance across a wide range of oceanographic applications.

FEATURES

- Long deployments
- Compact and lightweight
- Two AA batteries
- Up to 32Hz sampling
- USB-C download
- Infinite memory*

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

Available configurations

- |fast32 — up to 32Hz continuous sampling
- |deep — depths up to 10000m

Compatible sensors

- RBR*coda*^{3} T
- RBR*coda*^{3} D
- RBR*coda*^{3} T.D
- RBR*coda* T.ODO
- RBR*coda* Tu
- RBR*coda* chl-*a*
- RBR*quadrante*

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SMALL EXCHANGEABLE LOGGER

COMPACT, ACCURATE, DEPENDABLE

Specifications

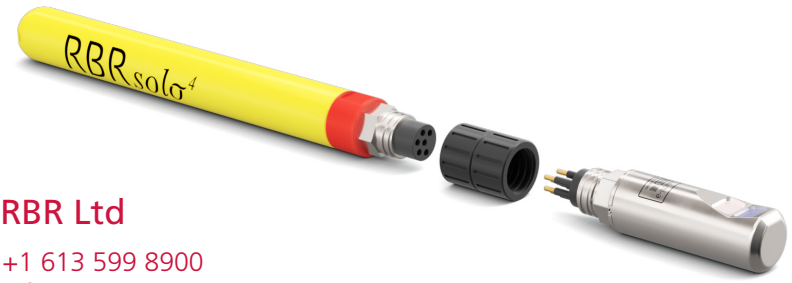
Physical

Configuration	RBR*solo*^{4} x	RBR*duet*^{4} D.x
Storage	Infinite memory*	
Power	Any AA battery	
Communication	USB-C	
Clock drift	±60 seconds per year	
Max depth rating	1700m (plastic) 10000m (Ti)	
Diameter	25.4mm (plastic) 25mm (Ti)	
Length	305mm (pl) 319mm (Ti)	349mm (pl) 358mm (Ti)
Weight in air in water	184g (pl) 410g (Ti) 35g (pl) 255g (Ti)	219g (pl) 520g (Ti) 40g (pl) 340g (Ti)

*Not really, but we stopped counting at billions of samples

Dissolved oxygen

Measurement range	0-1000µmol/L
Calibrated range	0-500µmol/L concentration 0 – 120% saturation 1.5°C to 30°C temperature
Initial accuracy	Max of ±8µmol/L or ±5% |fast Max of ±2µmol/L or ±1.5% standard Max of ±2µmol/L or ±1.5% |slow
Resolution	<1µmol/L (saturation 0.4%) |fast <0.5µmol/L (saturation 0.2%) standard <0.1µmol/L (saturation 0.04%) |slow
Time constant	<1s |fast, <8s standard, or <30s |slow
Sampling rates	24hr to 1Hz
Output Values	Temperature (°C) Dissolved O_2 concentration (µmol/L) Dissolved O_2 concentration (salinity compensated, µmol/L) Dissolved O_2 saturation (%) Dissolved O_2 phase (°)



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Pressure

Range[1] plastic Ti	 20 / 100 /300 /1,000dbar 2,000 / 6,000 / 10,000dbar
Initial accuracy[2]	±0.05% full scale
Resolution	<0.001% full scale
Typical stability	±0.01% full scale / year
Time constant	<10ms

[1]Recommended depth for wave measurements is less than 100m.
[2]±0.01% full scale available is available upon request.

Temperature

Range	-5°C to 35°C
Initial accuracy	±0.002°C
Resolution	<0.00005°C
Typical stability	±0.002°C / year
Time constant	<1s

Chlorophyll-*a*

Wavelength	470nm/695nm (excitation/emission)
Calibrated range*	0-50µg/L
Measurement range*	0-500µg/L
Detection limit	0.020µg/L
Optical	
Linearity, R^2	0.99
Initial accuracy	5%

*Scaled to the fluorescence response from a monoculture of Thalassiosira weissflogii.

Turbidity

Wavelength	880nm
Centroid angle	90°
Linearity, R^2	0.99
Initial accuracy	5%
Calibrated range	0 - 1000FTU
Measurement range	0 - 1500FTU [1]
Detection limit	0.005FTU
Optical backscatter	
Wavelength	880nm
Centroid angle	135°
Linearity, R^2	0.99
Initial accuracy	5%
Calibrated range	1000 - 4000FTU
Measurement range	0 - 20000FTU [2]
Detection limit	2.0FTU

RBR#0020231revA 02/2026