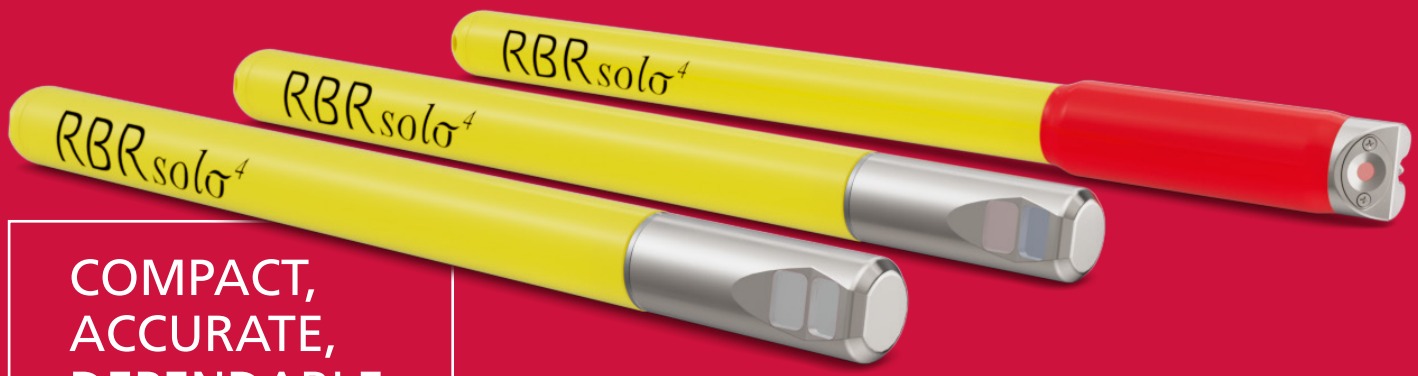
RBR
MEASURE THE BLUE PLANET

rbr-global.com

RBR*solo*^{4}|2x

SINGLE-SENSOR LOGGER



COMPACT, ACCURATE, DEPENDABLE

The RBR*solo*^{4}|2x is a compact, lightweight logger 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, the RBR*solo*^{4}|2x delivers reliable, long-term performance across a wide range of oceanographic applications.

FEATURES

- 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

- RBR*solo*^{4} ODO|2x — dissolved oxygen; depths up to 1700m
- RBR*solo*^{4} Tu|2x — turbidity; depths up to 1700m
- RBR*solo*^{4} chl-*a*|2x — chlorophyll-*a*; depths up to 1700m

Deep variant

- |deep — depths up to 6000m

SMALL SINGLE-SENSOR LOGGER

COMPACT, ACCURATE, DEPENDABLE

Specifications

Physical

Configuration	RBR*solo*^{4} Tu	RBR*solo*^{4} chl-*a*	RBR*solo*^{4} ODO
Storage	Infinite memory*		
Power	Any AA cells, any chemistry		
Communication	USB-C		
Clock drift	±60 seconds per year		
Housing	Plastic (pl) or Titanium (Ti)		
Max depth rating	1700m (pl) 6000m (Ti)		
Diameter	25.4mm (pl) 25mm (Ti)		
Length	329mm (pl) 338mm (Ti)		369mm (pl) 377m (Ti)
Weight in air in water	215g (pl) 440g (Ti) 60g (pl) 270g (Ti)		249g (pl) 510g (Ti) 40g (pl) 310g (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 (°)

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 for the in vivo fluorescence response

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

[1]Response becomes non-linear above 1000FTU.
[2]Response is linear between 500 and 15000 FTU

RBR Ltd

+1 613 599 8900
info@rbr-global.com
rbr-global.com