

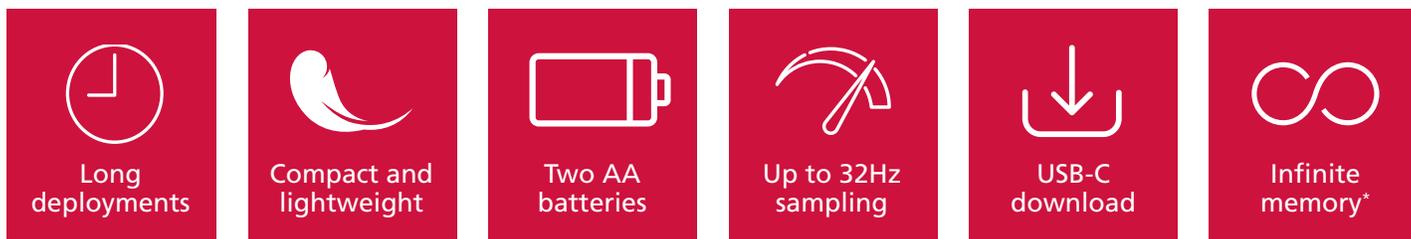
SMALL EXCHANGEABLE LOGGERS



**HIGH PERFORMANCE,
LONG DEPLOYMENTS**

The RBRsolo⁴ x|2x and RBRduet⁴ D.x|2x are compact, lightweight exchangeable loggers designed for high-precision oceanographic measurements in demanding environments. They combine exceptional accuracy and resolution using any standard AA battery chemistry. Engineered for durability in harsh marine conditions, these loggers deliver reliable, long-term performance across a wide range of oceanographic applications.

FEATURES



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

Available configurations

- ▶ |fast32 up to 32Hz continuous sampling
- ▶ |deep depths up to 6000m

Compatible sensors

- ▶ RBRcoda³ T
- ▶ RBRcoda³ D
- ▶ RBRcoda³ T.D
- ▶ RBRcoda T.ODO
- ▶ RBRcoda Tu
- ▶ RBRcoda chl-a
- ▶ RBRquadrante

SMALL EXCHANGEABLE LOGGER

COMPACT, ACCURATE, DEPENDABLE

Specifications

Physical

| Configuration | RBRsolo ⁴ x | RBRduet ⁴ D.x |
|------------------|-------------------------------|--------------------------|
| 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) 10000m (Ti) | |
| Diameter | 25mm (x), 28mm (D.x) | |
| Length | 305mm (pl) 319mm (Ti) | 349mm (pl) 358mm (Ti) |
| Weight in air | 184g (pl) 410g (Ti) | 219g (pl) 520g (Ti) |
| Weight in water | 35g (pl) 255g (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 (°) |

Pressure

| | |
|-------------------|--|
| Range | 20 / 50 / 100 / 200 / 500 / 1000m (plastic) 1000 / 2000 / 6000dbar (Ti) |
| Initial accuracy | ±0.05% full scale |
| Resolution | <0.001% full scale |
| Typical stability | ±0.05% full scale / year |
| Time constant | <10ms |

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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 |

¹Response becomes non-linear above 1000FTU.

²Response becomes non-linear below 500FTU and above 15000FTU.

