

TWO-CHANNEL LOGGER

MEASURE MORE,
DEPLOY LONGER,
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The RBRduo³ instruments can integrate almost any two sensors from RBR, offering high accuracy, flexible schedules, USB-C download, Wi-Fi communication, and twist activation. Variants with pressure, temperature, conductivity, radiometer, PAR, and turbidity sensors are also available in titanium housing for deep applications (I deep), designed to endure harsh conditions.

FEATURES



Available sensors

- ▶ Conductivity (C)
- ▶ Temperature (T)
- ▶ Pressure (D)
- ▶ Dissolved oxygen (DO)
- ▶ Optical dissolved oxygen (ODO)
- ▶ Photosynthetically active radiation (PAR)
- ▶ Radiometer (rad)
- ▶ Turbidity (Tu)
- ▶ Chlorophyll-a (chl-a)
- ▶ Fluorescence (Fl)
- ▶ ORP
- ▶ pH
- ▶ Voltage
- ▶ CO₂

Examples

- ▶ RBRduo³ T.D temperature, pressure
- ▶ RBRduo³ C.T conductivity, temperature
- ▶ RBRduo³ T.ODO temperature, optical dissolved oxygen

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The RBRduo³ instruments facilitate optimal measurement schedules, whether moored, towed, or profiling. Large storage capacity and reliable battery power facilitate long deployments with higher sampling rates. Downloads are quick with USB-C. A dedicated 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®, or text files.

Specifications

Physical

Storage	240M readings
Power ¹	8 AA cells
External power	4.5 to 30V
Communication	USB-C or RS-232/485
Wi-Fi connectivity ²	<750m instruments
Clock drift	±60 seconds/year
Housing	Plastic or titanium
Diameter	63.3mm (plastic), 60.3mm (Ti)
Length	Configuration dependent
Weight	Configuration dependent
Max depth rating	Up to 10000m (configuration dependent)
Sampling rate	2Hz; options up to 32Hz (configuration dependent)

¹ Lithium thionyl chloride batteries are only recommended for the RBRduo³ C.T and RBRduo³ T.D. Use alkaline or lithium iron batteries for all other configurations.

² Option available for titanium up to 2000m.

Options

- ▶ External data and power connection via connectorised end-caps
- ▶ |fast8, |fast16, or |fast32 variants for profiling
- ▶ |tide16, |wave16 variants with wave burst and tidal averaging
- ▶ |deep variants in titanium housing for depths up to 10000m

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Conductivity

Range	0-85mS/cm
Initial accuracy	±0.003mS/cm
Resolution	<0.001mS/cm
Typical stability	±0.010mS/cm per year

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

* A wider temperature range is available upon request. Contact RBR for more information.

Pressure

Range*	Plastic Ti	20 / 50 / 100 / 200 / 500 / 750dbar 1000 / 2000 / 4000 / 6000 / 10000dbar
Initial accuracy		±0.05% full scale
Resolution		<0.001% full scale
Typical stability		±0.05% full scale per year
Time constant		<10ms

* Recommended depth for wave measurements is less than 50m.

