

SINGLE-CHANNEL LOGGER



**MEASURE MORE,
DEPLOY LONGER,
DOWNLOAD FASTER**

The RBR*virtuoso*³ single-channel instruments can integrate almost any sensor from RBR, offering high accuracy, flexible schedules, USB-C download, Wi-Fi communication, and twist activation. Variants with pressure, temperature, radiometer, PAR, and turbidity sensors are also available in titanium housing for deep applications (| deep), designed to endure harsh conditions.

FEATURES

 Wi-Fi ready	 Twist activation	 240M readings	 Up to 32Hz sampling	 USB-C download	 Realtime communications
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The RBR*virtuoso*³ can integrate any one of the following sensors:

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|-------------------|---|---------------------|-------------------|
| ▶ Temperature (T) | ▶ Dissolved oxygen (DO) | ▶ Turbidity (Tu) | ▶ pH |
| ▶ Pressure (D) | ▶ Optical dissolved oxygen (ODO) | ▶ Fluorescence (Fl) | ▶ ORP |
| | ▶ Photosynthetically active radiation (PAR) | ▶ Voltage | ▶ CH ₄ |
| | ▶ Radiometer (rad) | ▶ Transmittance | ▶ CO ₂ |

The RBR*virtuoso*³ 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.

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Specifications

Physical

Storage	240M readings
Power ¹	8 AA cells
External power	4.5 to 30V
Communication	USB-C or RS-232/485
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 RBR*virtuoso*³ T and RBR*virtuoso*³ D. Use alkaline or lithium iron batteries for all other configurations.

Temperature

Range ²	-5°C to 35°C
Initial accuracy	±0.002°
Resolution	<0.00005°C
Typical stability	±0.002°C per year
Time constant	<0.1s fast, <1s standard

² A wider temperature range is available upon request. Contact RBR for more information.

Pressure

Range ³	20/50/100/200/500/750dbar (plastic) 1000/2000/4000/6000/10000dbar (Ti)
Initial accuracy	±0.05% full scale
Resolution	<0.001% full scale
Typical stability	±0.05% full scale per year
Time constant	<10ms

³ Recommended depth for wave measurements is less than 50m.

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Dissolved Oxygen (OxyGuard®)

Range	0 to 600%
Initial accuracy	±2% O ₂ saturation
Resolution	1% of saturation
Response time	~10s, 90% step change at 20°C

Turbidity (Seapoint®)

Time constant	0.1s
Linearity	<2% deviation for 0-1250FTU

Fluorescence (Seapoint®)

Wavelengths	470nm / 685nm (chlorophyll a) 370nm / 440nm (cDOM)
Time constant	0.1s

Options

- ▶ Wi-Fi communication
- ▶ 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

