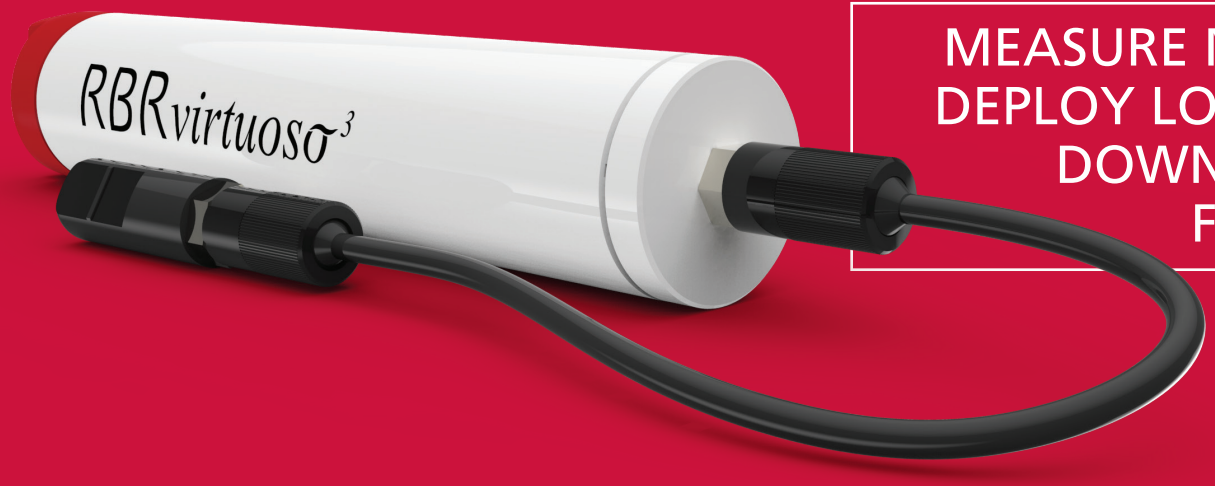
RBR

MEASURE THE BLUE PLANET

rbr-global.com

RBR*virtuoso³*

SINGLE CHANNEL LOGGER



MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

The RBR*virtuoso³* single channel loggers offer flexible measurement schedules, standard sampling up to 2Hz, optionally up to 32Hz, large memory, extra power for extended deployments, twist activation, and USB-C download for large data files.

FEATURES

- Wi-Fi ready
- Twist activation
- Long deployments
- 240M readings
- Up to 32Hz sampling
- USB-C download

The RBR*virtuoso³* is available in the following configurations:

- Temperature
- Depth
- Conductivity
- Tides
- Waves
- Dissolved O_2
- Turbidity
- Fluorescence
- T-string
- pH
- ORP (RedOx)
- PAR

The RBR*virtuoso³* makes it easy to configure the optimum sampling regime for your measurements. The large data storage capacity and fast download ability facilitate long deployments with higher sampling rates.

Almost every sensor from RBR can be interfaced to the RBR*virtuoso³*. Dataset export to Matlab, Excel, OceanDataView®, or text files makes post processing with your own algorithms effortless.

SINGLE CHANNEL LOGGER

MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

Specifications

Physical

Power:	8 AA cells
Storage:	240M readings
Communication:	USB-C or RS-232/485
Clock drift:	±60 seconds/year
Depth rating:	750m (plastic) or 10,000m (Ti)
Housing:	Plastic or titanium
Size:	~340mm x Ø63.3mm / ~ Ø60.3mm (Ti)

Example Sensors

Pressure

Range:	20 / 50 / 100 / 200 / 500 / 750 1000 / 2000 / 4000 / 6000 / 10,000m (dbar)
Initial accuracy:	±0.05% FS (full scale)
Resolution:	<0.001% FS
Typical stability:	0.05% FS
Time constant:	<0.01s

Temperature

Range:	-5°C to 35°C
Initial accuracy:	±0.002°
Resolution:	0.00005°C
Time constant:	~1s (standard) or ~0.1s (option)
Typical stability:	0.002°C per year

Dissolved Oxygen (OxyGuard®)

Range:	0 to 600%
Accuracy:	±2% O_2 saturation (5°C to 25°C)
Resolution:	1% of saturation
Response time:	~10s, 90% step change @ 20°C

Turbidity (Seapoint Sensors)

Light source:	880nm
Time constant:	0.1s
Linearity:	<2% deviation 0-1250 FTU

Fluorescence (Seapoint Sensors)

Excitation:	Various wavelengths
Time constant:	0.1s
Range:	0.02µg/l to 150µg/l

Contact RBR for other sensor options.

Options

- Wi-Fi communication
- |fast8, |fast16 or |fast32Hz sampling for profiling
- External data and power connector with USB, RS-232, or RS-485

RBR Ltd

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

RBR

MEASURE THE BLUE PLANET

rbr-global.com

TWO CHANNEL RECORDER

MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

RBR*duo³* dual channel loggers offer flexible measurement schedules, standard sampling up to 2Hz, optionally up to 32Hz, large memory, extra power for extended deployments, twist activation, and USB-C download for large data files.

FEATURES

- Wi-Fi ready
- Twist activation
- 240M readings
- Up to 32Hz sampling
- USB-C download
- Realtime communications

The RBR*duo³* is a dual channel logger available many configurations. Examples:

- RBR*duo³* T.D — measures temperature and depth
- RBR*duo³* T.DO — measures temperature and dissolved oxygen
- RBR*duo³* C.T — measures conductivity and temperature (salinity)

*For additional information on tide and wave recorders, please see the Tide and Wave data sheet.

Additionally, the RBR*duo³* can be fitted with any two sensors:

- Temperature
- Depth
- Conductivity
- Tide
- Wave
- Dissolved O_2
- Turbidity
- Fluorescence
- T-string
- pH
- ORP (RedOx)
- PAR

RBR
MEASURE THE BLUE PLANET

rbr-global.com

RBR*duo*³

TWO CHANNEL RECORDER

MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

The RBR*duo*³ makes it easy to configure the optimum sampling regime for your measurements. The large data storage capacity and fast download ability facilitate long deployments with higher sampling rates. Almost every sensor from RBR can be interfaced to the RBR*duo*³. Dataset export to Matlab, Excel, OceanDataView®, or text files makes post processing with your own algorithms effortless.

Specifications

Physical

Storage:	240M readings
Power:	8 AA cells
Communication:	USB-C or RS-232/485
Clock drift:	±60 seconds/year
Depth rating:	750m (plastic), 10,000m (titanium)
Housing:	Plastic or titanium
Size:	~340mm x Ø63.25mm without sensors
Weight:	Configuration dependent
Sampling rate:	24hr to 1s and 2, 4, 8, 16, 24, or 32Hz
Averaging rate:	>1s, 2, 4, 8, 16, 24, or 32Hz
Averaging duration:	1s to 24h

Conductivity (up to 6000m)

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

Temperature

Range:	-5°C to 35°C
Initial accuracy:	±0.002°
Resolution:	0.00005°C
Time constant:	~1s (standard), ~0.1s (option)
Typical stability:	0.002°C per year

Depth

Range:	20 / 50 / 100 / 200 / 500 / 750 1000 / 2000 / 4000 / 6000 10,000m (dbar)
Initial accuracy:	±0.05% FS (full scale)
Resolution:	0.001% FS
Time constant:	<0.01s
Typical stability:	0.05% FS

Dissolved Oxygen (OxyGuard®)

Range:	0 to 600%
Accuracy:	±2% O_2 saturation (5°C to 25°C)
Resolution:	1% of saturation
Response time:	~10s, 90% step change @ 20°C

Options

- Wi-Fi communication
- |fast8, |fast16 or |fast32Hz sampling for profiling
- External data and power connector with USB, RS-232, or RS-485

RBR Ltd

95 Hines Road
Ottawa, Ontario
Canada K2K 2M5

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

RBR

MEASURE THE BLUE PLANET

rbr-global.com

RBR*duo*³ / RBR*virtuoso*³

TIDE & WAVE LOGGERS

MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

RBR tide and wave loggers offer flexible measurement schedules, long wave burst samples, expanded memory and power for extended deployments, twist activation, and faster download of large data files.

FEATURES

- Flexible tide averaging
- Low frequency wave detection
- 240M readings
- USB-C download
- Intermittent & continuous burst
- Up to 16Hz sampling

Tide and wave loggers are available in the following configurations:

- RBR*virtuoso*³ D|tide16 — pressure logger with tidal averaging
- RBR*virtuoso*³ D|wave16 — pressure logger with intermittent and continuous wave burst and tidal averaging
- RBR*duo*³ T.D|tide16 — pressure and temperature logger with tidal averaging
- RBR*duo*³ T.D|wave16 — pressure and temperature logger with intermittent and continuous wave burst and tidal averaging

The tide and wave loggers provide the ease and flexibility to establish the best sampling regime for your measurements. Both instruments take averages of the pressure readings over longer periods of time and at rates up to 16Hz to provide accurate tide level readings. The wave logger bursts continuously or intermittently making it easier to measure boat wakes or other infrequent phenomena. The large number of burst samples makes low frequency waves easier to detect, while the fast sampling resolves high frequency waves. Dataset export to Matlab, Excel, OceanDataView®, or text files makes post processing with your own algorithms effortless. The included Ruskin software performs wave analysis, to provide basic information about the wave composition (e.g. wave energy, $H_{1/3}$, $T_{1/3}T_{ave}$ and H_{ave}). Like all RBR products, the RBR wave and tide loggers are designed to be easy to configure.

RBR

MEASURE THE BLUE PLANET

rbr-global.com

RBR*duo*³ / RBR*virtuoso*³

TIDE AND WAVE LOGGERS

MEASURE MORE, DEPLOY LONGER, DOWNLOAD FASTER

- Flexible tide averaging
- Low frequency wave detection
- 240M readings
- USB-C download
- Intermittent and continuous burst ability
- Up to 16Hz sampling

Specifications

Physical

Storage:	240M readings
Power:	8 AA cells
Communication:	USB-C, and RS-232/485
Clock drift:	±60 seconds/year
Size:	~260mm x Ø63.3mm
Weight:	960g in air, 430g in water
Housing:	Plastic

Temperature

Range:	-5˚C to 35˚C
Initial accuracy:	±0.002˚C
Resolution:	0.00005˚C
Time constant:	~1s (standard) or 0.1s (option)
Drift:	~0.002˚C per year

Pressure

Range:	20 / 50 / 200 / 500 / 1000m*
Accuracy:	±0.05% FS (full scale)
Resolution:	0.001% FS
Time constant:	0.01s
Typical stability:	0.1% FS

*Recommended depth for wave measurements less than 50m

Tide

Sampling rate:	24hr to 2Hz (continuous mode) 1, 2, 4, 8, or 16Hz (tide mode)
Averaging duration:	1s to 24h
Sampling period:	1s to 24h

Waves

Sampling rate:	24hr to 1s and 2, 4, 8, or 16Hz (continuous, tide, and wave modes)
Burst (samples):	512 to 32768 (powers of 2)
Burst interval:	1s to 24hr

Options

- Wi-Fi communication
- External data and power connector with USB, RS-232, or RS-485

RBR Ltd

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

RBR#0005578revG 03/2021