CT and CTD Data Loggers

Moored and profiling instruments

The RBR*duo* C.T and the RBR*concerto* C.T.D are unique data loggers dedicated to the determination of salinity. Salinity is calculated by measuring the conductivity and temperature of the water. Equipped with a depth channel, the RBR*concerto* C.T.D can also derive density anomaly and speed of sound. The RBR*duo* C.T and the RBR*concerto* C.T.D are available in configurations that support moored or profiling applications. Both loggers meet WOCE accuracy and resolution standards and are NIST traceable.

Features

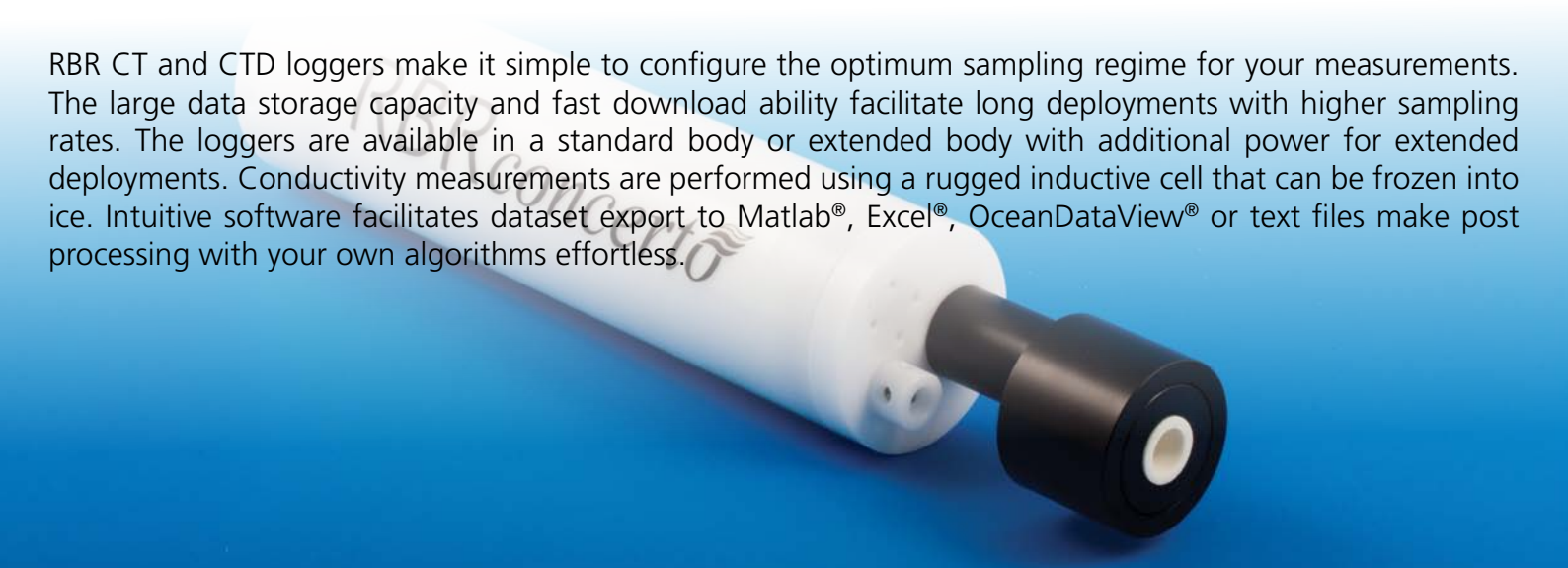
- Rugged
- Compact
- Long deployments
- Fast USB download
- Up to 12Hz sampling
- Up to 120M readings
- NIST traceable calibration



RBR CT and CTD data loggers are available in the following standard configurations:

RBR*duo* C.T	measures conductivity and temperature
RBR*concerto* C.T.D	measures conductivity, temperature and depth
RBR*concerto* C.T.D|fast6	as above with 6Hz sampling and fast sensor response for profiling
RBR*concerto* C.T.D|fast12	as above with 12Hz sampling and fast sensor response for profiling

RBR CT and CTD loggers make it simple 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. The loggers are available in a standard body or extended body with additional power for extended deployments. Conductivity measurements are performed using a rugged inductive cell that can be frozen into ice. Intuitive software facilitates dataset export to Matlab®, Excel®, OceanDataView® or text files make post processing with your own algorithms effortless.



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Specifications

Physical

Power:	8 or 16 3V CR123A cells
Communication:	True USB or RS-232/485
Storage:	~30M readings
Clock accuracy:	± 60 seconds/year
Depth rating:	740m (plastic), 2000m (titanium)
Size:	~355 or 490mm x Ø63.5mm
Weight:	~1000g in air, 450g in water
Sampling period:	1s to 24h (moored)
Fast option:	|fast6 1-6Hz (profiling)
	|fast12 1-6Hz, 12Hz (profiling)
Housing:	Plastic or titanium

Conductivity (up to 2000m)

Range:	0-85mS/cm
Accuracy:	±0.003 mS/cm at 35psu 15°C
Drift(T):	1 µS/cm over 5°C to 25°C
Drift(t):	~1 µS/cm/month
Resolution:	~1 µS/cm (marine)
Cell length:	40 mm
Time constant:	<100ms set by flow through cell

Temperature

Range:	-5°C to 35°C
Accuracy:	±0.002°C
Resolution:	<0.00005°C
Time constant:	~1s (standard) or ~0.1s (option)
Drift:	~0.002°C/year

Pressure (Depth)

Range:	20 / 50 / 100 / 200 / 500 / 740 / 1000 / 2000m (dbar)
Accuracy:	±0.05% full scale
Resolution:	<0.001% full scale
Time Constant:	<0.01s
Drift:	~0.1%/year

Options

- fast sampling for profiling
- Wireless (WiFi) communication
- Twist activation (enable/disable)
- Extended body, 8 additional batteries
- External data and power connector
- Extended memory 60M or 120M readings



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