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 and compact
- Long deployments
- USB 2.0 download
- Up to 12Hz sampling
- Up to 120M readings
- NIST traceable calibration
- Real-time communication options

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

RBR*duo* C.T	moored instrument; measures conductivity and temperature
RBR*concerto* C.T.D	moored instrument; measures conductivity, temperature and depth
RBR*concerto* C.T.D|fast6	6Hz profiling instrument; fast sensor response
RBR*concerto* C.T.D|fast12	12Hz profiling instrument; fast sensor response

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:	USB 2.0 or RS-232/485
Storage:	~30M readings
Clock accuracy:	± 60 seconds per year
Depth rating:	740m (plastic), 6000m (titanium)
Size:	~355 or 490mm x Ø63.25mm
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
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°C
Resolution:	0.00005°C
Time constant:	~1s (standard) or ~0.1s (option)
Typical stability:	0.002°C per year

Pressure (Depth)

Range:	20 / 50 / 100 / 200 / 500 / 740 / 1000 / 2000 /4000 / 6000m (dbar)
Initial accuracy:	±0.05% FS (full scale)
Resolution:	0.001% FS or 0.001 dbar w.i.g.
Typical stability:	0.1% FS per year
Time constant:	<0.01s

Options

- |fast6 or |fast12 Hz sampling for profiling
- WiFi communication
- Twist activation
- Extended body, 8 additional batteries
- External data and power connector
- Extended memory: 60M or 120M readings

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