

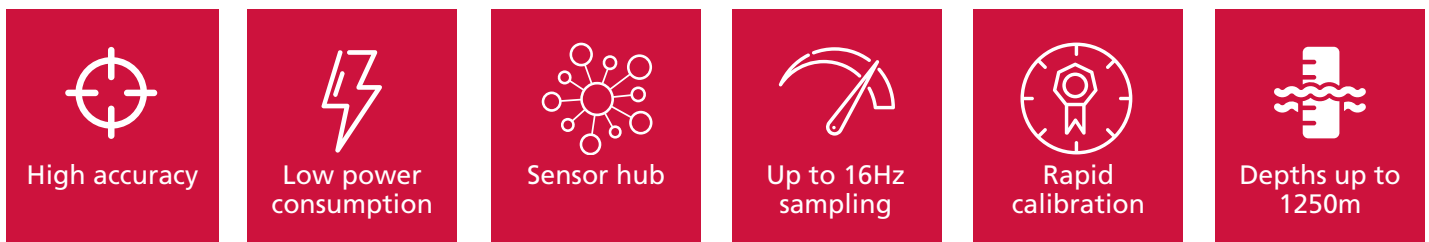
OPTIMIZED FOR GLIDERS & AUVS



SMALL CTD,
BIG POSSIBILITIES

The RBR/legato³ C.T.D offers a new world of measurement opportunities for gliders and AUVs. Integration is designed to be simple and straightforward on any vehicle. Optimized for flow dynamics, no pump is necessary to obtain fine structure measurements. The RBR/legato³ power requirement is 90% lower due to modern electronic design and the lack of moving parts.

FEATURES



The following standard configurations are available:

- ▶ RBR/legato³ C.T.D|fast16 16Hz instrument; fast sensor response, realtime data output
- ▶ RBR/legato³ C.T.D.chl-a.ODO sensor integrated with fluorescence & optical dissolved oxygen sensors

The RBR/legato³ design and low-power operation is optimized for gliders and AUVs. The CTD is used to derive salinity, density, and sound velocity. Totally silent operation is optimized for passive acoustic listening and turbulence measurements. The RBR/legato³ can seamlessly integrate and control your additional sensors. Using the standard RBR building-block system architecture, additional sensors such as dissolved oxygen, fluorescence, turbidity, and PAR are all supported. This sensor-hub design permits efficient system integration for vehicle integrators and users. The RBR/legato³ is designed to fit into a standard 2"x 7" sensor bay, with both wet- and dry-bay models, and is rated to 1250m.

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SMALL CTD, BIG POSSIBILITIES

The RBR/legato³ measures conductivity using a rugged inductive cell that is not affected by surface contaminants or freezing conditions. The CFD-optimised, low aspect ratio conductivity cell is self-flushing and does not require a pump. Using only 45mW when sampling at 2Hz or faster, and 18mJ/sample at 1Hz or slower, the power requirement is 90% lower than traditional pumped CTD sensors. When power management is critical to your mission, the lower power operation permits substantially longer deployments or higher resolution measurements.

Specifications

Physical

Storage:	240M readings
External power:	4.5-30V
Communication:	RS-232/485
Clock drift:	±60 seconds/year
Depth rating:	1250m
Housing:	OSP
Length:	195.8mm
Width:	63.8mm
Height:	Configuration dependent
Weight:	~0.62kg in air (dry bay) ~0.39kg in water (dry bay) ~0.8kg in air (wet bay) ~0.17kg in water (wet bay)
Sampling speed:	Up to 2Hz (16Hz optional)

Depth

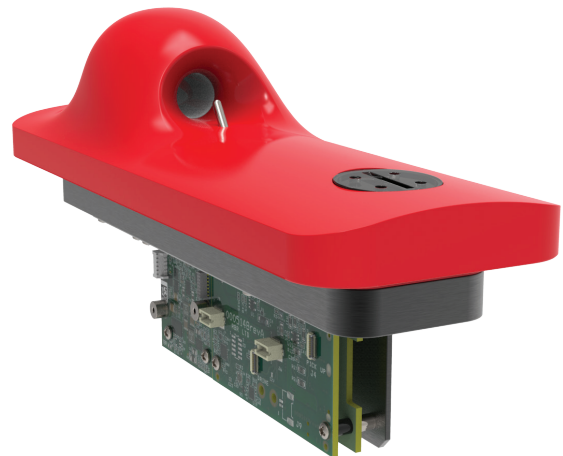
Range:	20 / 50 / 100 / 200 / 500 / 1000 / 1250m (dbar)
Initial accuracy:	±0.05% FS (full scale)
Resolution:	0.001% FS
Time constant:	<0.01s
Typical stability:	0.05% FS

Conductivity (up to 1250m)

Range:	0-90mS/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 42°C
Initial accuracy:	±0.002° (-5 to +35 °C) ±0.004 °C (+35 to +42 °C)
Resolution:	0.00005°C
Time constant:	~1s (standard), ~0.1s (option)
Typical stability:	0.002°C per year



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