

XR-420 CTD



Conductivity, Temperature and Depth Logger

The XR-420 CTD Marine is a small, autonomous data logger designed to monitor conductivity, temperature and depth. High accuracy Speed of Sound and Salinity may be derived from the data.

The normal marine conductivity range of 0 to 70 mS/cm is measured by an inductive cell. RBR uses a three-coil system with a closed loop feedback for superior temperature compensation. The titanium housing provides a depth rating for the cell of 6,600m which can be axial to the logger. It also provides shielding and stable cell geometry. The response time of the inductive cell is better than 0.095 seconds, which, along with a large hole diameter, allows for long-term operation without an additional flow pump.

Features:

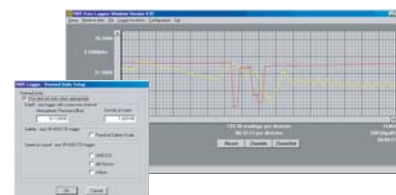
- High Accuracy
- Large Memory
- Low Power
- High-speed Data Download

8MB of nonvolatile flash memory provides sufficient memory for 2,400,000 readings, which can be logged on one set of high-powered 3V lithium batteries. The batteries are common camera batteries (CR123A), which are readily available. Power consumption can vary significantly depending on the sampling rate, and operating temperature. A fresh set of batteries will usually permit collection of a full complement of readings over periods exceeding one year.

For more details, please visit our website: www.rbr-global.com

Software

The XR-420 use fully integrated RBR Windows® software, which is compatible with Windows® 95/98/NT/2000/XP. Please see the "RBR Logger Software" datasheet, or visit the RBR website (www.rbr-global.com) for more information.



Technical

Base Logger

Power:	QTY 4, 3V CR123A cells
Communications:	RS-232/485; logged, cable, or telemetry
Download Speed:	~115,000 samples/minute
Clock Accuracy:	± 32 seconds/year
Size:	400mm x 64mm
Weight (plastic):	1259g (in air); 389g (in water)
Memory:	8Mbyte Flash (2,400,000 samples)
Sample Rate:	1Hz* to 24 hours (programmable)
Calibration:	NIST traceable standards

* see RBR XR-620CTD Profiler for faster sampling rate

Temperature

Range:	-5 °C to 35 °C; extended range to -40 °C
Accuracy:	± 0.002 °C
Resolution:	<0.00005 °C
Time Constant:	depends on probe construction

Conductivity

Range:	0 to 70 mS/cm
Accuracy:	± 0.003 mS/cm
Resolution:	<0.0001 mS/cm
Time Constant:	< 95msec

Depth

Range:	10/25/60/150/250/740/1000/2000/ 3000/4000/6600 m (dBar)
Accuracy:	± 0.05% full scale
Resolution:	<0.001% full scale

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