

Bottom Pressure Logger

Short integration time, high resolution, long deployment

The RBR bottom pressure recorder is a combination of the RBR*duo* two channel logger and the Paroscientific Digiquartz® pressure and temperature transducer. Flexible measurement schedules, short integration times achieving 10ppb resolution and 0.01% accuracy make the bottom pressure recorder ideal for deep or shallow water applications. The RBR*duo* BPR has a large memory capacity, sufficient power for extended deployments, and fast USB download for large data files.

Features

- 30M readings
- High accuracy
- Long deployments
- USB 2.0 download
- Short integration times
- Extremely high resolution



The RBR*duo* BPR uses proven proprietary technology and a Digiquartz® transducer to achieve 10ppb depth resolution with sub-second integration times. The short integration times consume less power during sampling resulting in significantly longer deployments between battery replacements. User selectable integration time for each reading means you can adjust the resolution to your measurement needs.

The RBR*duo* bottom pressure recorder is ideal for applications like tsunami detection, tide gauging, and depth sensing in ROVs and AUVs. Data transmission to a surface buoy can be performed inexpensively and reliably using the RBR MLM-1000 mooring line modem system. Dataset export to Matlab®, Excel®, or text files make post processing with your own algorithms easy.



Bottom Pressure Logger

Low drift, high resolution, long deployment

Specifications

Physical

Power:	16 CR123A 3V cells
Storage:	30M readings
External Power:	12 or 24 VDC (optional)
Communication:	USB 2.0 or RS-232/485
Clock accuracy:	±60 seconds per year
Logger size:	~395mm x Ø60.3mm
Logger weight:	~2.7kg
Sensor size (<1000m):	~230mm x Ø90mm
Sensor size (>1000m):	~250mm x Ø41mm
Sensor weight dry (<1000m):	~1.58kg, 10 to 270m (2.26kg, 700m)
Sensor weight dry (>1000m):	~1.156kg

Temperature

Range:	-2 to 45°C
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Pressure (Depth)

Range:	10 to 7000m (dbar)
Overpressure:	1.2 times rated pressure
Initial accuracy:	±0.01% FS (full scale)
Typical stability:	See Paroscientific specifications
Resolution:	10ppb full scale (1s integration)
Thermal sensitivity:	<0.0008% FS per °C
Hysteresis:	≤±0.01% FS
Repeatability:	≤±0.01% FS

Deployment Estimates

Sampling interval:	2s
Integration time*:	1s
Deployment time:	~25 days
Memory use:	13%
Sampling interval:	15 min
Integration time*:	15s
Deployment time:	~24 months
Memory use:	<1%
Sampling interval:	60min
Integration time*:	60s
Deployment time:	~24 months
Memory use:	<1%
* includes sensor settling time	

