

# BOTTOM PRESSURE LOGGER



10ppb RESOLUTION  
LONG DEPLOYMENT  
AUTONOMY

The RBR bottom pressure recorder is a combination of the RBR*duo*<sup>3</sup> two channel logger and the Paroscientific Digiquartz<sup>®</sup> 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*<sup>3</sup> BPR has a large memory capacity, sufficient power for extended deployments, and USB-C download for large data files.

## FEATURES



The RBR*duo*<sup>3</sup> BPR uses proven proprietary technology and a Digiquartz<sup>®</sup> 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*<sup>3</sup> 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 inductive modem system. Dataset export to Matlab, Excel, OceanDataView<sup>®</sup>, or text files makes post processing with your own algorithms effortless.



## BOTTOM PRESSURE LOGGER

### LOW DRIFT, HIGH RESOLUTION, LONG DEPLOYMENT

#### Specifications

##### Physical

Storage:	240M readings
Power:	8 AA cells
External power:	12 VDC nominal
Communication:	USB-C, or RS-232/485 Ethernet (optional)
Clock drift:	±60 seconds/year
Size:	~558mm x Ø60.3mm
Weight:	~2.7kg
Sensor size (<1000m):	~230mm x Ø90mm
Sensor size (>1000m):	~250mm x Ø41mm
Sensor weight dry (<1000m):	~1.58kg, 270m (2.26kg, 700m)
Sensor weight dry (>1000m):	~1.156kg

##### Temperature

Range:	-2 to 45°C
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##### Depth

Range:	multiple between 10 and 10,000m (dbar)
Initial accuracy:	±0.01% FS (full scale)
Resolution:	10ppb full scale (1s integration)
Typical stability:	See Paroscientific specifications
Overpressure:	1.2 times rated pressure
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%



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