

## DISSOLVED OXYGEN, TURBIDITY, PAR



HIGH PERFORMANCE,  
LONG DEPLOYMENTS

The RBRsolo<sup>3</sup> is a family of RBR's most compact, lightweight, and versatile single-channel instruments, which can integrate a selection of third-party sensors, such as DO, Tu, and PAR. Low power consumption, large memory, and ability to endure harsh conditions make the RBRsolo<sup>3</sup> instruments a perfect choice for many oceanographic applications.

## FEATURES



Long  
deployments



Compact and  
lightweight



One AA  
battery



Up to 32Hz  
sampling



USB-C  
download



Cabled RBRcoda<sup>3</sup>  
variant available

The following configurations are available:

- ▶ RBRsolo<sup>3</sup> DO (OxyGuard®) dissolved oxygen, depths up to 1700m
- ▶ RBRsolo<sup>3</sup> Tu (Seapoint®) turbidity, depths up to 1700m
- ▶ RBRsolo<sup>3</sup> PAR (LI-COR®) photosynthetically active radiation, depths up to 560m (cosine) / 350m (spherical)

The RBRsolo<sup>3</sup> instruments with DO, Tu, and PAR sensors facilitate optimal measurement schedules, whether moored, towed, or profiling. Large storage capacity and reliable battery power facilitate long deployments with higher sampling rates. Downloads are quick with USB-C. A dedicated holder makes it simple to replace desiccant before each deployment. The calibration coefficients are stored with the instrument, and only one software tool, Ruskin, is required to operate it. Datasets can be read directly in Matlab, or exported to Excel, OceanDataView®, or text files.

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### HIGH PERFORMANCE, LONG DEPLOYMENTS

#### Specifications

##### Physical

Configuration	RBRsolo <sup>3</sup> Tu	RBRsolo <sup>3</sup> PAR	RBRsolo <sup>3</sup> DO
Storage	240 thousand	130 million	
Power	One AA battery (alkaline or lithium iron)		
Communication	USB-C		
Clock drift	±60 seconds per year		
Diameter	~25mm		
Length	~330mm	~260mm, cable 0.6m	~250mm
Weight (air)	~220g	~420g (cosine) ~200g (spherical)	~150g
Weight (water)	~70g	~200g (cosine) ~60g (spherical)	~30g
Max depth rating	1700m	560m (cosine) 350m (spherical)	1700m

##### RBRsolo<sup>3</sup> Tu

Time constant	<0.1s
Linearity	<2% deviation for 0-1250FTU range
Sampling rate	10s to 24h

##### RBRsolo<sup>3</sup> PAR

Wavelength range	400 to 700nm
Calibrated range	0-10000µmol/m <sup>2</sup> /s
Initial accuracy	±2%
Sampling rate	1s to 24h and 2Hz 2, 4, 8, 16, or 32Hz ( fast)

##### RBRsolo<sup>3</sup> DO

Range	0 to 600%
Initial accuracy	±2% O <sub>2</sub> saturation
Resolution	1% of saturation
Response time	~10s, 90% step change at 20°C
Sampling rate	1s to 24h and 2Hz 2, 4, 8, 16, or 32Hz ( fast)

##### Realtime variants

Cabled realtime variants for the RBRsolo<sup>3</sup> DO and PAR are available as the RBRcoda<sup>3</sup>.

##### Deep variant

Explore up to 6000m deep with RBRsolo<sup>3</sup> Tu|deep.



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