Portable optical DO meter

ARO-PR



An easier and faster alternative to Winker method





ARO-PR Portable optical DO meter

Description

The Portable optical DO meter makes use of the fast-response optical DO sensor RINKO, maintaining its high-speed response performance (99% response < 7sec at 25°C). The meter probe is equipped with a temperature sensor close to the sensing foil, and the measurements are made by simply inserting the probe into a BOD (Biological Oxygen Demand) bottle (the calibration is carried out using the National Metrology Institute of Japan (NMIJ) certified traceable gases standards). Differently from galvanic electrode sensors, the instrument does not require water sample stirring or fixing reagents, since there is no oxygen consumption. Thus, the required time to estimate dissolved oxygen is considerably reduced. The display unit shows the output instantaneously, and you can check the measured values in real time.

* This instrument was developed in collaboration with the Japanese Agency for Marine-Earth Science and Technology (JAMSTEC).

Sensor specifications

Parameter	DO	Temperature
	0 to 20mg L ⁻¹	
Range	0 to 625µmol L ⁻¹	-3 to 45°C
	(0 to 200% of saturation)	
Repeatability	±0.1%FS	±0.002°C
99% of response*	7 s	2 s
Initial accuracy	$\pm 1\%$ RD or $\pm 1.5\mu$ mol L ⁻¹	±0.01°C
	(0 to 500 µmol L ⁻¹ , 3 to 30°C)	(0 to 35°C)
Dimensions	Φ13mm×158mm (metal part)	
Cable length	1m	
Pressure resistance	suitable for IPX7 (for 30 minutes)	
*Value measured by the instrument prototype		

Instrument specifications

Memory capacity	512MB	
Battery	Rechargeable lithium battery/1,700mAh	
Continuous usage	9 h	
Communication	USB (Ver2.0 and Ver1.1)	
Water resistance	suitable for IPX5	
Weight	580g battery included (battery: 95g±10g)	

■ Drawing



vimensions are in mm.



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Response time



Time [sec]



* All specifications on this leaflet are subject to change without notice.