

OCEAN MOORED PROFILER AQUALOG



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<http://aqualog.ocean.ru>

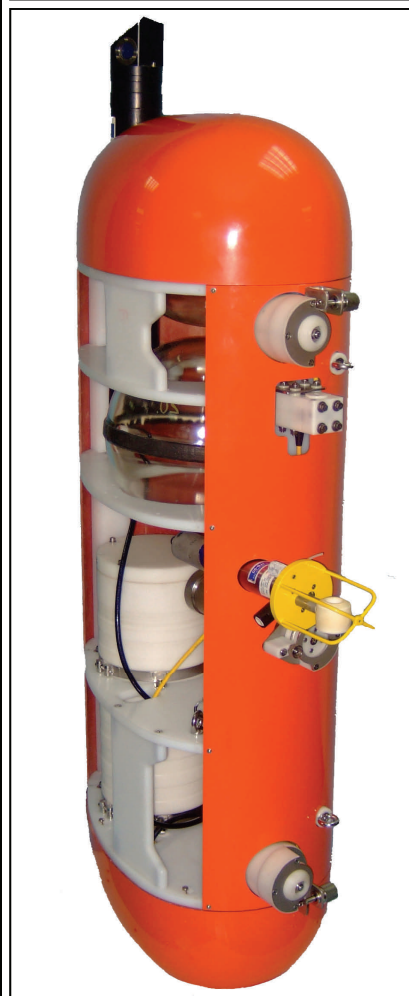
Multisensor platform for autonomous vertical profiling in the ocean

Applications	Capabilities
Operational oceanography	Data and telemetry information exchange in real time
Global change research	The long time series of vertical profiles of the key parameters
Environmental monitoring	Assessment of both differential and integral characteristics of the ocean
Polar oceanography	Measurement under the seasonal ice cover

Advantages of Aqualog:

- **minimizing** the risk of loss of equipment by using conventional deployment approach for a mooring system,
- **optimizing** cost by using a single set of sensors instead of multiple sensors at fixed depths as in traditional mooring,
- **advancing** adaptive sampling by allowing a user to install modern self-contained probes as plug-and-play devices.

Profiling	
- speed	0.1-0.3 m/s
- depth range	5-1000 m
- total profiling distance ¹	800 km
Maximum current velocity	1 m/s
Buoyancy up to	±10 N, (±1 N recommended)
Battery pack	
- lithium D-size batteries	36 pcs 168 Ahr
- alkaline D-size batteries	36 pcs 60 Ahr
Voltage	9 – 13.5 VDC
Turning on/off	By magnetic switch or as preprogrammed
Indication of the status	LED on the cowling
Custom measurements	Pressure, salinity, temperature, current velocity vector ² , dissolved oxygen, inclination, heading, acoustic scattering strength
Vertical resolution³	
- pressure, salinity, temperature	0.05-0.15 m
- velocity	0.6-1.8 m
- dissolved oxygen	0.8-2.4 m
Measurement accuracy	
- pressure	0.04% of the range
- temperature	0.002 °C
- salinity	0.002 psu
- velocity	1% of measured val. ± 0.5 cm/s
- oxygen	< 8 µM or 5%
Optional sensors	Turbidimeter, fluorimeter
Dimensions	1.2 x 0.35 x 0.55 m
Weight in air (without sensors)	62 kg
¹ With lithium battery pack, in still waters	
² Measurement cell distance off sensor head ~0.35–1.85 m	
³ Depends on the profiling speed	



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