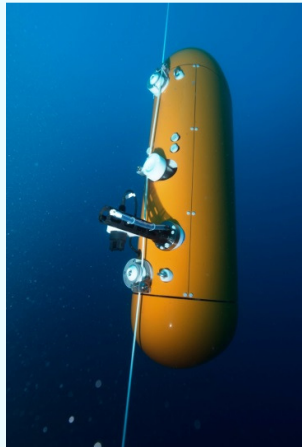


SPECIFICATIONS

MOORED PROFILING CARRIER AQUALOG

Profiling	Multisensor platform for autonomous vertical profiling in the ocean		
	Speed	0.1-0.3 m/s	
Environmental	Total profiling distance ¹	800 km	
	Depth range	5-800 m	
Buoyancy	Ocean current up to	0.8 m/s	
	Maximum	±5 N	
Battery pack	Recommended	±1 N	
		<u>Standard housing</u>	<u>Extended housing</u>
Usability	Alkaline D-size batteries	60 pcs 960 Wh	72 pcs 1050 Wh
	Lithium D-size batteries ²	60 pcs 2760 Wh	72 pcs 3310 Wh
	Voltage	8.5 – 13.5 VDC	
	Peak pulse electric current	6 A	
Typical measurements	Current at sleeping mode	0.1 mA	
	Turning on/off	By magnetic switch or as preprogrammed	
Typical measurements	Indication of the status	LED on the cowling	
	Programming	GUI for MS Windows XP, Vista, 7	
Typical measurements	Parameters	Pressure, salinity, temperature, ocean current speed and direction ³ , inclination, heading, acoustic backscattering strength	
	Vertical resolution ⁴		
Typical measurements	- pressure, salinity, temperature	0.05-0.15 m	
	- velocity	0.6-1.8 m	
Typical measurements	- acoustic backscatter	0.6-1.8 m	
	Accuracy		
Typical measurements	- pressure	0.04% of the range	
	- temperature	0.002 °C	
Typical measurements	- salinity	0.002 psu	
	- velocity	1% of measured val. ± 0.5 cm/s	
Typical measurements	- acoustic backscatter	0.45 dB	



David Luquet. Laboratoire d'Océanographie de Villefranche

SPECIFICATIONS

MOORED PROFILING CARRIER AQUALOG

Oceanographic sensors and probes integrated at the profiler

Salinity, temperature and depth:

TRDI Citadel CTD ES SBE 19plus CTD
RBR XR-620 CTD SBE 49 CTD
Idronaut Ocean Seven 316plus CTD SBE 52 MP CTD

Dissolved oxygen:

AANDERAA fast oxygen optode 4330F
SBE 43F sensor (with SBE 52 MP CTD or SBE 19plus CTD)
Idronaut Dissolved Oxygen Sensor (with Ocean Seven 316plus CTD)

Acidification and redox:

SBE 27 pH/Redox sensor
Idronaut pH sensor (with Ocean Seven 316plus CTD)
Idronaut ORP sensor (with Ocean Seven 316plus CTD)
Satlantic SeaFET pH sensor

Fluorescence and turbidity:

Seapoint Turbidity Meter & Fluorometers (Chlorophyll, Fluorescein, Rhodamine, UV)
Wet Lab FLBBCD Triplet for chlorophyll, backscatter, CDOM
Turner SCUFA fluorometer

Ocean current and acoustic backscatter:

Nortek Aquadopp current meter
TRDI Doppler Volume Sampler
AQUAScat1000 acoustic backscatter meter

Biochemistry:

Satlantic SUNA Deep Wiper nitrate sensor
SubChem APNA inorganic nitrate, phosphate, silicate, Fe(II) probe

Commu-
nication

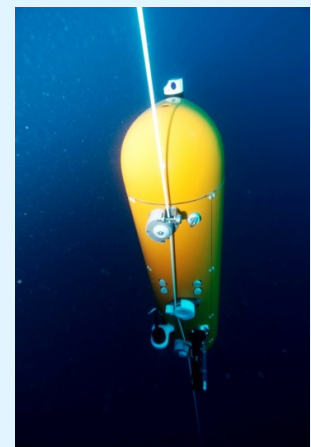
SBE IMM inductive modem with cable coupler for the plastic coated steel wire
Benthos ATM 885 acoustic modem
Evologics S2CR acoustic modem

Dimen-
sions

Dimensions⁵ 1.4 x 0.35 x 0.65 m
Weight in air (no sensors)⁵ Approx. 69 kg

- ¹ Without certain sensors consuming higher battery power; with extended pack of lithium batteries; in still waters
- ² Optional
- ³ Measurement cell distance off sensor head ~0.35–1.85 m
- ⁴ Depends on the profiling speed and types of the sensors
- ⁵ Subject to change without notice

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