


# SPECIFICATIONS

# MOORED PROFILING CARRIER AQUALOG

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

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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

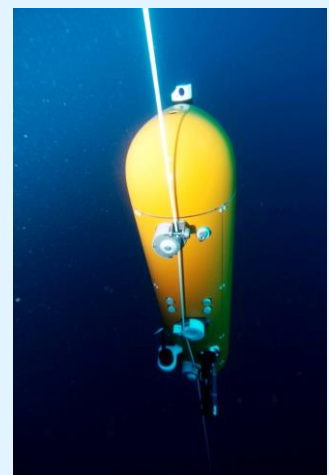
SBE IMM inductive modem with cable coupler for the plastic coated steel wire  
 Benthos ATM 885 acoustic modem  
 Evologics S2CR acoustic modem

Dimen-  
sions

Dimensions <sup>5</sup>	1.4 x 0.35 x 0.65 m
Weight in air (no sensors) <sup>5</sup>	Approx. 69 kg

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

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