



## Wave Guardian D1000SMN

The D1000 is a composite construction with high production rates offering:

- Lightweight and high resistance;
- Large battery & payload section;
- Excellent buoyancy & stability;
- Easy to deployment & service;
- Excellent corrosion resistance

No painting, ever.

Cost effective & environmentally friendly.

Customization to better suit your needs.



### Highlighted features:

- Light weight
- Easy handling
- High Durability
- Customizable
- Low maintenance
- I.A.L.A. compliant
- Impact resistant

The Wave Guardian D1000SMN is a mini-oceanographic device for offshore monitoring, and can be adapted to perform water quality monitoring. Readings can be taken either dependent or independently and the probe will function correctly in fresh, salt or brackish water.

The robust D1000SMN is fully built in composite, withstanding impacts, solar exposure, salt water and corrosion exemplary. Each section is laminated using UV-stabilized, isophthalic polyester resin reinforced with Kevlar\* and glass fibers in order to obtain maximum durability, crash resistance and water impermeability. With thicknesses ranging from 5 up to 7mm this structure is rigid durable and reliable.

D1000 can be upgraded with up to 32 sensors, including ADCP, CTD, dissolved oxygen sensors, temperature, pH, etc.

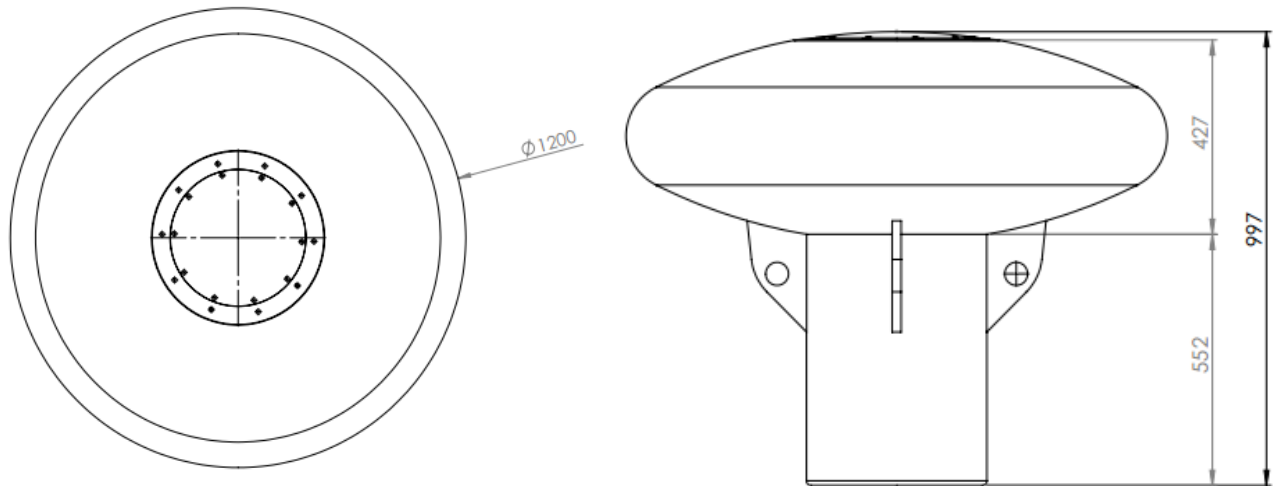
Simplified modular structure and electronics allow for easy upgradability and maintenance. From low cost energy efficient sensors to high precision devices can be installed to meet specific client needs.

The WG can generate alerts and send them to mobile devices via Wi-Fi or Bluetooth. For monitoring of several devices we can use a radio frequency transmitter to connect large numbers of devices to 1 central server. This allows for a real time monitoring of dissolved oxygen, salinity, water level, temperature, pressure, position or live video.

The fully composite structure assures a rust free, low maintenance lifespan. No part of the structure requires painting at any stage of the product's life span. D1000 can be supplied in all I.A.L.A. colors.

\*optional

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#### General Characteristics

Available Colors	Yellow, Red and Green as per I.A.L.A. recommendations
Focal Plane Height (mm/in)	340/13,4
Total Float Volume (L/gal)	410/108
Nominal Freeboard (mm/in)	337,0/13,3
Freeboard, Minimum (mm/in)	100,00/9,94
Draft, Maximum (mm/in)	660/26
Nominal Draft (mm/in)	1325,0/52,2
Reserve Buoyancy (Kg/lb)	352/776
Visual Area (m <sup>2</sup> /ft <sup>2</sup> )	0,47/5,06
Water Area (m <sup>2</sup> /ft <sup>2</sup> )	1,0/10,8
Ballast (Kg/lb)	44/97
Maximum Mooring Load (Kg/lb)	176/388
Safe Working Load, 1point (Kg/lb)	1000/2205
Safe Working Load, 2points (Kg/lb)	2000/4410
Submergence (Kg.cm <sup>3</sup> /lb.in <sup>3</sup> )	0,27/0,60

#### Physical Characteristics

Material	Isophthalic NPG Polyester resin reinforced with Kevlar and glass fiber; 316-grade SS fixtures
Wall Thickness (mm/in)	7/0,28
Height (mm/in)	1000/39
With (mm/in)	1200/47
Mass (Kg/lb)	109/240
Product Life Expectancy	>20 years
Certifications I.A.L.A.	Surface colors compliant to I.A.L.A. E-108
Intellectual Property Trademarks	Marker Guardian is a registered trademark of Composite Solutions, Lda.
Quality Assurance	ISO9001:2008
Warranty	1 year
Standard Equipment	Data logger with Bluetooth connectivity with upgradability up to 32 sensors 32Gb of data storage LCD display Adjustable measuring time intervals
Optional Equipment	Dissolved Oxygen Kit Electrical conductivity, temperature & depth sensor Kit GPS Temperature, humidity, wind & pressure Kit Surveillance camera/motion sensor Kit Solar Panels Upgraded battery capacity Status light Wi-Fi, VHF, Iridium, RF, GPRS, 3G & 4G

