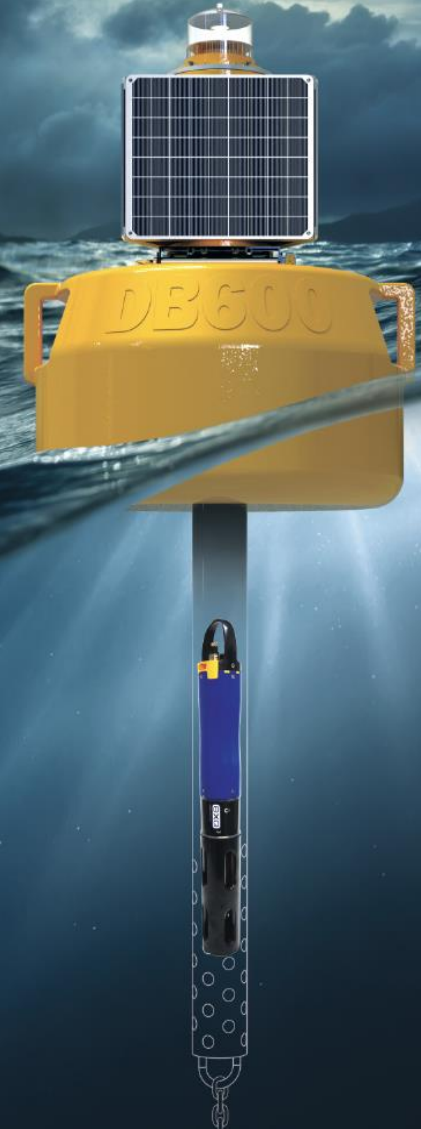




Real-time data buoys

Selection overview



Leaders in water quality & flow measurements



Water quality monitoring

Handheld instruments and Sondes are used to collect water quality data across the globe.



Water movement - Currents, waves, flow

Measure the movement of water in streams, rivers, lakes, and even the depths of the ocean.



Complete solutions

Every monitoring site is unique.



Our team of environmental experts creates tailored monitoring solutions to solve customers' greatest challenges.

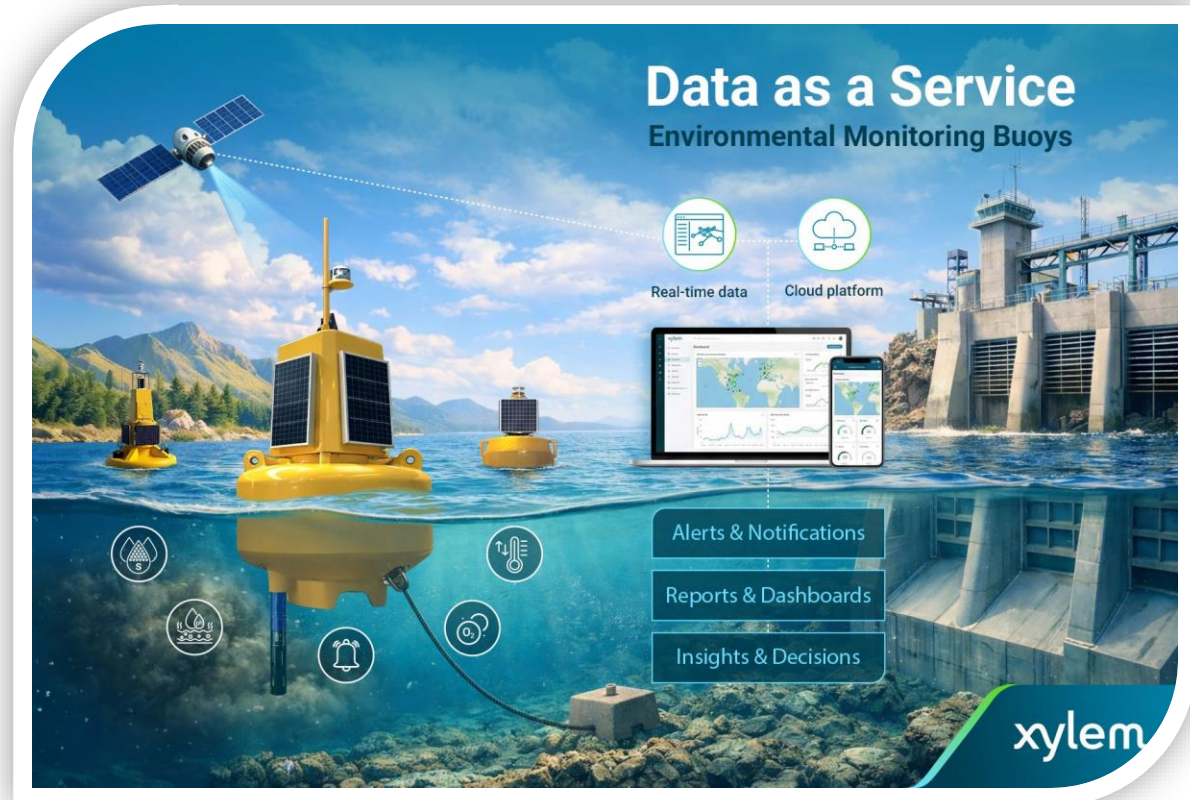
In the past 10 years, we've helped thousands of clients with projects ranging from **single installations to custom system sites.**

Data as a Service.



We offer **buoy leasing and rental** as part of our **Data-as-a-Service (DaaS)** model.

Clients pay for outcomes and insights, with expert-collected environmental data delivered where needed — **no equipment purchase required.**



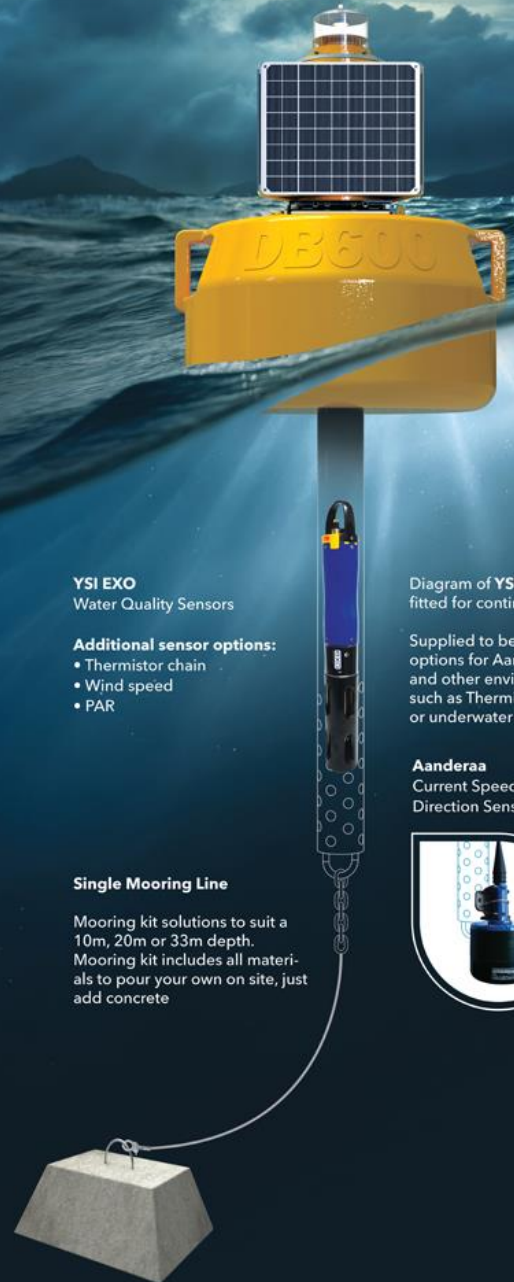
Real-Time Data Buoys

For surface water and open water applications

DB600

- Wireless Cellular & Satellite Communications Options
- Solar Power Supply
- Navigation Lantern

Allow to 33m



YSI EXO
Water Quality Sensors

Additional sensor options:

- Thermistor chain
- Wind speed
- PAR

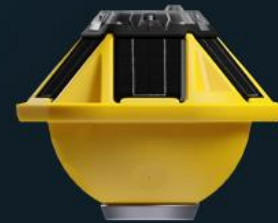
Single Mooring Line

Mooring kit solutions to suit a 10m, 20m or 33m depth. Mooring kit includes all materials to pour your own on site, just add concrete

Diagram of **YSI DB600** data buoy fitted for continuous monitoring.

Supplied to be EXO ready with options for Aanderaa DCS, DCPS, and other environmental sensors such as Thermistors, wind sensors or underwater PAR

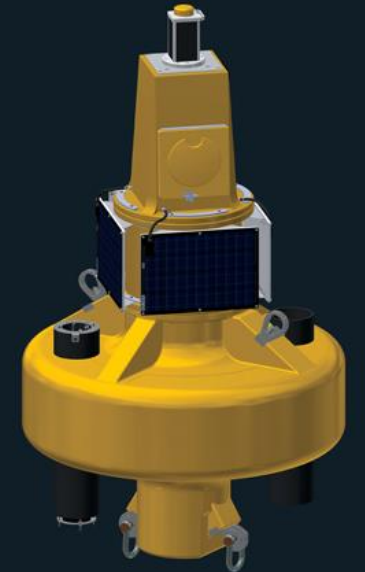
Aanderaa
Current Speed and Direction Sensor



Sofar Spotter



DB1300



DB1750

Data buoy comparison



Parameter	Sofar Spotter	DB600	DB1300	DB1750
Diameter	420mm	600mm	1300mm	1750mm
System Weight	7.45kg	21kg	545kg	650kg
Buoyancy / Net Buoyancy	10/15kg	85kg / 65kg	1085kg / 540kg	1656kg / 1006kg
Min / Max Operation Depth	5m / 300m	1.3m / 35m	2m / 50m	4m / 100m
Max Current Speed	4.86kts	1.5kts	6kts	6kts
Max Additional Payload	Variable based on mooring	15kg	150kg	250kg
Realtime Data	Yes	Yes	Yes	Yes
MET Capability	No	No	Yes	Yes
Current ADCP	compatible	Single point compatible	Profiler and single point compatible	Profiler and single point compatible
Motus Wave	No	No	Yes	Yes
EXO Water Quality Sonde	Yes	Yes	Yes	Yes
Vertical Profiling System	No	No	Yes	No
Third Party Sensor Integration	Yes	Yes (limited number available)	Yes	Yes
IALA standard	Yes - Yellow	Yes - Yellow	Yes - Yellow	Yes - Yellow
Mooring Equipment	Light, single point	Light, Single or Dual	Medium, Single or Dual	Heavy, Single or Dual

Sofar Spotter platform

Real-time ocean data, simplified





Why choose the Sofar Spotter platform?

A flexible metocean buoy that delivers real-time wave, wind, temperature, and barometric pressure data to researchers, operators, and innovators.

Connected



Access real-time satellite and cellular data via the Spotter Dashboard and API. Two-way cloud communication enables remote diagnostics and firmware updates.

Scalable



Lower total cost of ownership than traditional platforms. Scalable deployment maximizes spatial coverage of observational networks.

Rapidly Deployable



Easy to deploy by hand without prior experience. Rugged design has enabled thousands of successful deployments from all vessel types.

Extremely Durable

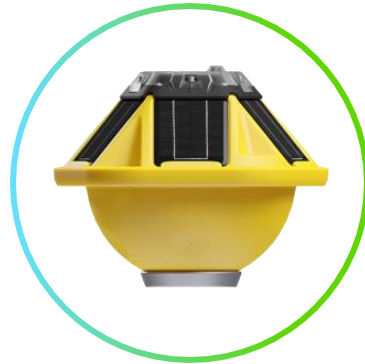


Engineered by ocean scientists for durability in all marine conditions—from ice to tropics. Solar-rechargeable for continuous autonomous operation.

Sofar Spotter Specifications

Specifications

- **Dimensions:**
Width: 420 mm, Height: 310 mm
- **Weight:**
7.45 kg



Monitoring & control standard config

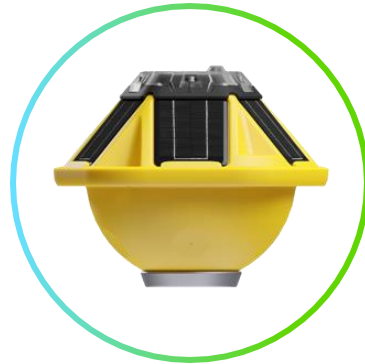
- **Connectivity:**
Satellite (Iridium SBD) and Cellular
- **Primary Power Source:**
Solar-powered, 5× 2 Watt,
6 Volt solar panels
- **Battery:**
Rechargeable lithium-ion 13,400 mAh
capacity, 3.7 Volts



Sofar Spotter Applications

Applications

- Coastal hazard warning
- Offshore wind & tidal site surveys
- Port & channel operations
- Environmental impact studies
- Aquaculture monitoring
- Research institutes
- Marine current profiling
- Underwater acoustic monitoring



Beaufort scale

- Operational sea state (free floating) = **3-5**
- Operational sea state (moored mode) = **5-6**
- Survivability sea state = **8-9 or above**
- Min. operations depth = **5m**
- Max. operational depth = **300m**



What's in the box?

Package includes:

- Sofar Spotter platform
- Smart Mooring - sensor ready
- Current meter (optional - Aanderaa DCS)
- Pressure sensor (optional)
- Water quality sensor (optional - YSI EXO)
- Temperature sensor (optional)
- Sound (optional)



Spotter Mooring Package

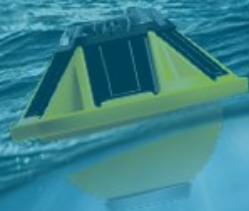
Package Includes:

- Cost-effective
- Rapid onsite assembly
- Single person deployable
- Full instructions and guidance are provided in the [Spotter manual](#)



Sofar Spotter

Available product resources online



Web Product Pages

- [Xylem Sofar Spotter™](#)
- [YSI EXO Platform](#)
- [Aanderaa DCPS](#)
- [Aanderaa DCS](#)

Product Documents

- [Xylem Sofar Spotter™ data sheet](#)

Case Studies

- [Real-time wave, wind, and temperature data for scalable, long-term ocean monitoring](#)



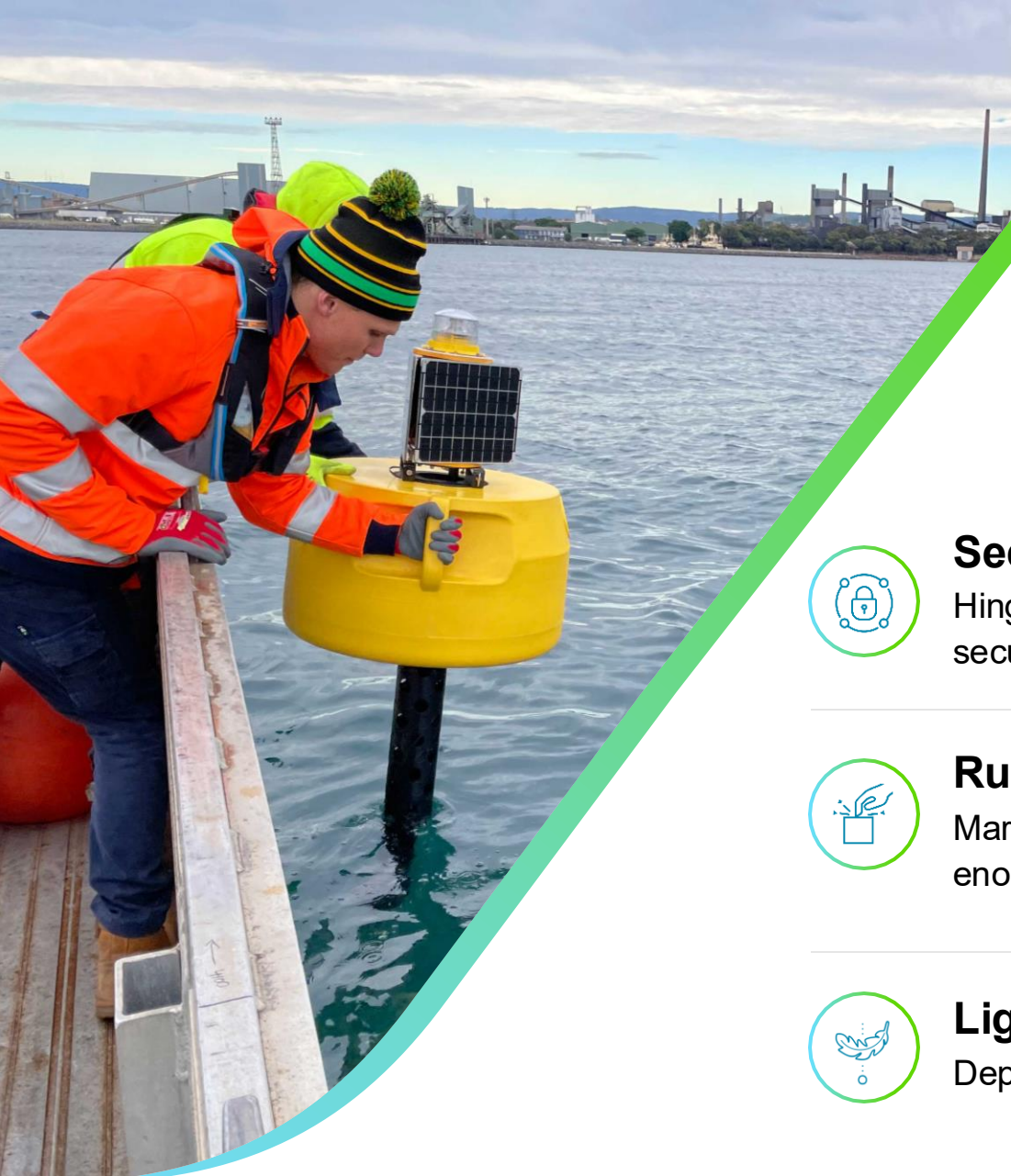
Contact Us
for more information
Info.em@xylem.com

YSI DB600

Real-time data buoy

Plug-n play data buoy for remote monitoring





Why choose the DB600?

Deploying a high-quality data buoy has never been easier or more affordable



Security
Hinged lockable deployment tube secures sensor against loss



Data in the cloud
Ideal for use with YSI HydroSphere, Eagleio and other cloud platforms



Rugged
Marine-grade materials tough enough for long-term deployments



Plug and play
Plug-and-play compatibility with industry-leading sensors:

- YSI EXO Water Quality Sonde
- Aanderaa – Current Speed/Direction Sensor (DCS)
- Additional third-party sensors



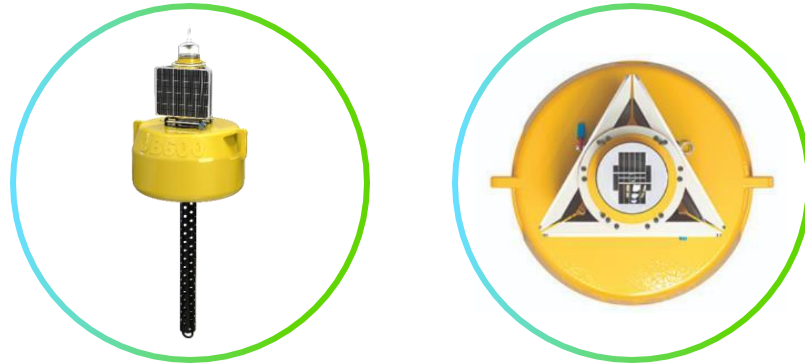
Lightweight
Deployable by one person

DB600 Applications

Applications

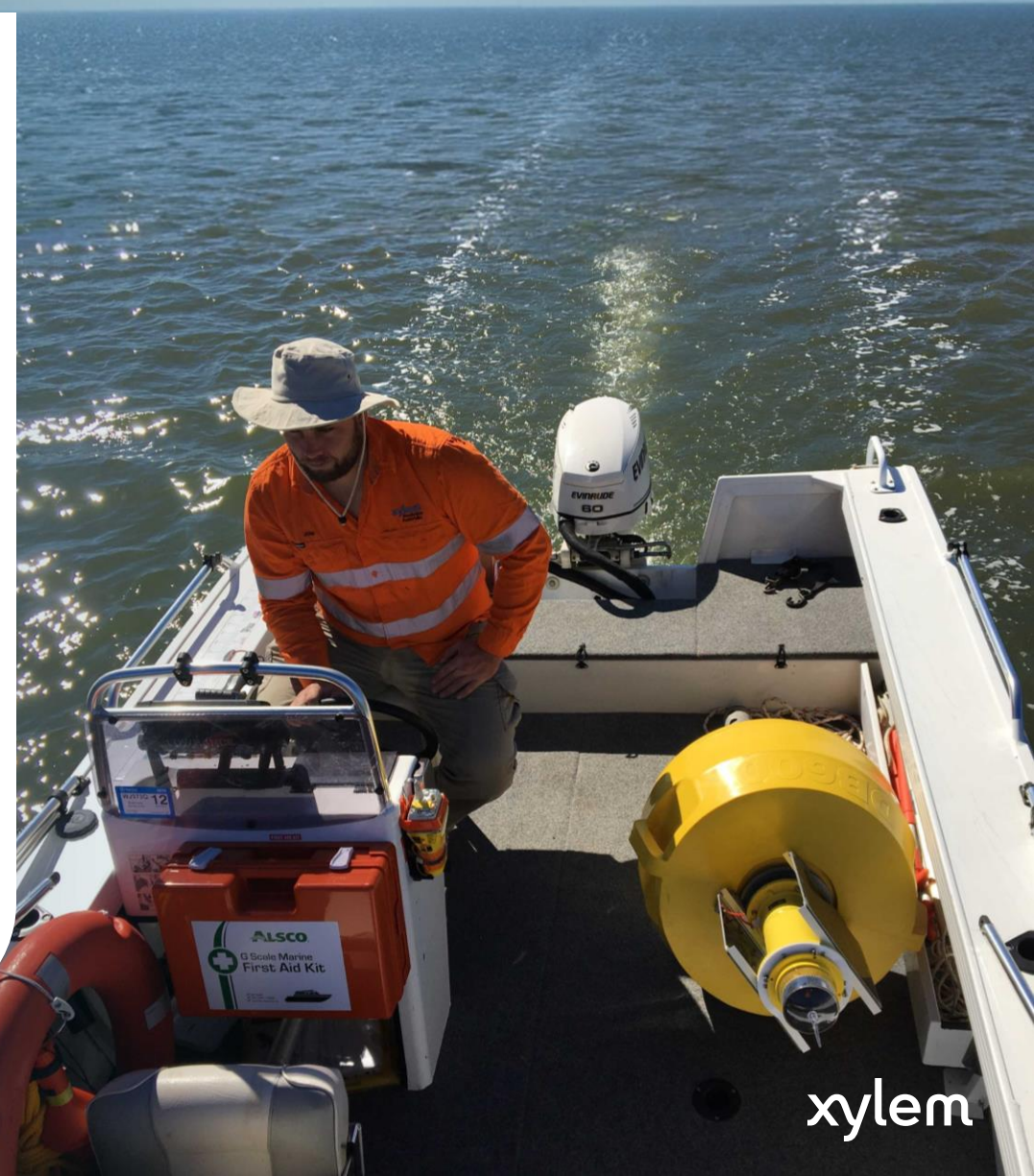
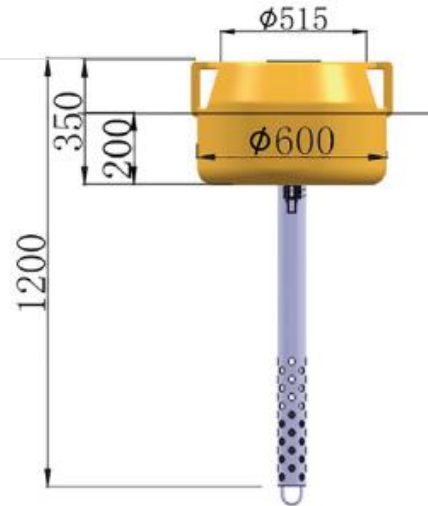
Suited for low-energy environments

- Protected bays
- Estuaries/ivers
- Lakes/Dams
- Ponds



Beaufort scale

- Operational sea state = 4
- Survivability sea state = 6
- Min. operations depth = 1.3m
- Max. operational depth = 35m



DB600 Specifications

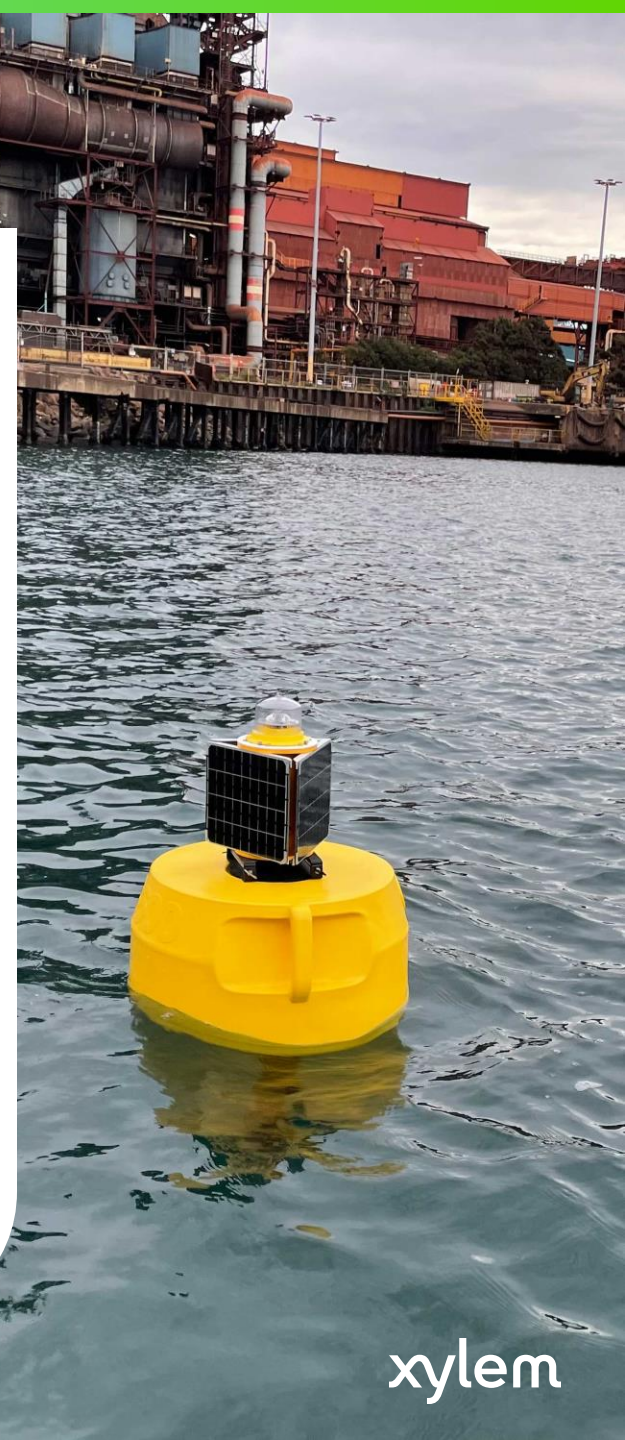
Specifications

- **Diameter:** 600 mm
- **Material:**
Polyethylene float & lockable SS316 deployment tube
- **Weight:**
21 kg (including sonde tube)
- **Freeboard:**
200 mm at maximum weight



Monitoring & control standard configurations

- **RTU:** Tightly integrated Campbell Scientific data logger
- **Connection:** Plug-and-play, depending on sensor selections at the time of purchase
- **Sensor Inputs:** Analog and digital
- **Communications:**
3G/4G or Iridium SBD Satellite
- **Solar Array:**
3 x 9W solar panels (27W total)
- **Battery:** 7Ah Lithium battery
- **Waterproof:** IP67



What's in the box?

Modular – Arrives partially assembled

Package includes:

- DB600 buoy
- Ai1 logging and communication system
- Solar power system
- Stainless steel sensor deployment tube
- Ballast chain
- EXO sensor cable
- Navigation beacon
- GPS for position tracking



*Designed for
easy final assembly!*



DB600 Mooring Package

Package Includes:

- Cost-effective
- Supplied or easily sourced from local suppliers
- Single or Two-point mooring option
- Full instructions and guidance provided in the [DB600 quick start guide](#)



YSI DB600

Available product resources online



Contact Us
for more information
Info.em@xylem.com

Web Product Pages

- [YSI DB600 Data Buoy](#)
- [Xylem Real-Time Data Buoys](#)
- [YSI EXO Platform](#)
- [Aanderaa DCS](#)

Product Documents

- [DB600 Specification Sheet](#)
- [DB600 Product Assembly Diagram](#)
- [DB600 Quick Start Guide](#)
- [DB600 Powerpoint Presentation](#)

Case Studies

- [DB600 and YSI EXO2 for water quality monitoring for seaweed farming in Indonesia](#)
- [Automated pumping of constructed canal based on water quality](#)
- [Online real time water quality monitoring at Bendara, St. John's Island, Singapore with YSI DB600 and EXO3](#)

YSI DB1300

Vertical profiling system

Multi-purpose inland & coastal buoy



Why choose the DB1300?

A high-quality data buoy for high-energy coastal environments has never been easier, or more affordable



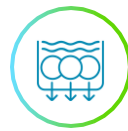
Security

Hinged lockable deployment tube secures sensor against tampering



Rugged

Marine-grade materials tough enough for long-term deployments



Triple moon pools

Triple moon pool for multiple instrument deployment and vertical water quality profiling system



Data in the cloud

Ideal for use with YSI HydroSphere, EagleIO and other cloud platforms



Plug and play

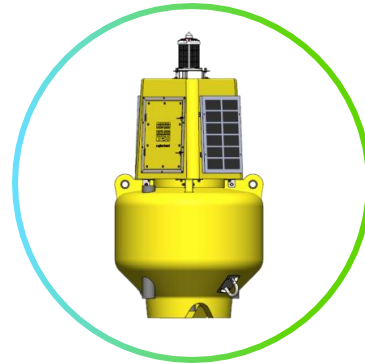
- Plug-and-play compatibility with industry-leading sensors: EXO Water Quality Sonde
- Aanderaa - Current Speed/Direction Sensors
- MET (weather) sensor and many other third-party sensors

DB1300 Applications

Applications

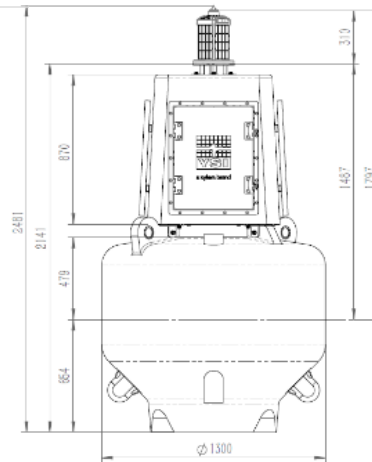
Suited for low to medium energy environments

- Coastal
- Protected bays
- Estuaries/Rivers
- Lakes/Dams



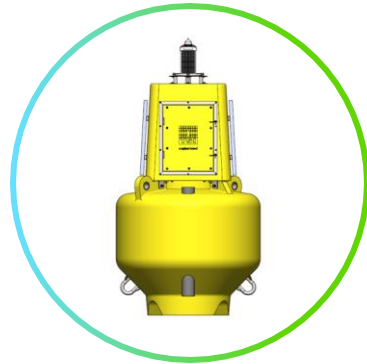
Beaufort scale

- Operational sea state = **4**
- Survivability sea state = **7**
- Min. operations depth = **2m**
- Max. operational depth = **50m**



DB1300 Specifications

Specifications



- **Weight:**
545 kg
- **Freeboard:**
479 mm
- **Diameter:** 1300 mm
- **Material:**
Rotationally moulded in medium-density UV-stabilised low-density polyethylene
- **Internal Structure:**
40Kg/m³ expanded polyurethane foam, Stainless steel 316 internal structure

Monitoring & control standard configuration

- **RTU:** Tightly integrated Campbell Scientific data logger
- **Sensor Inputs:** Analog and digital
- **Communications:**
3G/4G or Iridium SBD Satellite
- **Solar Array:**
135W (3 x 45W Panels), 12VDC
- **Battery:**
Tailored to site and instrumentation payload



What's in the box?

Palletized - Arrives assembled on a single pallet

Package includes:

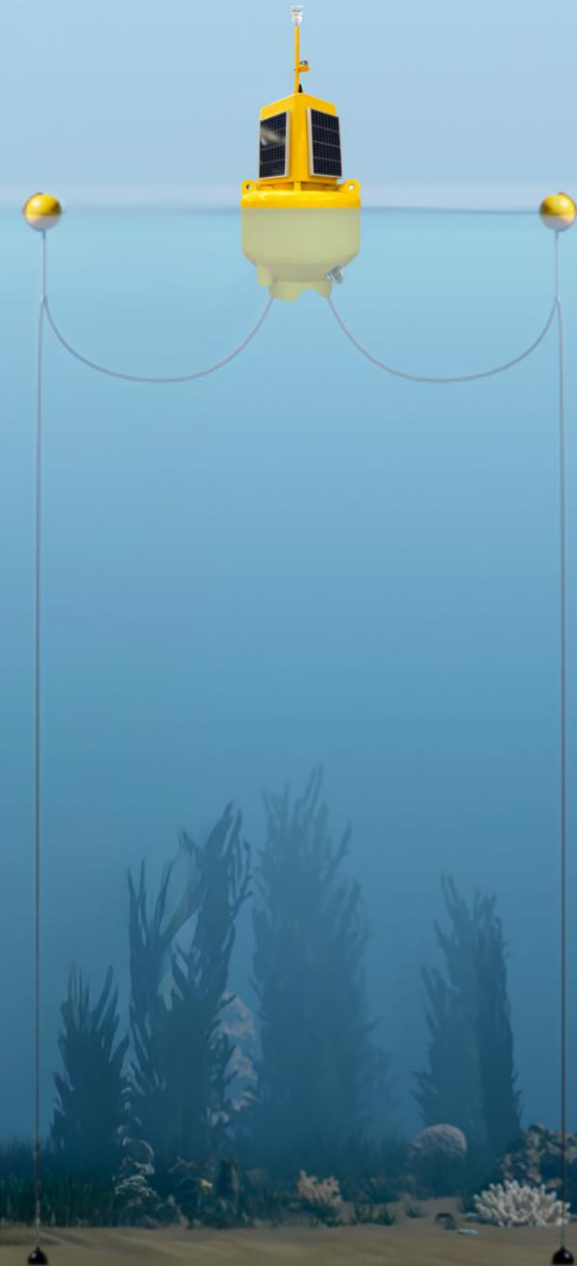
- DB1300 buoy
- Campbell logging and communication system
- Solar power system
- Stainless steel sensor deployment tubes
- Single & Dual-point mooring anchor points
- Installed sensors based on configuration
- Navigation beacon
- GPS for position tracking
- Mooring equipment sold separately



DB1300 Mooring Package

Package Includes:

- Supplied or easily sourced from local suppliers
- Single or Two-point mooring option
- Mooring designs and modelling available



YSI DB1300

Available online
product resources



Web Product Pages

- [YSI DB1300 Data Buoy](#)
- [Xylem Real-Time Data Buoys](#)
- [YSI EXO Platform](#)
- [Aanderaa DCPS](#)
- [Aanderaa DCS](#)
- [Multiparameter Weather Station](#)

Product Documents

- [DB1300 Specification Sheet](#)

Case Studies

- [Aquaculture Application](#)
– [Jervis Bay, Australia](#)



Contact Us
for more information
Info.em@xylem.com

YSI DB1750 Metocean buoy

Station-keeping data monitoring buoy





Why choose the DB1750?

A high-quality data buoy for high-energy coastal environments has never been easier, or more affordable



Security

Hinged lockable deployment tube secures sensor against tampering



Data in the cloud

Ideal for use with YSI HydroSphere, Eagleio and other cloud platforms



Rugged

Marine-grade materials tough enough for long-term deployments



Dual moon pools

Dual moon pools for multiple instrument deployment



Robust build

Adequate ballast and buoyancy to handle high-energy sea state conditions.



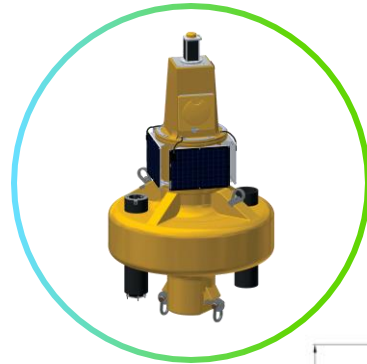
Plug and play

Plug-and-play compatibility with industry-leading sensors, YSI EXO, Aanderaa DCS and many other third-party sensors

DB1750 Applications

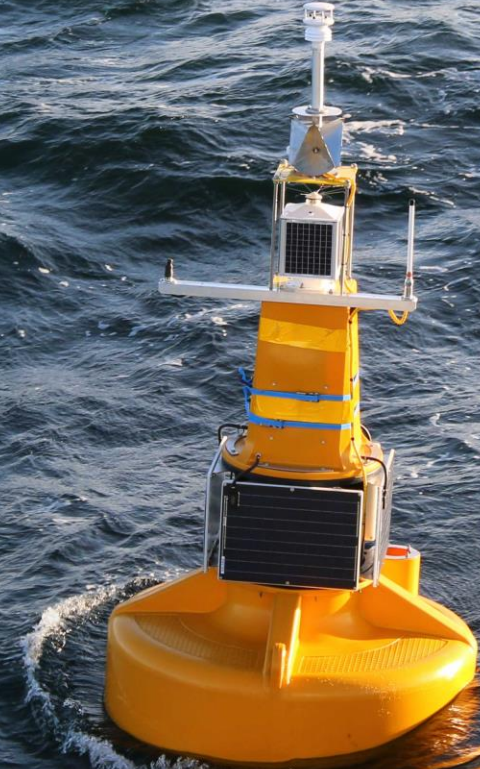
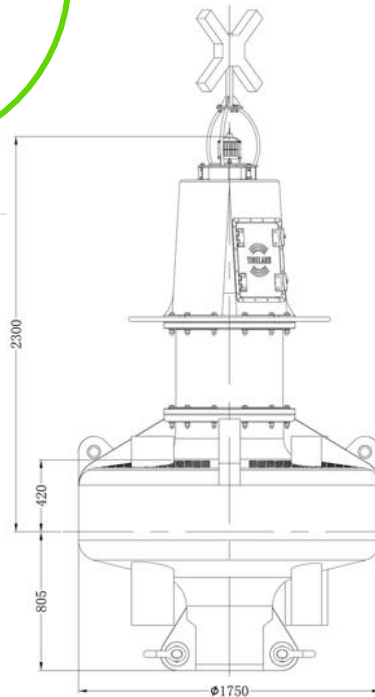
Applications

- Offshore (blue water)
- Coastal
- Protected bays
- Estuaries/Rivers
- Lakes/Dams



Beaufort scale

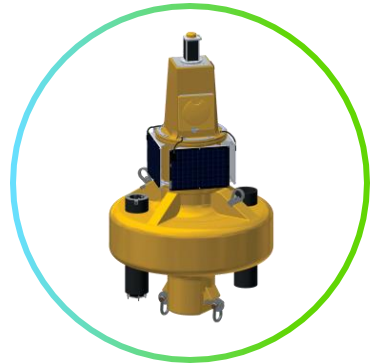
- Operational sea state = **6**
- Survivability sea state = **8**
- Min. operations depth = **4m**
- Max. operational depth = **100m**



DB1750 Specifications

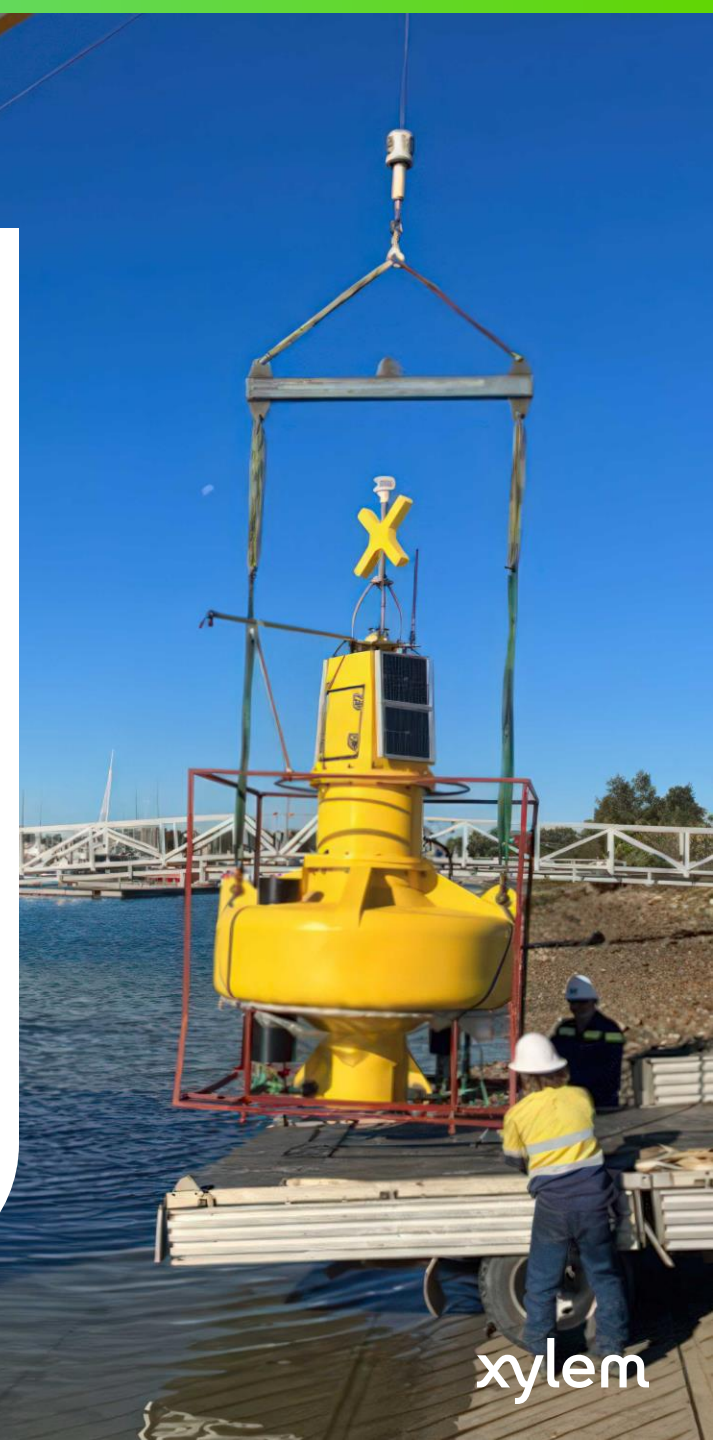
Specifications

- **Weight:**
650 kg
- **Diameter:** 1750 mm
- **Freeboard:**
305mm at maximum weight
- **Material:**
Rotationally molded in medium density UV-stabilized virgin polyethylene, 9.5mm thick
- **Internal Structure:**
40Kg/m³ expanded polyurethane foam, Stainless steel 316 internal structure



Monitoring & control standard configuration

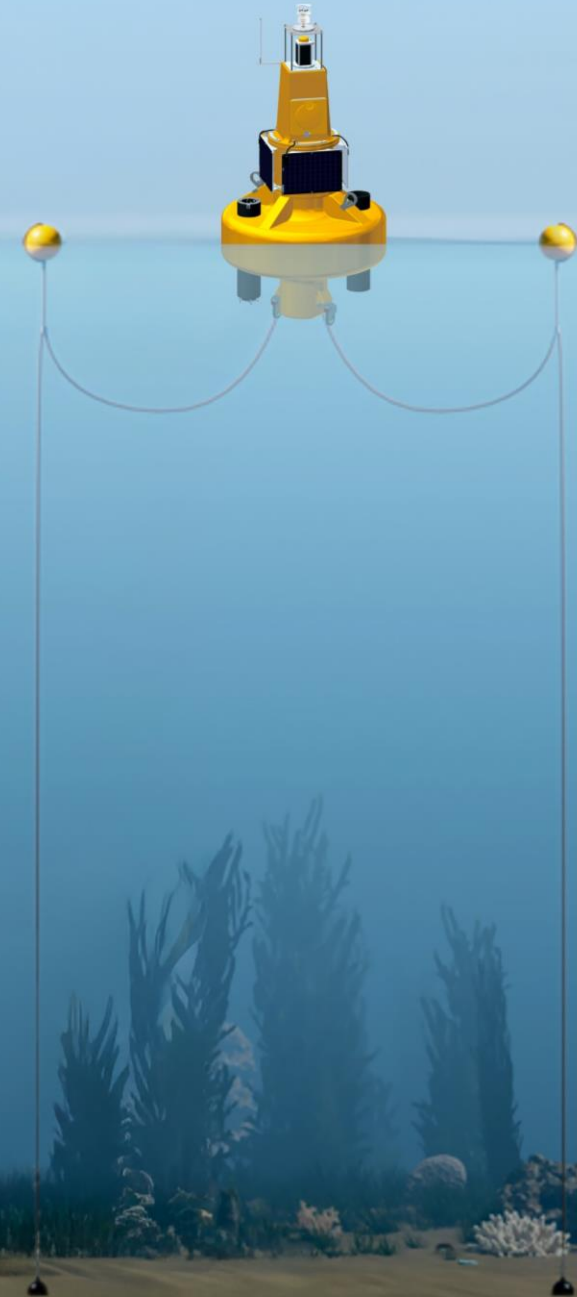
- **RTU:** Programmed Campbell Scientific logger
- **Sensor Inputs:** Analog and digital
- **Communications:**
4G or Iridium SBD Satellite
- **Solar Array:**
Up to 360W solar power capability, 12VDC
- **Battery:**
Tailored to site and instrumentation



DB1750 Mooring Package

Package Includes:

- Supplied or easily sourced from local suppliers
- Single or Two-point mooring option
- Mooring designs and modelling available



YSI DB1750

Available online
product resources



Web Product Pages

- [YSI DB1750 \(MOTUS\) Data Buoy](#)
- [Xylem Real-Time Data Buoys](#)
- [YSI EXO Platform](#)
- [Aanderaa DCPS](#)
- [Aanderaa DCS](#)
- [Multiparameter Weather Station](#)

Product Documents

- [DB1750 MOTUS Wave Buoy Flyer](#)
- [DB1750 Metocean Buoy Spec Sheet](#)
- [HydroMet MOTUS Wave Buoy](#)

Case Studies

- [Aquaculture Application – Jervis Bay, Australia](#)



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Real-time buoy customization options

METEOROLOGICAL MEASUREMENTS

Wind, atmospheric pressure, air temperature, humidity.



AIDS TO NAVIGATION

Radar reflector, Lanterns, , AIS Transponders.



REAL-TIME DATA DELIVERY

Hydrosphere, Eagleio, general interface to 3rd party data delivery solutions.



WAVE MEASUREMENTS

Wave direction, wave height, external or internal compass, correction for buoys made of magnetic material.



TELEMETRY OPTIONS

3G/4G modem, AIS, VHF/UHF, radio & iridium



DATA LOGGERS

Campbell Scientific and other 3rd party logger.



WATER QUALITY SENSORS

Dissolved Oxygen, pH, Temperature, Conductivity, Salinity, Turbidity, Chlorophyll, Blue-Green Algae and Hydrocarbons.



CURRENT DIRECTION AND SPEED

Doppler Current Profiler & single point current sensor.

Plug and play compatibility!



Buoys/Platforms	YSI Multiparameter EXO Sondes	Aanderaa Single Point Current Sensor	Aanderaa DCPS Current Profiler	Aanderaa MOTUS Wave Sensor	Gill GMX560
Spotter	●	●			
DB600	●	●			
DB1300	●	●	●		●
DB1750	●	●	●	●	●

YSI EXO

Multiparameter water quality sondes

Water quality continuous monitoring system



EXO Multiparameter sondes family



Highest data quality

Smart QC verifies
sensor operation



Multiparameter monitoring

Universal ports with real
wet-mate connectors
allow for any combination
of smart sensors



Industry-leading anti-fouling

Best-in-class wiper
technology



Titanium components

The toughest grade parts
guarantee operation well
into the future



Seamless integration

EXO can plug and
play into water
monitoring systems

EXO selection guide



	EXO1	EXO1 ^s	EXO2	EXO2 ^s	EXO3	EXO3 ^s
Smart Ports	4	4	7	7	5	5
Battery Type	2 D-Cell	External Power	4 D-Cell	External Power	2 D-Cell	External Power
Battery Life	90 Days*	N/A	90 Days*	N/A	60 Days*	N/A
Dimensions	Length: 64.53 cm Diameter: 4.70 cm	Length: 46.41 cm (with depth) 44.77 cm (w/o depth) Diameter: 4.70 cm	Length: 70.52 cm Diameter: 7.62 cm	Length: 42.87 cm Diameter: 7.62 cm	Length: 58.61 cm Diameter: 7.62 cm	Length: 42.87 cm Diameter: 7.62 cm
Weight	1.42 kg	0.56 kg (with depth) 0.48 kg (w/o depth)	3.60 kg	1.06 kg	2.00 kg	1.06 kg
SDI-12	With Adapter	With Adapter	With Adapter	With Adapter	Integral	Integral
Vented Level	●		●			
Wiper			●	●	●	●
Auxiliary Port			●	●		

YSI EXO Sensors options



- [Conductivity + Temperature](#)
- [pH guarded, pH un-guarded](#)
- [Optical Dissolved Oxygen](#)
- [Total Algae PC](#) (Chlorophyll + Phycocyanin)
- [Total Algae PE](#) (Chlorophyll + Phycoerythrin)
- [fDOM](#) (Fluorescent Dissolved Organic Matter)
- [NitraLED](#) (Optical Nitrate)

- [Rhodamine](#)
- [Turbidity](#)
- [pH + ORP](#)
- [Nitrate](#)
- [Chloride](#)
- [Ammonium](#)
- [Central Wiper](#)



Sensor parameters and specifications



EXO sensor specifications

Sensor	Range	Resolution ¹	Accuracy ²
Conductivity (Non-wiped)	0 to 200 mS/cm	0.0001 to 0.01 mS/cm	0 to 100: ±0.5% of reading or 0.001 mS/cm, whichever is greater 100 to 200: ±1.0% of reading
Temperature	-5 to 50 °C	0.001 °C	-5 to 35: ±0.01 °C 35 to 50: ±0.05 °C
Conductivity (Wiped)	0 to 100 mS/cm	0.001 to 0.01 mS/cm	±1.0% of reading or 2 µS/cm, whichever is greater
Temperature	-5 to 50 °C	0.001 °C	±0.2 °C
Depth or	0 to 10, 100, or 250 m	0.001 m	±0.04% Full Scale
Vented Level	0 to 10 m	0.001 m	±0.03% Full Scale
Dissolved Oxygen	0 to 500% air saturation	0.1% air saturation	0 to 200: ±1% of reading or 1% saturation, whichever is greater 200 to 500: ±5% of reading
	0 to 50 mg/L	0.01 mg/L	0 to 20: ±0.1 mg/L or 1% of reading, whichever is greater 20 to 50: ±5% of reading
fDOM	0 to 300 ppb QSU	0.01 ppb QSU	Linearity: r2 ≥ 0.999 for 0 to 300 for serial dilution of 300 ppb Quinine Sulfate Solution Minimum Detection Limit: 0.1 ppb Quinine Sulfate Equivalents
ISE Ammonium	0 to 200 mg/L-N (NH ₄ ⁺)	0.01 mg/L	±10% of reading or ±2 mg/L-N, whichever is greater
ISE Chloride	0 to 1000 mg/L-Cl (Cl ⁻)	0.01 mg/L	±15% of reading or ±5 mg/L-Cl, whichever is greater
ISE Nitrate	0 to 200 mg/L-N (NO ₃ ⁻)	0.01 mg/L	±10% of reading or ±2 mg/L-N, whichever is greater
pH	0 to 14 pH units	0.01 pH units	±0.1 within ±10 °C of calibration temperature ±0.2 for entire temperature range
ORP	-999 to 999 mV	0.1 mV	±20 mV in Redox standard solution
Rhodamine	0 to 100 RFU 0 to 1,000 µg/L	0.01 RFU 0.01 µg/L	Linearity: r2 > 0.999 or Rhodamine WT across full range ±5% or 0.1 µg/L, whichever is greater
TAL-Chlorophyll	0 to 100 RFU or 0 to 400 µg/L chl		
TAL-Phycocyanin	0 to 100 RFU or 0 to 100 µg/L PC	0.01 RFU or 0.01 µg/L of pigment	Linearity: r ² ≥ 0.999 for Rhodamine WT across full range
TAL-Phycoerythrin	0 to 100 RFU or 0 to 280 µg/L PE		
Turbidity	0 to 4000 FNU, NTU	0 to 999: 0.01 FNU 1000 to 4000: 0.1 FNU	0 to 999: 0.3 FNU or ±2% of reading, whichever is greater 1000 to 4000: ±5% of reading
UV Nitrate (NitraLED)	0 to 30 mg/L-N (NO ₃ ⁻)	0.01 mg/L-N	0 to 10: ±0.1 mg/L-N or 5% of reading, whichever is greater (within 2 °C) ±0.4 mg/L-N or 5% of reading, whichever is greater (full range) 10 to 30: ±7% of reading

¹ Range dependent.
² Specifications indicate typical performance and are subject to change.

YSI EXO's modular multiparameter sondes offer flexible customization with interchangeable smart sensors, industry-leading anti-fouling, and multiple integration/communication options.

With the widest range of sensor and parameter choices plus ultra-durable components, EXO enables longer deployments and clearer long-term watershed trends.

[Learn more about EXO Sensor specifications](#)

EXO Sensors

Advanced anti-fouling technology

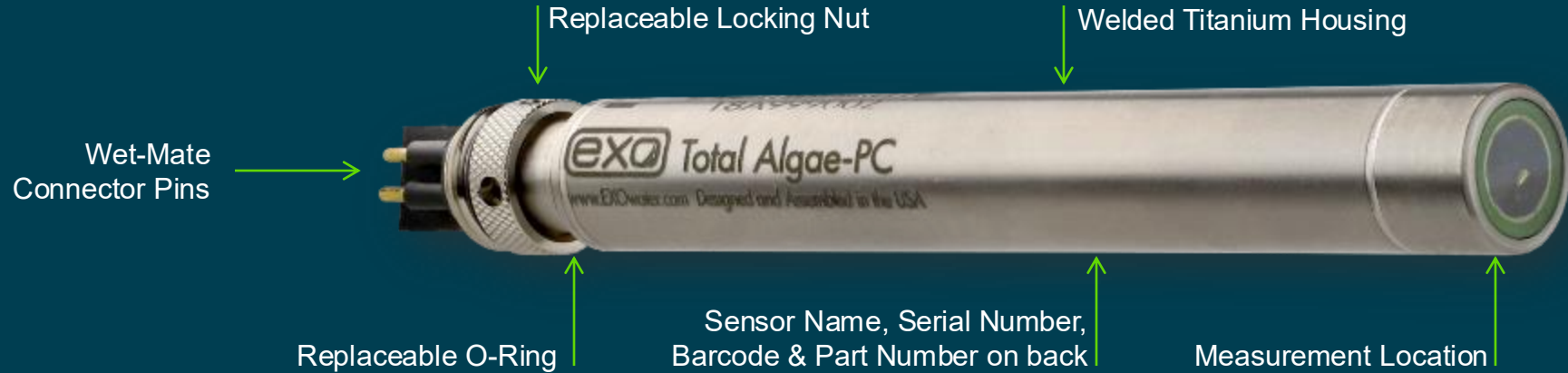


Superior Anti-Fouling

- Industry-leading wiper
- Cleans all sensors
- Central probe design



Sensor Anatomy



Serial Number Format for Sondes *and* Sensors:

Example: **18A999002**

Blue: Last two digits of year produced

Gray: Month of production; Skip letter "I"

- The example here was produced in January 2018



Does Wet-Mate mean that the sensors can be installed underwater?

It simply means that they can be swapped with moist pins.

What type of grease do I use on the O-Ring?

Silicone-based, such as Krytox.

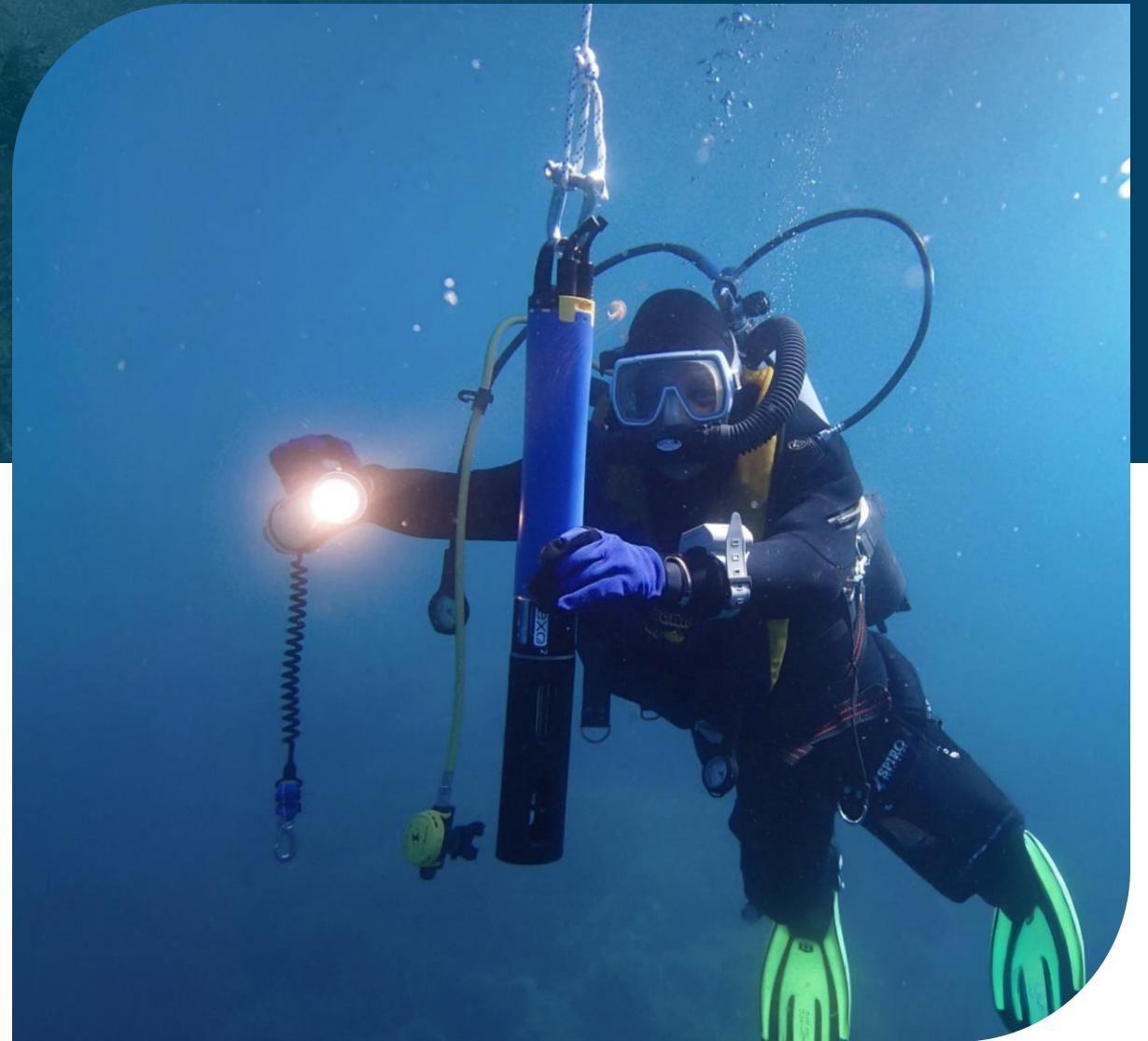
EXO Accessories

Sonde Guard

The sonde guard is used to protect the sensors from physical damage, whether that is debris or accidental impact. Anti-fouling versions available

Guard Weights

Sonde weights are also available for profiling applications. They screw into the bottom of the sonde guard and can be stacked.



EXO Support

Available online
product resources



Tech Support Info:
serviceaus@xylem.com

[YSI.com/EXO-University](https://www.yesi.com/EXO-University)

Practical Tips for Reliable Data:

- [Calibrations](#)
- [Instrument Overviews](#)
- [Setup, Maintenance, & Storage](#)
- [Kor Software](#)

EXO University
Practical Tips for Reliable Data

Free on-demand video
training for EXO Sondes

Watch Now
[YSI.com/EXOU](https://www.yesi.com/EXOU)

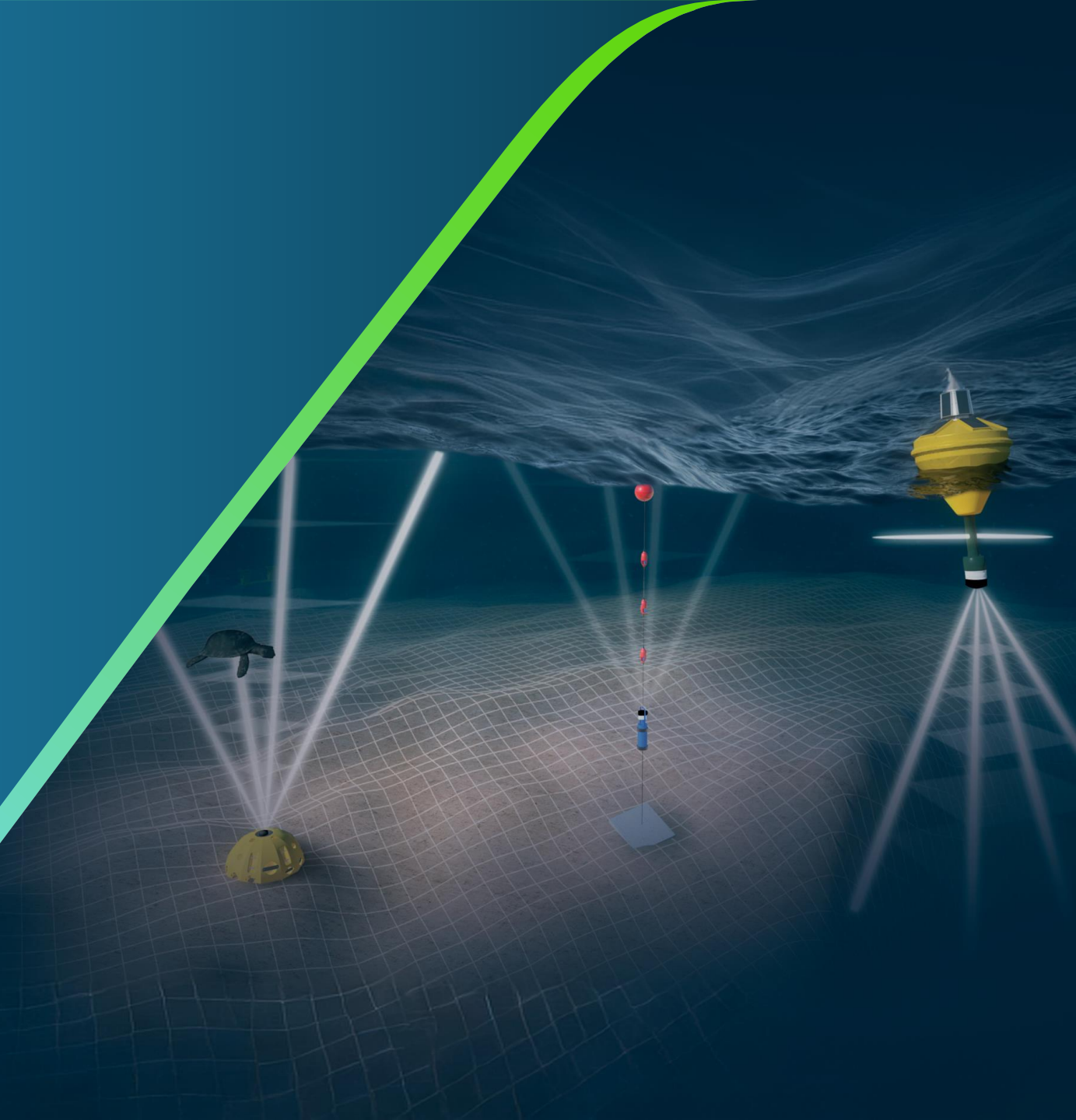
[YSI.com/EXO](https://www.yesi.com/EXO)

What you will find:

- [User Manual](#)
- [Smart QC Handbook](#)
- [Case Studies](#)
- [Webinars](#)
- [Product Information](#)
- [Software Downloads](#)

Aanderaa DCPS & DCS

Doppler Current Profiling Sensors



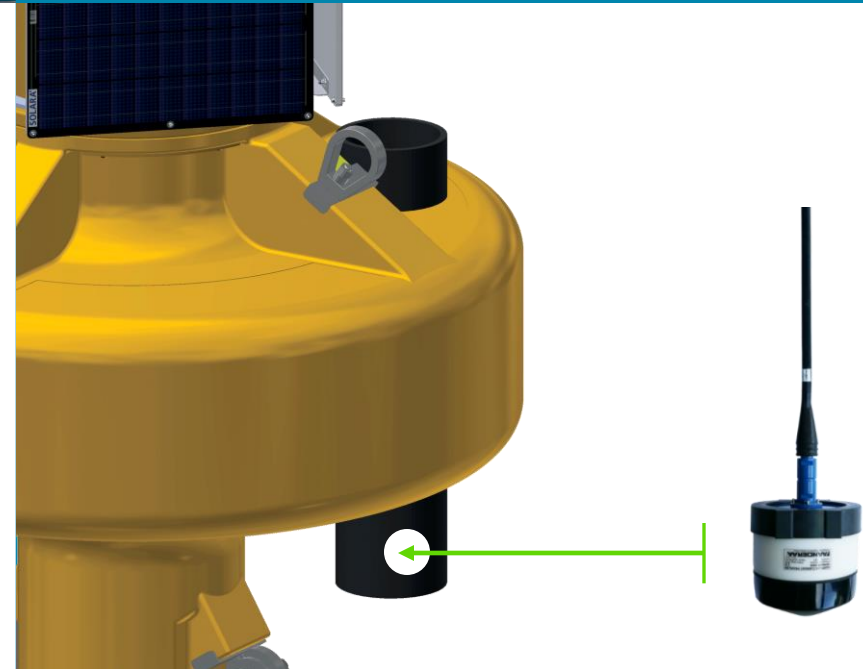
DCPS – Doppler Current Profiler Sensor

The Aanderaa Doppler Current Profiler Sensor (DCPS) is a medium range, 600kHz current profiler smart sensor.

Applications:

- Oceanographic research
- Marine Transport
- Offshore / Oil & Gas
- Aquaculture/fisheries
- Environmental management
- Infrastructure design / Survey companies
- Integration into third-party systems; data buoy, ocean observatory

Features innovative development of the acoustic profiling ability to collect high quality current information also on moving and tilting platforms.



DCPS Key Features

Key features

- Built-in solid-state 3-axis tilt-compensated compass
- Speed Range: 0 to 300 cm/s
- Direction Range: 0° to 360° Mean Accuracy:
- Speed: ± 1 cm/s or $\pm 1\%$ of reading (whichever is greater)
- Direction: $\pm 5^\circ$
- Heading and tilt compensation for each ping
- Insensitive to fouling
- Fast sampling rate (up to 10Hz)
- Output interval from 30s to 2 hours
- RS-232/RS-422 output for integration to most third-party Data loggers
- Cell size selectable from 0,5 to 5m
- Up to 150 individual cells divided into three user-configurable profile columns



DCS – Single Point

The Aanderaa Doppler Current Sensor is a rugged, true vector averaging sensor for measuring current speed and direction in the sea.

The sensor has built-in compass and tilt sensor and may also output sea temperature.

Applications:

- Oceanographic research
- Marine Transport
- Offshore / Oil & Gas
- Aquaculture/fisheries
- Environmental management
- Infrastructure design / Survey companies
- Integration into third-party systems; data buoy, ocean observatory



DCS Key Features

Key features

- Speed range: 0 to 300cm/s
- Direction range: 0 to 360 DegM
- Mean accuracy: 0.15cm/s
- Statistics variance: 0.3cm/s (ZPulse mode)
- Tilt range: 0 to 35 Deg.
- Heading and tilt compensation for each ping
- Low power consumption
- Insensitive to fouling
- Direct readout of engineering data
- Fast sampling rate (up to 10Hz)
- Output interval from 30s to 2 hours
- RS-232/RS-422 output for integration to most third party Data loggers

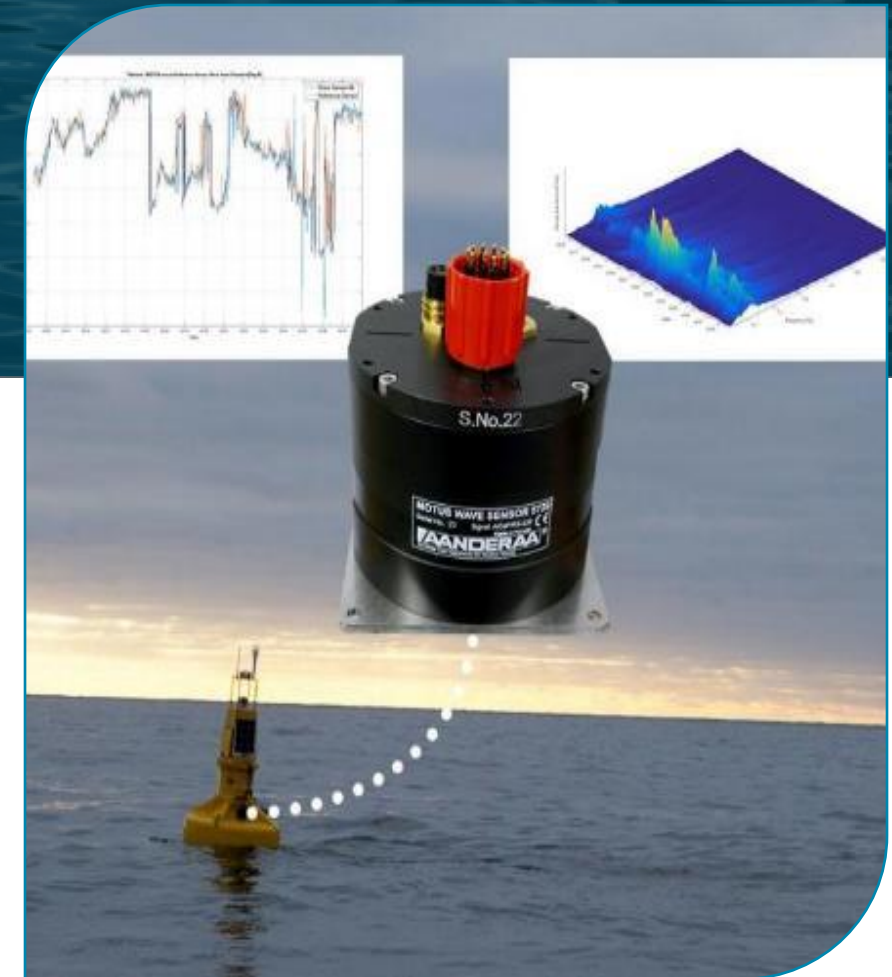


MOTUS Wave Sensor

MOTUS is a directional wave sensor module for use on surface buoys.

The sensor processes wave data and is configurable to present parameters and wave spectrum directly.

- Measure Wave Direction with market leading accuracy
- Measure accurate wave characteristics with the flexibility of a Met Ocean (ODAS) buoy
- High sampling rate and mechanical dampening, ensuring low noise
- Compensate for buoy wave response, off-center placement of sensor and payloads by configurable settings
- Distinguish direction of swells and wind driven waves



MOTUS Key Features

Compact

- Autonomous, all wave parameters calculated internally
- Size 130 x 130 x 110 mm
- Weight: 1.23 kg

Rugged

- IP68, survives immersion down to 30 meters depth
- Wet pluggable connectors

Low power consumption, wide supply voltage range

- <110 mW
- 6 - 30 Vdc

Adaptable

- Highly configurable (output string, interval) Can be integrated on most data buoys
- Provides high accuracy wave data on non-ideal wave buoys
- Configurable buoy frequency response compensation
- Built-in compensation for installation outside of buoy center
- Build-in option for connecting external compass to avoid directional deviation due to magnetic buoy structure



MOTUS Parameters

Output Parameter	Description	Unit
Wave Height	Significant wave height, max wave height	Meters (m)
Wave Period	Mean wave period, peak wave period	Seconds (s)
Wave Direction	Mean wave direction, directional spreading	Degrees (°)
Wave Energy Spectrum	Distribution of wave energy over frequency	m ² /Hz
Wave Spectrum	Directional wave spectrum	m ² /Hz
Directional Moments	Mean wave direction at various frequencies	Degrees (°)
Non-Directional Moments	Spectral wave parameters at various frequencies	m ² /Hz
Wave Elevation	Time series of surface elevation	Meters (m)
Wave Velocity	Velocity of wave motion	Meters per second (m/s)
Wave Acceleration	Acceleration of wave motion	Meters per second ² (m/s ²)
Current Speed	Speed of current	Meters per second (m/s)
Current Direction	Direction of current	Degrees (°)
Temperature	Temperature of water	Degrees Celsius (°C)

DCPS, DCS & MOTUS

Available online
product resources

Current Profiler - DCPS

- [Doppler Current Profiler Sensor - web page](#)
- [DCPS 5400 Series – Spec Sheet](#)
- [App Note - High quality current profiles from surface platforms: buoy and bottom installed systems compared](#)
- [App Note - Aanderaa Current Sensors in Marine Renewable Tidal Energy](#)

Single Point - DCS

- [Single point Current Sensors - web page](#)
- [Aanderaa DCS Applications – brochure](#)
- [In-line DCS 5800/5810](#)
- [DCS Applications](#)
- [In-line ZPulse Doppler Current Sensor 5800 / 5810 / 5800R / 5800RR / 5810E](#)

MOTUS Wave Sensor

- [MOTUS Directional Wave Sensor - web page](#)
- [MOTUS Wave Sensor – Spec Sheet](#)
- [MOTUS Data validation – white paper](#)
- [MOTUS Wave Buoys - white paper](#)
- [MOTUS powerpoint presentation](#)



Contact Us
for more information
Info.em@xylem.com

Meteorological parameter options

Marine Grade Reliable Weather Measurements



Meteorological parameter options



Sensor GMX560

Wind speed, wind direction, temperature, humidity, air pressure & GPS

System

- Automatic Weather Station
- Hydro-met Station
- Tide-met station
- Data Buoys: DB1300 & 1750

Applications:

- Met Ocean
- Environmental Monitoring Networks
- Road and traffic control systems, Bridges & tunnels
- Chemical industrial area
- Airport & Container terminals

Data viewing options

 **HydroSphere**[™]
Cloud data hosting service
for telemetered solutions



Data can also be transmitted directly to end-users' in-house data management systems, SCADA platforms, or local data collection software. Direct access is supported via iPhone and Android applications.

Eagle.io

- Suited for more advanced use cases
- Moving average & weighted Moving Average
- Active geofencing/tracking
- Sophisticated alarming (email & SMS)
- Allows bidirectional access to the system
- Advanced historian with data editing
- Allows public dashboards
- API Integration

HydroSphere

- For simple applications where basic data viewing and display is required
- Allows bidirectional access of the system
- API integration

Xylem is leading the way

A Fortune 500 global water solutions partner that empowers customers and communities to build a more water-secure world.

\$8.1B

USD 2023 revenue*

~150

countries where Xylem solutions solve water

4,300+

patents and trademarks

100+

years of innovation and leadership with leading brands

>23K

colleagues with diverse water expertise

*combined 2023 pro forma



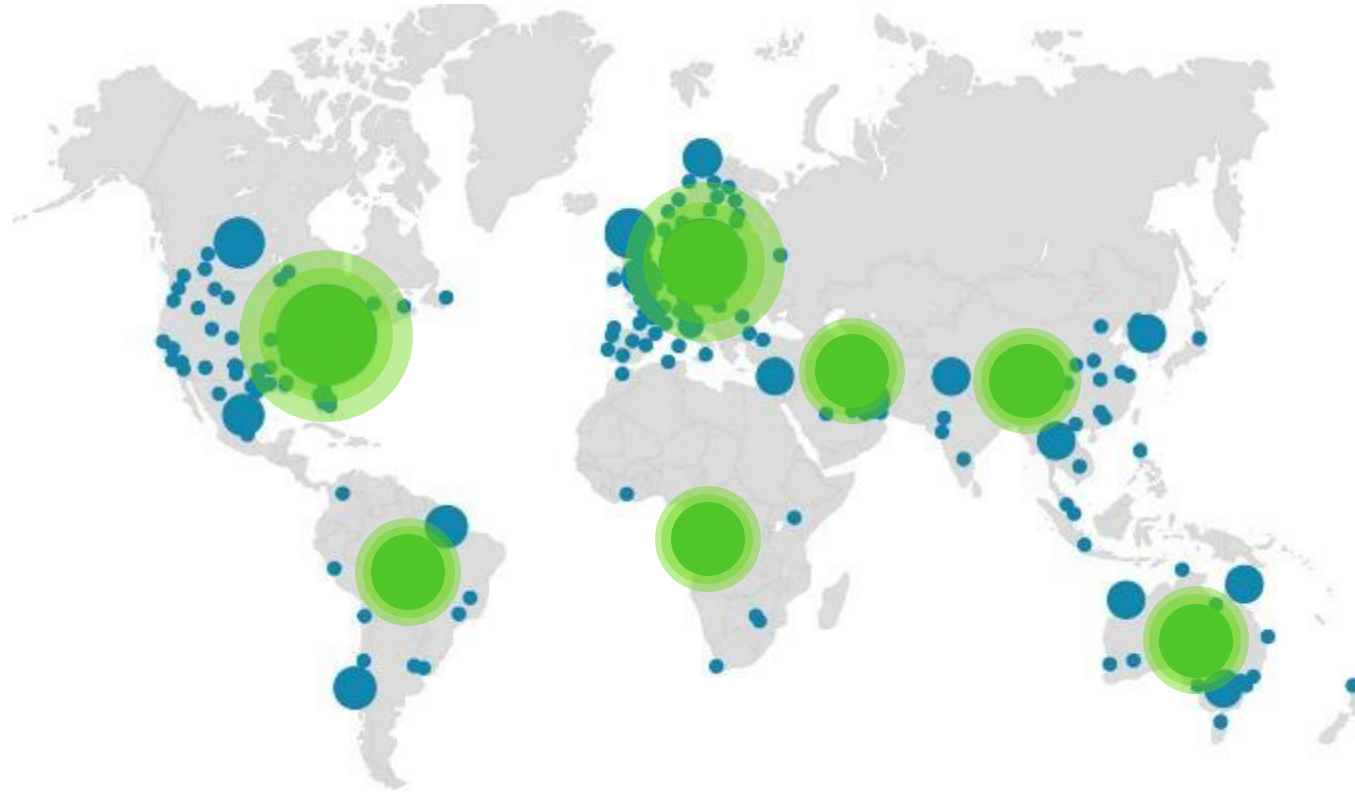
Combining global reach and local expertise

Xylem Locations

Africa	12
Asia	51
Australia	28
Europe	245
Middle East	11
North America	271
South America	17

Headquarters

Washington D.C., USA



89

Major manufacturing sites

350+

Service and sales locations

1,800+

Qualified AQUA pro service professionals

Why consider Xylem?



One-stop-shop solution:

Xylem is manufacturer and system integrator of sensors, data loggers, floating/fixed platform, data logger, telemetry modem and data management & display software.

Analytics Regional Integration Center

(RIC): Catered system design, integration, installation, field maintenance and support specializing in real-time buoy systems.

Design & Installation:

Provide design assistance through complete turn-key installation and maintenance for a variety of real-time buoy systems.

On-Site Field Maintenance:

Ability to provide complete station maintenance which includes scheduled inspections, system calibration, site upkeep, communication verifications, system upgrades and data review and management.

In-county Authorized Service Center:

Service, repair & calibration centre for Xylem Analytics Brands like YSI, SonTek, Aanderaa and many more.



Environmental
Monitoring



Xylem Analytics

Solving your toughest
measurement challenges

Monitor. Analyze. Understand.



Contact Us
for more information
info.em@xylem.com

