



YSI 6600 Sonde

Featuring 75-day battery life — the longest in the industry — the YSI 6600 has a second optical port to enable simultaneous use of self-cleaning chlorophyll or rhodamine and turbidity. It will simultaneously log at programmable intervals the entire suite of YSI parameters and store 150,000 individual parameter readings.



- 75-day battery life
- Deep depth to 656 feet
- Two optical ports for self-cleaning turbidity and chlorophyll or rhodamine probes
- Open-channel flow

Long Deployment

An important advantage of the YSI 6600 is the capability for long-term monitoring and profiling. In addition to long battery life, the YSI 6600 measures dissolved oxygen with YSI's exclusive Rapid Pulse™ stirring-independent sensor. Chlorophyll, rhodamine, and turbidity are measured with self-cleaning sensors that are not affected by variations in ambient light.

The oxygen sensor measures up to 50 mg/L, broad enough for super-saturated water. YSI's chlorophyll sensor provides a convenient, *in situ* monitoring system for detecting chlorophyll content in phytoplankton, which can be used to predict algae blooms and nutrient loading in water. The rhodamine sensor allows for time-of-travel and mixing/dispersion zone studies while logging water quality parameters.

Easy-to-Use Data Analysis

Included with the YSI 6600 is EcoWatch® for Windows® software, providing user-friendly data analysis and statistics. This exclusive YSI tool is in English and French, as is the instrument's software.

Pure Data for a Healthy Planet.™

More Power and More Parameters for Long-Term Monitoring and Profiling!

Instrument Specifications

Medium	Fresh, sea, or polluted water
Temperature	-5 to +45°C
Computer interface	RS-232, SDI-12
Logging memory	384K; logs at programmable intervals and stores 150,000 readings
Software	EcoWATCH for Windows included: PC-compatible, 3.5" disk drive; 386 processor or better running Windows 3.1 or later; 4 MB RAM minimum; English and French.
Size	3.5" OD x 20.4" length (8.9 x 52 cm)
Weight with batteries :	6 lbs (2.7 kg)
Internal power supply	8 C alkaline cells
Battery life	75 days at 15-minute sampling intervals at 25°C
External power supply	12 VDC



Pure Data for a Healthy Planet.™

To order or for more information, contact YSI Environmental.

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Who's Minding the Planet?™

Typical Performance Specifications		
Dissolved Oxygen % Saturation	Range Resolution Accuracy	0 to 500% 0.1% 0 to 200%: ±2% of reading or 2% air saturation, whichever is greater; 200 to 500%: ±6% of reading
Dissolved Oxygen mg/L	Range Resolution Accuracy	0 to 50 mg/L 0.01 mg/L 0 to 20 mg/L: ±2% of reading or 0.2 mg/L, whichever is greater; 20 to 50 mg/L: ±6% of reading
Conductivity †	Range Resolution Accuracy	0 to 100 mS/cm 0.001 to 0.1 mS/cm (range-dependent) ±0.5% of reading + 0.001 mS/cm
Temperature	Range Resolution Accuracy	-5 to +45°C 0.01°C ±0.15°C
pH	Range Resolution Accuracy	0 to 14 units 0.01 unit ±0.2 unit
ORP	Range Resolution Accuracy	-999 to +999 mV 0.1 mV ±20 mV
Salinity	Range Resolution Accuracy	0 to 70 ppt 0.01 ppt ±1% of reading or 0.1 ppt, whichever is greater
Shallow Depth	Range Resolution Accuracy	0 to 30 feet (0 to 9 m) 0.001 feet (0.001 m) ±0.06 feet (±0.02 m)
Medium Depth	Range Resolution Accuracy	0 to 200 feet (0 to 61 m) 0.001 feet (0.001 m) ±0.4 feet (±0.12 m)
Deep Depth	Range Resolution Accuracy	0 to 656 feet (0 to 200 m) 0.001 feet (0.001 m) ±1 feet (±0.3 m)
Vented Level	Range Resolution Accuracy	0 to 30 feet (0 to 9 m) 0.001 feet (0.0003 m) ±0.01 feet (0.003 m)
Turbidity	Range Resolution Accuracy Depth	0 to 1,000 NTU 0.1 NTU ±5% of reading or 2 NTU, whichever is greater 200 feet (60.96 m)
Chlorophyll	Range Resolution Depth	0 to 400 µg/L 0.1 µg/L Chl; 0.1%FS 200 feet (60.96 m)
Rhodamine	Range Resolution Accuracy Depth	0 to 200 µg/L; 0 to 100% FS 0.1 µg/L; 0.1% FS ±1.0 µg/L; 5% of reading 200 feet (60.96 m)
Ammonium / Ammonia*	Range Resolution Accuracy Depth	0 to 200 mg/L-N 0.001 to 1 mg/L-N (range-dependent) ±10% of reading or 2 mg/L, whichever is greater 50 feet (15.2 m)
Nitrate *	Range Resolution Accuracy Depth	0 to 200 mg/L-N 0.001 to 1 mg/L-N (range-dependent) ±10% of reading or 2 mg/L, whichever is greater 50 feet (15.2 m)
Chloride *	Range Resolution Accuracy Depth	0 to 1,000 mg/L 0.001 to 1 mg/L (range-dependent) ±15% of reading or 5 mg/L, whichever is greater 200 feet (60.96 m)
Open-Channel Flow	Calculated measurement, requires vented level	

† Report outputs of specific conductance (conductivity corrected to 25° C), resistivity, and total dissolved solids are also provided. These values are automatically calculated from conductivity according to algorithms found in *Standard Methods for the Examination of Water and Wastewater* (ed 1989).

* Freshwater only



YSI 6600 V2 Sonde

With 2 or 4 optical ports and new sensor options

Make the most of your environmental monitoring efforts: The 6600 V2 sonde offers the most comprehensive water quality monitoring package available with simultaneous measurement of conductivity (salinity), temperature, depth or level, pH/ORP. The 6600 V2-4 also measures these parameters: dissolved oxygen, turbidity, chlorophyll, and blue-green algae; the V2-2 measures two of the four parameters simultaneously. Additional calculated parameters include total dissolved solids, resistivity, and specific conductance.

Take advantage of YSI's new optical sensor design and anti-fouling wiper control for improved reliability during extended deployments.



- Self-cleaning optical sensors with integrated wipers remove biofouling and maintain high data accuracy
- Field-replaceable sensors make trips to the field quick
 - Optimal power management and built-in battery compartment extends *in situ* monitoring periods

Take Advantage of YSI's New Optical Sensors

In addition to turbidity, chlorophyll, and rhodamine, YSI now offers these optical sensors:

ROX Reliable Optical Dissolved Oxygen

The ROX sensor uses lifetime luminescence detection technology to offer the most reliable oxygen sensor with the lowest possible maintenance effort. The sensor is insensitive to hydrogen sulfide interference and does not require regular membrane changes.



Blue-Green Algae (BGA)

YSI's fluorescence-based blue-green algae sensors will allow you to monitor blue-green algae populations where their presence is a concern. Whether providing an early warning to an algal bloom, tracking taste and odor-causing species in drinking water supplies, or conducting ecosystem research, YSI BGA sensors will provide sensitive and reliable *in situ* data.

Sensor performance verified*

The 6600 V2 sonde uses sensor technology that was verified through the US EPA's Environmental Technology Verification Program (ETV). For information on which sensors were performance-verified, turn this sheet over and look for the ETV logo.



6600 Upgrades Available

YSI is committed to offering our customers reliable and cost-effective water monitoring solutions. To this end, we are offering V2 Upgrades for existing 6600s. Upgrades will be available from YSI Authorized Service Centers and will include the new 6600 V2 bulkhead, a ROX Optical Dissolved Oxygen Sensor, and firmware/software upgrades. In addition, the sonde will be fully tested and calibrated by an experienced YSI service technician.

Complete Data Record

The YSI 6600 V2-4 Sonde, with 4 optical sensor ports, is the only instrument available to simultaneously measure dissolved oxygen, turbidity, chlorophyll, and blue-green algae!

Pure
Data for a
Healthy
Planet.®

*Upgraded sondes
for rugged long-term
deployment*



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Yellow Springs, Ohio Facility

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*Sensors with listed with ETV logo were submitted to the ETV program on the YSI 6600EDS. Information on performance characteristics of YSI water quality sensors can be found at www.epa.gov/etv or call YSI at 800.897.4151 for the ETV verification report. Use of ETV name or logo does not imply approval or certification of this product nor does it make any explicit or implied warranties or guarantees as to product performance.

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YSI 6600 V2 Sensor Specifications

	Range	Resolution	Accuracy	
ROX™ Optical Dissolved Oxygen* % Saturation	0 to 500%	0.1%	0 to 200%: ±1% of reading or 1% air saturation, whichever is greater; 200 to 500%: ±15% of reading	
ROX™ Optical Dissolved Oxygen* mg/L	0 to 50 mg/L	0.01 mg/L	0 to 20 mg/L: ± 0.1 mg/L or 1% of reading, whichever is greater; 20 to 50 mg/L: ±15% of reading	
Dissolved Oxygen** % Saturation ET✓	0 to 500%	0.1%	0 to 200%: ±2% of reading or 2% air saturation, whichever is greater; 200 to 500%: ±6% of reading	
Dissolved Oxygen** mg/L ET✓	0 to 50 mg/L	0.01 mg/L	0 to 20 mg/L: ± 0.2 mg/L or 2% of reading, whichever is greater; 20 to 50 mg/L: ±6% of reading	
Conductivity*** 6560 Sensor* ET✓	0 to 100 mS/cm	0.001 to 0.1 mS/cm (range dependent)	±0.5% of reading + 0.001 mS/cm	
Salinity	0 to 70 ppt	0.01 ppt	±1% of reading or 0.1 ppt, whichever is greater	
Temperature 6560 Sensor* ET✓	-5 to +50°C	0.01°C	±0.15°C	
pH 6561 Sensor* ET✓	0 to 14 units	0.01 unit	±0.2 unit	
ORP	-999 to +999 mV	0.1 mV	±20 mV	
Depth	Deep Medium Shallow Vented Level	0 to 656 ft, 200 m 0 to 200 ft, 61 m 0 to 30 ft, 9.1 m 0 to 30 ft, 9.1 m	0.001 ft, 0.001 m 0.001 ft, 0.001 m 0.001 ft, 0.001 m 0.001 ft, 0.001 m	±1 ft, ±0.3 m ±0.4 ft, ±0.12 m ±0.06 ft, ±0.02 m ±0.01 ft, 0.003 m
Turbidity* 6136 Sensor* ET✓	0 to 1,000 NTU	0.1 NTU	±2% of reading or 0.3 NTU, whichever is greater**	
Nitrate/nitrogen****	0 to 200 mg/L-N	0.001 to 1 mg/L-N (range dependent)	±10% of reading or 2 mg/L, whichever is greater	
Ammonium/ammonia/nitrogen****	0 to 200 mg/L-N	0.001 to 1 mg/L-N (range dependent)	±10% of reading or 2 mg/L, whichever is greater	
Chloride****	0 to 1000 mg/L	0.001 to 1 mg/L (range dependent)	±15% of reading or 5 mg/L, whichever is greater	
Rhodamine*	0-200 µg/L	0.1 µg/L	±5% reading or 1 µg/L, whichever is greater	

- * Maximum depth rating for all optical probes is 200 feet, 61 m. Turbidity and Rhodamine are also available in a Deep Depth option (0 to 200 m).
- ** Rapid Pulse is only available on 6600 V2-2 (two optical ports version).
- *** Report outputs of specific conductance (conductivity corrected to 25° C), resistivity, and total dissolved solids are also provided. These values are automatically calculated from conductivity according to algorithms found in *Standard Methods for the Examination of Water and Wastewater* (ed 1989).
- **** Freshwater only. Maximum depth rating of 50 feet, 15.2 m. 6600 V2-2 has 3 ISE ports; not available on the 6600V2-4.

**In YSI AMCO-AEPA Polymer Standards.

	Range	Detection Limit	Resolution	Linearity
Blue-Green Algae Phycocyanin*	~0 to 280,000 cells/mL† 0 to 100 RFU	~220 cells/mL§	1 cell/mL 0.1 RFU	R ² > 0.9999**
Blue-Green Algae Phycocyanin*	~0 to 200,000 cells/mL† 0 to 100 RFU	~450 cells/mL§§	1 cell/mL 0.1 RFU	R ² > 0.9999***
Chlorophyll* 6025 Sensor* ET✓	~0 to 400 µg/L 0 to 100 RFU	~0.1 µg/L§§§	0.1 µg/L Chl 0.1% RFU	R ² > 0.9999****

- * Maximum depth rating for all optical probes is 200 feet, 61 m. Also available in a Deep Depth option (0 to 200 m). RFU = Relative Fluorescence Units
- † Explanation of Ranges can be found in the 'Principles of Operation' section of the 6-Series Manual, Rev D.
- § Estimated from cultures of *Microcystis aeruginosa*.
- §§ Estimated from cultures *Synechococcus sp.*
- §§§ Determined from cultures of *Isochrysis sp.* and chlorophyll *a* concentration determined via extractions.
- **For serial dilution of Rhodamine WT (0-400 µg/L).
- ***For serial dilution of Rhodamine WT (0-8 µg/L).
- ****For serial dilution of Rhodamine WT (0-500 µg/L).

YSI 6600 V2 Sonde Specifications

Medium	Fresh, sea or polluted water	Software	EcoWatch®
Temperature	Operating Storage	Dimensions	Diameter Length, no depth Length, with depth Weight
	-5 to +50°C -10 to +60°C		3.5 in, 8.9 cm 19.6 in, 49.8 cm 21.6 in, 54.9 cm 7 lbs, 3.18 kg (batteries installed, with depth)
Communications	RS-232, SDI-12	Power	External Internal
			12 V DC 8 C-size alkaline batteries