



## AQUASONDE AS-6000

Multiparameter water quality data logging sonde with self cleaning system

The AS-6000 is designed to be used in permanent deployments. It features internal power and internal logging, meaning it can be deployed without an external logging device or cable. The sonde utilises a new smaller self cleaning system, found on the AP-6000 portable probe, allowing it to be deployed permanently for long periods.

### Build

All Aquaprobes are made with the same marine grade aluminium, finished in black with hard anodising for excellent corrosion and biofouling resistance. The use of metal, as opposed to plastic, gives our products their characteristic weight and high quality look and feel.

### Sensors

The AS-6000 comes with all of the common water quality testing sensors pre fitted to the probe:

pH • ORP • Conductivity • TDS • SSG • Resistivity • Salinity  
• Dissolved Oxygen • Depth • Temperature

### Sonde comes with 4 empty sockets

The AS-6000 comes with four empty Aux sockets pre-fitted with removable blanking plugs. These sockets allow you to customise your sonde by adding in additional sensors. Each socket can house either an Ion Selective Sensor (ISE) or any of our optical sensors.

(Right) Sonde with sensor sockets exposed and central self cleaning system visible.



### New smaller self cleaning system



AS-6000 with additional sensors fitted to the body

The AS-6000's removable self cleaning system fits into the probe body via a socket and screw collar. The small shaft houses a small but powerful motor that allows the two brushes to rotate and clean all fitted sensors, as seen above.

### Aquasonde Features

All AquaSondes feature an internal memory that is capable of storing up to 150,000 full data sets, that equates to over 3 years continuous data logging.

Each AquaSonde is supplied with a QuickDeploy Key, used to initiate the probe's logging regime and SondeLink PC software for complete logger set up, sensor calibration and data collection.





## Logging/Event/Cleaning Rates

- Programmable. Fastest logging rate 0.5Hz.
- Slowest logging rate 120 hours.
- Event testing and logging on any single parameter programmable between 1 minute and 99 hours.
- Programmable cleaning rate

## PC Application

SondeLink free PC application provides the following features via an integrated USB interface:

- Live data viewing
- Live data logging directly to PC
- Full calibration with calibration report generation
- Retrieval of logged data
- Logged data output to spreadsheet and text files
- Full setup utility
- Site name and GPS geotagging



SondeLink PC application

## GPS Aquameter

The GPS Aquameter is a hand held device with a display for live data viewing and data recording. Used with a cable, the Aquameter can display live data from the AS-6000. GPS coordinates are recorded everytime you take a reading. It is designed to be very simple to use and to make your job easier in the field.



## Vented Data Cable Option

All models feature an internal barometric pressure sensor that is used when calculating Depth and percentage saturation of Dissolved Oxygen.

If the AquaSonde is to be deployed for more than a day at a time and accurate Depth and %DO values are required, a vented cable is recommended.

For profiling, dip testing or short-term deployment during which time the change in barometric pressure will be negligible, a vented cable is not necessary.

## Vent / Data Hub

This option is a termination device for the vented cable that allows a desiccant bottle to be attached and provides a USB port for data retrieval and a visual indication of AquaSonde health, battery and memory condition.

By attaching a PC running SondeLink to the USB port, direct access can be gained to the AquaSonde allowing live data viewing, live data logging directly to PC, retrieval of logged data and full setup, all whilst the AquaSonde is submerged.

## Specifications

	AQUASONDE-6000
IP	IP68 (permanent immersion)
Depth	Min 75mm. Max 100m*
Temperature	-5 °C - +70 °C
Dimensions	58 x 570mm
Weight (Inc Batt)	1.9kg
Batteries **	2x 3.6V Lithium D cells. Life greater than 10 months.
Memory capacity	150,000 full data sets

\* 100m submersion for profiling, max duration 12 hours, 30m submersion suitable for permanent deployment.

\*\* Battery life estimated at 20°C with a logging rate of 15 minutes and a cleaning rate

Standard Parameters	Parameter	Range	0 - 500.0% / 0 - 50.00 mg/L	
		Dissolved Oxygen	Resolution	0.1% / 0.01 mg/L
			Accuracy	0 - 200%: ± 1% of reading, 200% - 500%: ± 10%
Depth AP-2000/ AP-5000	Range	± 0 - 60.00 m (60m max displayed depth, max probe immersion 100m)		
	Resolution	1 cm		
	Accuracy	± 0.5% FS		
Depth AP-7000	Range	± 0 - 99.99 m		
	Resolution	1 cm		
	Accuracy	± 0.2% FS		
Conductivity (EC)	Range	0 - 200 mS/cm (0 - 200,000 µS/cm)		
	Resolution	3 Auto-range scales: 0 - 9999 µS/cm, 10.00 - 99.99 mS/cm, 100.0 - 200.0mS/cm		
	Accuracy	± 1% of reading		
TDS*	Range	0 - 100,000 mg/L (ppm)		
	Resolution	2 Auto-range scales: 0 - 9999mg/L, 10.00 - 100.00g/L		
	Accuracy	± 1% of reading		
Resistivity*	Range	5 Ω • cm - 1 MΩ • cm		
	Resolution	2 Auto-range scales: 5 - 9999 Ω • cm, 10.0 - 1000.0 KΩ • cm		
	Accuracy	± 1% of reading		
Salinity*	Range	0 - 70 PSU / 0 - 70.00 ppt (g/Kg)		
	Resolution	0.01 PSU / 0.01 ppt		
	Accuracy	± 1% of reading		
Seawater Specific Gravity*	Range	0 - 50 st		
	Resolution	0.1 st		
	Accuracy	± 1.0 st		
pH	Range	0 - 14 pH / ± 625mV		
	Resolution	0.01 pH / ± 0.1mV		
	Accuracy	± 0.1 pH / ± 5mV		
ORP	Range	± 2000mV		
	Resolution	0.1mV		
	Accuracy	± 5mV		
Temperature (non freezing)	Range	-5°C - +50°C (23°F - 122°F)		
	Resolution	0.01°C / 0.1°F		
	Accuracy	± 0.5 °C		

\* Readings calculated from EC and temperature electrode values

ISE	Parameter	Range	0 - 9,000mg/L (ppm)	
		Ammonium	Resolution	2 Auto-range scales: 0.00 - 99.99 mg/L, 100.0 - 8,999.9 mg/L
			Accuracy	± 10% of reading or 2ppm (whichever is greater)
Ammonia†	Range	0 - 9,000mg/L (ppm)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 mg/L, 100.0 - 8,999.9 mg/L		
	Accuracy	± 10% of reading or 2ppm (whichever is greater)		
Chloride	Range	0 - 20,000mg/L (ppm)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 mg/L, 100.0 - 19,999.9 mg/L		
	Accuracy	± 10% of reading or 2ppm (whichever is greater)		
Fluoride	Range	0 - 1,000mg/L (ppm)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 mg/L, 100.0 - 999.9 mg/L		
	Accuracy	± 10% of reading or 2ppm (whichever is greater)		
Nitrate	Range	0 - 30,000mg/L (ppm)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 mg/L, 100.0 - 29,999.9 mg/L		
	Accuracy	± 10% of reading or 2ppm (whichever is greater)		
Calcium	Range	0 - 2,000mg/L (ppm)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 mg/L, 100.0 - 1,999.9 mg/L		
	Accuracy	± 10% of reading or 2ppm (whichever is greater)		

† Ammonium electrode required. Readings calculated from ammonium, pH and temperature values.

Optical	Parameter	Range	0 - 3000 NTU	
		Turbidity	Resolution	2 Auto-range scales: 0.0 - 99.9 NTU, 100 - 3000 NTU
			Accuracy	± 5% of auto-ranged scale
Chlorophyll	Range	0 - 500.0 µg/L (ppb)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 µg/L, 100.0 - 500.0 µg/L		
	Repeatability	± 5% of reading		
Phycocyanin (freshwater BGA)	Range	0 - 300,000 cells/mL		
	Resolution	1 cell/mL		
	Repeatability	± 10% of reading		
Phycerythrin (marine BGA)	Range	200,000 cells/mL		
	Resolution	1 cell/mL		
	Repeatability	± 10% of reading		
Rhodamine WT Dye	Range	0 - 500 µg/L (ppb)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 µg/L, 100.0 - 500.0 µg/L		
	Accuracy	± 5% of reading		
Fluorescein Dye	Range	0 - 500 µg/L (ppb)		
	Resolution	2 Auto-range scales: 0.00 - 99.99 µg/L, 100.0 - 500.0 µg/L		
	Accuracy	± 5% of reading		
Refined Oil	Range	0 - 10,000 µg/L (ppb) (Naphthalene)		
	Resolution	0.1 µg/L		
	Repeatability	± 10% of reading		
CDOM / FDOM	Range	0 - 20,000 µg/L (ppb) (Quinine Sulphate)		
	Resolution	2 Auto-range scales: 0.0 - 9,999.9 µg/L, 10,000 - 20,000 µg/L		
	Repeatability	± 10% of reading		

The accuracy figures quoted throughout this document represent the equipment's capability at the calibration points at 25°C. These figures do not take into account errors introduced by variations in the accuracy of calibration solutions and errors beyond the control of the manufacturer that may be introduced by environmental conditions in the field. Accuracy in the field is also dependent upon full calibration and minimal time between calibration and use.