



GPS Aquameter

The GPS Aquameter is a hand held device with a display for live data viewing and data recording. As one of our flagship products it is included in every Aquaprobe package. It is designed to be very simple to use and to make your job easier in the field.

All currently measured data can be recorded by pressing the M+ button, as you record your dataset the Aquameter uses its built in GPS receiver to record the precise location that the measurements were taken from, with data being viewable in Google Earth.

Build



Left: AquaLink screen shot. Right: Google Earth screen shot with GeoTags

GPS Aquameter Mechanical Specification

Dimensions (L x H x D)	90mm x 180mm x 39mm
Weight	425g
Display	80 character backlit LCD
Data Memory	10,000 full sets inc GLP data
GPS Receiver	12 channel with int antenna
GPS Accuracy	+/- 10m in all 3 dimensions
Atmospheric Pressure	150mb - 1150mb Accuracy +/- 1mb
Interface	USB (cable provided)
Power Supply	5 x AA cells. Alkaline or Ni-MH rechargeable
Battery Life	Alkaline > 20 hours Ni-MH > 40 hours
Operating Temperature	-20°C to +70 C
Protection Class	IP67

Process data in AquaLink

- Simple data download via button
- Tick and un-tick datasets to customise your outputs
- Output a text report for all highlighted data
- Output data as a CSV file that you can open in Excel
- Output data as a .KML file for use in Google Earth

The GPS Aquameter can be used with Aquaprobes to measure the following parameters



Standard Parameters		Range	0 – 500.0% / 0 – 50.00 mg/L	
		Dissolved Oxygen	Resolution	0.1% / 0.01mg/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	1cm		
	Accuracy	± 0.5% FS		
Depth AP-7000	Range	± 0 – 99.99 m		
	Resolution	1cm		
	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 σt		
	Resolution	0.1 σt		
	Accuracy	± 1.0 σt		
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	± 0.1 °C		

* Readings calculated from EC and temperature electrode values

ISE		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		Range	0 – 4000 NTU	
		Turbidity	Resolution	2 Auto-range scales: 0.0 - 99.9 NTU, 100 - 4000 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.