

Aquaread Multiparameter Water Quality Instruments

Aquaread water quality meters measure multiple parameters simultaneously. The Aquaprobe is constructed of superior marine grade aluminum designed for use in fresh, marine, and waste-water applications. Kevlar strands run the length of the cables for extra tensile strength, and the hand-held Aquameter display features automatic data recording, probe calibration data, and global position (GPS). Take your portable water quality monitoring to the next level with Aquaread.

AQUAREAD FEATURES

- Built-in GPS with location tagging and data view in Google Earth
- Record all data sets, including all parameters, and calibration data
- Barometric pressure compensation with depth enabled Aquaprobes
- Ergonomic handheld design with surround grip
- Supplied with AquaLink PC software and USB cable for data management

AQUAPROBE FEATURES

- Portable 42mm (1.65") diameter probe design
- Constructed with marine grade anodized aluminum
- Rugged metal connector for greater probe strength
- IP68 permanent immersion rating
- Available with 3m, 5m, 10m, or 30m cables
- Weighted to allow ease of deployment beyond water surface
- Water tight resin filled probe protects circuitry during extended installations
- Optional Aquaprobe Flow Cell



GPS
Aquameter

AP-700/800
Aquaprobe

AP-2000/2000-D
Aquaprobe

Rugged
Carry Case for
AP-2000/2000-D
Packages

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

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AQUAPROBE MODEL CAPABILITIES COMPARISON

	AP-700	AP-800	AP-2000	AP-2000-D
GPS	X	X	X	X
pH and ORP	X	X	X	X
Temperature	X	X	X	X
Conductivity	X	X	X	X
Galvanic Dissolved Oxygen	X	X		
Optical Dissolved Oxygen		O	X	X
Sapphire Turbidity		X	O	O
Depth/Water Level Logging		O		X
Detachable Cable			X	X
Cable Extensions	X	X	X	X
Standard Case	X	X		
Hard-Sided Field Case			X	X
Additional Aux Ports				
Aux Port 1			ISE or Optical	ISE or Optical
Aux Port 2			ISE only	ISE or Optical

X=Included
O=Optional

USING THE AP-2000-D AS A WATER LEVEL LOGGER

The AP-2000-D features a depth sensor. This sensor is capable of measurement accuracy of 0.5%FS.

The depth is zeroed automatically while the conductivity is reading zero. As soon as the conductivity registers over 0 the probe depth begins to be calculated.

Once the probe is lowered to the desired depth it must be secured, then using the GPS Aquameter the depth can be zeroed once again.

Now the AP-2000-D will detect small changes in the water level and display them as a positive or negative change.



(Depth Sensor)



Hard-Sided Carry Case for AP-700 & AP-800 Packages

ADVANCED OPTICAL DO SENSOR

The optical sensor works on the principle of Dynamic Luminescence Quenching. A gas-permeable material known as a luminophore is excited with short bursts of blue light, which causes molecules in the luminophore to emit red photons.

By measuring the delay of the returned red photons with respect to the blue excitation, the level of dissolved oxygen present can be determined. The optical method has various advantages over the historical galvanic method for measuring dissolved oxygen.

The most important being that as no oxygen is consumed across a membrane, the sensor does not require a flow of liquid passing over it to achieve a stable reading. Other advantages include infrequent calibrations (every 3-6 months), and replaceable caps that last over 2 years.

The bright red and blue LED's of the optical DO sensor.



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SENSOR SPECIFICATIONS

Standard Parameters

Optical Dissolved Oxygen

Range	0 – 500.0%/0 – 50.00 mg/L
Resolution	0.1%/0.01mg/L
Accuracy	0 – 200%: ±1% of reading. 200% – 500%: ±10%

Depth AP-2000-D

Range	± 0 – 60.00 m (60m max displayed depth, max probe immersion 100m)
Resolution	1 cm
Accuracy	±0.05% FS

Conductivity (EC)

Range	0-200 mS/cm (0–200,000 µS/cm)
Resolution	3 Auto-range scales: 0–9,999 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: 0–9,999mg/L, 10.00–100.00g/L
Accuracy	±1% of reading

Resistivity*

Range	5Ω-cm–1MΩ-cm
Resolution	2 Auto-range scales: 5–9,999 Ω-cm, 10.0–1,000.0 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 σ _t
Resolution	0.1 σ _t
Accuracy	±1.0 σ _t

pH

Range	0–14 pH/±625mV
Resolution	0.01 pH/±0.1mV
Accuracy	±0.01 pH/±5mV

* Readings calculated from EC and temperature electrode values.

ORP

Range	±2,000mV
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

ISE Electrode

Ammonium

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 2 ppm (whichever is greater)

Ammonia**

Range	0–9,000 mg/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 2 ppm (whichever is greater)

Chloride

Range	0–20,000mg/L (ppm)
Resolution	2 Auto-range scales: 0.00–99.99 mg/L, 100.0–999.9 mg/L
Accuracy	±10% of reading or 2 ppm (whichever is greater)

Fluoride

Range	0–1,000mg/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 2 ppm (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 2 ppm (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 2 ppm (whichever is greater)

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

Optical Electrode

Turbidity

Range	0–3000 NTU
Resolution	2 Auto-range scales: 0.0–99.9 NTU, 100–3000 NTU
Accuracy	±5% of auto ranged scale

Chlorophyll

Range	0–500 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 (Fresh Water Blue-Green Algae)

Range	0–300,000 cells/mL
Resolution	1 cell/mL
Repeatability	±10% of reading

Phycoerythrin (Marine Blue-Green Algae)

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

(Colored Dissolved Organic Matter/Fluorescent Diss. Organic Matter)

Range	0–20,000µg/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

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