

AP-7000



Self cleaning sonde for long term deployment

The AP-7000 takes long term deployment to the next level. It features a novel dual wiper system to clean ALL electrodes. It comes with a standard set of sensors plus 6 Aux ports to house any combination of Aquaread ISE or Optical sensors.

Standard Parameters:

Optical DO, Specific EC, Absolute EC,
pH, ORP, TDS, Resistivity, Salinity
SSG, Depth and Temperature.

Plus 6 of the following sensor options in any combination!

ISE Electrodes:

Ammonium &
Ammonia,
Chloride,
Fluoride,
Nitrate,
Calcium.

Optical Electrodes:

Turbidity,
Chlorophyll,
Blue Green Algae,
Rhodamine,
Fluorescein,
Refined Oil.



AP-7000 ELECTRODE

AP-7000 Mechanical Specification

Protection Class	IP68 (permanent immersion)
Immersion Depth	Min 150mm (6"). Max 100m (330')
Operating Temperature	-5°C – +50°C (23°F – 122°F)
Dimensions (L x Dia)	450mm x 77mm (18" x 3")
Weight (excluding cable)	1350g (3 lbs)

AP-7000 Standard Electrode Specification

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	Range	0 – 100m (0 – 330F)
	Resolution	0.01m/F
	Accuracy	± 1%
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 or ± 1µS/cm if greater
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 or ± 1mg/L if greater
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 or ± 1 Ω•cm if greater
Salinity*	Range	0 – 70 PSU / 0 – 70.00 ppt (g/Kg)
	Resolution	0.01 PSU / 0.01 ppt
	Accuracy	± 1% of reading or ± 0.1 unit if greater
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
ORP	Range	± 2000mV
	Resolution	0.1mV
	Accuracy	± 5mV
Temperature	Range	-5°C – +50°C (23°F – 122°F)
	Resolution	0.1° C/F
	Accuracy	± 0.5° C

* Readings calculated from EC and temperature electrode values

The accuracy figures quoted above 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.

SPECIFICATIONS

Optional AP-7000 ISE Electrode Specification

Ammonium	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
Ammonia[†]	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
Chloride	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
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
Nitrate	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
Calcium	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

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

Optional AP-7000 Optical Electrode Specification

Turbidity	Range	0 – 3000 NTU
	Resolution	2 Auto-range scales: 0.0 99.9 NTU, 100 – 3000 NTU
	Repeatability	± 2% of reading
Chlorophyll	Range	0 – 500 µg/L (ppb)
	Resolution	0.1 µg/L
	Repeatability	± 2% of reading
Phycocyanin (Freshwater Blue -Green Algae)	Range	0 – 300,000 cells/mL
	Resolution	1 cell/mL
	Repeatability	± 2% of reading
Phycoerythrin (Marine Blue- Green Algae)	Range	0 – 200,000 cells/mL
	Resolution	1 cell/mL
	Repeatability	± 2% of reading
Rhodamine WT Dye	Range	0 – 500 µg/L (ppb)
	Resolution	0.1 µg/L
	Accuracy	± 5% of reading
Fluorescein Dye	Range	0 – 500 µg/L (ppb)
	Resolution	0.1 µg/L
	Accuracy	± 5% of reading
Refined Oil	Range	0 – 10,000 µg/L (ppb)
	Resolution	0.1 µg/L
	Repeatability	± 2% of reading

AP-7000 LOGGING OPTIONS

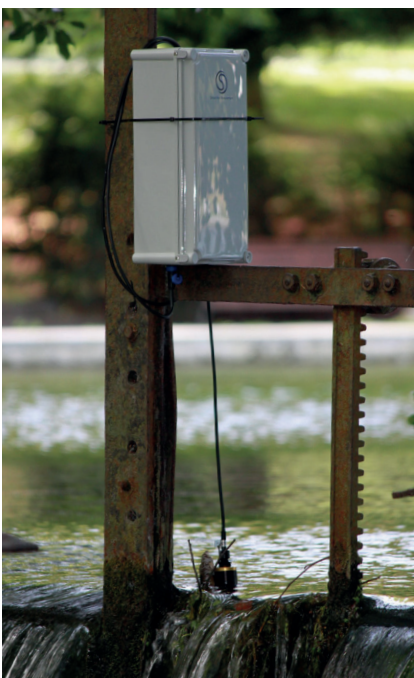


The AP-7000 is designed for long term deployment and has a range of logging options available.



View data in realtime using the GPS Aquameter. The meter is also used to calibrate the electrodes, to assign each optional sensor to an Aux Port and to carry out short term logging.

The AquaLogger - 7000 designed to be deployed with the AP-7000 sonde for un-manned monitoring.



The AP-7000 has various output options: Aquaread standard output, SDI-12 and Modbus RS-485. Using these outputs the sonde can be connected to any number of telemetry or data logging devices.