

# 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

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

## AP-7000 Standard Electrode Specification

<b>Optical Dissolved Oxygen</b>	Range	0 – 500.0% / 0 – 50.00 mg/L
	Resolution	0.1% / 0.01mg/L
	Accuracy	0 - 200%: ± 1% of reading. 200% - 500%: ± 10%
<b>Depth</b>	Range	0 – 100m (0 – 330F)
	Resolution	0.01m/F
	Accuracy	± 1%
<b>Conductivity (EC)</b>	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
<b>TDS*</b>	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
<b>Resistivity*</b>	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
<b>Salinity*</b>	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
<b>Seawater Specific Gravity*</b>	Range	0 – 50 σ <sub>t</sub>
	Resolution	0.1 σ <sub>t</sub>
	Accuracy	± 1.0 σ <sub>t</sub>
<b>pH</b>	Range	0 – 14 pH / ± 625mV
	Resolution	0.01 pH / ± 0.1mV
	Accuracy	± 0.01 pH / ± 5mV
<b>ORP</b>	Range	± 2000mV
	Resolution	0.1mV
	Accuracy	± 5mV
<b>Temperature</b>	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

<b>Ammonium</b>	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
<b>Ammonia<sup>†</sup></b>	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
<b>Chloride</b>	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
<b>Fluoride</b>	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
<b>Nitrate</b>	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
<b>Calcium</b>	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

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