PRO SERIES

The Next Generation of
Multiparameter Water Quality
Monitoring Instruments
AP-PRO & AS-PRO

Titanium & Carbon Fibre Build
Smart Sensors with Memory
Unique Measurement Chamber
Integrated Bluetooth (AS)
300m Depth Rating
Self Cleaning

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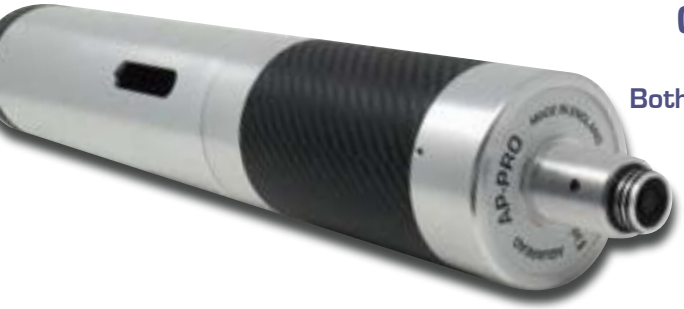
AP-PRO

Every Aspect of Design Levelled Up

The PRO range builds on the success of the Aquaprobe and Aquasonde series, elevating every aspect of the construction, design, features and specifications. They bring with them new-to-industry materials allowing measurement at far greater depths, a unique measurement chamber for improved sensor stability in the most demanding applications and smart sensors that hold their calibration data, allowing for simple sensor exchange in the field.



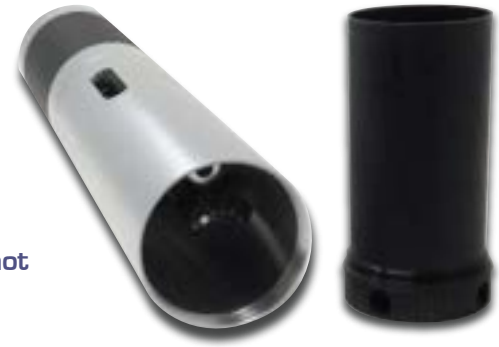
Constructed Using Titanium and Carbon Fibre

Both the AP and AS models of the PRO range feature a combination of titanium and carbon fibre, offering both exceptional corrosion resistance and high compressive strength. As a result both are capable of measuring at extreme depths of up to 1000ft (300m).

Unique Measurement Chamber

The protective end cap, found on all Aquaprobes, has been extended along the inside of the sleeve. When screwed onto the sleeve it creates a more stable measurement chamber for all installed sensors.

Its matt black design prevents reflection and the sealed environment is not subject to interference from stray light.



Measurement chamber removed from probe sleeve

Measurement Chamber as a Calibration Vessel

The measurement chamber can also be used for sensor calibration using the calibration cup that push-fits to the base of the probe. This surrounds and seals the holes and allows the probe to stand upright.

Utilising the measurement chamber in this way reduces the volume of calibration solution required, reducing maintenance costs.

Calibration cup seals measurement chamber and allows probe to stand during calibration.

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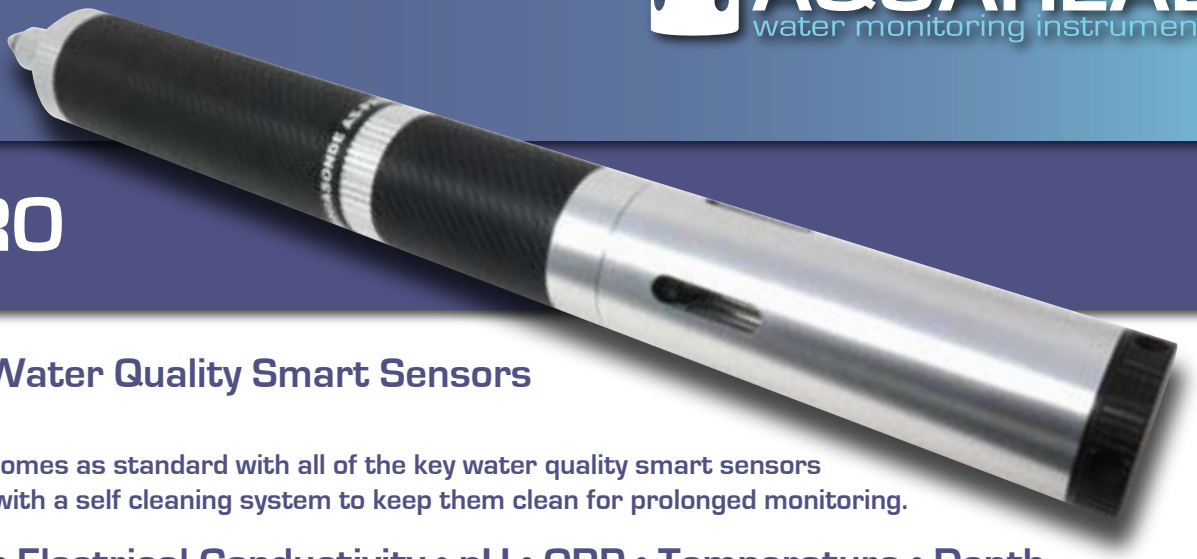
AS-PRO



Full Set of Water Quality Smart Sensors

The PRO range comes as standard with all of the key water quality smart sensors and is equipped with a self cleaning system to keep them clean for prolonged monitoring.

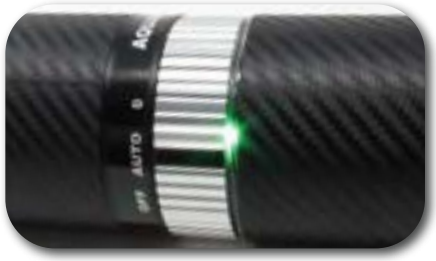
Optical DO • Electrical Conductivity • pH • ORP • Temperature • Depth

Smart Sensors Included

The range sees the introduction of smart sensors, sensors that hold calibration data allowing exchange without the need to recalibrate. Sensors can be carefully calibrated in the lab and taken to the deployment site for simple exchange removing the need to calibrate in the field

Four Auxiliary ports allow extra smart sensors to be installed diversifying monitoring options.

Unique Control Ring on AS-PRO



The AS-PRO is fitted with a novel three-position switch ring mechanism allowing you to confidently switch the function of the sonde. Using the switch ring you can turn the unit off, set it to auto or activate BlueTooth mode, with an LED ring for visual conformation.

When in Auto mode the sonde will detect if its connector has been blanked off, if it's connected to a vented cable, if it's connected to an Aquameter or if it's connected to a PC via USB and react accordingly. When set to BlueTooth mode, using the SondeLink App, the user can take live data readings, calibrate the Sonde, set-up the logging regime, check battery and memory levels and upload logged data from the Sonde to the PC.

AP-PRO

Protection Class	IP68 (permanent immersion)
Immersion Depth	Max 1000ft (300m)
Operating Temperature	-5˚C - +70˚C
Dimensions (L x Dia)	410mm x 70mm
Weight	950g
Power	Aquameter / Aqualogger

AS-PRO

Protection Class	IP68 (permanent immersion)
Immersion Depth	Max 1000ft (300m)
Operating Temperature	-5˚C - +70˚C
Dimensions (L x Dia)	630mm x 70mm
Weight	1.9kg
Power	2x Lithium D Cells

AS-Pro features an integrated barometric pressure sensor for automatic depth and Dissolved Oxygen saturation correction

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Sensor Specifications

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Standard Parameters

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 – 300.00 m
	Resolution	1cm
	Accuracy	± 0.04% 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	± 0.5°C

* Readings calculated from EC and temperature electrode values

ISE

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 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

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 – 500.0 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) (Napthalene)
	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.