



Aqua Series Waterproof Portables

pH
ORP

Conductivity
TDS
Salinity



Dissolved
Oxygen

Temperature



Waterproof



User
Friendly



One-Touch
Calibration

www.tps.com.au

Rugged and Waterproof

The **Aqua Series** enclosure and connectors are waterproof rated to IP65. A sturdy carry case is available for field use to protect your investment. The case holds the instrument, sensors and standard solutions.

TPS uses the latest microprocessor electronics in the **Aqua Series**, resulting in excellent long term reliability.



Aqua-CPA model shown at full size.

User-friendly

The **Aqua Series** use an alphanumeric display which provides plain text prompts and error messages. There are no obscure codes to interpret like some other brands.

The simple keypad uses just four keys to perform all calibration and set-up functions. This makes operation of the **Aqua Series** absolutely simple.

One-Touch Calibration

Calibration of the **Aqua Series** is easy. Just place the relevant sensor into the standard solution supplied and press the Calibrate key. That's all there is to it!

Sensor condition is displayed after calibration has been completed, allowing for preventative maintenance. This information can be recalled on the display at any time.

All calibration information is stored in memory when the **Aqua Series** is switched off, even if the battery is removed.

Battery Saver Function

The **Aqua Series** are supplied with a 9V Alkaline battery, which provides up to 100 hours of continuous use, depending on model. A handy battery-saver function switches the meter off after 5 minutes if no keys have been pressed. This function can also be disabled.

Multiple Display Options

The **Aqua Series** displays up to three parameters simultaneously, for example Conductivity, pH and Temperature on the Aqua-CPA. The user can choose which two parameters are displayed. Alternatively, a large digit mode is available which displays one parameter in large digit size.

Australian Made

The **Aqua Series** is proudly designed and manufactured in Australia. Our aim is to provide you with the best quality, service and value for money. The TPS Quality System has been certified in accordance with ISO 9001:2008. Since 1968, TPS has built a reputation for excellent support and service that is second to none. The **Aqua Series** sets the standard for Quality, Service and Value for handheld instruments.

Model	pH	ORP	Conductivity	TDS	Salinity	Dissolved Oxygen	Temperature	Notes
Aqua-pH	●	●					●	Ideal for School & University labs (ORP sensor optional)
Aqua-CP/A	●		●	●	●		●	pH, Conductivity, TDS & Salinity with Auto-ranging
Aqua-D						●	●	Uses TPS ED1 Dissolved Oxygen sensor (5m depth max)
Aqua-DY						●	●	Uses YSI Dissolved Oxygen sensor (20m depth max)
Aqua-DP	●	●				●	●	Uses TPS ED1 Dissolved Oxygen sensor (5m depth max)
Aqua-C			●	●	●		●	Auto-ranging Conductivity, TDS & Salinity
Aqua-TP	●	●		●	●		●	pH, ORP (sensor optional), TDS & Salinity for pools & spas

Ordering Information

Aqua-pH

Aqua-pH 1m	121112/1
Aqua-pH 3m	121112/3
Aqua-pH 5m	121112/5

1, 3 & 5 metre options include:

1 metre bundle 121112/1:

pH Sensor, Surface only, 1m	121207
Temperature Sensor, 1m	121247
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
9V Alkaline Battery	
Manual	

3 metre bundle 121112/3:

pH Sensor, Submersible, 3m	111231
Temperature Sensor, 3m	121255
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
9V Alkaline Battery	
Manual	

5 metre bundle 121112/5:

pH Sensor, Submersible, 5m	111224
Temperature Sensor, 5m	121256
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
9V Alkaline Battery	
Manual	

pH-ORP-Temperature

Options and Accessories

pH Sensor Upgrade for difficult samples such as meat, dairy, slurries...	
Upgrade to Intermediate Junction pH sensor, 1m	121200/1
Upgrade to Intermediate Junction pH sensor, 3m	121200/3
Upgrade to Intermediate Junction pH sensor, 5m	121200/5

pH sensors with Integral Temperature sensing...

<i>pH meters only, within the labCHEM, smartCHEM, AQUA & WP series & pH CUBE</i>	
pH & Temp, Surface only, 1m	121287
pH & Temp, Intermediate Junction, 1m	121284
pH & Temp, (IH40) Submersible, 1m	121280

ORP Sensors:

ORP, Surface only, 1m	121262
ORP, Submersible, 1m	121268
ORP, Intermediate Junction, 1m	121269
ORP Calibration Solution, 200mL	121309

Cable Extension:

Extra cable, per metre (20 metre maximum)	130040
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Carry case:

Aluminium Carry Case	130057
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Aqua-C

Aqua-C 1m	122162/1
Aqua-C 3m	122162/3
Aqua-C 5m	122162/5

1, 3 & 5 metre Options Include

1 metre bundle 122162/1:

k=1.0 Cond/ATC/Temp 1m, plastic	122201
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

3 metre bundle 122162/3:

k=1.0 Cond/ATC/Temp 3m, plastic	122236
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

5 metre bundle 122162/5:

k=1.0 Cond/ATC/Temp 5m, plastic	122198
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

Conductivity-TDS-Salinity-Temperature

Options and Accessories

Cable Extension:

Extra cable, per metre (20 metre maximum)	130040
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Carry case:

Aluminium Carry Case	130057
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Same Price Interchange Option:

Choose between k=0.1, k=1 and k=10 Range Conductivity Sensors

1 metre Plastic (for 1 metre bundle 122162/1)

k=10 Cond/ATC/Temp 1m, plastic	122221
k=0.1 Cond/ATC/Temp 1m, plastic	122235

3 metre Plastic (for 3 metre bundle 122162/3)

k=10 Cond/ATC/Temp 3m, plastic	122237
k=0.1 Cond/ATC/Temp 3m, plastic	122238

5 metre Plastic (for 5 metre bundle 122162/5)

k=10 Cond/ATC/Temp 5m, plastic	122219
k=0.1 Cond/ATC/Temp 5m, plastic	122199

1 metre Glass (for 1 metre bundle 122162/1)

k=1 Cond/ATC/Temp 1m, glass	122216
k=1 Cond/ATC/Temp Low Volume	122214
k=10 Cond/ATC/Temp 1m, glass	122212
k=0.1 Cond/ATC/Temp 1m, glass	122229

Aqua Series General Specifications

Enclosure

Rugged ABS plastic case, waterproof to IP65. Connectors also waterproof to IP65.

Display

24 character alphanumeric LCD with user-friendly menu system and full text messages.

Battery Saver

On. . . Auto switch-off after 5 minutes. Off. . . Continuous use.

Power

9V Alkaline Battery for up to 100 hours depending on model.

Dimensions

165 x 85 x 35 mm

Mass

Instrument only Approx 280 g
Full bundle. Up to 2.0 kg, depending on model

Environment

Temperature. 0 to 45 °C
Humidity. 0 to 95% R.H.

**AQUA Series
Fold-out Stand**



Ordering Information

Aqua-CPA

Conductivity-TDS-Salinity-pH-Temperature

Aqua-CPA 1m	121135/1
Aqua-CPA 3m	121135/3
Aqua-CPA 5m	121135/5

1, 3 & 5 metre Options Include

1 metre bundle 121135/1:

pH Sensor, Surface only, 1m	121207
k=1.0 Cond-ATC-Temp 1m, plastic	122201
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

3 metre bundle 121135/3:

pH Sensor, Submersible, 3m	111231
k=1.0 Cond-ATC-Temp 3m, plastic	122236
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

5 metre bundle 121135/5:

pH Sensor, Submersible, 5m	111224
k=1.0 Cond-ATC-Temp 5m, plastic	122198
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

Options and Accessories

pH Sensor Upgrade for difficult samples such as meat, dairy, slurries...

Upgrade to Intermediate Junction pH sensor, 1m	121200/1
Upgrade to Intermediate Junction pH sensor, 3m	121200/3
Upgrade to Intermediate Junction pH sensor, 5m	121200/5

Cable Extension:

Extra cable, per metre (20 metre maximum)	130040
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Carry case:

Aluminium Carry Case	130057
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Same Price Interchange Option:

Choose between k=0.1, k=1 and k=10 Range Conductivity Sensors

1 metre Plastic (for 1 metre bundle 121135/1)

k=10 Cond/ATC/Temp 1m, plastic	122221
k=0.1 Cond/ATC/Temp 1m, plastic	122235

3 metre Plastic (for 3 metre bundle 121135/3)

k=10 Cond/ATC/Temp 3m, plastic	122237
k=0.1 Cond/ATC/Temp 3m, plastic	122238

5 metre Plastic (for 5 metre bundle 121135/5)

k=10 Cond/ATC/Temp 5m, plastic	122219
k=0.1 Cond/ATC/Temp 5m, plastic	122199

1 metre Glass (for 1 metre bundle 121135/1)

k=1 Cond/ATC/Temp 1m, glass	122216
k=1 Cond/ATC/Temp Low Volume	122214
k=10 Cond/ATC/Temp 1m, glass	122212
k=0.1 Cond/ATC/Temp 1m, glass	122229

Aqua-DP

uses ED1 sensor

Dissolved Oxygen-pH-ORP-Temperature

Aqua-DP 1m	123152/1
Aqua-DP 3m	123152/3
Aqua-DP 5m	123152/5

1, 3 & 5 metre Options Include

1 metre bundle 123152/1:

pH Sensor, Surface only, 1m	121207
DO2 Sensor - ED1 (no cable)	123400
1m cable for Sensor (ED1)	123228
Sensor Guard (ED1)	123202
Membrane & filling solution kit	123301
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
9V Alkaline Battery	
Manual	

3 metre bundle 123152/3:

pH Sensor, Submersible, 3m	111231
DO2 Sensor - ED1 (no cable)	123400
3m cable for Sensor (ED1)	123230
Sensor Guard (ED1)	123202
Membrane & filling solution kit	123301
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
9V Alkaline Battery	
Manual	

5 metre bundle 123152/5:

pH Sensor, Surface only, 5m	111224
DO2 Sensor - ED1 (no cable)	123400
5m cable for Sensor (ED1)	123232
Sensor Guard (ED1)	123202
Membrane & filling solution kit	123301
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
9V Alkaline Battery	
Manual	

Options and Accessories

pH Sensor Upgrade for difficult samples such as meat, dairy, slurries...

Upgrade to Intermediate Junction pH sensor, 1m	121200/1
Upgrade to Intermediate Junction pH sensor, 3m	121200/3
Upgrade to Intermediate Junction pH sensor, 5m	121200/5

ORP Sensors:

ORP, Surface only, 1m	121262
ORP, Submersible, 1m	121268
ORP, Intermediate Junction, 1m	121269
ORP Calibration Solution, 200mL	121309

Dissolved Oxygen Sensor Maintenance:

Membrane & filling solution kit	123301
Filling Solution only, 45mL	123303
Zero calibrate Sodium Sulphite	123302
BOD Bottle Adaptor (ED1)	123201

Carry case:

Aluminium Carry Case	130057
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Note:

(Whilst longer cable lengths are available, please note that the maximum submersion depth for the ED1 123400 sensor is 5 metres)



Protect your investment with the optional aluminium carry case.
The case holds the instrument, sensors and calibration solutions.

Part No 130057

Ordering Information

Aqua-D

uses ED1 sensor

Dissolved Oxygen-Temperature

Aqua-D 1m	123143/1
Aqua-D 3m	123143/3
Aqua-D 5m	123143/5

1, 3 & 5 metre Options Include

1 metre bundle 123143/1:

DO2 Sensor - ED1 (no cable)	123400
1m cable for Sensor (ED1)	123228
Sensor Guard (ED1)	123202
Membrane & filling solution kit	123301
9V Alkaline Battery	
Manual	

3 metre bundle 123143/3:

DO2 Sensor - ED1 (no cable)	123400
3m cable for Sensor (ED1)	123230
Sensor Guard (ED1)	123202
Membrane & filling solution kit	123301
9V Alkaline Battery	
Manual	

5 metre bundle 123143/5:

DO2 Sensor - ED1 (no cable)	123400
5m cable for Sensor (ED1)	123232
Sensor Guard (ED1)	123202
Membrane & filling solution kit	123301
9V Alkaline Battery	
Manual	

Options and Accessories

Dissolved Oxygen Sensor Maintenance:

Membrane & filling solution kit	123301
Filling Solution, 45mL	123303
Zero calibrate Sodium Sulphite	123302
BOD Bottle Adaptor (ED1)	123201

Carry case:

Aluminium Carry Case	130057
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Note:

(Whilst longer cable lengths are available, please note that the maximum submersion depth for the ED1 123400 sensor is 5 metres)

Aqua-DY

uses YSI sensor

Dissolved Oxygen-Temperature

Aqua-DY 1m	123144/1
Aqua-DY 3m	123144/3
Aqua-DY 5m	123144/5

1, 3 & 5 metre Options Include

1 metre bundle 123144/1:

DO2 Sensor YSI5739 (no cable)	123204
1m cable for Sensor (YSI5739)	123212
Membrane & filling solution kit	123300
9V Alkaline Battery	
Manual	

3 metre bundle 123144/3:

DO2 Sensor YSI5739 (no cable)	123204
3m cable for Sensor (YSI5739)	123221
Membrane & filling solution kit	123300
9V Alkaline Battery	
Manual	

5 metre bundle 123144/5:

DO2 Sensor YSI5739 (no cable)	123204
5m cable for Sensor (YSI5739)	123222
Membrane & filling solution kit	123300
9V Alkaline Battery	
Manual	

Options and Accessories

Dissolved Oxygen Sensor Field Stirrer:

YSI 5739 DO2 Sensor Stirrer	123306
(Separate battery source required)	

BOD Dissolved Oxygen Sensors:

YSI non-stirring BOD Sensor	123214
(1.5m cable)	
YSI self-stirring BOD Sensor (Mains power required)	123213
(1.5m cable)	

Dissolved Oxygen Sensor Maintenance:

YSI5739 Field Sensor & Non Stirring BOD

Membrane & filling solution kit	123300
Filling Solution, 45mL	123303
Zero calibrate Sodium Sulphite	123302
Rejuvenation kit	123307
Diaphragm replacement kit (YSI5739 Sensor only)	123304

YSI Self-Stirring BOD Sensor

Membrane Cap Kit	123308
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Cable Extension:

Extra cable, per metre (20 metre maximum)	130040
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Carry case:

Aluminium Carry Case	130057
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Aqua-TP

pool testing only

TDS-Salinity-pH-ORP-Temperature

Aqua-TP 1m	121136/1
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pH Sensor, 1m Surface only	121207
k=1.0 TDS-Salinity-ATC-Temp 1m, plastic	122201
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
2.76 mS/cm Cond Standard, 200mL	122306
9V Alkaline Battery	
Manual	

Options and Accessories

ORP Sensors:

ORP, Surface only, 1m	121262
ORP Calibration Solution, 200mL	121309

Cable Extension:

Extra cable, per metre (20 metre maximum)	130040
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Carry case:

Aluminium Carry Case	130057
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Model	Range(s)	Resolution	Accuracy	General Specifications						
pH	0 to 14.00 pH	0.01 pH	±0.01 pH	<ul style="list-style-type: none"> ▶ Auto Standard Recognition of pH4.01, pH6.86, pH7.00, pH9.18 and pH10.01 buffers ▶ -1.00 to +1.00 pH Asymmetry range ▶ 85.0% to 105.0% Slope range ▶ >3 x 10¹² Ohms input impedance ▶ Automatic or manual temperature compensation 0 to 100 °C 						
ORP	0 to ±1500 mV 0 to ±1000 mV (Aqua-TP only)	1 mV	±1 mV	<ul style="list-style-type: none"> ▶ Factory-set calibration ▶ Temperature compensation not applicable 						
Conductivity	k=0.1 Sensor 0 to 2.000 uS/cm 0 to 20.00 uS/cm 0 to 200.0 uS/cm 0 to 2000 uS/cm k=1.0 Sensor 0 to 20.00 uS/cm 0 to 200.0 uS/cm 0 to 2000 uS/cm 0 to 20.00 mS/cm k=10 Sensor 0 to 200.0 uS/cm 0 to 2000 uS/cm 0 to 20.00 mS/cm 0 to 200.0 mS/cm	0.001 uS/cm 0.01 uS/cm 0.1 uS/cm 1 uS/cm 0.01 uS/cm 0.1 uS/cm 1 uS/cm 0.01 mS/cm 0.1 uS/cm 1 uS/cm 0.01 mS/cm 0.1 mS/cm	±0.5 % of full scale of selected range at 25.0 °C	<ul style="list-style-type: none"> ▶ Auto Standard Recognition of 150 uS/cm, 1413 uS/cm, 2.76 mS/cm, 12.88 mS/cm, 58.0 mS/cm standards ▶ Span range 75% to 133% of nominal k factor ▶ Automatic temperature compensation, -5 to 70 °C 						
TDS	k=0.1 Sensor 0 to 1.000 ppM 0 to 10.00 ppM 0 to 100.0 ppM 0 to 1000 ppM k=1.0 Sensor 0 to 10.00 ppM 0 to 100.0 ppM 0 to 1000 ppM 0 to 10.00 ppK k=10 Sensor 0 to 100.0 ppM 0 to 1000 ppM 0 to 10.00 ppK 0 to 100.0 ppK	0.001 ppM 0.01 ppM 0.1 ppM 1 ppM 0.01 ppM 0.1 ppM 1 ppM 0.01 ppK 0.1 ppM 1 ppM 0.01 ppK 0.1 ppK	±0.5 % of full scale of selected range at 25.0 °C	<ul style="list-style-type: none"> ▶ Calibration with conductivity standards in conductivity mode only ▶ TDS factor 0.40 to 1.00 (default value 0.65) ▶ Automatic temperature compensation, -5 to 70 °C 						
Salinity	k=0.1 Sensor 0 to 0.10 % 0 to 1.0 PSU k=1.0 Sensor 0 to 1.19 % 0 to 11.9 PSU k=10 Sensor 0 to 8.00 % 0 to 80.0 PSU	0.01 % 0.1 PSU 0.01 % 0.1 PSU 0.01 % 0.1 PSU	±0.5 % of full scale of selected range at 25.0 °C	<ul style="list-style-type: none"> ▶ Calibration with conductivity standards in conductivity mode only ▶ Automatic temperature compensation, -5 to 70 °C 						
Dissolved Oxygen	0 to 25.0 ppM 0 to 250.0 % Saturation	0.1 ppM 0.1 % Saturation	±0.1 ppM ±0.3 % Saturation	<ul style="list-style-type: none"> ▶ One-touch calibration at Zero and in Air ▶ Sensor Zero range 0% to 7% ▶ Sensor Span range 70% to 135% ▶ Salinity correction user-set from 0 to 50.0 ppK NaCl ▶ Clark type polarographic sensor with inbuilt ATC ▶ Automatic temperature compensation -5 to 50 °C for: <ol style="list-style-type: none"> 1. Membrane permeability 2. Oxygen solubility in ppM mode 						
Temperature	-10.0 to 120.0 °C	0.1 °C	±0.2 °C	<ul style="list-style-type: none"> ▶ Calibration against reference thermometer. ▶ Sensor Offset range -10.0 to +10.0 °C ▶ Temperature limits apply to sensors... <table style="margin-left: 20px;"> <tr> <td>Temperature probe</td> <td>: 120 °C</td> </tr> <tr> <td>pH or ORP Sensor</td> <td>: 60 °C</td> </tr> <tr> <td>Conductivity/TDS sensor</td> <td>: 60 °C</td> </tr> </table> ▶ Dissolved Oxygen sensor : 45 °C 	Temperature probe	: 120 °C	pH or ORP Sensor	: 60 °C	Conductivity/TDS sensor	: 60 °C
Temperature probe	: 120 °C									
pH or ORP Sensor	: 60 °C									
Conductivity/TDS sensor	: 60 °C									



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 TPS reserves the right to change this specification without notice.
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