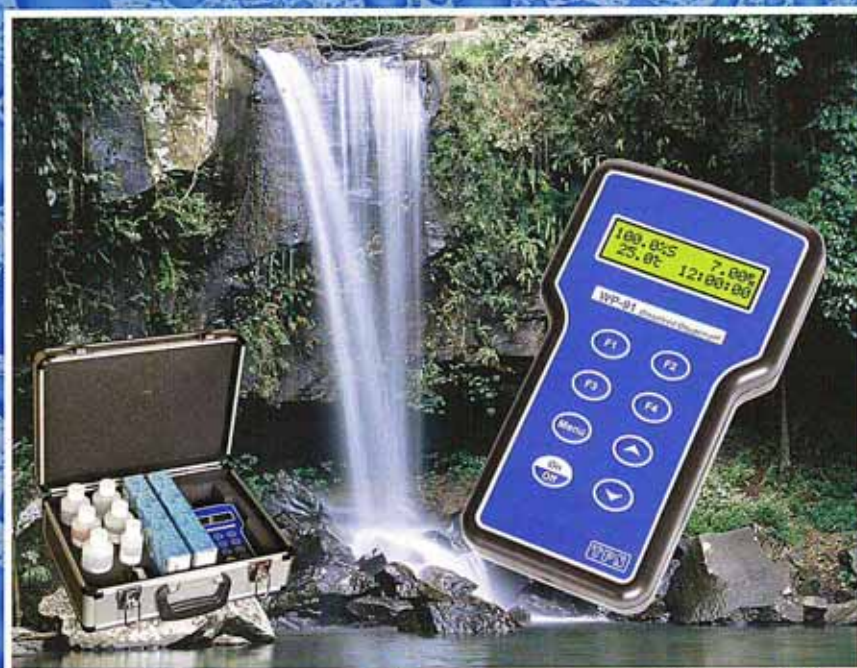




WP Series Waterproof Portables



Conductivity
TDS
Salinity

Dissolved
Oxygen

Turbidity

Temperature

pH

ORP

Specific Ions



www.tps.com.au



Waterproof



User
Friendly



Calendar
Clock



GLP



Notepad
Function



Automatic
Logging




RS232
Port



Multiple
Power

Rugged and Waterproof

The **WP** Series enclosure is waterproof to an IP67 rating. The connectors are rated to IP65. The enclosure, keypad and connectors are designed for maximum durability in the harshest conditions. A sturdy carry case is available for field use. The case holds the instrument, sensors and standard solutions. The **WP** Series is equally at home in laboratory, field or industrial environments.



F1:Cal. F2:Notepad
F3:Mode F4:Setup

User-friendly

The 32 character alphanumeric display features a user-friendly menu system. This guides the user through every step of operation. Full text prompting and error messages are provided. Calibration and set-up are easy with the **WP** Series.

Calendar Clock

The Calendar Clock can be displayed continuously along with the data. The date and time are recorded with every reading when using the Notepad and Automatic Datalogging functions.



7.00pH 25.0°C
31/12 12:00:00




Slope=100.0%
@ 31/12/96 12:00

Good Laboratory Practices (GLP)

To comply with GLP guidelines, the date, time and results of the last calibration are stored in memory, along with the instrument's serial number. This data can be displayed or printed through the RS232 serial port. Warning of failed calibration is provided. All readings stored in memory are recorded with the date and time.

3600 Reading Notepad

To reduce errors when recording readings, the **WP** Series has a 3600 reading Notepad (WP80M 2600 only). At the touch of a button, readings can be recorded into memory, along with the date and time. This is especially useful when taking readings in wet environments.



7.00pH 25.0°C
F1:150 12:00:00



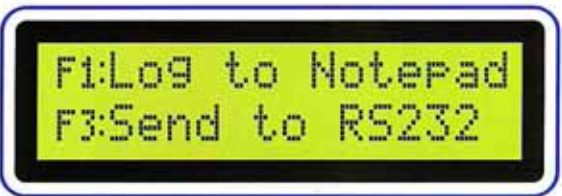
7.00pH 25.0°C
Log#150 12:00:00

Automatic Datalogging

Program the **WP** Series to automatically log readings into memory. Simply set the logging interval from 1 to 90 seconds, 1 to 90 minutes or 1 to 24 hours, start logging and walk away. Up to 3600 readings can be logged, along with the date and time.

RS232 Serial Port

The **WP** Series comes standard with a RS232 serial port (cable sold separately). All readings stored in memory can be downloaded to a RS232 printer or a PC. The RS232 port also allows the **WP** Series to log directly to a printer or a PC. **WinTPS** communication software for Windows 95 and later is available.



F1:Log to Notepad
F3:Send to RS232

Multiple Power Options

The **WP** Series has an internal rechargeable NiMH battery and includes a charger to suit country of destination. A solar panel, charger lead for a car cigarette lighter socket or an external battery clip lead are also available.

Australian Made

The **WP** 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. Compare the list of features with the competition. The **WP** Series continues to set the standard for handheld instruments.

Ordering Information

WP-80

pH-ORP-Temperature

WP-80 1m	121109/1
WP-80 3m	121109/3
WP-80 5m	121109/5

1, 3 & 5 metre options include:

1 metre bundle 121109/1:

pH Sensor, Surface only, 1m	121207
Temperature Sensor, 1m	121247
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 121109/3:

pH Sensor, Submersible, 3m	111231
Temperature Sensor, 3m	121255
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 121109/5:

pH Sensor, Submersible, 5m	111224
Temperature Sensor, 5m	121256
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
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

pH sensors with Integral Temperature sensing...

pH meters only, within the labCHEM, smartCHEM, AQUA & WP series & pH CUBE

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

Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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WP-80D

Dual Channel pH-ORP-Temperature

WP-80D 1m	121110/1
WP-80D 3m	121110/3
WP-80D 5m	121110/5

1, 3 & 5 metre options include:

1 metre bundle 121110/1:

pH Sensor, Surface only, 1m	121207
Temperature Sensor, 1m	121247
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 121110/3:

pH Sensor, Submersible, 3m	111231
Temperature Sensor, 3m	121255
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 121110/5:

pH Sensor, Submersible, 5m	111224
Temperature Sensor, 5m	121256
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
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

Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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WP-80M

meat pH testing

pH-ORP-Temperature

WP-80M 1m	130055/1
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1 metre bundle 130055/1:

pH, Intermediate Junction, 1m	121234
Temperature (Stab) Sensor, 2m	121249
pH7.00 Buffer, 200mL	121387
pH4.01 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

Options and Accessories

Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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Uses Bendall's equation for meat pH testing.
2600 reading notepad only

Ordering Information

WP-84

WP-84 1m	122159/1
WP-84 3m	122159/3
WP-84 5m	122159/5

1, 3 & 5 metre Options Include

1 metre bundle 122159/1:	
k=1.0 Cond/ATC/Temp 1m, plastic	122201
2.76 mS/cm Cond Standard, 200mL	122306
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 122159/3:	
k=1.0 Cond/ATC/Temp 3m, plastic	122236
2.76 mS/cm Cond Standard, 200mL	122306
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 122159/5:	
k=1.0 Cond/ATC/Temp 5m, plastic	122198
2.76 mS/cm Cond Standard, 200mL	122306
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

Options and Accessories

Computer Interface:	
RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Conductivity-TDS-Salinity-Temperature

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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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 122159/1)

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

3 metre Plastic (for 3 metre bundle 122159/3)

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

5 metre Plastic (for 5 metre bundle 122159/5)

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

1 metre Glass (for 1 metre bundle 122159/1)

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

WP-81

WP-81 1m	121132/1
WP-81 3m	121132/3
WP-81 5m	121132/5

1, 3 & 5 metre Options Include

1 metre bundle 121132/1:	
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
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 121132/3:	
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
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 121132/5:	
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
240V AC/DC Adaptor / Battery Charger for Australia	130037
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

Conductivity-TDS-Salinity-pH-ORP-Temperature

ORP Sensors:

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

Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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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 121132/1)

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

3 metre Plastic (for 3 metre bundle 121132/3)

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

5 metre Plastic (for 5 metre bundle 121132/5)

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

1 metre Glass (for 1 metre bundle 121132/1)

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

Ordering Information

WP-82

uses ED1 sensor

Dissolved Oxygen-Temperature

WP-82 1m	123147/1
WP-82 3m	123147/3
WP-82 5m	123147/5

1, 3 & 5 metre Options Include

1 metre bundle 123147/1:

DO2 Sensor - ED1 (no cable)	123400
1m cable for Sensor (ED1)	123228
Sensor Guard (ED1)	123202
Membrane & filling solution kit.	123301
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 123147/3:

DO2 Sensor - ED1 (no cable)	123400
3m cable for Sensor (ED1)	123230
Sensor Guard (ED1)	123202
Membrane & filling solution kit.	123301
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 123147/5:

DO2 Sensor - ED1 (no cable)	123400
5m cable for Sensor (ED1)	123232
Sensor Guard (ED1)	123202
Membrane & filling solution kit.	123301
240V AC/DC Adaptor / Battery Charger for Australia	130037
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

Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Carry case:

Aluminium Carry Case	130059
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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)

WP-82Y

uses YSI sensor

Dissolved Oxygen-Temperature

WP-82Y 1m	123148/1
WP-82Y 3m	123148/3
WP-82Y 5m	123148/5

1, 3 & 5 metre Options Include

1 metre bundle 123148/1:

DO2 Sensor YSI5739 (no cable)	123204
1m cable for Sensor (YSI5739)	123212
Membrane & filling solution kit.	123300
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 123148/3:

DO2 Sensor YSI5739 (no cable)	123204
3m cable for Sensor (YSI5739)	123221
Membrane & filling solution kit.	123300
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 123148/5:

DO2 Sensor YSI5739 (no cable)	123204
5m cable for Sensor (YSI5739)	123222
Membrane & filling solution kit.	123300
240V AC/DC Adaptor / Battery Charger for Australia	130037
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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Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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Ordering Information

WP-91

uses YSI sensor

Dissolved Oxygen-pH-ORP-Temperature

WP-91 1m	123150/1
WP-91 3m	123150/3
WP-91 5m	123150/5

1, 3 & 5 metre Options Include

1 metre bundle 123150/1:

pH Sensor, Surface only, 1m	121207
DO2 Sensor YSI5739 (no cable)	123204
1m cable for Sensor (YSI5739)	123212
Membrane & filling solution kit	123300
pH7.00 Buffer, 200mL	121387
pH4.00 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 123150/3:

pH Sensor, Submersible, 3m	111231
DO2 Sensor YSI5739 (no cable)	123204
3m cable for Sensor (YSI5739)	123221
Membrane & filling solution kit	123300
pH7.00 Buffer, 200mL	121387
pH4.00 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 123150/5:

pH Sensor, Submersible, 5m	111224
DO2 Sensor YSI5739 (no cable)	123204
5m cable for Sensor (YSI5739)	123222
Membrane & filling solution kit	123300
pH7.00 Buffer, 200mL	121387
pH4.00 Buffer, 200mL	121381
240V AC/DC Adaptor / Battery Charger for Australia	130037
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 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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Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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WP-88

Turbidity-Temperature

WP-88 1m	125188/1
WP-88 3m	125188/3
WP-88 5m	125188/5

1, 3 & 5 metre Options Include

1 metre bundle 125188/1:

Turbidity Sensor, no cable	125186
Detachable Cable for Turbidity Sensor, 1m	125185
900 NTU Diluted Turbidity Standard, 200mL	125220
90 NTU Diluted Turbidity Standard, 200mL	125216
Black Calibration Bottle, 200mL x 2	125300
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

3 metre bundle 125188/3:

Turbidity Sensor, no cable	125186
Detachable Cable for Turbidity Sensor, 3m	125183
900 NTU Diluted Turbidity Standard, 200mL	125220
90 NTU Diluted Turbidity Standard, 200mL	125216
Black Calibration Bottle, 200mL x 2	125300
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

5 metre bundle 125188/5:

Turbidity Sensor, no cable	125186
Detachable Cable for Turbidity Sensor, 5m	125187
900 NTU Diluted Turbidity Standard, 200mL	125220
90 NTU Diluted Turbidity Standard, 200mL	125216
Black Calibration Bottle, 200mL x 2	125300
240V AC/DC Adaptor / Battery Charger for Australia	130037
Manual	

Optional and Accessories

Sensor Protector:

Sensor Protector Cover	125189
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Computer Interface:

RS232 Serial Interface cable to connect WP to computer	130041
WinTPS Communication software (for Windows 95 and later)	130086
Serial to USB adaptor (requires RS232 cable - 130041)	130087

Power Options:

12V Solar charging panel	130012
12V Car cigarette lighter socket adaptor	130046
Clip lead for external 12V battery	130052

Cable Extension:

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

Aluminium Carry Case	130059
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Turbidity Standards:

Primary Standards:

1800 NTU Primary Turbidity Standard, 200mL	125224
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Diluted Standards:

90 NTU Diluted Turbidity Standard, 1 Litre	125214
90 NTU Diluted Turbidity Standard, 200mL	125216
180 NTU Diluted Turbidity Standard, 1 Litre	125200
180 NTU Diluted Turbidity Standard, 200mL	125202
360 NTU Diluted Turbidity Standard, 1 Litre	125204
360 NTU Diluted Turbidity Standard, 200mL	125206
900 NTU Diluted Turbidity Standard, 1 Litre	125218
900 NTU Diluted Turbidity Standard, 200mL	125220

Ordering Information

WP-90

Specific Ions-pH-ORP-Temperature

WP-90 (meter only) 121191

WP-90 meter includes:

(Ion sensors sold separately)

Temperature Sensor, 1m 121247
240V AC/DC Adaptor / Battery Charger for Australia 130037
Manual

Optional Ion Selective Electrodes

uniPROBE Fluoride Combination ISE, 1m 121560
uniPROBE Chloride Combination ISE, 1m 121570
uniPROBE Iodide Combination ISE, 1m 121580
uniPROBE Cyanide Combination ISE, 1m 121590
uniPROBE Bromide Combination ISE, 1m 121600
uniPROBE Sulphide Combination ISE, 1m 121610
uniPROBE Ammonia Combination ISE, 1m 121700

Options and Accessories

pH Sensors:

pH Sensor, Surface only, 1m 121207
pH Sensor, Submersible, 1m 121227
pH Sensor, Intermediate Junction, 1m 121234

ORP Sensors:

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

Computer Interface:

RS232 Serial Interface cable to connect WP to computer 130041
WinTPS Communication software (for Windows 95 and later) 130086
Serial to USB adaptor (requires RS232 cable - 130041) 130087

Power Options:

12V Solar charging panel 130012
12V Car cigarette lighter socket adaptor 130046
Clip lead for external 12V battery 130052

Carry case:

Aluminium Carry Case 130059

WP-87

Dual Channel Digital Thermometer

WP-87 1m 124110/1

1 metre bundle 124110/1:

Temperature Sensor, 1m 121247
240V AC/DC Adaptor / Battery Charger for Australia 130037
Manual

Optional and Accessories

Temperature Sensors:

Extra Temperature Sensor, 1m 121247
Stab Type Temperature Sensor, Rugged Handle, 2m 121249
Mini Stab Type Temperature Sensor, 3mm dia, 1m 124220
Heavy Temperature Sensor, 16mm dia, for compost etc, 2m 114202
Custom Body Temperature Sensor, WP & Aqua Series 124207
(Must specify requirements)

Computer Interface:

RS232 Serial Interface cable to connect WP to computer 130041
WinTPS Communication software (for Windows 95 and later) 130086
Serial to USB adaptor (requires RS232 cable - 130041) 130087

Power Options:

12V Solar charging panel 130012
12V Car cigarette lighter socket adaptor 130046
Clip lead for external 12V battery 130052

Carry case:

Aluminium Carry Case 130059

WP-87T

Dual Channel Digital Thermocouple Thermometer

WP-87T 1m 124120/1

1 metre bundle 124120/1:

Temperature Sensor, 3mm dia, 1m 124204
240V AC/DC Adaptor / Battery Charger for Australia 130037
Manual

Optional and Accessories

Temperature Sensors (K Type Thermocouple):

Extra Temperature Sensor, 3mm dia, 1m 124204
Air/Gas Temperature Sensor, 1m 124205
Flat Surface Temperature Sensor, 1m 124203
Custom Thermocouple Temperature Sensor 124206
(must specify requirements)

Computer Interface:

RS232 Serial Interface cable to connect WP to computer 130041
WinTPS Communication software (for Windows 95 and later) 130086
Serial to USB adaptor (requires RS232 cable - 130041) 130087

Power Options:

12V Solar charging panel 130012
12V Car cigarette lighter socket adaptor 130046
Clip lead for external 12V battery 130052

Carry case:

Aluminium Carry Case 130059

Type K Thermocouple temperature sensor with standard mini plug.

Model	pH	ORP	Conductivity	TDS	Salinity	Dissolved Oxygen	Specific Ion	Temperature	Turbidity	Notes
WP-80	●	●						●		pH or ORP (supplied with 1x pH sensor only)
WP-80D	●	●						●		Dual channel pH or ORP (supplied with 1x pH sensor only)
WP-80M	●	●						●		Meat pH testing with Bendall's equation (2600 note pad)
WP-81	●	●	●	●	●			●		pH or ORP, Conductivity, TDS & Salinity with auto-ranging
WP-82						●		●		Uses TPS ED1 Dissolved Oxygen sensor (5m depth max)
WP-82Y						●		●		Uses YSI Dissolved Oxygen sensor (20m depth max)
WP-84			●	●	●			●		Auto-ranging Conductivity, TDS & Salinity
WP-87								●		Dual channel thermometer
WP-87T								●		Dual channel thermocouple thermometer (K type)
WP-88								●	●	Turbidity for field use (2000 NTU max)
WP-90	●	●					●	●		Specific ion (ISE sensors sold separately)
WP-91	●	●				●		●		pH & Dissolved Oxygen uses YSI sensor (20m depth max)

WP Series General Specifications

Enclosure

Tough, anti-static Luran-S plastic case, waterproof to IP67. Connectors waterproof to IP65.

Display

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

Memory

3600 readings, including date and time. (2600 for WP80M)

Automatic Logging

User-set for one reading every 1 to 90 seconds, 1 to 90 minutes, or 1 to 24 hours.

RS232 Output

300, 1200, 9600 & 19,200 Baud.

8 Bits, No Parity, 1 Stop Bit, XON/XOFF.

Clock

24 Hour calendar clock.

Battery Saver

On Auto switch-off after 5 minutes.

Off Continuous use.

Power

6V NiMH Rechargeable Battery for 25 to 100 hours of use depending on model. Battery charger for 240 or 110 V AC supplied. Battery can be charged from any 12V DC power source.

Dimensions

195 x 110 x 55 mm

Mass

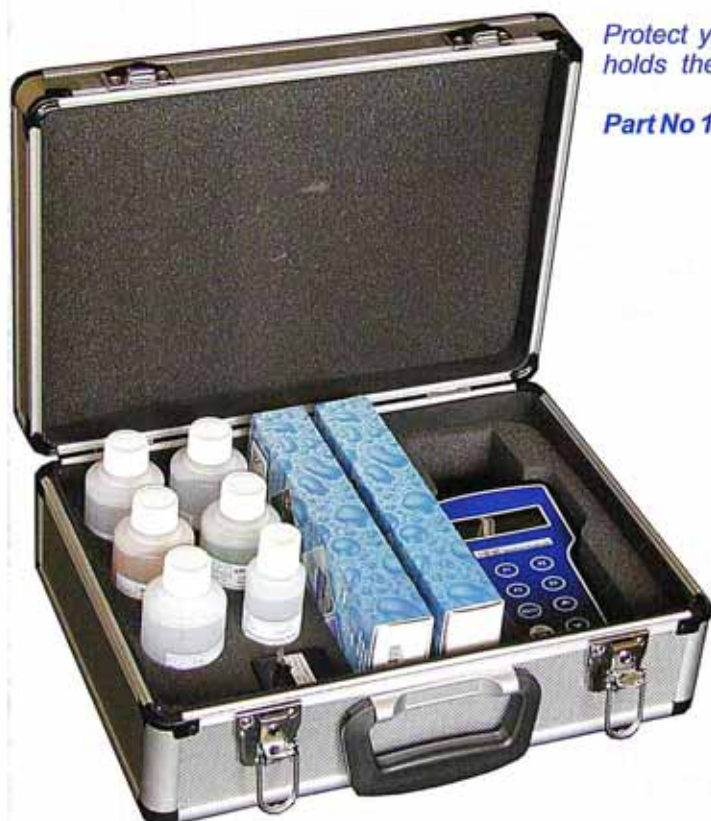
Instrument only Approx 520 g

Full bundle. Up to 2.5 kg, depending on model

Environment

Temperature 0 to 45 °C

Humidity 0 to 95% R.H.



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

Part No 130059

WP Series Specifications

Mode	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 calibration range ▶ $>3 \times 10^{12}$ Ohms input impedance ▶ Automatic or manual temperature compensation, 0 to 100 °C. The WP Series automatically detects whether or not the temperature sensor is connected.
ORP	0 to ±500.0 mV 0 to ±1500 mV (Auto-ranging)	0.15 mV 1 mV	±0.3 mV ±1 mV	<ul style="list-style-type: none"> ▶ Factory-set calibration ▶ Temperature compensation not applicable
Specific Ions	Auto-ranging in units of ppM, ppK, and Molar.	3 significant digits	±Least significant digit	<ul style="list-style-type: none"> ▶ Any two calibration standard values can be user-set. The Secondary standard must be at least 2 to 100 times higher or lower than the Primary standard. ▶ Auto detection of Offset at calibration. ▶ 50.0% to 110.0% Slope calibration range ▶ $>3 \times 10^{12}$ Ohms input impedance ▶ Automatic or manual temperature compensation, -5 to 100 °C. The WP Series automatically detects whether or not the temperature sensor is connected.
Conductivity	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 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=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	0.1 uS/cm 1 uS/cm 0.01 mS/cm 0.1 mS/cm 0.01 uS/cm 0.1 uS/cm 1 uS/cm 0.01 mS/cm 0.001 uS/cm 0.01 uS/cm 0.1 uS/cm 1 uS/cm	±0.5 % of full scale of selected range at 25.0 °C	<ul style="list-style-type: none"> ▶ Auto Standard Recognition values of: 150 uS/cm, 1413 uS/cm, 2.76 mS/cm, 12.88 mS/cm, 58.0 mS/cm ▶ Span calibration range 75% to 133% of nominal k factor ▶ Automatic temperature compensation, -5 to 70 °C
TDS	k=10 Sensor 0 to 100.0 ppM 0 to 1000 ppM 0 to 10.00 ppK 0 to 100.0 ppK k=1.0 Sensor 0 to 10.00 ppM 0 to 100.0 ppM 0 to 1000 ppM 0 to 10.00 ppK k=0.1 Sensor 0 to 1.000 ppM 0 to 10.00 ppM 0 to 100.0 ppM 0 to 1000 ppM	0.1 ppM 1 ppM 0.01 ppK 0.1 ppK 0.01 ppM 0.1 ppM 1 ppM 0.01 ppK 0.001 ppM 0.01 ppM 0.1 ppM 1 ppM	±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

WP Series Specifications

Mode	Range(s)	Resolution	Accuracy	General Specifications										
Dissolved Oxygen	0.00 to 20.00 ppM (mg/L) 20.0 to 40.0 ppM (mg/L)* 0.0 to 240.0 % Saturation 240 to 450 % Saturation* 0.0 to 45.0 % Gaseous 45 to 100 % Gaseous*	0.01 ppM (mg/L) 0.1 ppM (mg/L)* 0.1 % Saturation 1 % Saturation* 0.1 % Gaseous 1 % Gaseous*	±0.2% of full scale of selected ppM range ±0.3 % Saturation ±0.1 % Gaseous	<ul style="list-style-type: none">▶ Automatic calibration at Zero and in Air.▶ 0% to 7.5% Zero calibration range.▶ 65% to 200% Span calibration range WP82Y▶ 70% to 135% Span calibration range WP82▶ Salinity correction, user set 0 to 50.0ppK NaCl▶ Barometric pressure correction, user-set from 500 to 1100 HPa.▶ Altitude correction, user-set from 0 to 5000m.▶ Automatic temperature compensation -5 to 50 °C for:<ul style="list-style-type: none">1. Membrane permeability2. Oxygen solubility in ppM mode* These ranges on WP-82Y & WP-91 only.										
Turbidity	0.0 to 200.0 NTU 200 to 2000 NTU	0.1 NTU 1 NTU	±1 NTU	<ul style="list-style-type: none">▶ Zero Calibration range 0 to 15.0 NTU▶ Span Calibration range 90.0 to 110.0 %▶ Turbidity Standards<ul style="list-style-type: none">Low Range 30.0 to 180.0 NTUHigh Range 300 to 2000 NTU▶ 90° measurement technique as per ISO7027.										
Temperature	-10.0 to 120.0 °C All other WP's -45.0 to 120.0 °C WP87 only -99.9 to 200.0 °C WP87T only 200 to 1200 °C WP87T only	0.1 °C 0.1 °C 0.1 °C 1 °C	±0.2 °C ±0.2 °C ±0.2 °C ±1.0 %	<ul style="list-style-type: none">▶ Calibration against reference thermometer.▶ Sensor Offset range -10.0 to +10.0 °C▶ The following temperature limits apply to sensors...<table><tr><td>Temperature probe</td><td>: 120 °C</td></tr><tr><td>pH, ORP or Ion Sensor</td><td>: 60 °C</td></tr><tr><td>Conductivity/TDS sensor</td><td>: 60 °C</td></tr><tr><td>Dissolved Oxygen sensor</td><td>: 45 °C</td></tr><tr><td>Turbidity Sensor</td><td>: 60 °C</td></tr></table>	Temperature probe	: 120 °C	pH, ORP or Ion Sensor	: 60 °C	Conductivity/TDS sensor	: 60 °C	Dissolved Oxygen sensor	: 45 °C	Turbidity Sensor	: 60 °C
Temperature probe	: 120 °C													
pH, ORP or Ion Sensor	: 60 °C													
Conductivity/TDS sensor	: 60 °C													
Dissolved Oxygen sensor	: 45 °C													
Turbidity Sensor	: 60 °C													

Additional Specifications for WP-87 & WP-87T

Measurement Options

Measure in °Celsius, °Fahrenheit and °Kelvin.

Differential Readout

The WP-87 & WP-87T can be set to display the difference between channels A and B.

Maximum / Minimum Readout

The WP-87 & WP-87T can be set to record the maximum and minimum temperature data for each channel. The maximum and minimum data is continuously updated automatically.

Response Time

90% of final value within 7 seconds using standard sensor in liquids or solids.

Calibration

Automatic 2 point calibration. Simultaneous calibration of both channels is provided.



A.B.N. 30 009 773 371
TPS reserves the right to change this specification without notice.
Version 5.1, 1~July-2011.

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