

### **Water Quality Meters**

# **YSI ProSwap Water Quality Meter**

YSI ProSwap single parameter water quality instrument enables users to easily swap one digital smart sensor for another. ProSwap can transform into whatever you need, ranging from a purpose-built turbidity meter, high-accuracy optical DO meter, spot sample for pH or profile conductivity-temperature-depth instrument. ProSwap is even compatible with a range of ion specific electrodes (ISE) and Total Algae sensors.

#### **FEATURES**

- · Auto-recognized digital smart sensor compatible
- · Optional depth sensor
- · Color display with backlit keypad
- Rechargeable lithium-ion battery that supports a full day of sampling
- · Ergonomic handheld design
- · Internal data logging with auto stable feature

#### **AVAILABLE SENSORS**

- pH
- pH/ORP
- Conductivity/Temperature
- · Optical Dissolved Oxygen
- Turbidity
- · Ammonium ISE
- Chloride ISE
- Nitrate ISE
- · Total Algae PC
- · Total Algae PE



#### **CALL GEOTECH TODAY (800) 833-7958**

**Geotech Environmental Equipment, Inc.** 2650 East 40th Avenue • Denver, Colorado 80205 (303) 320-4764 • FAX (303) 322-7242

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## **Water Quality Meters**

# **YSI ProSwap Water Quality Meter**

### **SPECIFICATIONS**

#### **ProSwap Instrument**

handheld only Battery recharge time is ~9 hours with the AC power adapter The instrument can also be powered via AC or external power through the USB port  Operating Temp.  0 to 50°C  Storage Temp. 0 to 45°C with battery installed 0 to 60°C without battery installed 0 to 60°C without battery installed  Display Color, LCD graphic display 3,9 cm width x 6.5 cm height  USB Port Built-in micro USB On-The-Go port for PC connection, recharging/ powering the handheld and connecting directly to a USB stick  Memory >100,000 data sets  Barometer Range: 375 to 825 mmHg Accuracy: ±1.5 mmHg from 0 to 50°C Resolution: 0.1 mmHg Reha, atm  Logging Modes Single point or continuous with autostable feature  Sites and Data ID 100 user-defined sites and 100 user-defined data ID tags Site pictures can be sent to the handheld via KorDSS Software  Calibration Records download, and print (printing only available via KorDSS Software)  Languages English, Spanish, German, French, Italian, Norwegian, Portuguese, Japanese, Chinese (Simplified & Traditional), Korean, Thai  Certifications CEC, CE; RoHS; IP-67; WEEE; FCC; UN Part III, Section 38.3, Test methods for lithium-ion batteries (Class 9)  Warranty 3 years on handheld  1-port Cable  Dimensions (with probe guard) With depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature Sensor Accuracy: ±0.2°C Resolution: 0.1°C  Shallow Depth Sensor Accuracy: ±0.2°C Resolution: 0.001 m			
handheld only Battery recharge time is ~9 hours with the AC power adapter The instrument can also be powered via AC or external power through the USB port  Operating Temp.  0 to 50°C  Storage Temp. 0 to 45°C with battery installed 0 to 60°C without battery installed 0 to 60°C without battery installed  Display Color, LCD graphic display 3,9 cm width x 6.5 cm height  USB Port Built-in micro USB On-The-Go port for PC connection, recharging/ powering the handheld and connecting directly to a USB stick  Memory >100,000 data sets  Barometer Range: 375 to 825 mmHg Accuracy: ±1.5 mmHg from 0 to 50°C Resolution: 0.1 mmHg  Resolution: 0.1 mmHg  Resolution: 0.1 mmHg  Accuracy: ±1.5 mmHg from 0 to 50°C  Resolution: 0.1 mmHg  Records  Galibration 400 detailed calibration records can be stored and are available to view download, and print (printing only available via KorDSS Software)  Galibration Records  Gertifications  CEC, CE; RoHS; IP-67; WEEE; FCC; UN Part III, Section 38.3, Test methods for lithium-ion batteries (Class 9)  Warranty 3 years on handheld  1-port Cable  Dimensions (with probe guard)  No depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature Sensor  Accuracy: ±0.2°C Resolution: 0.1°C  Shallow Depth Sensor  Accuracy: ±0.2°C Resolution: 0.001 m	Dimensions	8.3 cm width x 21.6 cm length x 5.6 cm depth; 567 g (with battery)	
Storage Temp.  0 to 45°C with battery installed 0 to 60°C without battery installed Display  Color, LCD graphic display 3.9 cm width x 6.5 cm height  USB Port  Built-in micro USB On-The-Go port for PC connection, recharging/powering the handheld and connecting directly to a USB stick  Memory  > 100,000 data sets  Barometer  Range: 375 to 825 mmHg Accuracy: ±1.5 mmHg from 0 to 50°C Resolution: 0.1 mmHg  Resolution: 0.1 mmHg  Logging Modes  Single point or continuous with autostable feature  Sites and Data ID  100 user-defined sites and 100 user-defined data ID tags Site pictures can be sent to the handheld via KorDSS Software  Calibration  400 detailed calibration records can be stored and are available to view download, and print (printing only available via KorDSS Software)  Languages  English, Spanish, German, French, Italian, Norwegian, Portuguese, Japanese, Chinese (Simplified & Traditional), Korean, Thai  Certifications  CEC, CE; RoHS; IP-67; WEEE; FCC; UN Part III, Section 38.3, Test methods for lithium-ion batteries (Class 9)  Warranty  3 years on handheld  1-port Cable  Dimensions  No depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature  Sensor  Accuracy: ±0.2°C  Resolution: 0.1°C  Shallow Depth  Sensor  Accuracy: ±0.004 m  Resolution: 0.001 m	Power	handheld only Battery recharge time is $\sim$ 9 hours with the AC power adapter The instrument can also be powered via AC or external power	
O to 60°C without battery installed  Display  Color, LCD graphic display 3.9 cm width x 6.5 cm height  USB Port  Built-in micro USB On-The-Go port for PC connection, recharging/powering the handheld and connecting directly to a USB stick  Memory  >100,000 data sets  Barometer  Range: 375 to 825 mmHg Accuracy: ±1.5 mmHg from 0 to 50°C inHg, mbar, psi, kPa, atm  Logging Modes  Single point or continuous with autostable feature  Sites and Data ID  100 user-defined sites and 100 user-defined data ID tags Site pictures can be sent to the handheld via KorDSS Software  Calibration  400 detailed calibration records can be stored and are available to view download, and print (printing only available via KorDSS Software)  Languages  English, Spanish, German, French, Italian, Norwegian, Portuguese, Japanese, Chinese (Simplified & Traditional), Korean, Thai  Certifications  CEC, CE; RoHS; IP-67; WEEE; FCC; UN Part III, Section 38.3, Test methods for lithium-ion batteries (Class 9)  Warranty  3 years on handheld  1-port Cable  Dimensions  No depth module: 2.54 cm diameter x 38.18 cm length With probe guard)  With depth module: 2.54 cm diameter x 40.71 cm length  Temperature  Range: 5 to 70°C  Resolution: 0.1°C  Shallow Depth Sensor  Accuracy: ±0.004 m  Resolution: 0.001 m  Medium Depth Sensor  Accuracy: ±0.04 m  Resolution: 0.001 m	Operating Temp.	0 to 50°C	
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memory >100,000 data sets  Barometer Range: 375 to 825 mmHg	Display		
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Site pictures can be sent to the handheld via KorDSS Software  Calibration Records  download, and print (printing only available via KorDSS Software)  Languages  English, Spanish, German, French, Italian, Norwegian, Portuguese, Japanese, Chinese (Simplified & Traditional), Korean, Thai  Certifications  CEC, CE; RoHS; IP-67; WEEE; FCC; UN Part III, Section 38.3, Test methods for lithium-ion batteries (Class 9)  Warranty  3 years on handheld  1-port Cable  Dimensions  No depth module: 2.54 cm diameter x 38.18 cm length  With depth module: 2.54 cm diameter x 40.71 cm length  Temperature  Range: -5 to 70°C Sensor  Accuracy: ±0.2°C Resolution: 0.1°C  Shallow Depth Sensor  Accuracy: ±0.004 m  1, 4, and 10 m  Resolution: 0.001 m  Accuracy: ±0.04 m  Resolution: 0.001 m	Logging Modes	Single point or continuous with autostable feature	
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Japanese, Chinese (Simplified & Traditional), Korean, Thai  Certifications  CEC, CE; RoHS; IP-67; WEEE; FCC; UN Part III, Section 38.3, Test methods for lithium-ion batteries (Class 9)  Warranty  3 years on handheld  1-port Cable  Dimensions (with probe guard)  No depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature  Range: -5 to 70°C  Accuracy: ±0.2°C  Resolution: 0.1°C  Shallow Depth Sensor Accuracy: ±0.004 m Resolution: 0.001 m  Accuracy: ±0.004 m Resolution: 0.001 m  Accuracy: ±0.04 m Resolution: 0.001 m  Accuracy: ±0.04 m Resolution: 0.001 m  Resolution: 0.001 m  Resolution: 0.001 m	Calibration Records		
Test methods for lithium-ion batteries (Class 9)  3 years on handheld  1-port Cable  Dimensions (with probe guard) No depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature Range: -5 to 70°C Accuracy: ±0.2°C Resolution: 0.1°C  Shallow Depth Range: 0 to 10 m Accuracy: ±0.004 m Resolution: 0.001 m  Acquired Range: 0 to 100 m Resolution: 0.001 m  Medium Depth Range: 0 to 100 m Accuracy: ±0.04 m Resolution: 0.001 m  Resolution: 0.001 m  Resolution: 0.001 m  Resolution: 0.001 m	Languages		
1-port Cable  Dimensions (with probe guard)  No depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature Sensor Accuracy: ±0.2°C Resolution: 0.1°C  Shallow Depth Sensor Accuracy: ±0.004 m 1, 4, and 10 m Resolution: 0.001 m Resolution: 0.001 m  Resolution: 0.001 m  Accuracy: ±0.04 m Accuracy: ±0.04 m Accuracy: ±0.04 m Resolution: 0.001 m  Resolution: 0.001 m  Resolution: 0.001 m	Certifications		
Dimensions (with probe guard)  No depth module: 2.54 cm diameter x 38.18 cm length With depth module: 2.54 cm diameter x 40.71 cm length  Temperature Range: -5 to 70°C Accuracy: ±0.2°C Resolution: 0.1°C  Shallow Depth Range: 0 to 10 m Accuracy: ±0.004 m Resolution: 0.001 m Resolution: 0.001 m Accubes (if equipped)  Medium Depth Range: 0 to 100 m Accuracy: ±0.04 m Resolution: 0.001 m Resolution: 0.001 m Accuracy: ±0.04 m Resolution: 0.001 m R	Warranty	3 years on handheld	
(with probe guard)  With depth module: 2.54 cm diameter x 40.71 cm length  Temperature  Sensor  Range: -5 to 70°C  Resolution: 0.1°C  Shallow Depth  Sensor  Accuracy: ±0.204 m  Accuracy: ±0.004 m  Resolution: 0.001 m  Resolution: 0.001 m  Medium Depth  Sensor  Accuracy: ±0.04 m  Accuracy: ±0.04 m  Resolution: 0.001 m  Accuracy: ±0.04 m  Accuracy: ±0.04 m  Resolution: 0.001 m	1-port Cable		
Sensor         Accuracy: ±0.2°C Resolution: 0.1°C           Shallow Depth Sensor         Range: 0 to 10 m Accuracy: ±0.004 m Resolution: 0.001 m cables (if equipped)           Medium Depth Sensor         Range: 0 to 100 m Accuracy: ±0.04 m Resolution: 0.001 m Resolution: 0.001 m           Medium Depth Sensor         Range: 0 to 100 m Accuracy: ±0.04 m Resolution: 0.001 m           Medium Depth Sensor         Resolution: 0.001 m			
Sensor Accuracy: ±0.004 m 1, 4, and 10 m Resolution: 0.001 m  cables (if equipped)  Medium Depth Sensor Accuracy: ±0.04 m 20, 30, 50, and 100 m cables (if equipped)	Temperature Sensor	Accuracy: ±0.2°C	
Sensor Accuracy: ±0.04 m 20, 30, 50, and Resolution: 0.001 m 100 m cables (if equipped)	cables	Accuracy: ±0.004 m	
Warranty 2 years on cable		Accuracy: ±0.04 m	
	Warranty	2 years on cable	

#### **ORDERING GUIDE**

Step 1: Select Handheld			
All handhelds include a rechargeable lithium-ion battery, hand strap, USB cable, universal AC charger, data export cab			
Quick Start Guide, and USB memory stick containing KorDSS software and digital copy of the User Manual.			
ProSwap Handheld with no GPS			
ProSwap Handheld with GPS			
Step 2: Select Cable Assembly			
ProSwap 1-Port Cable Assemblies			
Connect a single smart sensor to focus on any parameter of choice. Features built-in temperature sensor.			
☐ 1, 4, 10, 20, 30, 50, or 100 meter length			
☐ With shallow depth sensor; 1, 4, or 10 meter length			
☐ With medium depth sensor; 20, 30, 50, or 100 meter length			
Integrated Probe and Cable Assemblies			
Simplify instrument setup with integrated probe and cable assemblies. Available in a variety of parameter-specific option			
<ul> <li>ODO/CT cable with integral optical dissolved oxygen (with pre-installed sensor cap), conductivity, and temperatur sensors; 1, 4, 10, 20, 30, 50, or 100 meter length</li> </ul>			
ODO/T cable with integral optical dissolved oxygen (with pre-installed sensor cap) and temperature sensors; 1, 4, 10, 20, 30, 50, or 100 meter length			
☐ ProOBOD self-stirring optical BOD probe/cable assembly, lab probe; 115 V; 3 meter length			
☐ ProOBOD self-stirring optical BOD probe/cable assembly, lab probe; 230 V; 3 meter length			
Step 3: Select ProDSS Smart Sensor(s) for 1-Port Cables			
□ 0D0 with pre-installed sensor cap	☐ Nitrate sensor with pre-installed sensor module		
☐ Turbidity	☐ Ammonium sensor with pre-installed sensor modul		
☐ Conductivity and temperature	Chloride sensor with pre-installed sensor module		
pH sensor with pre-installed sensor module	☐ Total algae sensor, PC (chlorophyll + phycocyanin)		
D pH/ORP sensor with pre-installed sensor module	☐ Total algae sensor, PE (chlorophyll + phycoerythrin)		
Step 4: Select Standards			
☐ Conductivity standard, 1000 umhos/cm (quart)	☐ 2 pints each of 4, 7, and 10 pH buffers		
☐ Conductivity standard, 10000 umhos/cm (quart)	☐ 1 mg/L ammonium standard (500 mL)		
☐ Conductivity standard, 100000 umhos/cm (quart)	□ 10 mg/L ammonium standard (500 mL)		
☐ Conductivity calibrator, 1000 umhos/cm (8 ea, pint)	☐ 100 mg/L ammonium standard (500 mL)		
☐ Conductivity calibrator, 1413 umhos/cm (8 ea, pint)	☐ 1 mg/L nitrate standard (500 mL)		
☐ Conductivity calibrator, 10000 umhos/cm (8 ea, pint)	□ 10 mg/L nitrate standard (500 mL)		
☐ Conductivity calibrator, 50000 umhos/cm (8 ea, pint)	100 mg/L nitrate standard (500 mL)		
☐ Turbidity standard, 0 FNU (1 gallon)	☐ Zobell standard for ORP (mV) calibration, 125 mL		
☐ Turbidity standard, 12.4 FNU (1 gallon)	☐ Zobell standard for ORP (mV) calibration, 250 mL		
☐ Turbidity standard, 124 FNU (1 gallon)	☐ Zobell standard for ORP (mV) calibration, 500 mL		
☐ Turbidity standard, 1010 FNU (1 gallon)	☐ Confidence Solution® (Conductivity, pH, & ORP)*		

#### **Step 5: Select Accessories**

- ☐ Large, hard-sided carrying case (Fits 10, 20, and 30 meter cables)
- ☐ Large, soft-sided carrying case
- $\hfill \square$  Small, hard-sided carrying case (Fits 1 and 4 meter cables)
- ☐ Tripod
- □ Ultra clamp
- ☐ Shoulder strap
- ☐ Belt clip
- ☐ 1 lb. weight stackable on guard
- 4.9 oz. weight stackable on guard
- ☐ USB car charger
- $\hfill \square$  Small external USB portable battery pack
- ☐ Large external USB portable battery pack
- \*This solution is only for verification, not calibration.

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