ProDSS
MULTIPARAMETER WATER QUALITY FIELD INSTRUMENT

CATALOG
W86-03
Customize your Professional Digital Sampling System to meet the demands of your water quality monitoring application.

With 21 parameter options and several cable configurations to choose from, the ProDSS is ideal for field or lab use in nearly any application: surface water, groundwater, coastal waters, aquaculture, and wastewater.
“For spot sampling and profiling this is an excellent multiparameter instrument. The size and functionality knocks it out of the park...now I see the ProDSS as the standard for spot sampling.”

ProDSS User

ProDSS Features

- Optional depth sensor
- Titanium Smart Sensors
- 4-Port Smart Sensor bulkhead
- Sensor Guard
- On-The-Go Micro USB connector
- Optional built-in GPS
- Long-life, rechargeable lithium-ion battery
- Color screen with graphing
- Stores over 100,000 data sets and 400 fully-traceable calibration records
- Backlit keypad
- IP-67-rated casing
- MS (military-spec) connectors - rugged, waterproof, keyed, bayonet style lock
- Integral field cable with user-selectable lengths up to 100 m

YSI.com/ProDSS
Rugged Handheld

The ProDSS Handheld can withstand the harshest field conditions and handling, with maximum versatility and functionality.

- Easy-to-read color and backlit display can be used in any lighting condition
- Scratch-resistant screen is viewable with polarized glasses
- Long-life rechargeable lithium-ion battery ensures reliability in the field and minimizes waste
- Waterproof (IP-67) rubber over-molded casing
- Simple interface and a dedicated “Help” Button
- Ergonomic design for optimal handling and portability
- Optional GPS for geo-referencing data
- 3-year warranty

“I like the LCD display because of its ease of use in low and high light areas... the increased memory size and speed are also very nice for logging data.”

ProDSS User
**Smart Sensors**

The 4-Port ProDSS cable uses digital Smart Sensors for fast, easy setup and storage, and highest quality data.

- Universal smart Ports allow any configuration of sensors
- Traceable calibrations stored in sensor – recalibration not required if moved to another port or another instrument
- Sensors are auto-recognized upon installation
- Replaceable sensor modules and ODO cap reduces maintenance and cost of operation
- Highly-ruggedized, welded titanium sensor body
- 2-year warranty

**Water Quality Parameters:**

<table>
<thead>
<tr>
<th>Parameter</th>
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<tr>
<td>Dissolved Oxygen (Optical)</td>
<td>Depth</td>
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<tr>
<td>Turbidity</td>
<td>GPS Coordinates</td>
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<tr>
<td>pH</td>
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<tr>
<td>ORP/Redox</td>
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<tr>
<td>Seawater Density</td>
<td>Chlorophyll</td>
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<tr>
<td>Total Suspended Solids (TSS)</td>
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Not just a power cord! ProDSS cables minimize electrical noise and signal degradation over any cable length.

- Single-line design for easy handling in the field
- MS (Military Spec) locking connector for secure connection
- Cable lengths up to 100 meters
- Sensor guard weights for vertical profiling and stability
- 2-year warranty

### Multiparameter 4-Port Cable Assembly
- Universal smart ports
- Optional depth sensor

### ODO/T and ODO/CT Probe and Cable Assemblies
- Temperature and ODO in one sensor
- Optional built-in conductivity
- Less than 1-inch diameter
- Rugged ODO sensor cap with 2-year warranty

### ProSwap 1-Port Cable Assembly
- Universal smart port
- Built-in temperature sensor
- Optional depth sensor
- Just over 1-inch diameter

### ProOBOD Probe and Cable Assembly
- Tapered probe for BOD bottles
- Quiet, self-stirring
- Guarded sensor cap
“This is the quickest I’ve ever collected data and looked at it in a meaningful fashion without spending a lot of time downloading and formatting.”

ProDSS User on Kor Software
“The meter, cable, and sensors are sturdy, well protected for field work, well designed, and professional.”
# ProDSS Sensor Specifications

<table>
<thead>
<tr>
<th>Sensor / Parameter</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
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</table>
| **Temperature**    | -5 to 70 °C (23 to 158°F)  
                      | Temperature compensation range for DO mg/L measurement: -5 to 50 °C | 0.1 °C or 0.1°F | ±0.2 °C |
| **pH**             | 0 to 14 pH units | 0.01 pH units | ±0.2 pH units |
| **ORP**            | -1999 to 1999 mV | 0.1 mV | ±20 mV |
| **Dissolved Oxygen** | 0 to 500%, 0 to 50 mg/L | 0.01 mg/L and 0.1%, or 0.1 mg/L and 1% (user selectable) | 0 to 200%: ±1% of reading or 1% saturation, whichever is greater  
                      200 to 500%: ±8% of reading | 20 to 20 mg/L: ±0.1 mg/L or 1% of reading, whichever is greater  
                      20 to 50 mg/L: ±8% of reading |
| **Barometer**      | 375 to 825 mmHg | 0.1 mmHg | ±1.5 mmHg from 0 to 50 °C |
| **Conductivity**   | 0 to 200 mS/cm | 0.001, 0.01 or 0.1 mS/cm (range dependent) | 0 to 100 mS/cm: ±0.5% of reading or 0.001 mS/cm, whichever is greater  
                      100 to 200 mS/cm: ±1.0% of reading |
| **Specific Conductance*** | 0 to 200 mS/cm | 0.001, 0.01, 0.1 mS/cm | 0 to 100 mS/cm: ±0.5% of reading or 0.001 mS/cm, whichever is greater  
                      100 to 200 mS/cm: ±1.0% of reading  
                      User selectable reference temperature (15 to 25 °C; default 25 °C) and compensation coefficient (0 to 4%/°C; default 1.91%) |
| **Salinity***      | 0 to 70 ppt | 0.01 ppt | ±1.0% of reading or ±0.1 ppt, whichever is greater |
| **Total Dissolved Solids (TDS)*** | 0 to 100 g/L | 0.001, 0.01, 0.1 g/L | Calculated from specific conductance and a user-selectable TDS multiplier (0.30 to 1.00; default 0.65) |
| **Resistivity***   | 0 to 2 Mohms | 0.001, 0.01, 0.1 ohms | ±0.1% Full Scale |
| **Seawater Density*** | 0 to 50.0 sigma, sigma T | 0.1 sigma or sigma T | - |
| **Turbidity**      | 0 to 4000 FNU | 0.1 FNU | 0 to 999 FNU: 0.3 FNU or ±2% of reading, whichever is greater  
                      1000 to 4000 FNU: ±5% of reading |
| **TAL-Chlorophyll** | 0 to 100 RFU or 0 to 400 µg/L chl | 0.01 RFU or 0.01 µg/L | Linearity: \( r^2 \geq 0.999 \) for Rhodamine WT across full range |
| **TAL-Phycocyanin** | 0 to 100 RFU or 0 to 400 µg/L PC | 0.01 RFU or 0.01 µg/L | - |
| **TAL-Phycoerythrin** | 0 to 100 RFU or 0 to 400 µg/L PE | 0.01 RFU or 0.01 µg/L | - |
| **Ammonium****     | 0 to 200 mg/L NH₄-N | 0.01 mg/L | ±10% of reading or 2 mg/L, whichever is greater |
| **Ammonia***       | 0 to 200 mg/L NH₃-N | 0.01 mg/L | ±10% of reading or 2 mg/L, whichever is greater |
| **Chloride****     | 0 to 18000 mg/L Cl⁻ | 0.01 mg/L | ±15% of reading or 5 mg/L, whichever is greater |
| **Nitrate****      | 0 to 200 mg/L NO₃⁻N | 0.01 mg/L | ±10% of reading or 2 mg/L, whichever is greater |
| **Depth**          | 0 to 100 m (0 to 328 feet) | 0.001 m or 0.001 ft | ±0.004 m for 1, 4, and 10 m cables  
                      ±0.04 m for cables 20 m and longer |

*Derived/calculated parameter  
**ISEs for freshwater only; 17-meter maximum depth
Ordering Guide

Step 1: Select Handheld
All handhelds include a rechargeable lithium-ion battery, hand strap, USB cable, universal AC charger, data export cable, Quick Start Guide, and USB memory stick containing Kor Software and digital copy of the User Manual.

- [ ] 626870-1: ProDSS Handheld
- [ ] 626870-2: ProDSS Handheld with GPS

Step 2: Select Cable Assembly

**ProDSS 4-Port Cable Assemblies**
Connect any combination of four smart sensors at a time for multiparameter sampling.

- [ ] 626990: ProDSS 4-port cable; 1, 4, 10, 20, 30, 40, 50, 60, 70, 80, 90, or 100 meter length
- [ ] 626910: ProDSS 4-port cable with shallow depth sensor; 1, 4, or 10 meter length
- [ ] 626911: ProDSS 4-port cable with medium depth sensor; 20, 30, 40, 50, 60, 70, 80, 90, or 100 meter length

**ProSwap 1-Port Cable Assemblies**
Connect a single smart sensor to focus on any parameter of choice. Features built-in temperature sensor.

- [ ] 626750: ProSwap 1-port cable; 1, 4, 10, 20, 30, 50, or 100 meter length
- [ ] 626760: ProSwap 1-port cable with shallow depth sensor; 1, 4, or 10 meter length
- [ ] 626770: ProSwap 1-port cable 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 options.

- [ ] 627150: ODO/CT cable with integral optical dissolved oxygen (with pre-installed sensor cap), conductivity, and temperature sensors; 1, 4, 10, 20, 30, 50, or 100 meter length
- [ ] 627200: 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
- [ ] 626400: ProOBOD self-stirring optical BOD probe/cable assembly, lab probe; 115 V; 3 meter length
- [ ] 626401: ProOBOD self-stirring optical BOD probe/cable assembly, lab probe; 230 V; 3 meter length

Step 3: Select ProDSS Smart Sensor(s) for 4-Port or 1-Port Cables

*A conductivity/temperature sensor must be installed in a ProDSS 4-port cable for temperature compensation.*

- [ ] 626900: ODO with pre-installed sensor cap
- [ ] 626901: Turbidity
- [ ] 626902: Conductivity and temperature
- [ ] 626903: pH with pre-installed sensor module
- [ ] 626904: pH/ORP with pre-installed sensor module
- [ ] 626905: Nitrate with pre-installed sensor module
- [ ] 626906: Ammonium with pre-installed sensor module
- [ ] 626907: Chloride with pre-installed sensor module
- [ ] 626210: Total algae, PC (chlorophyll + phycocyanin)
- [ ] 626211: Total algae, PE (chlorophyll + phycoerythrin)

Protect Your Investment: Add a ProDSS Factory Service Plan

Service Plans optimize the performance and lifetime of your ProDSS meter, 4-port cable, and sensors by cover annual maintenance and replacement parts. Plans offered for 1 to 3 years (U.S. Only).
Step 4: Select Standards

- **065270**: Conductivity standard, 1000 umhos/cm (quart)
- **065272**: Conductivity standard, 10000 umhos/cm (quart)
- **065274**: Conductivity standard, 100000 umhos/cm (quart)
- **060907**: Conductivity calibrator, 1000 umhos/cm (8 ea, pint)
- **060906**: Conductivity calibrator, 1413 umhos/cm (8 ea, pint)
- **060911**: Conductivity calibrator, 10000 umhos/cm (8 ea, pint)
- **060660**: Conductivity calibrator, 50000 umhos/cm (8 ea, pint)
- **608000**: Turbidity standard, 0 FNU (1 gallon)
- **607200**: Turbidity standard, 12.4 FNU (1 gallon)
- **607300**: Turbidity standard, 124 FNU (1 gallon)
- **607400**: Turbidity standard, 1010 FNU (1 gallon)
- **603824**: 2 pints each of 4, 7, and 10 pH buffers
- **003841**: 1 mg/L ammonium standard (500 mL)
- **003842**: 10 mg/L ammonium standard (500 mL)
- **003843**: 100 mg/L ammonium standard (500 mL)
- **003885**: 1 mg/L nitrate standard (500 mL)
- **003886**: 10 mg/L nitrate standard (500 mL)
- **003887**: 100 mg/L nitrate standard (500 mL)
- **061320**: Zobell standard for ORP (mV) calibration, 125 mL
- **061321**: Zobell standard for ORP (mV) calibration, 250 mL
- **061322**: Zobell standard for ORP (mV) calibration, 500 mL
- **005580**: Confidence Solution® (Conductivity, pH, & ORP)*

Step 5: Select Accessories

- **626946**: Large, hard-sided carrying case (Fits 10, 20, and 30 meter cables)
- **603075**: Large, soft-sided carrying case
- **626945**: Small, hard-sided carrying case (Fits 1 and 4 meter cables plus a flow cell)
- **599080**: Flow cell for ProDSS 4-port cables
- **603076**: Flow cell for ODO/CT cables (requires single port adapter; 603078)
- **603078**: Adapter required for ODO/CT flow cell (603076)
- **603056**: Flow cell mounting spike
- **063517**: Ultra clamp
- **603070**: Shoulder strap
- **603069**: Belt clip
- **626918**: 1 lb weight - stackable on guard (A 1 lb. weight is included with ProDSS 4-port cables 10 m and longer)
- **605978**: 4.9 oz weight - stackable on guard
- **626942**: USB car charger
- **626943**: Small external USB portable battery pack
- **626944**: Large external USB portable battery pack

Replacement Parts

- **626846**: Rechargeable Lithium-ion battery pack
- **626969**: USB flash drive with user manuals and Kor Software
- **626991**: USB cable for charging and PC connection
- **626992**: Cable for connection to USB stick
- **626736**: Cable maintenance kit for ProSwap 1-port cables
- **626990**: Cable maintenance kit for ProDSS 4-port cables
- **626740**: Sensor guard kit for ProSwap 1-port cables
- **626919**: Sensor guard kit for ProDSS 4-port cables
- **626755**: Storage cup for ProSwap 1-port cables
- **599786**: Calibration/storage cup for ProDSS 4-port cables
- **627195**: Calibration cup for ODO/CT cables
- **603062**: Cable management kit
- **626940**: AC charger (USA). Includes power supply and USB cable (626991)
- **626941**: AC charger (International). Includes power supply, USB cable and outlet adapters
- **626890**: ODO Sensor cap for ProDSS optical dissolved oxygen sensor (626900)
- **627180**: ODO Sensor cap for ODO/CT and ODO/T assemblies
- **626482**: ODO Sensor cap for ProOBOD assemblies (626400 or 626401)
- **626963**: ProDSS pH sensor module (for 626903 sensor)
- **626964**: ProDSS pH/ORP sensor module (for 626904 sensor)
- **626965**: ProDSS Nitrate sensor module (for 626905 sensor)
- **626966**: ProDSS Ammonium sensor module (for 626906 sensor)
- **626967**: ProDSS Chloride sensor module (for 626907 sensor)

*This solution is only for verification, not calibration.*
1) The tissue in plants that brings water upward from the roots;  
2) a leading global water technology company.

We’re a global team unified in a common purpose: creating advanced technology solutions to the world’s water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com