

YSI Environmental



The Quatro cable bulkhead shown with four user-replaceable sensors including temperature/conductivity, DO, pH, and ammonium.



YSI Professional Plus Quatro Cable

The Quatro Cable with the Pro Plus Provides the Ultimate Handheld Multiparameter Instrument

The Quatro is a new 4-port cable and bulkhead for the Professional Plus handheld instrument making it possible to measure conductivity and temperature, dissolved oxygen, and your choice of any two ISE's among pH, ORP, ammonium, nitrate or chloride.

All sensors are rugged and designed for true field work to reduce the overall cost of ownership.

- Holds four user replaceable Professional Series sensors for temperature/conductivity, dissolved oxygen and a choice of any two ISE's among pH, ORP, ammonium, nitrate or chloride.
- Rugged and waterproof Military Spec (MS) connectors to connect to the Professional Plus instrument.
- Choose either polarographic or galvanic DO sensors.
- Weighted guard ensures correct depth while protecting the sensors.
- 2-year cable warranty
- Choose among 1-, 4-, 10-, 20- and 30-meter cable lengths.
- Cable management kit included on any cable 4-meters or longer.

The Professional Plus with the Quatro 4-port cable enables you to conveniently sample an entire suite of parameters and easily download that data into the Data Manager desktop software.

As always, the Pro Plus comes with the communications saddle, USB cable, and Data Manager. By adding the Quatro, you can create a one-of-a-kind handheld multiparameter instrument.

To learn more about the Pro Plus visit www.ysi.com/proplus.



www.YSI.com/quatro



+1 937 767 7241 800 897 4151 (US) www.ysi.com

YSI Environmental +1 937 767 7241 Fax +1 937 767 9353 environmental@ysi.com

YSI Integrated Systems +1 508 748 0366 systems@ysi.com

SonTek/YSI +1 858 546 8327 inquiry@sontek.com

YSI Gulf Coast +1 225 753 2650 environmental@ysi.com

AMJ Environmental +1 877 392 9950 amj@ysi.com

YSI Hydrodata (UK) +44 1462 673 581 europe@ysi.com

YSI Middle East (Bahrain) +973 1753 6222 halsalem@ysi.com

YSI (Hong Kong) Limited +852 2891 8154 hongkong@ysi.com

YSI (China) Limited +86 532 575 3636 beijing@ysi-china.com

YSI Nanotech (Japan) +81 44 222 0009 nanotech@ysi.com

YSI Australia +61 7 390 17233 acorbett@ysi.com

YSI India +91 989 122 0639 sham@ysi.com



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YSI incorporated Who's Minding the Planet?™

Quatro Cable Specifications

| e with sensors) | 525 grams (1.15 lbs) |
|-----------------|--|
| · | 4.70 cm (1.85 in) |
| | 12.65 cm (4.98 in) |
| | Military spec (MS), waterproof, bayonet lock |

Quatro Ordering Information

Weight (1-meter cable Diameter Probe Guard Length Connector

| 605790-1 | 1-m cable with 4-ports and 5560 temp/conductivity sensor |
|-----------|---|
| | 4-m cable with 4-ports and 5560 temp/conductivity sensor |
| | [*] 10-m cable with 4-ports and 5560 temp/conductivity sensor |
| | [*] 20-m cable with 4-ports and 5560 temp/conductivity sensor |
| 605790-30 | * 30-m cable with 4-ports and 5560 temp/conductivity sensor |
| 6050000 | Professional Plus instrument (the Quatro can only be used with the Professional Plus) |
| 605202 | Galvanic dissolved oxygen sensor |
| 605203 | Polarographic dissolved oxygen sensor |
| 605101 | pH sensor |
| 605102 | ORP sensor |
| 605104** | Ammonium ISE, NH4 ⁺ sensor (17-meter maximum depth) |
| 605105** | Chloride ISE sensor (17-meter maximum depth) |
| 605106** | Nitrate ISE sensor (17-meter maximum depth) |
| Accesso | ries Ordering Information |

5913**** 1.25 mil PE membranes for galvanic (6 yellow caps/solution)

- 5908*** 1.25 mil PE membranes for polarographic (6 yellow caps/solution)
- 5914 2 mil PE membranes for galvanic (6 blue caps/solution)
- 5909 2 mil PE membranes for polarographic (6 blue caps/solution)

Please visit www.ysi.com/accessories for a full line of Professional Series accessories and calibration solutions.

* Includes cable management kit. ** Freshwater only. *** Standard membranes.

The waterproof, military spec connector is designed for true field performance. All YSI cables are designed for rugged field use.



Four ports for user-replaceable sensors. Ports accept a temperature/ conductivity combo sensor, DO sensor, and any combination of two ISE sensors among pH, ORP, ammonium, chloride, or nitrate. If a port isn't used simply put a port plug in it's place.



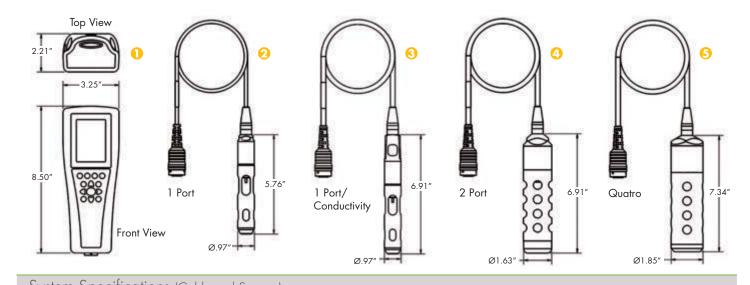
A cable management kit is included with all cables 4-meters and over. Conveniently, manage your longer cable lengths. Also easily attaches to the outside of the soft-sided carrying case instead of placing wet, dirty cables inside.



All user-replaceable sensors feature a double o-ring creating a waterproof connection and enabling the sensors to be used at depths up to 30-meters.



A rugged, weighted probe guard protects the sensors and ensures the correct depths on longer cables.



| | Sensor Type | Range | Accuracy | Resolution | Units | Calibration |
|---|--|---|--|---|------------------------------------|--|
| Dissolved Oxygen (%) (temp comp range -5 to 45*C) | Polarographic or Galvanic | 0 to 500% | 0 to 200% (\pm 2% of reading or 2% air saturation, whichever is greater) 200% – 500% (\pm 6% of reading) | 1% or 0.1% air saturation (user selectable) | % | 1 or 2-points with zero |
| Dissolved Oxygen (mg/L) temp comp range 5 to 45°C) | Polarographic or Galvanic | 0 to 50 mg/L | 0 to 20 mg/L (±2% of the reading or 0.2 mg/L, whichever is greater) 20 to 50 mg/L (±6% of the reading) | 0.1 or 0.01 mg/L (user selectable); 0.1% air saturation | mg/L, ppm | 1 or 2-points with zero |
| Temperature Field rugged cables) | | -5 to 70°C | ±0.2°C | 0.1°C | °C, °F, K | |
| Temperature Lab-grade)* | | 0 to 40°C | ±0.35°C | 0.1°C | °C, °F, K | |
| Conductivity** | Four electrode cell | 0 to 200 mS/cm (auto range) | ±0.5% of reading or 0.001 mS/cm, whichever is greater (4-m cable) ±1% of reading or 0.001 mS/cm, whichever is greater (20-m cable) | 0.001 mS/cm to 0.1 mS/cm (range dependent) | μS, mS | 1 point |
| Salinity | Calculated from conductivity and temperature | 0 to 70 ppt | ±1.0% of reading or 0.1 ppt, whichever is greater | 0.01 ppt | ppt, PSU | 1 point |
| рН | Glass Combination Electrode | 0 to 14 units | ±0.2 units | 0.01 units | mV, pH units | 1, 2, 3, 4, 5, or 6 point (user selectable); US, NIST or Custom Buffers |
| ORP | Platinum button | -1999 to +1999 mV | ±20 mV in redox standards | 0.1 mV | mV | 1 point |
| Ammonium*** ammonia with pH sensor) | Ion Selective Electrode | 0 to 200 mg/L-N, 0 to 30°C | ±10% of reading or 2 mg/L-N, whichever is greater | 0.1 mg/L | mg/L-N, mV | 1, 2, or 3 point (user selectable) |
| Nitrate*** | Ion Selective Electrode | 0 to 200 mg/L-N, 0 to 30°C | ±10% of reading or 2 mg/L-N, whichever is greater | 0.1 mg/L | mg/L-N, mV | 1, 2, or 3 point (user selectable) |
| Chloride*** | Ion Selective Electrode | 0 to 1000 mg/L, 0 to 40°C | ±15% of reading or 5 mg/L, whichever is greater | 0.1 mg/L | mg/L-Cl-, mV | 1, 2, or 3 point (user selectable) |
| Total Dissolved Solids (TDS) | Calculated from conductivity and temperature | 0 to 100 g/L TDS constant range 0.30 to 1.00 (0.64 default) | | 0.001, 0.01, 0.1g/L | kg/L, g/L | |
| Barometer | Piezoresistive | 375 to 825 mmHg | ±1.5 mmHg from 0 to 50°C | 0.1 mmHg | mmHg, inHg, mbar, psi, kPa, ATM | 1 point |
| | nly Specification | s (at Ambient Tempe | | | | |
| рН | | -2.60 to 16.60 | ±0.1 mV (0.01 pH units) | 0.1 mV (0.01 pH units) | | |
| ORP | | -1999 to +1999 mV | ±0.5 mV | 0.1 mV | | |
| Conductivity | | 0.0 to 200 mS/cm each range | ±0.1% FS ±1 digit for uS/cm to 0.1 mS/cm (range dependent) | 0.0001 mS/cm or 0.1 | | |
| Dissolved Oxygen | | 0.00 to 90 mg/L; 0 to 550% | ±0.2% FS (550% air saturation) ±1 digit (with 1.25 PE membrane at 10°C) | 0.01 mg/L; 0.1% air saturation | | |
| T | | 10 1 100 00% | 0.00/ FC 1.1: 1 | 0.1% | °C °F // | |

* Lab-grade cables include 605107, -108, -109, 605177, -178, -179 * ISE sensors for freshawater only; 17-meter maximum depth ** Derived parameters can include resistivity, salinity, specific conductance, and total dissolved solids

-10 to 100.00°C

* *

Temperature

0.1°C

°C, °F, K

 $\pm 0.2\%$ FS ± 1 digit

Specifications