## Water Quality Meters

## **YSI Professional Series**

YSI introduces the Professional Series instruments. The easiest, most versatile handheld solution for spot sampling in the field or lab. Simply choose the Pro Series model, cable length, and probes that are right for your specific application – from aquaculture to surface water to wastewater and more.

#### **FEATURES**

- Each instrument provides multiple probe or cable options.
- Detachable cables and probes mean less downtime.
- Backlit keypad and display (Pro Plus) or glowin-the-dark keypad for low light measurements.
- IP67 rated.
- 3-Year warranty on instrument.
  - 2-Year warranty on cables.
  - 1-Year warranty on probes.
  - 6-Month warranty on Galvanic DO probes.

#### **Professional Plus Multiparameter**

The flagship of the Professional Series, YSI Professional Plus accommodates any combination of Pro Series probe, cable, and accessory. This compact handheld allows you to

instantly change probes and cables. You determine what you want the instrument to measure and display.

Choose your own combination of the various parameters:

- Ammonium, Chloride, Conductivity, Dissolved Oxygen (DO), Nitrate, Oxidation Reduction Potential (ORP), pH, Temperature, Salinity, Resistivity, Total Dissolved Solids (TDS)
- 5,000 data-set memory
- Interval or single-event logging
- Free, Data Manager desktop software and ProComm II saddle





**Pro1020** pH, ORP, ORP/Redox, Polarographic or Galvanic DO sensors, and Temperature.

Pro10

pH or ORP/Redox,

and Temperature



**Pro1030** pH, ORP/Redox, Conductivity, Specific Conductance, Salinity, Total Dissolved Solids (TDS), and Temperature.



**Pro2030** DO, Conductivity, Specific Conductance, Salinity, Total Dissolved Solids (TDS), Barometer and Temperature.



**Pro20** DO and Temperature



**Pro30** Conductivity, Specific Conductance, Salinity, Total Dissolved Solids (TDS), and Temperature.

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

Geotech Environmental Equipment, Inc. 2650 East 40th Avenue • Denver, Colorado 80205 (303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242 email: sales@geotechenv.com website: www.geotechenv.com

## Water Quality Meters

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### **YSI Professional Series**

#### **ORDER SELECTION GUIDE**

#### As easy as 1, 2, 3

STEP 1 – SELECT INSTRUMENT Professional Plus Pro10 pH or ORP Pro20 DO Pro30 Pro1020 ISE/DO Pro1030 ISE/Conductivity Pro2030 DO/Conductivity

#### STEP 2 – SELECT CABLE<sup>1</sup>

(All cables include temperature) 1 m cable for ISE<sup>1</sup> 4 m cable for ISE<sup>1</sup> 10 m cable for ISE<sup>1</sup> 20 m cable for ISE1 30 m cable for ISE1 1 m cable for DO<sup>2</sup> 4 m cable for DO<sup>2</sup> 10 m cable for DO<sup>2</sup> 20 m cable for DO<sup>2</sup> 30 m cable for DO<sup>2</sup> 1 m cable for conductivity<sup>5</sup> 4 m cable for conductivity<sup>5</sup> 10 m cable for conductivity<sup>5</sup> 20 m cable for conductivity<sup>5</sup> 30 m cable for conductivity<sup>5</sup> 1 m cable for ISE/ISE 4 m cable for ISE/ISE 10 m cable for ISE/ISE 20 m cable for ISE/ISE 30 m cable for ISE/ISE 1 m cable for ISE/DO 4 m cable for ISE/DO 10 m cable for ISE/DO 20 m cable for ISE/DO 30 m cable for ISE/DO 1 m cable for ISE/conductivity<sup>5</sup> 4 m cable for ISE/conductivity<sup>5</sup> 10 m cable for ISE/conductivity<sup>5</sup> 20 m cable for ISE/conductivity<sup>5</sup> 30 m cable for ISE/conductivity<sup>5</sup> 1 m cable for DO/conductivity<sup>5</sup> 4 m cable for DO/conductivity<sup>5</sup> 10 m cable for DO/conductivity<sup>5</sup> 20 m cable for DO/conductivity<sup>5</sup> 30 m cable for DO/conductivity<sup>5</sup> 1 m cable with 4 ports<sup>5</sup> 4 m cable with 4 ports<sup>5</sup> 10 m cable with 4 ports<sup>5</sup> 20 m cable with 4 ports<sup>5</sup> 30 m cable with 4 ports<sup>5</sup>

#### STEP 3 - SELECT PROBE1

Galvanic DO Polarographic DO pH (ISE) pH/ORP (ISE) pH/ORP combination (ISE)<sup>3</sup> Amplified pH (ISE) Amplified pH/ORP (ISE) Ammonium (ISE) Chloride (ISE) Nitrate (ISE) BOD probe (self stirring)

1 ISEs include pH, ORP, Ammonium, Nitrate, Chloride.

- **2** Special order cables in 10-meter increments up to 100 meters available.
- 3 Not compatible with ISE/ISE cables.
- 4 Extension adapter may be required
- 5 Conductivity probe included with cable



Flow Cell with spike





Pro Series single or dual Flow Cell assembly







Quatro 6850 Flow Cell assembly

#### **YSILAB DOCK**

The Lab Dock is designed to hold a Pro Series instrument and BOD bottle, with BOD probe, together on the bench-top to provide a small footprint. It can also be used without the BOD bottle holder as a convenient instrument dock.

The Lab Dock is ideal for the Professional Plus or Pro20 instrument with a BOD probe. The dock conveniently holds the BOD bottle on either the left or right side in order to provide a stable calibration environment and to store the probe. The instrument sets easily on the Lab Dock and won't wobble, even when pressing the instrument's keys.



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## **YSI Professional Series Specifications**

#### SYSTEM WITH INSTRUMENT, 1-4 METER CABLE, AND PROBES

		Professional Plus	Pro10	Pro20	Pro30	Pro1020	Pro1030	Pro2030
Dissolved	Sensor Type	Polarographic or Galvanic		Polarographic or Galvanic		Polarographic or Galvanic		Polarographic or Galvanic
xygen	Range	0 to 500%		0 to 500%		0 to 500% air saturation		0 to 500% air saturation
(% saturation)	Accuracy	0 to 200% air saturation		0 to 200% air saturation,		0 to 200% air saturation,		0 to 200% air saturation,
		$(\pm 2\%$ of reading or $\pm 2\%$ air		(±2% of reading or ±2% air		$(\pm 2\%$ of reading or $\pm 2\%$ air		$(\pm 2\%$ of reading or $\pm 2\%$ air
		saturation, whichever is greater)		saturation, whichever is greater)		saturation, whichever is greater)		saturation, whichever is greate
		200 to 500% (±6% of reading)		200 to 500% (±6% of reading)		200 to 500% (±6% of reading)		200 to 500% (±6% of reading)
	Resolution	1% or 0.1% air saturation		0.1% or 1% air saturation		0.1% or 1% air saturation		0.1% or 1% air saturation
		(user selectable)		(user selectable)		(user selectable)		(user selectable)
oissolved	Sensor Type	Polarographic or Galvanic		Polarographic or Galvanic		Polarographic or Galvanic		Polarographic or Galvanic
)xygen	Range	0 to 50 mg/L		0 to 50 mg/L		0 to 50 mg/L		0 to 50 mg/L
mg/L)	Accuracy	0 to 20 mg/L ( $\pm 2\%$ of reading or		0 to 20 mg/L ( $\pm 2\%$ of reading or		0 to 20 mg/L ( $\pm$ 2% of reading or		0 to 20 mg/L ( $\pm 2\%$ of reading of
(IIIg/L)	Accuracy	0.2 mg/L, whichever is greater)		$\pm 0.2 \text{ mg/L}$ , whichever is greater)		$\pm 0.2 \text{ mg/L}$ , whichever is greater)		$\pm 0.2$ mg/L, whichever is greate
		20 to 50 mg/L ( $\pm$ 6% of reading)		$\pm$ 0.2 mg/ c, whichever is greater) 20 to 50 mg/L ( $\pm$ 6% of reading)		$\pm$ 0.2 mg/ c, whichever is greater) 20 to 50 mg/L ( $\pm$ 6% of reading)		20 to 50 mg/L ( $\pm$ 6% of reading
	Resolution	0.1 or 0.01 mg/L (user selectable)						0.01 or 0.1 mg/L (user selectabl
	Resolution	0.1% air saturation		0.01 or 0.1 mg/L (user selectable)		0.01 or 0.1 mg/L (user selectable)		0.01 of 0.1 mg/L (user selectabl
	D		5 + 55°C	5 to 55%	5 t. 559C	F + . FF96 (0 + . 4F96 (	5 to 550C	5 · · · 55°C (0 · · · 45°C ( · · · D0
Temperature	Range	-5 to 70°C	-5 to 55°C	-5 to 55°C	-5 to 55°C	-5 to 55°C (0 to 45°C for D0	-5 to 55°C	-5 to 55°C (0 to 45°C for DO
Field Cables)					(compensation range for mg/L)		(compensation range for mg/L)	
	Accuracy	±0.2°C	±0.2°C	±0.3°C	±0.2°C	±0.2°C	±0.2°C	±0.3°C
	Resolution		0.1°C	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
Conductivity*	Sensor Type	4-electrode cell			4-electrode cell		4-electrode cell	4-electrode cell
	Range	0 to 200 mS/cm (auto range)			0 to 200 mS/cm (auto range)		0 to 500 μS/cm,	0 to 200 mS/cm (auto range)
	lunge	auto range,			(auto range)		0 to 200 mS/cm (auto ranging)	(auto range)
	Accuracy	±0.5% of reading or 0.001 mS/cm,			$\pm 0.5\%$ of reading or 1.0 $\mu$ S/cm,		$\pm 1.0\%$ of reading or 1 $\mu$ S/cm	$\pm 1.0\%$ of reading or 1 $\mu$ S/cm
		whichever is greater			whichever is greater		whichever is greater	whichever is greater
	Resolution	0.001 mS (0 to 500 mS);			0.0001 to 0.1 mS/cm		0.0001 to 0.1 mS/cm,	0.0001 to 0.1 mS/cm
	nesonation	0.01 mS (0.501 to 50.00 mS;			(range dependent)		0.1 to 0 μS/cm	(range dependent)
		0.1 mS (50.01 to 200 mS)			(ange acpendent)		(range dependent)	(ange acpendent)
alinity	Sensor Type	Calculated from conductivity					Calculated from conductivity	Calculated from conductivity
		and temperature					and temperature	and temperature
	Range	0 to 70 ppt					0 to 70 ppt	0 to 70 ppt
	Accuracy	±1.0% of reading or 0.1 ppt,					$\pm 1.0\%$ of reading or $\pm 0.1$ ppt,	$\pm 1.0\%$ of reading or 0.1 ppt,
		whichever is greater					whichever is greater	whichever is greater
	Resolution	0.01 ppt					0.1 ppt	0.1 ppt
- 4	Sensor Type	Glass combination electrode	Glass combination electrode			Glass combination electrode	Glass combination electrode	
pH	Range	0 to 14 pH units	0 to 14 pH units			0 to 14 pH units	0 to 14 pH units	
	Accuracy	±0.2 units	±0.2			±0.2	±0.2	
	Resolution	±0.2 units	±0.2 0.01			±0.2 0.01	0.01	
	Resolution	0.01 units	0.01			0.01	0.01	
ORP	Sensor Type	Platinum button	Platinum button			Platinum button	Platinum button	
	Range	-1999 to +1999 mV	-1500 to 1500 mV			-1500 to 1500 mV	-1500 to 1500 mV	
	Accuracy	±20 mV (in redux standards)	±20 mV			±20 mV	±20 mV	
	Resolution	0.1 mV	1 mV			1 mV	1 mV	
Ammonium**	Range	0 to 200 mg/L-N, 0 to 30°C						
	Accuracy	±10% of reading or 2 mg/L-N,						
	/iccurucy	whichever is greater						
	Resolution	0.01 mg/L						
Nitrate**	Sensor Type	Ion Selective Electrode						
	Range	0 to 200 mg/L-N, 0 to 30°C						
	Accuracy	±10% of reading or 2 mg/L-N,						
	Accuracy							
		whichever is greater						
	Resolution							
Chloride**	Resolution	whichever is greater 0.01 mg/L						
Chloride**	Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode						
Chloride**	Resolution Sensor Type Range	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C						
Chloride**	Resolution Sensor Type	whichever is greater           0.01 mg/L           lon Selective Electrode           0 to 1000 mg/L, 0 to 40°C           ±15% of reading or 5 mg/L,						
Chloride**	Resolution Sensor Type Range Accuracy	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater						
	Resolution Sensor Type Range Accuracy Resolution	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L						
fotal	Resolution Sensor Type Range Accuracy	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity			Calculated from conductivity		Calculated from conductivity	Calculated from conductivity
otal Dissolved	Resolution Sensor Type Range Accuracy Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature			and temperature		and temperature	and temperature
Fotal Dissolved	Resolution Sensor Type Range Accuracy Resolution	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to $40^{\circ}$ C $\pm 15\%$ of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L			and temperature 0 to 100 g/L		and temperature 0 to 100 g/L	and temperature 0 to 100 g/L
Fotal Dissolved	Resolution Sensor Type Range Accuracy Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range)			and temperature 0 to 100 g/L (TDS constant range)		and temperature 0 to 100 g/L (TDS constant range)	and temperature 0 to 100 g/L (TDS constant range)
Fotal Dissolved	Resolution Sensor Type Range Accuracy Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to $40^{\circ}$ C $\pm 15\%$ of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L			and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default)		and temperature 0 to 100 g/L	and temperature 0 to 100 g/L
otal Dissolved	Resolution Sensor Type Range Accuracy Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range)			and temperature 0 to 100 g/L (TDS constant range)		and temperature 0 to 100 g/L (TDS constant range)	and temperature 0 to 100 g/L (TDS constant range)
Chloride** Total Dissolved Solids (TDS)	Resolution Sensor Type Range Accuracy Resolution Sensor Type Range	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range)			and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default)		and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default)	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default)
otal Dissolved	Resolution Sensor Type Range Accuracy Resolution Sensor Type Range	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to $40^{\circ}$ C $\pm 15\%$ of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) 0.001, 0.01, 0.1 g/L			and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) Dependent accuracy of temp, conductivity and TDS constant 0.001, 0.01, 0.1 g/L		and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent accuracy of temp, conductivity and TDS constant 0.0001 to 0.1 g/L	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent on temp and cond.,
otal Dissolved Jolids (TDS)	Resolution Sensor Type Range Accuracy Resolution Sensor Type Range Accuracy Resolution	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) 0.001, 0.01, 0.1 g/L (range dependent)			and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) Dependent accuracy of temp, conductivity and TDS constant		and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent accuracy of temp, conductivity and TDS constant	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent on temp and cond., calculated from those paramete 0.0001, 0.01, 0.1 g/L
otal iissolved olids (TDS)	Resolution Sensor Type Range Accuracy Resolution Sensor Type Range Accuracy Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) 0.001, 0.01, 0.1 g/L (range dependent) Piezoresistive		Piezoresistive	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) Dependent accuracy of temp, conductivity and TDS constant 0.001, 0.01, 0.1 g/L	Piezoresistive	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent accuracy of temp, conductivity and TDS constant 0.0001 to 0.1 g/L	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent on temp and cond., calculated from those parameter 0.0001, 0.01, 0.1 g/L Piezoresistive
otal Dissolved	Resolution Sensor Type Range Accuracy Resolution Sensor Type Range Accuracy Resolution Sensor Type Range	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) 0.001, 0.01, 0.1 g/L (range dependent) Piezoresistive 375 to 825 mmHg		400 to 999.9 mmHg	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) Dependent accuracy of temp, conductivity and TDS constant 0.001, 0.01, 0.1 g/L	500 to 800 mmHg	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent accuracy of temp, conductivity and TDS constant 0.0001 to 0.1 g/L	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent on temp and cond., calculated from those parameter 0.0001, 0.01, 0.1 g/L Piezoresistive 500 to 800 mmHg
otal iissolved olids (TDS)	Resolution Sensor Type Range Accuracy Resolution Sensor Type Range Accuracy Resolution Sensor Type	whichever is greater 0.01 mg/L Ion Selective Electrode 0 to 1000 mg/L, 0 to 40°C ±15% of reading or 5 mg/L, whichever is greater 0.01 mg/L Calculated from conductivity and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) 0.001, 0.01, 0.1 g/L (range dependent) Piezoresistive			and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.64 default) Dependent accuracy of temp, conductivity and TDS constant 0.001, 0.01, 0.1 g/L		and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent accuracy of temp, conductivity and TDS constant 0.0001 to 0.1 g/L	and temperature 0 to 100 g/L (TDS constant range) 0.30 to 1.00 g/L (0.65 default) Dependent on temp and cond., calculated from those parameter 0.0001, 0.01, 0.1 g/L Piezoresistive
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\*Derived parameters can include resistivity, salinity, specific conductance, and total dissolved solids. \*\*ISE sensors for freshwater only; 17 meter maximum depth.