YSI Environmental

YSI 3100/3200 Conductivity Systems

3200 Conductivity Instrument - *Unmatched for ultrapure water*

- **User-selected measurement mode: conductivity, temperature, resistivity, conductance, salinity, resistance, or total dissolved solids**
- **Resistance Ratio Technology™ provides unmatched accuracy for ultrapure water**
- **Multipoint calibration; variety of measurements with the same cell**
- **High and low alarms for process applications**
- **Linear and nonlinear temperature compensation**

3100 Conductivity Instrument - *High-accuracy*

The YSI 3100 provides high-accuracy measurements for basic conductivity. Includes direct-reading digital display, adjustable temperature coefficient, and automatic temperature compensation.

Conductivity cells with easy automatic temperature compensation

YSI 3200 Series Conductivity Cells have built-in thermistors, allowing automatic temperature compensation. All YSI cells are calibrated according to OIML (International Organization of Legal Metrology) recommendations 56 (Standard solutions reproducing the conductivity of electrolytes) and 68 (Calibration method for conductivity cells).

- **Shipped with greater than 1% cell accuracy; includes certificate of traceability**
- **Can be used as a secondary lab standard**
- **Cells can be re-calibrated (adjusted) to NIST traceable standards; YSI offers this service with a certificate of calibration and traceability**
- **Black platinum electrodes are extremely stable and linear; can be replatinized using the instrument**

3200 series cells with built-in temperature sensors (see chart on back)

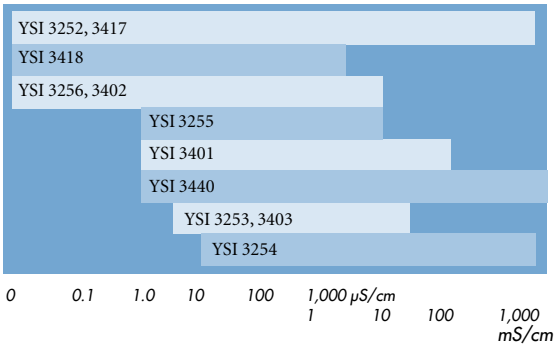
Resistor set verifies performance

The 3166 Resistor Set tight-tolerance calibrators are more precise than common resistors and can verify meter performance. Six resistors included.

NIST-traceable calibrator solutions for highest accuracy

To assure quality, YSI inspects them with reference to primary standard solutions according to OIML recommendation 56. Bottles include a table of corrections at temperatures between 20 and 30°C.

YSI 3161	1,000 µS/cm	±0.50% tolerance	1 quart
YSI 3163	10,000 µS/cm	±0.25% tolerance	1 quart
YSI 3165	100,000 µS/cm	±0.25% tolerance	1 quart
YSI 3167	1,000 µS/cm	±1.0% tolerance	8 pints
YSI 3168	10,000 µS/cm	±1.0% tolerance	8 pints
YSI 3169	50,000 µS/cm	±1.0% tolerance	8 pints



Conductivity Cell Selection Chart for the 3200 (For the 3100 see specific ranges on back)

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CE

YSI incorporated
Who's Minding the Planet?™

YSI Environmental

	3200 Instrument Specifications			3100 Instrument Specifications		
Technology	Resistance Ratio			Forced Current		
Modes	Conductivity Resistivity Salinity Temperature	Conductance Resistance Total Dissolved Solids		Conductivity Salinity Conductance Temperature		
Conductance	**Range** 0 to 0.9999 µS 0.950 to 9.999 µS 9.50 to 99.99 µS 95.0 to 999.9 µS 950 to 9999 µS 9.50 to 99.99 mS 95.0 to 999.9 mS 0.95 to 3.00 S	**Accuracy** ±0.30% full scale ±0.20% full scale ±0.10% full scale ±0.10% full scale ±0.10% full scale ±0.10% full scale ±0.30% full scale ±1.0% full scale	**Resolution** 0.0001 µS 0.001 µS 0.01 µS 0.1 µS 1 µS 0.01 mS 0.1 mS 0.01 S	**Range (Conductivity)** 0 to 49.99 µS/cm[1] 0 to 499.9 µS/cm 0 to 4999 µS/cm 0 to 49.99 mS/cm[2] 0 to 499.9 mS/cm[3] 1 - Do not use K = 10 cm^{-1} cell. 2 - Requires K = 10 cm^{-1} or 1.0 cm^{-1} cell 3 - Requires K = 10 cm^{-1} cell	**Accuracy** ±0.50% full scale ±0.50% full scale ±0.50% full scale ±0.50% full scale ±0.50% full scale	**Resolution** 0.01 µS/cm 0.1 µS/cm 1 µS/cm 0.01 mS/cm 0.1 mS/cm
Resistance	**Range** 0 to 9.999 0 to 99.99 0 to 999.9 0 to 9.999 k 0 to 99.99 k 100.0 to 999.9 k 1.00 to 9.99 M 10.0 to 29.9 M	**Accuracy** ±0.2% full scale ±0.1% full scale ±0.1% full scale ±0.1% full scale ±0.1% full scale ±0.2% full scale ±0.5% full scale ±1% full scale	**Resolution** 0.001 0.01 0.1 0.001 k 0.01 k 0.1 k 0.01 M 0.1 M			
Salinity	0 to 80 ppt (NaCl)	±0.1 ppt	0.1 ppt	0 to 80 ppt	2% or ±0.1 ppt	0.1 ppt
Temperature	-5 to +100°C	±0.1°C	0.01°C	-5 to +95°C	±0.1°C + 1 lsd	0.1°C
TDS	0 to 19,999 mg/L	±0.50%	1 mg/L			
Temperature compensation						
Method	linear, nonlinear			linear		
Reference temperature	0 to 100°C			15 to 25°C		
Temperature coefficient	0 to 10%, nonlinear			0 to 4%		
Cell configuration storage	6 configurations			na		
Data storage	100 points			na		
Cell constant	0.001 to 100 cm^{-1}			0.01, 0.1, 1, 10 cm^{-1}		
Cell calibration	up to 5 points			single point		
Output	RS232			na		
Alarm & clock	yes			na		
Display	Graphic LCD			LCD		
Cell connector	7-pin mini DIN			7-pin mini DIN		
Platinizing	included			included		
Power	115, 220 VAC			115, 220 VAC		
Approvals	UL, CSA, CE			UL, CSA, CE		
Environment	95% RH non-condensing			95% RH non-condensing		

Cells with built-in temperature sensors

	Model	cgs Cell Type	S.I. Cell Constant	Cell Constant	Material	Overall Length	Max O.D.	Chamber I.D.	Chamber Depth	Volume
A	3252	dip	1.0/cm	100/m	ABS plastic	146 mm	13 mm	10 mm	20 mm	
B	3253	dip, micro	1.0/cm	100/m	Pyrex 7740	178 mm	13 mm	10 mm	51 mm	
C	3254	fill	1.0/cm	100/m	Pyrex 7740	135 mm	19 mm	11 mm	83 mm	5 mL
D	3255	flow	0.1/cm	10/m	Pyrex 7740	146 mm	25 mm	21 mm	76 mm	30 mL
E	3256	dip	0.1/cm	10/m	Pyrex 7740	159 mm	25 mm	21 mm	52 mm	

Cells without built-in temperature sensors*

	Model	cgs Cell Type	S.I. Cell Constant	Cell Constant	Material	Overall Length	Max O.D.	Chamber I.D.	Chamber Depth	Volume
F	3401	dip	1.0/cm	100/m	Pyrex 7740	191 mm	25 mm	21 mm	76 mm	
G	3402	dip	0.1/cm	10/m	Pyrex 7740	159 mm	25 mm	21 mm	52 mm	
H	3403	dip	1.0/cm	100/m	Pyrex 7740	178 mm	13 mm	10 mm	51 mm	
I	3417	dip	1.0/cm	100/m	ABS plastic	146 mm	13 mm	10 mm	20 mm	
I	3418	dip	0.1/cm	10/m	ABS plastic	159 mm	13 mm	10 mm	30 mm	
J	3440	dip	10/cm	1000/m	Pyrex 7740	203 mm	13 mm	2 mm	86 mm	

*Requires a YSI 3232 Cell Adaptor for use with YSI 3100 and 3200 Conductivity Instruments. For automatic temperature compensation, use a YSI 3220 on the 3200 or a YSI Series 700 Temperature Probe.