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
- Cells with built-in temperature sensors
- Multipoint calibration; variety of measurements with the same cell
- High and low alarms for process applications
- Linear and nonlinear temperature compensation

Pure Data for a Healthy Planet. ®

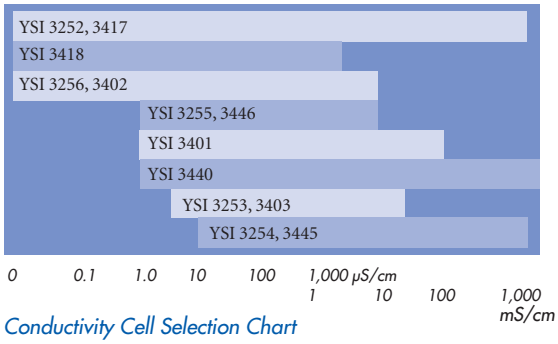
YSI Resistance Ratio Technology™ provides the most accurate method for measuring conductivity

3100 Conductivity Instrument - High-accuracy

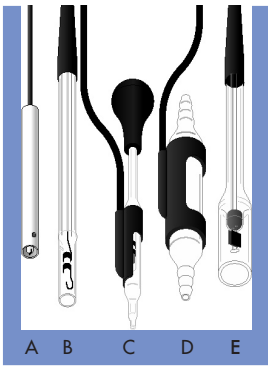
The YSI 3100 provides high-accuracy measurements for basic conductivity. Includes direct-reading digital display, adjustable temperature coefficient, and automatic temperature compensation.

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 recommendations 56 and 68.



Conductivity Cell Selection Chart



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

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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 0 to 499.9 µS/cm 0 to 4999 µS/cm 0 to 49.99 mS/cm 0 to 499.9 mS/cm*	**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 Ω 0 to 99.99 Ω 0 to 999.9 Ω 0 to 9.999 kΩ 0 to 99.99 kΩ 100.0 to 999.9 kΩ 1.00 to 9.99 MΩ 10.0 to 29.9 MΩ	**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 Ω 0.01 Ω 0.1 Ω 0.001 kΩ 0.01 kΩ 0.1 kΩ 0.01 MΩ 0.1 MΩ			
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

*Requires K = 10 cm^{-1} cell.

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	
K	3445	flow	1.0/cm	100/m	Pyrex 7740	146 mm	19 mm	10 mm	76 mm	15 mL
L	3446	flow	0.1/cm	10/m	Pyrex 7740	146 mm	25 mm	21 mm	76 mm	30 mL

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

To order, or for more information, contact YSI Environmental.

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CE

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Who's Minding the Planet?™