



## Thermo Scientific Orion VERSA STAR 20

### Conductivity Benchtop Meters

Conductivity tests can be as clear as ultrapure water samples. The large color display is easy to read and easy on the eyes. Prompts make accuracy and repeatability easy for even the most complicated testing. If you need to add more channels or obtain more parameters from the same, simply remove the protective individual channel cover and add the new module.



#### Features and Benefits

- Versatility is the name of the game
  - Customize the display to show only the information you need
  - Change modules to create the meter you need at any time
- Selectable reading reference temperatures of 5, 10, 15, 20 or 25 °C
- Linear, non-linear nFLn, non-linear nFLu, or EP (USP) curve options to get the most accurate conductivity result for your sample and temperature
- Choice of practical salinity or natural sea water curves for salinity readings
- Linear or ISO/EN 27888 curves for TDS
- Anyone can use this meter with its plain language screen prompts, function keys that update for easy selection and a multilanguage interface that supports English, Spanish, French, Italian, German and Chinese
- Don't miss a reading – AUTO-READ™ locks in the stable reading on your screen, ready indicator alerts when readings are stable and timed reading gathers data in specific time intervals or just once with single-shot mode
- Non-volatile memory holds up to 2000 data points with time and date stamp
- Stores up to 10 methods per channel allow for customized procedures to differentiate between tests and/or users
- Two USB and a RS232 port makes for easy data transfer and updating meter software
- Complimentary data analysis software for easy transferring of stored results or real-time viewing
- Control sample mixing directly from the meter without a separate stir plate when using with the Orion Star stirrer probe (cat. no. 096019, sold separately)
- Increase your productivity – with two Orion stirrer probe ports, add stirrers and modules to analyze two separate samples at the same time
- Included electrode arm and newly-designed probe holder make it easier to maintain and place probes into samples
- Works with almost every AC power source through the included universal power adapter
- IP54-rated housing handles splashes and cleans up easily
- 3 year meter replacement warranty



**Product Specifications – Orion VERSA STAR Meter**

CE   TUV   EPA		
Maximum Number of Modules	4	
Methods	Up to 10 per channel	
Datalogging	Number of Datalogs	2000 with time and date stamp
	Log Function	Manual, AUTO-READ™, timed interval, single shot reading
Communication Ports	One RS232, one bidirectional USB, one printer-dedicated USB	
Orion Star Stirrer Probe Ports	2	
Power	Universal, AC power adapter, 90-260 VAC, 50-60 Hz	

**Meter Ordering Information**

Cat. No.	Description
<b>VSTAR20</b>	<b>Orion VERSA STAR Conductivity Benchtop Meter Set</b> - Orion VERSA STAR meter - Orion VERSA STAR conductivity/temperature module - Electrode arm with redesigned holder - Universal power adapter
<b>VSTAR22</b>	<b>Orion VERSA STAR Conductivity Benchtop Meter Kit</b> - Orion VERSA STAR meter - Orion VERSA STAR conductivity/temperature module - 013005MD Orion DuraProbe conductivity cell, K=0.475 - 011007 conductivity standard, 1413 µS, 5 x 60 mL - Electrode arm with redesigned holder - Universal power adapter

**Product Specifications – Conductivity Module (VSTAR-CND)**

CE   TUV   EPA		
Conductivity	Range	0.001 µS to 3000 mS
	Resolution	0.001 µS minimum; 4 significant figures minimum
	Relative Accuracy	±0.5 % of reading ±1 digit for conductivity > 3 µS ±0.5 % of reading ±0.01 µS for conductivity ≤ 3 µS
	Reference Temperature	5, 10, 15, 20, 25 °C
	Temperature Compensation	Linear (0 to 10.0 %/°C), non-linear nFLn & nFLu, EP (USP)
	Compatible Cell Constants	0.001 to 199.9
	Calibration Points	Up to 6 points
	Calibration Editing	Yes
Resistivity	Range	2 ohm to 100 meg-ohm
	Resolution	1 ohm-cm or 0.1 meg-ohm, auto-ranging
	Relative Accuracy	0.5 % reading ±1 digit
Salinity	Type	Practical salinity or natural sea water
	Range	0.06 to 80 psu 0.05 to 42 ppt sea water
	Resolution	0.01
	Relative Accuracy	±0.1
TDS	Range	0 to 200 ppt
	Resolution	4 significant digits
	Relative Accuracy	±0.5 % reading ±1 digit
Temperature	TDS Factor Range	Linear 0.02 to 9.99
	Range	-5 to 105 °C, 23 to 221 °F
	Resolution	0.1
	Relative Accuracy	±0.1
Input	Offset Calibration	1 point
		8-pin mini-DIN

**Accessories**

Cat. No.	Description
<b>VSTAR-PH</b>	Orion VERSA STAR pH/temperature module
<b>VSTAR-ISE</b>	Orion VERSA STAR pH/ISE/temperature module
<b>VSTAR-CND</b>	Orion VERSA STAR conductivity/temperature module
<b>VSTAR-RD</b>	Orion VERSA STAR RDO/DO/temperature module
<b>VSTAR-LR</b>	Orion VERSA STAR pH/temperature with LogR technology module
<b>STARA-BEA</b>	Benchtop electrode arm for Orion Star A-series meters
<b>STARA-HB</b>	Freestanding base for use with Orion Star A-series benchtop electrode arm
<b>STARA-PWR</b>	Replacement universal power adapter for Orion VERSA STAR meters
<b>096019</b>	Orion Star stirrer probe
<b>013005MD</b>	Orion DuraProbe conductivity cell, 4-cell, K=0.475
<b>013016MD</b>	Orion conductivity cell, flow through, K=0.1
<b>011008</b>	Orion conductivity standard, 100 µS/cm, 5 x 60 mL bottles
<b>011007</b>	Orion conductivity standard, 1413 µS/cm, 5 x 60 mL bottles
<b>011006</b>	Orion conductivity standard, 12.9 mS/cm, 5 x 60 mL bottles
<b>1010001</b>	Orion conductivity calibration resistor kit

- pH ■
- ISE ■
- ORP ■
- Cond ■
- RDO ■
- DO ■
- Temp ■