



# 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 on 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 for more 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, nLFu or USP/EP 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
- Includes 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
Datalogging	Number of Datalogs	2000 with time and date stamp
	Log Function	Manual, AUTO-READ™, timed interval, single timed reading
Communication Ports		One RS232, two USB ports (one client, one host)
Orion Star Stirrer Probe Ports		2
Power		Universal, AC power adapter, 90-260 VAC, 50-60 Hz

#### Product Specifications - Conductivity Module (VSTAR-CND)

Product Specifications – Conductivity Module (VSTAR-CN)			
		CE   TUV   EPA	
Conductivity	Range	0.001 µS to 3000 mS	
	Resolution	0.001 µS minimum; 4 significant figures minimum	
	Relative Accuracy	0.5 % reading ±1 digit	
	Reference Temperature	5, 10, 15, 20, 25 °C	
	Temperature Compensation	Linear (0 to 10.0 %/°C), nLn, nLFu, USP/EP	
	Compatible Cell Constants	0.001 to 199.9	
	Calibration Points	Up to 6 points	
	Calibration Editing	Yes	
	Range	2 ohm to 100 meg-ohm	
Resistivity	Resolution	2 ohms-cm	
nesistivity	Relative Accuracy	0.5 % reading ±1 digit	
Salinity	Туре	Practical salinity or natural sea water	
	Range	0.01 to 80.0 psu 0.01 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	
	TDS Factor Range	Linear 0.01 to 10.00	
Temperature	Range	-5 to 105 °C, 23 to 221 °F	
	Resolution	0.1	
	Relative Accuracy	±0.1	
	Offset Calibration	1 point	
Input		8-pin mini-DIN	

## **Meter Ordering Information**

Cat. No.	Description
VSTAR20	Orion VERSA STAR Conductivity Benchtop Meter Set - Orion VERSA STAR meter - Orion VERSA STAR conductivity/temperature module - Electrode arm with redesigned holder - Universal power adapter
VSTAR22	Orion VERSA STAR Conductivity Benchtop Meter Kit  Orion VERSA STAR meter  Orion VERSA STAR conductivity/temperature module  O13005MD Orion DuraProbe conductivity cell, K=0.475  O11007 conductivity standard, 1413 µS, 5 x 60 mL  Electrode arm with redesigned holder  Universal power adapter

### Accessories

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

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ISE

ORP

Cond

RDO

DO

Temp