



Thermo Scientific Orion VERSA STAR 90

pH/ISE/Conductivity/RDO/Dissolved Oxygen Benchtop Meters

Looking for the top-of-the-line, best meter you can find? Looking for something for everything and meeting all those testing needs? Whether it's one sample that needs a variety of testing or a variety of samples needing one test, the Orion VERSA STAR 90 and 91 advanced multiparameter meters are ready for the job. These meters come fully-loaded and ready to take on multiple measurements.

Highlighted Features Include:

- Display customization to show only the information you need
- Plain language screen prompts, function keys that update for easy selection and a multilanguage interface that supports English, Spanish, French, Italian, German and Chinese make it easy for anyone to use this meter
- Non-volatile memory that 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, real-time viewing and calculation of BOD, DOUR and SOUR results
- Option to control sample mixing directly from the meter without a separate stir plate when using with the Orion Star stirrer probe
- Increase your productivity – two stirrer probe ports allow for simultaneous stirring and control for 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
- Working 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 – pH/ISE Module (VSTAR-ISE)

CE TUV EPA		
pH	Range	-2.000 to 20.000
	Resolution	0.1, 0.01, 0.001
	Relative Accuracy	±0.002
	Calibration Points	Up to 6
	Calibration Editing	Yes
	Adjustable ISO Point	Yes
mV/Rel mV/ ORP	Range	±2000.0 mV
	Resolution	0.1
	Relative Accuracy	±0.2 mV or ±0.05 % of reading whichever is greater
	E _n ORP Mode	Yes
ISE	Range	0 to 19999
	Resolution	Up to 4 significant digits
	Relative Accuracy	±0.2 mV or ±0.05 % of reading whichever is greater
	Units	ppm, M, mg/L, %, ppb, none
	Calibration Points	Up to 6
	Calibration Editing	Yes
	Adjustable ISO Point	Yes
	Calibration Features	Timed end point, linear point to point, non-linear selectable auto-blank, low concentration range stability
	Incremental Techniques	Single known addition & subtraction, double known addition & subtraction, single analate addition & subtraction
Temperature	Range	-5 to 105 °C, 23 to 221 °F
	Resolution	0.1
	Relative Accuracy	±0.1
	Offset Calibration	1 point
Inputs	pH/ISE	BNC, reference pin
	ATC	8-pin mini-DIN

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 % 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



Resistivity	Range	2 ohm to 100 meg-ohm
	Resolution	2 ohms-cm
	Relative Accuracy	0.5 % reading ± 1 digit
Salinity	Type	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

Product Specifications – RDO/DO Module (VSTAR-RD)

CE TUV EPA	
Dissolved Oxygen	Concentration - Polarographic
	Range 0 to 90 mg/L
	Resolution 0.01, 0.1
	Relative Accuracy ± 0.2
	% Saturation - Polarographic
	Range 0 to 600
	Resolution 0.1, 1
	Relative Accuracy ± 2 %
	Concentration - RDO
	Range 0 to 50 mg/L
	Resolution 0.01, 0.1
	Relative Accuracy ± 0.1 mg/L up to 8 mg/L; ± 0.2 mg/L from 8 to 20 mg/L; 10 % of reading, 20 to 50 mg/L
	% Saturation - RDO
	Range 0 to 500
	Resolution 0.1, 1
	Relative Accuracy ± 2 %
	Automatic Barometric Pressure Correction
	450.0 to 850.0 mm Hg
Temperature	Salinity Factor Correction
	Automatic when used with conductivity module and probe or manual; 0 to 45 ppt
	Calibration Features
	Water saturated air, air saturated water, manual (Winkler) and zero point
	Probe Type
Input	Polarographic or RDO
	Range 0 to 50 °C, 32 to 122 °F
	Resolution 0.1
	Relative Accuracy ± 0.1
	Offset Calibration 1 point

Meter Ordering Information

Cat. No.	Description
VSTAR90	Orion VERSA STAR pH/ISE/Conductivity/RDO/Dissolved Oxygen Benchtop Multiparameter Meter Set - Orion VERSA STAR meter - Orion VERSA STAR pH/ISE/temperature module - Orion VERSA STAR conductivity/temperature module - Orion VERSA STAR dissolved oxygen/temperature module - Electrode arm with redesigned holder - Universal power adapter
VSTAR91	Orion VERSA STAR pH/ISE/Conductivity/RDO/Dissolved Oxygen Ultimate Benchtop Multiparameter Meter Set - Orion VERSA STAR meter - Two Orion VERSA STAR pH/ISE/temperature modules - Orion VERSA STAR conductivity/temperature module - Orion VERSA STAR dissolved oxygen/temperature module - Electrode arm with redesigned holder - Universal power adapter
VSTAR92	Orion VERSA STAR pH/ISE/Conductivity/RDO/Dissolved Oxygen Benchtop Multiparameter Meter Kit - Orion VERSA STAR meter - Orion VERSA STAR pH/ISE/temperature module - Orion VERSA STAR conductivity/temperature module - Orion VERSA STAR dissolved oxygen/temperature module - 8157BNUMD Orion ROSS Ultra Triode pH/ATC probe - 013005MD Orion DuraProbe conductivity cell, K=0.475 - 083005MD Orion polarographic DO probe - 096019 Orion Star stirrer probe - 080017 calibration sleeve for DO probe - 080513 DO probe maintenance kit - BOD adapter, funnel and stirrer - 810199 ROSS solution kit (475 mL each of pH 4, 7 and 10 buffers; storage solution; cleaning solution; and pH electrode storage bottle) - 011007 conductivity standard, 1413 μ S, 5 x 60 mL - Electrode arm with redesigned holder - Universal power adapter
VSTAR93	Orion VERSA STAR pH/ISE/Conductivity/RDO/Dissolved Oxygen Ultimate Benchtop Multiparameter Meter Kit - Orion VERSA STAR meter - Two Orion VERSA STAR pH/ISE/temperature modules - Orion VERSA STAR conductivity/temperature module - Orion VERSA STAR dissolved oxygen/temperature module - 8157BNUMD Orion ROSS Ultra Triode pH/ATC probe - 013005MD Orion DuraProbe conductivity cell, K=0.475 - 083005MD Orion polarographic DO probe - 096019 Orion Star stirrer probe - 080017 calibration sleeve for DO probe - 080513 DO probe maintenance kit - BOD adapter, funnel and stirrer - 810199 ROSS solution kit (475 mL each of pH 4, 7 and 10 buffers; storage solution; cleaning solution; and pH electrode storage bottle) - 011007 conductivity standard, 1413 μ S, 5 x 60 mL - Electrode arm with redesigned holder - Universal power adapter



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