

For more information, please contact us:

[ExpotechUSA](#)
[10700 Rockley Road](#)
[Houston, Texas 77099](#)
[USA](#)

[281-496-0900 \[voice\]](#)

[281-496-0400 \[fax\]](#)

E-mail: sales@expotechusa.com

Website: www.ExpotechUSA.com

Star Series Specifications



Orion 4-Star pH/Conductivity

Benchtop Meter (Cat. No. 1117000)
Benchtop Meter Kit (Cat. No. 1117001)

- Easy-to-use meter provides reliable, accurate pH, conductivity, resistivity, salinity, TDS and temperature measurements for soil and water analysis applications.
- SMART STABILITY™ and SMART AVERAGING™ functions for automatically optimized accuracy, precision and response time
- Storage of up to 10 password protected methods for easy retrieval of operation procedures
- Accepts ISFET (Ion Selective Field Effect Transistor) electrodes
- Convenient, built-in Quick-Start Guide
- Meets all U.S. Pharmacopeia (USP) requirements
- Simultaneous display of pH, Conductivity and temperature measurements
- Auto stirrer control

Specifications	
pH	
Readout Range / Resolution	-2.000 to 19.999 or 0 to 14 in aqueous solutions / 0.1,0.01,0.001
Relative Accuracy	± 0.002
SMART STABILITY™ and SMART AVERAGING™	Resolution dependent / automatic
AUTO-CAL™ and/or Manual Calibration	1 to 5 points; US/NIST, DIN, and custom buffers recognized
mV	
Range – mV / RmV	± 1999.9
ORP	E _H autocalibration to standard hydrogen electrode
Resolution	0.1
Relative Accuracy	± 0.2 mV or 0.05%, whichever is greater
Conductivity	
Range	0.000 to 3000 mS/cm, auto resolution with cell constant dependence
Resolution	4 significant digits down to 0.001 µS/cm, cell constant dependent
Relative Accuracy	0.5% ± 1 digit or 0.01 µS/cm, whichever is greater
Cell Constant	0.001 to 199.9
Cell Compatibility	2 Cell, 4 Cell, Planar Cell
SMART STABILITY™ and SMART AVERAGING™	Resolution dependent / automatic
DirectCal™ / AUTO-CAL™	1 to 5 points / 1 to 3 points
Resistivity	
Range / Resolution	0.0001 to 100 Megohm / Auto resolution
Relative Accuracy	0.5 % ± 1 digit
Salinity	
Range / Resolution	0.01 to 80.0 ppt NaCl equivalent, 0.01 to 42ppt practical salinity / 0.01
Relative Accuracy	± 0.1 ± 1 digit
TDS	
Range / Resolution	0 to 19999 / 1 mg/L
Relative Accuracy	± 0.5 % ± 1 digit
Adjustable TDS Factor	0.00 to 10.00
Temperature	
Range / Resolution	-5 to 105 °C / 0.1 up to 99.9 °C, 1.0 over 99.9 °C
Relative Accuracy	± 0.1 °C
Temperature Compensation	Cond (nLF, linear 0.0 to 10.0% / °C); pH (auto/manual)
Display	
Custom backlit LCD, for easy viewing	
Inputs/Outputs	
Sensor Inputs	Conductivity-miniDIN - Locking; ATC-miniDIN-Locking; pH - BNC; Reference-Pin tip; Stirrer-Phono-jack
Solid State pH Sensor	ISFET
Communications	Bi-directional RS232 - Stereo jack, optional USB interface Cable
Special GLP Software Features	
# Of Data Logging Points	200 points by time, stability or manual read with time/date stamp
Calibration Log	Last 10 Calibrations
User Method Storage	10 Saved
Advanced Self-test and Diagnostics	YES
GLP Electrode Verification	YES
Password Protection	YES
Internet Software Updates / Downloadable Methods	YES
21 CFR Part 11 Software Package	Optional
Power	
Universal power adapter and battery power 4 x AA batteries	

Above data generated under optimal/controlled circumstances.

Specifications	
Regulatory and Safety	CE, CSA, UL, TÜV, FCC Class A limits
Environmental Operating Conditions	
Ambient Operating Temperature	5 to 45 °C
Relative Humidity	5 to 85% Non-Condensing
IP Rating	IP54, splashproof and dustproof
Warranty	36 months (from date of purchase)

Above data generated under optimal/controlled circumstances.

pH/Conductivity Benchtop Meter Kit (1117001) Includes:	
Cat. No.	Description
1117000	4-Star pH/Conductivity benchtop meter
9157BNMD	Triode™, pH/ATC combination electrode
013005MD	Conductivity cell, 1.5m cable
011007	Conductivity/TDS standard 1413 µS/cm, 5x60 mL
910001	pH electrode storage solution, 475 mL
910104	pH 4.01 buffer, 475 mL
910107	pH 7.00 buffer, 475 mL
910110	pH 10.01 buffer, 475 mL

Star Series Specifications

Orion 4-Star pH/Conductivity

Benchtop Meter (Cat. No. 1117000)
Benchtop Meter Kit (Cat. No. 1117001)

(page 2 of 2)