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# Star Series Specifications



## Orion 3-Star pH

Benchtop Meter (Cat. No. 1112000)  
Benchtop Meter Kit (Cat. No. 1112001)

- Top-of-the-line features at an affordable price
- Easy to use, 3-button function
- 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
- Convenient, built-in Quick-Start Guide
- Auto-recognition of standards and custom buffers
- Simultaneous display of pH and temperature measurements

**Environmental Instruments**  
Water Analysis Instruments

Specifications	
<b>pH</b>	
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
<b>mV</b>	
Range – mV / RmV	± 1999.9
ORP	E <sub>H</sub> autocalibration to standard hydrogen electrode
Resolution	0.1
Relative Accuracy	± 0.2 mV or 0.05%, whichever is greater
<b>Temperature</b>	
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	Auto/Manual
<b>Display</b>	Custom backlit LCD, for easy viewing
<b>Inputs/Outputs</b>	
Sensor Inputs	pH - BNC; ATC-miniDIN-Locking; Reference-Pin tip; Stirrer-Phono-jack
Communications	Bi-directional RS232 - Stereo jack, optional USB interface Cable
<b>Special GLP Software Features</b>	
# 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
<b>Power</b>	Universal power adapter and battery power 4 x AA batteries
<b>Regulatory and Safety</b>	CE, CSA, UL, TÜV, FCC Class A limits
<b>Environmental Operating Conditions</b>	
Ambient Operating Temperature	5 to 45 °C
Relative Humidity	5 to 85% Non-Condensing
IP Rating	IP54, splashproof and dustproof
<b>Warranty</b>	36 months (from date of purchase)

*Above data generated under optimal/controlled circumstances.*

### pH Benchtop Meter Kit (1112001) Includes:

Cat. No.	Description
1112000	3-Star pH benchtop meter
9157BNMD	Triode™ pH/ATC combination electrode
910001	pH electrode storage solution, 475 mL
1110001	Electrode stand
910104	pH 4.01 buffer, 475 mL
910107	pH 7.00 buffer, 475 mL
910110	pH 10.01 buffer, 475 mL