



## Orion Star 214 Benchtop pH/ISE Meter

Record accurate and reliable pH, ion concentration, mV, ORP and temperature measurements with the Thermo Scientific Orion Star A214 pH and ISE Benchtop Meter. This meter is ideal for a wide range of applications in the lab. Perform up to 5 point pH and ISE calibrations, log up to 2000 data point sets with time/date stamp and easily transfer calibration and data logs via USB or RS232 to a printer or computer with free downloadable Orion Star Com software. Use the included electrode stand to easily place sensors in samples and simplify storage to minimise breakage.

Thermo Scientific Orion Star A214 pH/ISE benchtop meters are easy to use, dependable laboratory meters with advanced features and functions. Selectable read modes and stability indicator give you flexibility and control over your testing. All critical data is shown with your measurements including temperature, date and time, read type, measurement stability, active calibration information and electrode condition icon. Onscreen calibration and setup instructions can be displayed in several local languages with new languages added through software updates.



- Easy to use, 3-button function.
- Smart Stability™ and Smart Averaging™ functions for automatically optimised 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.
- Auto stirrer control.
- Simultaneous display of pH or ISE and temperature measurements.
- Up to 5-point pH and ISE calibration.

### Specifications

pH	
Readout / Resolution	-2.000 to 20.000 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 recognised
ISE	
Readout / Resolution	0 to 19900 / 1, 2 or 3 significant digits
Relative Accuracy	± 0.2mV or 0.05%, whichever is greater
Smart Stability™ and Smart Averaging™	Resolution dependent / automatic
Units	M, mg/L, %, ppb or no units
Number of ISE Cal Points	1 to 5
<b>Special ISE Calibration Features</b>	Linear point-to-point, selectable auto-blank non-linear, low concentration range
mV	
Range	±2000.0mV
ORP	E <sub>H</sub> autocalibration to standard hydrogen electrode
Resolution	0.1
Relative Accuracy	±0.2mV or 0.05%, whichever is greater



### 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	Auto/Manual

**Display** Graphic LCD with backlight for easy viewing

### Inputs/Outputs

Sensor Inputs	pH/ISE – BNC ATC – miniDIN-Locking Reference – Pin tip Stirrer – phono-jack
Outputs	USB, RS232

### Special GLP Software Features

Number of Data Logging Points	2000 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

**Power** Universal power adaptor and battery power (4 x AA batteries)

**Regulatory and Safety** CE, CSA, UL, TÜV 3-1, 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

## Ordering Information

STARA2140	Orion Star A214 Benchtop pH/ISE Meter
9609BNWP	Orion Combination Fluoride Electrode
8172BNWP	Orion ROSS Glass Sure-Flow pH Electrode. BNC Connector
9172BNWP	Orion Sure-Flow Combination pH Electrode. BNC Connector
8102BNUWP	Orion ROSS Ultra High-Performance pH electrode. BNC Connector

Country of Origin: UK

