## Thermo Scientific Orion Star A321

Premium pH portable meter

The Thermo Scientific<sup>™</sup> Orion<sup>™</sup> Star A321 pH Portable Meter is the top choice for testing samples anywhere. It is rugged and dependable, making it ideal for every sample, every day, everywhere.









The Thermo Scientific Orion Star A321 pH Portable Meter is the top choice for advanced measurements on location. Get the information you need quickly and easily from the large, backlit graphic LCD display. Informative display shows pH/mV/RmV and temperature along with electrode status, time, date, sample ID, user ID and calibration points.

## **Features and Benefits**

- Easy meter operation assured with on-screen text prompts, menu-specific function keys and a multi-language interface for 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
- Up to 5 point pH calibration with automatic recognition for USA/NIST and DIN buffers or manual option for custom buffer values and calibration editing to fix individual points without a full recalibration

- Non-volatile memory holds up to 5000 data points with time and date stamp
- Easily transfer data and keep meter software up-to-date with the USB and RS232 ports and complimentary Orion Star Com computer software
- Four AA batteries (included) provide over 800 hours of operation or purchase the universal power adapter (sold separately)
- Perfectly portable, waterproof and protected to take anywhere with a IP67-rated housing
- 3 year meter replacement warranty



## Thermo Scientific Orion Star A321 pH Portable Meter

Specifications
Range: -2.000 to 20.000
<b>Resolution:</b> 0.1, 0.01, 0.001
Relative Accuracy: ±0.002
Calibration Points: Up to 5
Calibration Editing: Yes
<b>Range:</b> ±2000.0 mV
Resolution: 0.1 mV
<b>Relative Accuracy:</b> $\pm 0.2$ mV or $\pm 0.05$ % of
reading whichever is greater
E <sub>H</sub> ORP Mode: Yes
<b>Range:</b> -5 to 105 °C, 23 to 221 °F
<b>Resolution:</b> 0.1 °C, 0.1 °F
<b>Relative Accuracy:</b> $\pm 0.1$ °C, $\pm 0.1$ °F
Offset Calibration: 1 point
Memory: 5000 with time and date stamp
Log Function: Manual, ready
(includes AUTO-READ), timed
pH Electrode: BNC, reference pin
ATC Probe: 8-pin mini-DIN
RS232, USB
AC Adapter: Optional—universal,
100-240 VAC
Battery Power: Included—4 AAs
Battery Life: 800 hrs



STARA-CS STARA-AR
----------------------

Meter Ordering Information		
Part No.	Description	
STARA3210	Orion Star A321 pH Portable Meter - Four AA batteries (installed) - Printed quick start guide and literature CD - USB computer cable	
STARA3215	Orion Star A321 pH Portable Meter Kit  - 8107UWMMD Orion ROSS Ultra Triode gel-filled epoxy-body pH/ATC electrode, 3 m cable  - 910410-WA Orion pH 4.01 buffer pouches - 910710 Orion pH 7.00 buffer pouches - 911010 Orion pH 10.01 buffer pouches - 810001 Orion ROSS electrode storage solution, 475 mL - 911110 Orion rinse solution pouches - Protective armor with electrode holder and storage sleeve - Hard-sided field case - Four AA batteries (installed) - Printed quick start guide and literature CD - USB computer cable	

Accessories Ordering Information		
Part No.	Description	
STARA-CS	Orion Star A series portable meter	
	hard-sided field case	
1210005	Orion Star A series portable meter	
	soft-sided field case	
STARA-AR	Orion Star A series portable meter armor with	
	pH electrode holder, conductivity and DO probe	
	holder, stand and adjustable hand-strap	
STARA-ESPH	Orion pH electrode holder for portable Star A	
	series meter armor	
810017	Orion pH electrode storage sleeve for pH	
	electrode holder	
8107UWMMD	Orion ROSS Ultra Triode gel-filled epoxy-body	
	pH/ATC electrode, 3 m cable	
8107BNUMD	Orion ROSS Ultra Triode gel-filled epoxy-body	
	pH/ATC electrode, 1 m cable	
1010003	Universal power adapter, 100-240 V,	
	50/60 Hz	
910410-WA	Orion pH 4.01 buffer pouches, 10 pack	
910710	Orion pH 7.00 buffer pouches, 10 pack	
911010	Orion pH 10.01 buffer pouches, 10 pack	
911110	Orion pH rinse solution pouches, 10 pack	
9179BNMD	Orion Triode gel-filled epoxy-body ORP/ATC	
	electrode	
967961	Orion ORP standard solution, 5 x 60 mL	

For more information, contact your local Thermo Scientific products dealer or call our customer and technical service experts at 1-800-225-1480 (for the US and Canada) or visit www.thermoscientific.com/water.



Thermo Fisher Scientific Water Analysis Instruments Chelmsford, MA USA Quality Management System Registered to ISO 9001

## thermoscientific.com/water

© 2013 Thermo Fisher Scientific Inc. All rights reserved. Certified System StandardsMark logo is a trademark of SAI Global. All other trademarks are the property of Thermo Fisher Scientific Inc. & its subsidiaries









**Water Analysis Instruments** 

**North America** Toll Free: 1-800-225-1480 Tel: 1-978-232-6000 info.water@thermo.com Netherlands

Tel: (31) 020-4936270 info.water.uk@thermo.com

Tel: (86) 21-68654588 wai.asia@thermofisher.com

India

Tel: (91) 22-4157-8800 wai.asia@thermofisher.com

**Singapore** Tel: (65) 6778-6876 wai.asia@thermofisher.com

**Japan** Tel: (81) 045-453-9175 wai.asia@thermofisher.com

**Australia** Tel: (613) 9757-4300 in Australia (1300) 735-295 InfoWaterAU@thermofisher.com

