

# Thermo Scientific Orion Star A221

Advanced pH portable meter

The Thermo Scientific™ Orion™ Star A221 pH Portable Meter makes necessary testing easier. Its durability and dependability make it a great choice for samples every day, anywhere.



Get the readings that you need where you need them with the Thermo Scientific Orion Star A221 pH Portable Meter. The large, backlit graphic LCD display shows pH/mV/ORP and temperature along with electrode status, time, date 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 and ready indicator alerts when continuous readings are stable
- Up to 5 point pH calibration with automatic recognition for USA/NIST and DIN buffers or manual option for custom buffer values

- Non-volatile memory holds up to 1000 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

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## Thermo Scientific Orion Star A221 pH Portable Meter

Specifications	
<b>pH</b>	<b>Range:</b> -2.000 to 20.000 <b>Resolution:</b> 0.1, 0.01, 0.001 <b>Relative Accuracy:</b> ±0.002 <b>Calibration Points:</b> Up to 5
<b>mV/RmV</b>	<b>Range:</b> ±2000.0 mV <b>Resolution:</b> 0.1 mV <b>Relative Accuracy:</b> ±0.2 mV or ±0.05 % of reading whichever is greater <b>E<sub>H</sub> ORP Mode:</b> Yes
<b>Temperature</b>	<b>Range:</b> -5 to 105 °C, 23 to 221 °F <b>Resolution:</b> 0.1 °C, 0.1 °F <b>Relative Accuracy:</b> ±0.1 °C, ±0.1 °F <b>Offset Calibration:</b> 1 point
<b>Datalogging</b>	<b>Memory:</b> 1000 with time and date stamp <b>Log Function:</b> Manual, Automatic with AUTO-READ
<b>Inputs</b>	<b>pH Electrode:</b> BNC, reference pin <b>ATC Probe:</b> 8-pin mini-DIN
<b>Output</b>	RS232, USB
<b>Power</b>	<b>AC Adapter:</b> Optional—universal, 100-240 VAC <b>Battery Power:</b> Included—4 AAs <b>Battery Life:</b> 800 hrs

Meter Ordering Information	
Part No.	Description
<b>STARA2210</b>	<b>Orion Star A221 pH Portable Meter</b> - Four AA batteries (installed), literature, PC cable and test certificate
<b>STARA2215</b>	<b>Orion Star A221 pH Portable Meter Standard Kit</b> - 8107UWMMMD Orion ROSS Ultra Triode gel epoxy pH/ATC electrode, 3 m cable - Orion pH 4, 7, 10 buffer and rinse pouches, 10 each - Orion ROSS pH electrode storage solution, 475 mL - Protective meter armor with electrode holder - Hard-sided field case - Four AA batteries (installed), literature, PC cable and test certificate

<b>STARA2216</b>	<b>Orion Star A221 pH Portable Meter General Purpose Kit</b> - 9107BNMD Orion Triode gel epoxy pH/ATC electrode - Orion pH 4, 7, 10 buffer and rinse pouches, 10 each - Orion pH electrode storage solution, 475 mL - Protective meter armor with electrode holder - Hard-sided field case - Four AA batteries (installed), literature, PC cable and test certificate
<b>STARA2217</b>	<b>Orion Star A221 pH Portable Meter ORP Kit</b> - 9179BNMD Orion gel epoxy ORP/ATC electrode - 967961 Orion ORP standard, 5 x 60 mL - 911110 Orion rinse solution pouch 10 pack - 910060 Orion storage solution, 5 x 60 mL - Protective meter armor with electrode holder - Hard-sided field case - Four AA batteries (installed), literature, PC cable and test certificate
<b>STARA2218</b>	<b>Orion Star A221 pH Portable Meter Food Sample Kit</b> - 8163BNWP Orion ROSS Spear-Tip pH electrode - 927007MD Orion stainless steel ATC probe - Orion pH 4, 7, 10 buffer and rinse pouches, 10 each - ROSS pH electrode storage solution, 475 mL - Protective meter armor with electrode holder - Hard-sided field case - Four AA batteries (installed), literature, PC cable and test certificate

Accessories Ordering Information	
Part No.	Description
<b>STARA-CS</b>	Orion Star A series portable meter hard-sided field case
<b>1210005</b>	Orion Star A series portable meter soft-sided field case
<b>STARA-AR</b>	Orion Star A series portable meter armor with pH electrode holder, conductivity and DO probe holder, stand and adjustable hand-strap
<b>STARA-ESPH</b>	Orion pH electrode holder for portable Star A series meter armor
<b>810017</b>	Orion pH electrode storage sleeve for pH electrode holder
<b>1010003</b>	Universal power adapter, 100-240 V, 50/60 Hz

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](http://www.thermoscientific.com/water).



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