

# Thermo Scientific Orion Star A222

Advanced conductivity portable meter

The Thermo Scientific™ Orion™ Star A222 Conductivity 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 A222 Conductivity Portable Meter. The large, backlit graphic LCD display shows conductivity/TDS/salinity/resistivity and temperature along with electrode status, time, date and calibration information.

## 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
- Automatic or manual conductivity calibration and auto-ranging measurements for high accuracy across all conductivity ranges
- Selectable reference temperatures of 15, 20 or 25 °C with linear or non-linear curve options for temperature compensated conductivity readings
- 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

**Thermo**  
SCIENTIFIC

**Thermo Scientific Orion Star A222  
Conductivity Portable Meter**

Specifications	
<b>Conductivity</b>	<b>Range:</b> 0.001 $\mu$ S to 3000 mS <b>Resolution:</b> 0.001 $\mu$ S minimum, auto ranging, up to 4 significant digits <b>Relative Accuracy:</b> 0.5 % of reading $\pm 1$ digit > 3 $\mu$ S, 0.5 % of reading $\pm 0.01$ $\mu$ S $\leq$ 3 $\mu$ S <b>Reference Temperature:</b> 15, 20, 25 $^{\circ}$ C <b>Temperature Compensation:</b> Linear (0 to 10.0 %/ $^{\circ}$ C), nonlinear nLFn, off <b>Compatible Cell Constants:</b> 0.001 to 199.9 <b>Calibration Points:</b> Up to 5 points
<b>Resistivity</b>	<b>Range:</b> 2 ohm to 100 meg-ohm <b>Resolution:</b> 1 ohm or 0.1 meg-ohm, auto-ranging <b>Relative Accuracy:</b> 0.5 % reading $\pm 1$ digit
<b>Salinity</b>	<b>Type:</b> Practical salinity <b>Range:</b> 0.06 to 80.00 psu <b>Resolution:</b> 0.01 psu <b>Relative Accuracy:</b> 0.5 % reading $\pm 1$ digit
<b>TDS</b>	<b>Range:</b> 0.001 to 200.0 ppt <b>Resolution:</b> 0.001 ppt minimum, auto ranging, up to 4 significant digits <b>Relative Accuracy:</b> $\pm 0.5$ % reading $\pm 1$ digit <b>TDS Factor Range:</b> Linear 0.02 to 9.99
<b>Temperature</b>	<b>Range:</b> -5 to 105 $^{\circ}$ C, 23 to 221 $^{\circ}$ F <b>Resolution:</b> 0.1 $^{\circ}$ C, 0.1 $^{\circ}$ F <b>Relative Accuracy:</b> $\pm 0.1$ $^{\circ}$ C, $\pm 0.1$ $^{\circ}$ 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>Conductivity Probe with Built-in Temperature:</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	
<b>Part No.</b>	<b>Description</b>
<b>STARA2220</b>	<b>Orion Star A222 Conductivity Portable Meter</b> - Four AA batteries (installed) - Printed quick start guide and literature CD - USB computer cable
<b>STARA2225</b>	<b>Orion Star A222 Conductivity Portable Meter Kit</b> - 013010MD Orion DuraProbe conductivity probe with 3 m cable, K=0.475 - 01100710 Orion 1413 $\mu$ S conductivity standard pouches - 911110 Orion rinse solution pouches - Protective armor with electrode holder - Hard-sided field case - Four AA batteries (installed) - Printed quick start guide and literature CD - USB computer cable

Accessories Ordering Information	
<b>Part No.</b>	<b>Description</b>
<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-ESCD</b>	Orion conductivity and DO probe holder for portable Star A series meter armor
<b>013005MD</b>	Orion DuraProbe conductivity probe with 1.5 m cable, 4-cell, K=0.475
<b>013010MD</b>	Orion DuraProbe conductivity probe with 3 m cable, 4-cell, K=0.475
<b>013020MD</b>	Orion DuraProbe conductivity probe with 6 m cable, 4-cell, K=0.475
<b>013025MD</b>	Orion DuraProbe conductivity probe with 10 m cable, 4-cell, K=0.475
<b>1010003</b>	Universal power adapter, 100-240 V, 50/60 Hz
<b>011008</b>	Orion 100 $\mu$ S conductivity std, 5 x 60 mL
<b>01100710</b>	Orion 1413 $\mu$ S conductivity std pouches, 10 pack
<b>01100610</b>	Orion 12.9 mS conductivity std pouches, 10 pack
<b>911110</b>	Orion rinse solution pouches, 10 pack
<b>1010001</b>	Orion conductivity calibration resistor kit



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

[thermoscientific.com/water](http://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

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

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

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

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

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

**Thermo**  
 SCIENTIFIC

Part of Thermo Fisher Scientific