

## Thermo Scientific Orion Star A322 Conductivity Portable Meter

The Thermo Scientific Orion Star A322 Conductivity 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 A322 Conductivity 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 conductivity/TDS/salinity resistivity and temperature along with electrode status, time, date, sample ID, user ID and calibration points. Advanced features such as stability and averaging options provide additional options allowing for laboratory accuracy everywhere you need it.

### Features and Benefits

- Anyone can use this meter with its plain language screen prompts, soft keys that update for easy selection and a multilanguage interface that supports 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
- Selectable cell constant allows for use with 2- or 4-cell conductivity cells
- For advanced accuracy, selectable reading reference temperatures of 5, 10, 15, 20 or 25 °C with linear, non-linear, nLFu or EP curve options
- Choice of practical salinity or natural sea water curves for salinity readings
- Linear or ISO/EN 27888 curves for TDS
- 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 data analysis software
- Four AA batteries (included) provide over 800 hours of operation or purchase the universal power adapter (sold separately) to use AC power
- Perfectly portable, waterproof and protected to take anywhere with a IP67-rated housing
- 3 year meter replacement warranty

## Thermo Scientific Orion Star A322 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;<br>4 significant figures minimum                   |
|                     | <b>Relative Accuracy</b>                       | 0.5 % reading $\pm$ 1 digit                                               |
|                     | <b>Reference Temperature</b>                   | 5, 10, 15, 20, 25 $^{\circ}$ C                                            |
|                     | <b>Temperature Compensation</b>                | Linear (0 to 10.0 $\%$ / $^{\circ}$ C),<br>nLn, nLFu, EP                  |
|                     | <b>Compatible Cell Constants</b>               | 0.001 to 199.9                                                            |
|                     | <b>Calibration Points</b>                      | Up to 5 points                                                            |
|                     | <b>Calibration Editing</b>                     | Yes                                                                       |
| <b>Resistivity</b>  | <b>Range</b>                                   | 2 ohm to 100 meg-ohm                                                      |
|                     | <b>Resolution</b>                              | 2 ohms-cm                                                                 |
|                     | <b>Relative Accuracy</b>                       | 0.5 % reading $\pm$ 1 digit                                               |
| <b>Salinity</b>     | <b>Type</b>                                    | Practical salinity or<br>natural sea water                                |
|                     | <b>Range</b>                                   | 0.01 to 80.0 ppt NaCl<br>equivalent; 0.01 to 42 ppt<br>practical salinity |
|                     | <b>Resolution</b>                              | 0.01                                                                      |
|                     | <b>Relative Accuracy</b>                       | $\pm$ 0.1                                                                 |
| <b>TDS</b>          | <b>Range</b>                                   | 0 to 200 ppt                                                              |
|                     | <b>Resolution</b>                              | 4 significant digits                                                      |
|                     | <b>Relative Accuracy</b>                       | $\pm$ 0.5 % reading $\pm$ 1 digit                                         |
|                     | <b>TDS Factor Range</b>                        | Linear 0.01 to 10.00                                                      |
| <b>Temperature</b>  | <b>Range</b>                                   | -5 to 105 $^{\circ}$ C, 23 to 221 $^{\circ}$ F                            |
|                     | <b>Resolution</b>                              | 0.1                                                                       |
|                     | <b>Relative Accuracy</b>                       | $\pm$ 0.1                                                                 |
|                     | <b>Offset Calibration</b>                      | 1 point                                                                   |
| <b>Datalogging</b>  | <b>Memory</b>                                  | 5000 with time and date stamp                                             |
|                     | <b>Log Function</b>                            | Manual, ready (includes<br>AUTO-READ <sup>TM</sup> ), timed               |
|                     | <b>Log Edit</b>                                | Delete individual points,<br>group of points or all                       |
| <b>Inputs</b>       | <b>Conductivity with<br/>Temperature Probe</b> | 8-pin mini-DIN                                                            |
| <b>Output</b>       |                                                | RS232, USB                                                                |
| <b>Power</b>        | <b>AC Adapter</b>                              | Optional –<br>universal, 100-240 VAC                                      |
|                     | <b>Battery Power</b>                           | Included – 4 AAs                                                          |
|                     | <b>Battery Life</b>                            | 800 hrs                                                                   |

## Ordering Information

| Cat. No.           | Description                                                                                                                                                                                                                                                                                                                                             |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>STARA3220</b>   | <b>Orion STAR A322 Conductivity Portable Meter</b><br>- Four AA batteries (installed)                                                                                                                                                                                                                                                                   |
| <b>STARA3225</b>   | <b>Orion STAR A322 Conductivity Portable Meter Kit</b><br>- 013010MD Orion DuraProbe conductivity cell with<br>3m cable, K=0.475<br>- 01100710 conductivity standard pouches, 1413 $\mu$ S,<br>pack of 10<br>- 911110 rinse solution, pack of 10<br>- Protective armor with electrode holder<br>- Hard carrying case<br>- Four AA batteries (installed) |
| <b>Accessories</b> |                                                                                                                                                                                                                                                                                                                                                         |
| <b>STARA-CS</b>    | Hard carrying case for Orion Star A-series<br>portable meters                                                                                                                                                                                                                                                                                           |
| <b>1210005</b>     | Soft carrying case for Orion Star, Star Plus and<br>Star A-series portable meters                                                                                                                                                                                                                                                                       |
| <b>STARA-AR</b>    | Armor for Orion Star A-series portable meters,<br>includes electrode holders for pH, conductivity and<br>DO probes                                                                                                                                                                                                                                      |
| <b>STARA-ESCD</b>  | Conductivity and DO probe holder for Orion Star<br>A-series armor                                                                                                                                                                                                                                                                                       |
| <b>STARA-ESPH</b>  | pH electrode holder for Orion Star A-series armor                                                                                                                                                                                                                                                                                                       |
| <b>013005MD</b>    | Orion DuraProbe conductivity cell with 1.5m cable,<br>4-cell, K=0.475                                                                                                                                                                                                                                                                                   |
| <b>013010MD</b>    | Orion DuraProbe conductivity cell with 3m cable,<br>4-cell, K=0.475                                                                                                                                                                                                                                                                                     |
| <b>013020MD</b>    | Orion DuraProbe conductivity cell with 6m cable,<br>4-cell, K=0.475                                                                                                                                                                                                                                                                                     |
| <b>013025MD</b>    | Orion DuraProbe conductivity cell with 10m cable,<br>4-cell, K=0.475                                                                                                                                                                                                                                                                                    |
| <b>1010003</b>     | Optional universal power adapter, 100-240 V, 50/60 Hz                                                                                                                                                                                                                                                                                                   |
| <b>011008</b>      | Orion conductivity standard, 100 $\mu$ S/cm,<br>5x60 mL bottles                                                                                                                                                                                                                                                                                         |
| <b>01100710</b>    | Orion conductivity standard pouches, 1413 $\mu$ S/cm,<br>10/pk                                                                                                                                                                                                                                                                                          |
| <b>01100610</b>    | Orion conductivity standard pouches, 12.9 mS/cm,<br>10/pk                                                                                                                                                                                                                                                                                               |
| <b>911110</b>      | Orion rinse solution pouches, 10/pk                                                                                                                                                                                                                                                                                                                     |
| <b>1010001</b>     | Orion conductivity calibration resistor kit                                                                                                                                                                                                                                                                                                             |

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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