## Thermo Scientific Orion Star A216

Advanced pH/RDO/dissolved oxygen benchtop meter

The Thermo Scientific<sup>™</sup> Orion<sup>™</sup> Star A216 pH/RDO/Dissolved Oxygen Benchtop Meter works for any lab or application. Its durability and dependability make it ideal for every sample, every day.









The Thermo Scientific Orion Star A216 pH/RDO/Dissolved Oxygen Benchtop Meter is the ideal choice for any lab. Get the information you need quickly and easily from the large, backlit graphic LCD display. Informative display shows one or both pH and DO channels with temperature. Additional information includes electrode status, time, date, sample ID and user ID.

## **Features and Benefits**

- Easy meter operation assured with on-screen text prompts, menu-specific function keys and a multi-language interface
- Don't miss a reading—AUTO-READ™
  locks the stable reading on screen, ready
  indicator alerts when reading is stable and
  timed setting logs data at set intervals
- Up to 5 point pH calibration with automatic recognition for USA/NIST and DIN buffers or manual option for custom buffer values
- Compatible with Orion RDO optical and Orion polarographic DO probes

- Accurate DO results are easier with automatic temperature, manual salinity and automatic/manual barometric pressure compensation
- Calibrate DO using water-saturated air, air-saturated water, customer value using a Winkler titration or zero point calibration
- Non-volatile memory holds up to 2000 data points with time and date stamp
- Easily transfer data with the USB and RS232 ports and complimentary Orion Star Com computer software
- For faster BOD readings, control the Thermo Scientific™ Orion™ AUTO-STIR™ DO/BOD probe (086030MD) directly from the meter
- IP54-rated housing handles splashes and is wall-mountable to save space
- 3 year meter replacement warranty



## **Thermo Scientific Orion Star A216** pH/RDO/Dissolved Oxygen Benchtop Meter

| Crecifications          |  |  |  |  |
|-------------------------|--|--|--|--|
| Specifications          |  |  |  |  |
| рH                      | Range: -2.000 to 20.000  |  |  |  |
|                         | <b>Resolution:</b> 0.1, 0.01, 0.001  |  |  |  |
|                         | Relative Accuracy: ±0.002  |  |  |  |
|                         | <b>Calibration Points:</b> Up to 5   |  |  |  |
|                         | Calibration Editing: Yes   |  |  |  |
| mV/RmV                  | <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>Dissolved Oxygen</b> | Polarographic  |  |  |  |
|                         | Range: 0 to 600 % saturation; 0 to 90 mg/L   |  |  |  |
|                         | <b>Resolution:</b> 0.1, 1 % sat.; 0.01, 0.1 mg/L   |  |  |  |
|                         | <b>Relative Accuracy:</b> $\pm 2$ % sat. or $\pm 2$ % of                                   |  |  |  |
|                         | reading, whichever is greater; ±0.2 mg/L or  |  |  |  |
|                         | ±2 % of reading, whichever is greater  |  |  |  |
|                         | RD0  |  |  |  |
|                         | Range: 0 to 500 % saturation; 0 to 50 mg/L   |  |  |  |
|                         | <b>Resolution:</b> 0.1, 1 % sat.; 0.01, 0.1 mg/L   |  |  |  |
|                         | <b>Relative Accuracy:</b> ±2 % sat. ≤ 200 % sat  |  |  |  |
|                         | $\pm 10 \%$ sat. > 200 % sat.; $\pm 0.1$ mg/L up to  |  |  |  |
|                         | 8 mg/L, ±0.2 mg/L from 8 to 20 mg/L,   |  |  |  |
|                         | 10 % of reading from 20 to 50 mg/L   |  |  |  |
|                         | Barometric Pressure Correction:  |  |  |  |
|                         | 400 to 850 mmHg, automatic or manual <b>Manual Salinity Factor Correction:</b> 0 to 45 ppt |  |  |  |
|                         |  |  |  |  |
|                         | <b>Calibration:</b> Water-saturated air. air saturated                                     |  |  |  |
|                         | water, manual (Winkler), zero point  |  |  |  |
| Temperature             | <b>Range:</b> -5 to 105 °C, 23 to 221 °F   |  |  |  |
| Tomporature             | (RDO/DO: 0 to 50 °C, 32 to 122 °F)   |  |  |  |
|                         | <b>Resolution:</b> 0.1 °C, 0.1 °F  |  |  |  |
|                         | <b>Relative Accuracy:</b> ±0.1 °C, ±0.1 °F   |  |  |  |
|                         | Offset Calibration: 1 point  |  |  |  |
| Datalogging             | Memory: 2000 with time and date stamp  |  |  |  |
| Datalogying             | <b>Log Function:</b> Manual, ready   |  |  |  |
|                         |  |  |  |  |
| Innuto                  | (includes AUTO-READ), timed  |  |  |  |
| Inputs                  | pH Electrode: BNC, reference pin   |  |  |  |
|                         | ATC Probe: 8-pin mini-DIN  |  |  |  |
| Outmut                  | DO Probe with Temp: 9-pin mini-DIN   |  |  |  |
| Output                  | RS232, USB   |  |  |  |
| _                       |  |  |  |  |
| Power                   | AC Adapter: Included—universal,  |  |  |  |
| Power                   | 100-240 VAC  |  |  |  |
| Power                   | - · · · · · · · · · · · · · · · · · · ·  |  |  |  |

| Meter Ordering Information |   |  |
|----------------------------|---|--|
| Part No.                   | Description   |  |
| STARA2160                  | Orion Star A216 pH/Dissolved Oxygen Benchtop Meter  - Attached electrode stand and holder  - Universal power adapter  - Printed quick start guide and literature CD  - USB computer cable   |  |
| STARA2165                  | Orion Star A216 pH/Dissolved Oxygen Benchtop Meter Kit  - 8157BNUMD Orion ROSS Ultra Triode refillable, epoxy-body pH/ATC electrode  - 083005MD Orion polarographic DO probe with calibration sleeve  - 080513 DO probe maintenance kit  - BOD adapter, funnel and stirrer  - 810199 ROSS pH buffer & solution kit  - Attached electrode stand and holder  - Universal power adapter  - Printed quick start guide and literature CD  - USB computer cable |  |

| Ac                   | ccessories Ordering Information   |                      |
|----------------------|---|----------------------|
| Part No.             | Description   |                      |
| 096019               | Orion Star stirrer probe  |                      |
| STARA-BEA            | Orion Star A series electrode arm, holder and benchtop meter-attachable base plate      |                      |
| STARA-HB             | Orion Star A series freestanding base for electrode arm and holder                      |                      |
| 8302BNUMD            | Orion ROSS Ultra Triode refillable, glass-body pH/ATC electrode                         |                      |
| 8102BNUWP            | Orion ROSS Ultra refillable, glass-body<br>pH electrode                                 |                      |
| 927007MD             | Orion stainless steel ATC temperature probe   |                      |
| 810199               | Orion ROSS All-in-One pH buffer kit   | Y                    |
| 910104               | Orion pH 4.01 buffer, 475 mL  | Redesigned electrode |
| 910107               | Orion pH 7.00 buffer, 475 mL  | arm and holder       |
| 910110               | Orion pH 10.01 buffer, 475 mL   |                      |
| 083005MD             | Orion polarographic DO probe,<br>1.5 m cable  |                      |
| 086030MD             | Orion polarographic AUTO-STIR<br>DO/BOD probe, 1.5 m cable                              |                      |
| 087010MD             | Orion RDO optical DO probe, 3 m cable with stainless steel guard and calibration sleeve |                      |
| For more information | on, 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.



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