## **Electrochemistry** pH meters, bench top

## pH Meter, bench top, Thermo Scientific Orion®, Dual Star™





- Dual channel with simultaneous displayed measurements
- Calibration graph with slope data for viewing or printing
- Meter prompts and shortcut keys
- Five language choices: English, Spanish, French, German and Italian
- 10 methods stored per channel, no need for a switchbox to retain calibrations when using multiple electrodes
- Known addition and subtraction incremental methods
- Autosampler compatibility

The Thermo Scientific Orion® Dual Star™ meter shows the results of both input channels simultaneously. Screen prompts guide you through measurement and setup menus. The EZ startup option and shortcut keys quickly move the meter to key programs for fast startup and measuring. SMART STABILITY™ and SMART AVERAGING™ software programs automatically compensate for measurement conditions, so the meter displays more accurate results faster. When transferring data through the RS232 or USB ports, the meter is able to send a defined data range or all the data.

## **Technical Specification**

| рН          | Range, pH  | -2.000 to 19.999   |
|-------------|--|--|
|             | Resolution, pH   | 0.1, 0.01, 0.001   |
|             | Accuracy, pH   | ±0.002   |
|             | Calibration  | 1 to 5   |
|             | Auto buffer recognition                                    | US, NIST, DIN, Custom  |
| ISE         | Range, ISE   | 0 to 19,999  |
|             | Resolution, ISE  | 1, 2 or 3 significant digits   |
|             | Accuracy, ISE  | ±0.2mV or 0.05%, whichever is greater  |
|             | Calibration, ISE   | 1 to 6<br>Linear, point to point, non-linear selectable auto-blank                         |
|             | Units  | ppm, ppb, M, % or unitless   |
|             | Options  | Single known addition and subtraction, double known addition and subtraction (measurement) |
| mV          | Range, mV  | ±1,999.9   |
|             | Resolution, mV   | 0.1  |
|             | Accuracy, mV   | ± 0.2mV or 0.05%, whichever is greater   |
| Temperature | Temperature range, °C                                      | -5 to 105  |
|             | Temperature resolution, °C                                 | 0.1  |
|             | Temperature accuracy, °C                                   | ±0.1   |
| General     | Password protection  | Yes  |
|             | Data log points  | 1,000 with time/date stamp   |
|             | GLP  | Yes  |
|             | 21 CFR Part 11 software package /<br>Navigator 21 software | Optional   |
|             | Data transfer  | RS232, USB   |
|             | Electrical supply  | Universal a.c. power adapter (supplied)  |
|             |  |  |

| Catalogue No | Legacy No | Alt. No | Description   |
|--------------|-----------|---------|---|
| 10155714     | -         | 2115010 | Dual Star™ pH meter, with swing arm electrode<br>stand, RS-232 and USB cables, stainless steel ATC<br>Probe, universal power adapter and user manual.   |
| 10014414     | -         | 2115001 | Dual Star™ pH/ISE meter, with swing arm electrode<br>stand, RS-232 and USB cables, stainless steel ATC<br>Probe, universal power adapter and user manual.<br>Plus Ultra® pH electrode, calibration buffers and<br>electrode storage solution. |

## Accessories

| Catalogue No | Legacy No | Alt. No  | Description  | Pack qty |
|--------------|-----------|----------|--|----------|
| 10354191     | -         | 910001   | pH electrode storage solution, 475mL               | 1        |
| 10255313     | -         | 9157BNMD | Triode 3 in 1 pH/ATC probe, refillable, epoxy body | 1        |
| 10121211     | -         | 090043   | Electrode stand, swing arm                         | 1        |
| 12747686     | -         | MN1500   | Batteries, alkaline, 1.5V (LR6)                    | 4        |

