

The Thermo Scientific Orion 4-Star Plus pH/dissolved oxygen meters make it easy to read two water quality parameters at once.

## Thermo Scientific Orion 4-Star Plus

pH/Dissolved Oxygen Meters

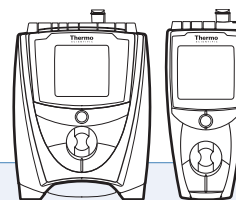


### Features and Benefits

- Simultaneous display of pH, dissolved oxygen and temperature measurements on the backlit LCD
- The Thermo Scientific Orion SMART STABILITY™ and SMART AVERAGING™ functions for automatically optimized accuracy, precision and response time
- pH calibration of up to 5 points with calibration alarm and automatic buffer recognition of USA, NIST and DIN buffers
- Salinity correction and built-in automatic barometric pressure compensation for dissolved oxygen measurements
- Separate dissolved oxygen membrane and solution temperature displays and calibrations
- Dissolved oxygen calibration to the Winkler Titration for BOD analysis
- Storage of up to 10 individually password-protected methods for easy retrieval of operation procedures
- Data storage for up to 750 points with time and date stamp
- Average slope and slope of segment printed with pH measurements
- RS232 port for easy data downloading and software updates
- Portable units are waterproof with an IP67-rated housing and run for over 2,000 hours on four AA batteries
- Benchtop units can control an autosampler and the 096010 stirrer probe (*each sold separately*)
- Benchtop units are splashproof with an IP54-rated housing and include a universal power supply
- 3 year meter warranty

## Thermo Scientific Orion 4-Star Plus pH/Dissolved Oxygen Meters

<b>pH</b>	Range	- 2.000 to 19.999
	Resolution	0.1, 0.01, 0.001
	Relative Accuracy	± 0.002
<b>mV</b>	Range	± 1999.9
	Resolution	0.1
	Relative Accuracy	± 0.2 or 0.05%, whichever is greater
<b>DO</b>	Concentration Range	0.00 to 90.0 mg/L
	Resolution	0.01, 0.1 mg/L
	Relative Accuracy	± 0.2 mg/L
	% Saturation Range	0.0 to 600 %
	Resolution	0.1, 1 %
	Relative Accuracy	± 2 %
	Barometric Pressure Correction	450 to 850 mm Hg, Automatic or Manual
<b>Temperature</b>	Calibration Features	Water Saturated Air, Air Saturated Water, Manual (Winkler), and Zero Point
	Probe Type	Polarographic
	Range	- 5 to 105 °C
	Resolution	0.1 up to 99.9 °C, 1.0 over 99.9 °C
	Relative Accuracy	± 0.1 °C



### Meters Only

Cat. No.	Package
<b>1116000</b>	Includes benchtop meter, universal power and user guide
<b>1216000</b>	Includes portable meter, batteries and user guide

### Benchtop Meter Kits

Cat. No. / Application	Sensor (s)	Accessories and Solutions
<b>1116001 / TRIS Fresh Water</b>	<ul style="list-style-type: none"> <li>8102BNUWP ROSS Ultra refillable glass pH electrode</li> <li>927005MD Epoxy ATC probe</li> <li>081010MD DO probe with 3 meter cable</li> </ul>	<ul style="list-style-type: none"> <li>Swing arm electrode stand</li> <li>pH 4.01, 7.00, and 10.01 buffers (pint bottles)</li> <li>DO calibration sleeve</li> <li>BOD reservoir, stirrer and adapter</li> <li>DO probe maintenance kit - 080113</li> </ul>
<b>1116201 / Fresh Water</b>	<ul style="list-style-type: none"> <li>9157BNMD Refillable epoxy pH/ATC Triode electrode</li> <li>081010MD DO probe with 3 meter cable</li> </ul>	<ul style="list-style-type: none"> <li>Swing arm electrode stand</li> <li>DO calibration sleeve</li> <li>BOD reservoir, stirrer and adapter</li> <li>DO probe maintenance kit - 080113</li> </ul>

### Portable Meter Kits

Cat. No. / Application	Sensor (s)	Accessories and Solutions
<b>1216001 / Fresh Water</b>	<ul style="list-style-type: none"> <li>9107BNMD Low maintenance epoxy pH/ATC Triode electrode</li> <li>083005MD DO probe with calibration sleeve</li> </ul>	<ul style="list-style-type: none"> <li>Beaker</li> <li>pH electrode storage solution (5 x 60 mL bottles)</li> <li>pH 4.01, 7.00, 10.01 buffers (10 x 15 mL pouches)</li> <li>DO probe maintenance kit - 080513</li> <li>Protective probe guard</li> <li>Hard field case</li> </ul>
<b>1216002 / Fresh Water</b>	<ul style="list-style-type: none"> <li>9107WMMD Low maintenance epoxy pH/ATC Triode electrode with 3 meter cable</li> <li>083010MD DO probe with 3 meter cable and calibration sleeve</li> </ul>	<ul style="list-style-type: none"> <li>Beaker</li> <li>pH electrode storage solution (5 x 60 mL bottles)</li> <li>pH 4.01, 7.00, 10.01 buffers (10 x 15 mL pouches)</li> <li>DO probe maintenance kit - 080513</li> <li>Protective probe guard</li> <li>Hard field case</li> </ul>
<b>1216501 / Fresh Water</b>	<ul style="list-style-type: none"> <li>9107BNMD Low maintenance epoxy pH/ATC Triode electrode</li> <li>083005MD DO probe with calibration sleeve</li> </ul>	<ul style="list-style-type: none"> <li>Beaker</li> <li>pH electrode storage solution (5 x 60 mL bottles)</li> <li>pH 4.01, 7.00, 10.01 buffers (10 x 15 mL pouches)</li> <li>DO probe maintenance kit - 080513</li> <li>Protective probe guard</li> <li>Soft field case</li> </ul>
<b>1216502 / Fresh Water</b>	<ul style="list-style-type: none"> <li>9107WMMD Low maintenance epoxy pH/ATC Triode electrode with 3 meter cable</li> <li>083010MD DO probe with 3 meter cable and calibration sleeve</li> </ul>	<ul style="list-style-type: none"> <li>Beaker</li> <li>pH electrode storage solution (5 x 60 mL bottles)</li> <li>pH 4.01, 7.00, 10.01 buffers (10 x 15 mL pouches)</li> <li>DO probe maintenance kit - 080513</li> <li>Protective probe guard</li> <li>Soft field case</li> </ul>
<b>1216101 / Fresh Water</b>	<ul style="list-style-type: none"> <li>9107BNMD Low maintenance epoxy pH/ATC Triode electrode</li> <li>083005MD DO probe with calibration sleeve</li> </ul>	<ul style="list-style-type: none"> <li>DO probe maintenance kit - 080513</li> <li>Protective probe guard</li> </ul>

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