

Modern design, advanced performance

Thermo Scientific Orion
Pro Star Electrochemistry
Bench Meter Series



Discover the Thermo Scientific™ Orion™ Pro Star electrochemistry bench meter series. Designed to provide accurate and reliable electrochemistry testing, the Orion Pro Star supports the way you work. Part of the industry-leading family of Orion electrochemistry products, the Orion Pro Star helps you unlock modern design and advanced performance.

Key benefits



Large 7-inch, high-resolution color touchscreen display for optimized viewing and operation



Enhanced user interface featuring guided navigation, troubleshooting assistance and helpful icons/prompts



Small footprint with vertical meter orientation and freestanding electrode holder to facilitate flexible bench placement



Durable construction with dust- and water-resistant housing (IP-54 rated)



Stores up to 10000 data log sets, plus 20 calibration logs per parameter with dates and times to support GLP compliance

High resolution touchscreen

Reduced bench footprint





Experience
accurate, reliable
electrochemistry testing

Intuitive user interface

Robust data and calibration log storage

Dust- and water-resistant housing



Featured models

The Orion Pro Star series offers a comprehensive selection of models to help support your testing requirements.

- Thermo Scientific Orion Pro Star **PH211 pH/ORP Bench Meter**
- Thermo Scientific Orion Pro Star **EC212 Conductivity Bench Meter**
- Thermo Scientific Orion Pro Star **DO213 Dissolved Oxygen Bench Meter**
- Thermo Scientific Orion Pro Star **PI214 pH/Ion Bench Meter**
- Thermo Scientific Orion Pro Star **PC215 pH/Ion & Conductivity Bench Meter**
- Thermo Scientific Orion Pro Star **PD216 pH/Ion & Dissolved Oxygen Bench Meter**
- Thermo Scientific Orion Pro Star **PI217 Dual Channel pH/Ion Bench Meter**
- Thermo Scientific Orion Pro Star **MP218 pH/Ion, Conductivity & Dissolved Oxygen Bench Meter**



Advanced analysis

Designed to deliver fast, reliable results, the Orion Pro Star was built with efficiency and precision in mind. Featuring pH, conductivity, dissolved oxygen, ion concentration and multi-parameter models, a robust offering provides you with the right tools to help address a variety of analytical challenges. With up to three measurement channels, the Orion Pro Star streamlines your workflow and enhances productivity. Adapt to a range of testing scenarios with three measurement modes—continuous, auto-read and timed read. Additionally, get quick access to preferred settings. The Orion Pro Star saves up to 10 methods per channel to help optimize throughput and convenience





Practical design

Featuring a large 7-inch color touchscreen display, the Orion Pro Star offers a visually immersive interface. Thanks to its vertical meter orientation, it delivers a small footprint that requires minimal bench space. An ergonomic angled screen with anti-glare technology provides optimal visibility and comfort. A freestanding and smooth-moving electrode holder facilitates flexible placement to assist with performing measurements. Wires are also neatly tucked away with embedded cable clips on the electrode holder for improved organization. Designed to withstand your most demanding conditions, the Orion Pro Star is constructed from durable materials and contains dust- and water-resistant housing (IP-54 rated).





Intuitive interface

Every detail of the Orion Pro Star was **thoughtfully designed** to help make your job easier. From the moment you first power on your meter, innovative features await, like the setup wizard, which guides you through important settings and configurations. The home screen acts as a centralized hub to view measurements, complete calibrations, export data and more. You can even customize the way your data is displayed—simply select basic, advanced or custom layouts. The Orion Pro Star boasts an intuitive interface that's easy for technical and non-technical users to operate. Helpful features, such as a measurement stability indicator and calibration guidance, help ensure accurate and reliable measurements. Should an error occur, the Orion Pro Star is ready to help by providing on-screen troubleshooting assistance.





Functional features

Built with efficiency and practicality in mind, the Orion Pro Star supports the way you work. A meter-controlled and meter-powered stirrer probe provides uniform sample mixing.¹ For multi-parameter meters, one temperature sensor can be used across multiple channels. When it's time for routine maintenance, the Orion Pro Star can notify you via a friendly alert. To assist with security, the Orion Pro Star supports up to three administrators with full access and up to 30 users with customizable access, all secured with individual password protection for precise control over account permissions. Additionally, software updates are seamlessly installed via a USB flash drive, making it easy to keep your meter current with the latest features and advancements.



¹ Stirrer probe not included as standard accessory with all Orion Pro Star electrochemistry bench meters. Check instrument ordering information on thermofisher.com for more details.



Dependable data

Effortlessly save and export measurements for long-term data retention with the Orion Pro Star. Store, display and manage up to 10000 data sets and 20 calibration logs per parameter, each complete with date and time stamps. Tailor reports to meet your specific needs by selecting data fields and including methods and calibration logs. Each entry provides comprehensive measurement information, neatly organized in an easy-to-read onscreen list, and can be integrated with your Laboratory Information Management System (LIMS) software. Filter data logs by user, date, time or log number, and export them using specific date and time ranges, log number ranges, or all at once. With the Orion Pro Star, easily export data to a printer, computer or USB flash drive for seamless data management and accessibility.



Applications

From source water to **wastewater** and everything in between, the Orion Pro Star is well equipped to **address your toughest analytical challenges.**

Drinking water



Wastewater



Environmental



Food and beverage



Industrial



Chemical



Petrochemical



Selection guide

Find the right Orion Pro Star electrochemistry bench meter for your needs. Browse parameter capabilities and instrument features to select the right fit for your measurement requirements.



	Orion Pro Star PH211	Orion Pro Star EC212	Orion Pro Star DO213	Orion Pro Star PI214	Orion Pro Star PC215	Orion Pro Star PD216	Orion Pro Star PI217	Orion Pro Star MP218
Parameters								
pH	✓			✓	✓	✓	✓	✓
mV	✓			✓	✓	✓	✓	✓
ORP	✓			✓	✓	✓	✓	✓
Ion Concentration				✓	✓	✓	✓	✓
Conductivity		✓			✓			✓
Total Dissolved Solids (TDS)		✓			✓			✓
Salinity		✓			✓			✓
Resistivity		✓			✓			✓
Dissolved Oxygen (DO) as % Saturation			✓			✓		✓
Dissolved Oxygen (DO) as mg/L			✓			✓		✓
Dissolved Oxygen (DO) as ppm			✓			✓		✓
Temperature	✓	✓	✓	✓	✓	✓	✓	✓
Features								
Color Touchscreen Display	✓	✓	✓	✓	✓	✓	✓	✓
Freestanding Electrode Holder	✓	✓	✓	✓	✓	✓	✓	✓
Stirrer Probe*	✓	✓	✓	✓	✓✓	✓✓	✓✓	✓✓
USB Flash Drive	✓	✓	✓	✓	✓	✓	✓	✓

*Stirrer probe not included as standard accessory with all Orion Pro Star electrochemistry bench meters. Meters with one checkmark contain one stirrer probe input; meters with two checkmarks contain two stirrer probe inputs. Check instrument ordering information on thermofisher.com for more details.



LABORATORY NOTEBOOK

pH 4.01 Buffer

pH 7.00 Buffer

pH 10.01 Buffer

Meter model overview

Orion Pro Star PH211 pH/ORP Bench Meter

- Measure pH, mV or ORP with temperature
- ± 0.002 pH relative accuracy across -2 to 20 pH range
- Obtain temperature measurements automatically using an ATC sensor, manually or using ambient air temperature



Orion Pro Star EC212 Conductivity Bench Meter

- Measure conductivity, total dissolved solids (TDS), salinity or resistivity with temperature
- $\pm 0.5\%$ reading relative accuracy across 0.010 $\mu\text{S/cm}$ to 3000 mS/cm range
- Perform temperature-compensated conductivity readings using linear, non-linear, EP/USP or off-compensation options and reference temperature options of 5, 10, 15, 20, 25 or 30°C



Orion Pro Star DO213 Dissolved Oxygen Bench Meter

- Measure dissolved oxygen as % saturation, concentration as mg/L or concentration as ppm with barometric pressure and temperature
- $\pm 2\%$ saturation, mg/L or ppm relative accuracy across 0.0 to 600.0% saturation or 0.01 to 90.0 mg/L or ppm range
- Automatically compensate dissolved oxygen readings for barometric pressure, using the built-in barometer or manual entry, and salinity, using manual entry



Orion Pro Star PI214 pH/Ion Bench Meter

- Measure pH, mV, ORP or ion concentration with temperature
- ± 0.2 mV or $\pm 0.05\%$ of the reading relative accuracy across 0.0001 to 19999 ion concentration range
- Utilize selectable ion concentration units of ppt, ppm, ppb, mg/L, M, mM, %, none or user-defined



Ordering information

Choose from a selection of Orion Pro Star electrochemistry bench meters and meter kits offering different parameter capabilities and testing options for various application requirements.

Description	Cat. No.	Thomas No.
Orion Pro Star PH211 pH/ORP bench meter with stand	PSTAR2110	25A00A000
Orion Pro Star PH211 pH/ORP bench meter difficult sample kit Orion Pro	PSTAR2114	25A00A001
Star PH211 pH/ORP bench meter standard kit	PSTAR2115	25A00A002
Orion Pro Star PH211 pH/ORP bench meter durable kit	PSTAR2116	25A00A003
Orion Pro Star PH211 pH/ORP bench meter low maintenance kit Orion	PSTAR2117	25A00A004
Pro Star PH211 pH/ORP bench meter micro kit	PSTAR2118	25A00A005
Orion Pro Star PH211 pH/ORP bench meter ORP kit	PSTAR2119	25A00A006
Orion Pro Star EC212 conductivity bench meter with stand	PSTAR2120	25A00A007
Orion Pro Star EC212 conductivity bench meter standard kit	PSTAR2125	25A00A008
Orion Pro Star EC212 conductivity bench meter pure water kit	PSTAR2126	25A00A009
Orion Pro Star DO213 dissolved oxygen bench meter with stand Orion	PSTAR2130	25A00A010
Pro Star DO213 dissolved oxygen bench meter standard DO kit Orion Pro	PSTAR2135	25A00A011
Star DO213 dissolved oxygen bench meter BOD kit	PSTAR2136	25A00A012
Orion Pro Star DO213 dissolved oxygen bench meter optical DO kit Orion	PSTAR2137	25A00A013
Pro Star PI214 pH/ion bench meter with stand	PSTAR2140	25A00A014
Orion Pro Star PI214 pH/ion bench meter pH kit	PSTAR2145	25A00A015
Orion Pro Star PI214 pH/ion bench meter ammonia kit	PSTAR2146	25A00A016
Orion Pro Star PI214 pH/ion bench meter fluoride kit	PSTAR2147	25A00A017
Orion Pro Star PI214 pH/ion bench meter sodium kit	PSTAR2148	25A00A018



Meter model overview

Orion Pro Star PC215 pH/Ion & Conductivity Bench Meter

- Measure pH, mV, ORP or ion concentration with temperature on channel 1
- Measure conductivity, total dissolved solids (TDS), salinity or resistivity with temperature on channel 2
- View channels simultaneously or individually



Orion Pro Star PD216 pH/Ion & Dissolved Oxygen Bench Meter

- Measure pH, mV, ORP or ion concentration with temperature on channel 1
- Measure dissolved oxygen as % saturation, concentration as mg/L or concentration as ppm with barometric pressure and temperature on channel 2
- View channels simultaneously or individually



Orion Pro Star PI217 Dual Channel pH/Ion Bench Meter

- Measure pH, mV, ORP or ion concentration with temperature on channel 1 and channel 2
- Perform 1- to 5-point pH calibrations, 1-point ORP calibrations, 1- to 5-point ion concentration calibrations and 1- to 2-point temperature calibrations
- View channels simultaneously or individually



Orion Pro Star MP218 pH/Ion, Conductivity & Dissolved Oxygen Bench Meter

- Measure pH, mV, ORP or ion concentration with temperature on channel 1
- Measure conductivity, total dissolved solids (TDS), salinity or resistivity with temperature on channel 2
- Measure dissolved oxygen as % saturation, concentration as mg/L or concentration as ppm with barometric pressure and temperature on channel 3
- View channels simultaneously or individually



Ordering information

Choose from a selection of Orion Pro Star electrochemistry bench meters and meter kits offering different parameter capabilities and testing options for various application requirements.

Description	Cat. No.	Thomas No.
Orion Pro Star PC215 pH/ion and conductivity bench meter with stand	PSTAR2150	PSTAR2150
Orion Pro Star PC215 pH/ion and conductivity bench meter standard kit	PSTAR2155	PSTAR2155
Orion Pro Star PC215 pH/ion and conductivity bench meter pure water kit	PSTAR2156	PSTAR2156
Orion Pro Star PD216 pH/ion and DO bench meter with stand	PSTAR2160	PSTAR2160
Orion Pro Star PD216 pH/ion and DO bench meter standard pH and DO kit	PSTAR2165	PSTAR2165
Orion Pro Star PD216 pH/ion and DO bench meter pH and BOD kit	PSTAR2166	PSTAR2166
Orion Pro Star PD216 pH/ion and DO bench meter pH and optical DO kit	PSTAR2167	PSTAR2167
Orion Pro Star PI217 dual channel pH/ion bench meter with stand	PSTAR2170	PSTAR2170
Orion Pro Star PI217 dual channel pH/ion bench meter standard pH kit	PSTAR2175	PSTAR2175
Orion Pro Star PI217 dual channel pH/ion bench meter durable pH kit	PSTAR2176	PSTAR2176
Orion Pro Star PI217 dual channel pH/ion bench meter pH and ammonia kit	PSTAR2177	PSTAR2177
Orion Pro Star PI217 dual channel pH/ion bench meter pH and fluoride kit	PSTAR2178	PSTAR2178
Orion Pro Star PI217 dual channel pH/ion bench meter pH and sodium kit	PSTAR2179	PSTAR2179
Orion Pro Star MP218 pH/ion, conductivity and DO bench meter with stand	PSTAR2180	PSTAR2180
Orion Pro Star MP218 pH/ion, conductivity and DO bench meter pH, conductivity and DO kit	PSTAR2185	PSTAR2185
Orion Pro Star MP218 pH/ion, conductivity and DO bench meter pH, conductivity and optical DO kit	PSTAR2186	PSTAR2186
Orion Pro Star MP218 pH/ion, conductivity and DO bench meter pH and conductivity kit	PSTAR2187	PSTAR2187



Orion electrodes

Unlock the power and precision of Thermo Scientific™ Orion™ ROSS Ultra™, Thermo Scientific™ Orion™ ROSS™ SureFlow™, Thermo Scientific™ Orion™ ROSS™ and Thermo Scientific™ Orion™ electrodes. Choose from a wide variety of body materials, designs and features to find the right electrode for your application.



Description	Cat. No.	Thomas No.
ROSS Ultra Triode refillable glass-body pH/ATC electrode	8302BNUMD	1222U09
ROSS Ultra Triode refillable epoxy-body pH/ATC electrode	8157BNUMD	1229X47
ROSS Ultra Triode gel-filled epoxy-body pH/ATC electrode	8107BNUMD	1229X45
ROSS Ultra combination refillable glass-body pH electrode	8102BNUWP	1234Y64
ROSS Ultra combination refillable epoxy-body pH electrode	8156BNUWP	1234Y69
ROSS Ultra semi-micro combination refillable glass-body pH electrode	8103BNUWP	1234Y65
ROSS Ultra semi-micro combination refillable epoxy-body pH electrode	8115BNUWP	1234Y67
ROSS micro combination refillable glass-body pH electrode	8220BNWP	1226F95
ROSS Ultra flat surface combination refillable epoxy-body pH electrode	8135BNUWP	1234Y68
ROSS spear tip combination refillable glass-body pH electrode	8163BNWP	1234Y70
ROSS Sure-Flow combination refillable epoxy-body pH electrode	8165BNWP	1234Y71
ROSS Sure-Flow combination refillable glass-body pH electrode	8172BNWP	1234Y72
ATC temperature probe with epoxy body	927005MD	1234Z00
ATC temperature probe with stainless steel body	927007MD	1234Z02
ATC micro temperature probe with stainless steel body	928007MD	1226G09
ORP/ATC Triode refillable epoxy-body electrode	9180BNMD	1234Y99
ORP Sure-Flow combination refillable epoxy-body electrode	9678BNWP	1234Z16
Ammonia combination ion selective electrode	9512BNWP	1234Z07
Ammonia high-performance combination ion selective electrode	9512BNWP	1234Z07
Chloride combination ion selective electrode	9617BNWP	1234Z11
Fluoride combination ion selective electrode	9609BNWP	1234Z09
Sodium combination ion selective electrode	8611BNWP	1234Y74
Conductivity/ATC epoxy/graphite body electrode (4-cell, K=0.475)	013005MD	1234K42
Conductivity/ATC stainless steel electrode (2-cell, K=0.1)	013016MD	1234K44
Polarographic DO/ATC electrode with calibration sleeve	083005MD	1234K48
Polarographic AUTO-STIR DO/ATC electrode with calibration sleeve	086030MD	1234K52
Optical DO/ATC electrode with calibration sleeve and protective sleeve	087010MD	1229X52



Orion solutions

Achieve accurate and reproducible results with Thermo Scientific™ Orion™ solutions. Explore our extensive selection of buffers, standards, storage solutions and more.



Description	Cat. No.	Thomas No.
Standard all-in-one pH buffer kit: pH 4.01, 7.00 and 10.01 buffers (475 mL each) and pH electrode storage solution	910199	1233M21
ROSS all-in-one pH buffer kit: pH 4.01, 7.00 and 10.01 buffers (475 mL each), ROSS pH electrode storage, and 60 mL of electrode cleaning solution	810199	1197F21
pH 1.68 buffer, 475 mL	910168	1234J83
pH 4.01 buffer, 475 mL	910104	4120L75
pH 6.86 buffer, 475 mL	910686	1234J84
pH 7.00 buffer, 475 mL	910107	4120L80
pH 9.18 buffer, 475 mL	910918	1234J85
pH 10.01 buffer, 475 mL	910110	4120L85
pH 12.46 buffer, 475 mL	910112	1234J82
pH 4.01 buffer, 25 individual-use pouches	910425	1234Y70
pH 7.00 buffer, 25 individual-use pouches	910725	4120L62
pH 10.01 buffer, 25 individual-use pouches	911025-WA	4120L67
Electrode storage solution, 475 mL	910001	4153W25
ROSS electrode storage solution, 475 mL	810001	1234J80
ORP standard, +420 mV standard hydrogen electrode, 475 mL	967901	4153R53
100 ppm ammonia as nitrogen standard, 475 mL	951207	0732L85
Ammonia ionic strength adjuster (ISA) with pH-indicating blue dye, 475 mL	951211	4209N52
100 ppm chloride standard, 475 mL	941707	4210N40
Chloride ionic strength adjuster (ISA), 475 mL	940011	4210N50
100 ppm fluoride standard, 475 mL	940907	4210F30
10 ppm fluoride standard premixed with TISAB II, 475 mL	040908	0732J60
5 ppm fluoride standard premixed with TISAB II5, 475 mL	F40905	C838K30
2 ppm fluoride standard premixed with TISAB II, 475 mL	040907	4210F32
1 ppm fluoride standard premixed with TISAB II, 475 mL	040906	4210F31
Fluoride TISAB II solution, 1 gallon	940909	4210F41
100 ppm sodium standard, 475 mL	941107	4210E90
Sodium ionic strength adjuster (ISA), 475 mL	841111	4210E87
100 µS/cm conductivity/TDS standard, 5 x 60 mL	011008	0732N45
1413 µS/cm conductivity/TDS standard, 5 x 60 mL	011007	0732N44
12.9 mS/cm conductivity/TDS standard, 5 x 60 mL	011006	1220P52
111.9 mS/cm conductivity standard, 5 x 60 mL	011005	1229Z95
1413 µS/cm conductivity/TDS standard, 10 individual-use pouches	01100710	1226E94
12.9 mS/cm conductivity/TDS standard, 10 individual-use pouches	01100610	1226E93
111.9 mS/cm conductivity standard, 10 individual-use pouches	01100510	1226E92

Orion Pro Star accessories

Enhance your Orion Pro Star experience with a range of premium accessories designed to maximize functionality and convenience. From protective covers to barcode scanners, each accessory supports optimal performance and efficiency for your workflow.

Description	Cat. No.	Thomas No.
Orion bench meter stirrer probe	096019-WA	1212U13
Orion compact ink printer, includes meter cable, paper, ink ribbon, 100-240V 50/60Hz power adapter	STARA-106	1165T51
Orion Pro Star series USB flash drive	PSTAR-UFD	25A00A043
Orion Pro Star series USB mouse	PSTAR-UMS	25A00A045
Orion Pro Star series USB keyboard	PSTAR-UKB	25A00A044
Orion Pro Star series USB barcode scanner	PSTAR-UBS	25A00A042
Orion Pro Star series electrode stand with base	PSTAR-ARM	25A00A036
Orion Pro Star series universal power supply, 100-240V, 50/60Hz	PSTAR-PWR	25A00A039
Orion Pro Star series USB computer cable	PSTAR-USB	25A00A046
Orion Pro Star series standard protective display cover	PSTAR-PCS	25A00A038
Orion Pro Star series rugged protective display cover	PSTAR-PCR	25A00A037



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