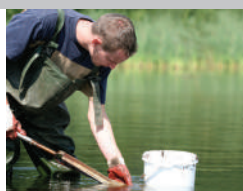


Thermo Scientific Orion Star A329 pH/ISE/ Conductivity/RDO/Dissolved Oxygen Portable Meter

The Thermo Scientific Orion Star A329 pH/ISE/Conductivity/RDO/Dissolved Oxygen Portable Meter is the top choice for complete sample testing anywhere. It is rugged and dependable, making it ideal for every sample, every day, everywhere.



The Thermo Scientific Orion Star A329 pH/ISE/Conductivity/RDO/Dissolved Oxygen Portable Meter is the top choice for advanced multiparameter measurements on location. Get the information you need quickly and easily from the large, backlit graphic LCD display. Informative display can show each parameter with temperature individually or

all three with temperature on one screen. Additional helpful icons include 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
- Up to 5 point pH calibration with automatic recognition for USA/NIST and DIN buffers
- Fix pH and ISE calibration errors without a complete recalibration with calibration editing
- No need to worry about DO probe compatibility – the meter accepts and automatically recognizes Orion polarographic and RDO optical/luminescence-based probes
- It's easy to get accurate DO results with automatic temperature, automatic/manual barometric pressure and automatic salinity compensation when used with simultaneously with conductivity
- Calibrate for DO using water-saturated air, air-saturated water, a Winkler titration or zero point calibration
- Selectable cell constant allows for use with 2- or 4-cell conductivity cells
- For advanced accuracy in conductivity readings, 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
- Whether you use ISE infrequently or have multiple samples every day – up to 5 point ISE calibration with advanced features such as timed end point, linear point-to-point, non-linear selectable auto-blank and low-concentration range stability
- 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

Description

Keep the Orion Star A329 multiparameter meter where you need it. The kit (cat. no. STARA3295) includes armor for a non-slip grip and probe holders to keep your probes in place and ready to use when not in use.



For hands-free use, the armor (included in the kit or available separately) includes a stand to place onto a surface and strap to wrap around a belt or fixture.





Specifications



pH	Range	-2.000 to 20.000
	Resolution	0.1, 0.01, 0.001
	Relative Accuracy	±0.002
	Calibration Points	Up to 5
	Calibration Editing	Yes
mV/RmV	Range	±2000.0 mV
	Resolution	0.1
	Relative Accuracy	±0.2 mV or ±0.05 % of reading whichever is greater
	E_H ORP Mode	Yes
ISE	Range	0 to 19999
	Resolution	Up to 3 significant digits
	Relative Accuracy	±0.2 mV or ±0.05 % of reading whichever is greater
	Units	ppm, M, mg/L, %, ppb, none
	Calibration Points	Up to 5
	Calibration Editing	Yes
	Calibration Features	Timed end point, linear point to point, non-linear selectable auto-blank, low concentration range stability
Conductivity	Range	0.001 µS to 3000 mS
	Resolution	0.001 µS minimum; 4 significant figures minimum
	Relative Accuracy	0.5 % reading ±1 digit
	Reference Temperature	5, 10, 15, 20, 25 °C (default)
	Temperature Compensation	Linear (0 to 10.0 %/°C), nLn, nLFu, EP
	Compatible Cell Constants	0.001 to 199.9
	Calibration Points	Up to 5 points
	Calibration Editing	Yes
Resistivity	Range	2 ohm to 100 meg-ohm
	Resolution	2 ohms-cm
	Relative Accuracy	0.5 % reading ±1 digit
Salinity	Type	Practical salinity or natural sea water
	Range	0.01 to 80.0 ppt NaCl equivalent; 0.01 to 42 ppt practical salinity
	Resolution	0.01
	Relative Accuracy	±0.1
TDS	Range	0 to 200 ppt
	Resolution	4 significant digits
	Relative Accuracy	±0.5 % reading ±1 digit
	TDS Factor Range	Linear 0.01 to 10.00, default 0.49

Dissolved Oxygen

Concentration - Polarographic

Range	0 to 90 mg/L
Resolution	0.01, 0.1
Relative Accuracy	±0.2

% Saturation - Polarographic

Range	0 to 600
Resolution	0.1, 1
Relative Accuracy	±2 %

Concentration - RDO

Range	0 to 50 mg/L
Resolution	0.01, 0.1
Relative Accuracy	±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

% Saturation - RDO

Range	0 to 500
Resolution	0.1, 1
Relative Accuracy	±2 %
Automatic Barometric Pressure Correction	450.0 to 850.0 mm Hg
Salinity Factor Correction	Automatic with separate conductivity probe or manual; 0 to 45 ppt
Calibration Features	Water saturated air, air saturated water, manual (Winkler) and zero point
Probe Characteristics	Polarographic or RDO

Temperature

Range	-5 to 105 °C, 23 to 221 °F (0 to 50 °C, 32 to 122 °F with RDO)
Resolution	0.1
Relative Accuracy	±0.1
Offset Calibration	1 point

Datalogging

Memory	5000 with time and date stamp
Log Function	Manual, ready (includes AUTO-READ™), timed
Log Edit	Delete individual points, group of points or all

Inputs

pH Electrode	BNC, reference pin
Conductivity with Temperature Probe or ATC Probe	8-pin mini-DIN
DO with Temperature Probe	9-pin mini-DIN

Output

	RS232, USB
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Power

AC Adapter	Optional – universal, 100-240 VAC
Battery Power	Included – 4 AAs
Battery Life	800 hrs

Ordering Information

Cat. No.	Description
Meters Only	
STARA3290	Orion STAR A329 pH/ISE/Conductivity/Dissolved Oxygen Portable Multiparameter Meter - Four AA batteries (installed)
STARA3295	Orion STAR A329 pH/ISE/Conductivity/Dissolved Oxygen Portable Multiparameter Meter Kit - 8107UWMMD Orion ROSS Triode 3-in-1 pH/ATC probe, 3m cable - 013010MD Orion DuraProbe conductivity cell, 3m cable - 087010MD Orion RDO optical/luminescence-based probe with 3m cable, stainless steel guard, calibration sleeve and optical/luminescence-based cap - 910410 Orion pH 4.01 buffer, 10 pouches - 910710 Orion pH 7.00 buffer, 10 pouches - 911010 Orion pH 10.01 buffer, 10 pouches - 810001 Orion ROSS electrode storage solution, 475 mL - 01100710 Orion 1413 μ S conductivity standard, 10 pouches - 911110 rinse solution, 10 pouches - Protective armor with probe holders - Hard carrying case - Four AA batteries (installed)
Accessories	
STARA-CS	Hard carrying case for Orion Star A-series portable meters
1210005	Soft carrying case for Orion Star, Star Plus and Star A-series portable meters
STARA-AR	Armor for Orion Star A-series portable meters, includes electrode holders for pH, conductivity and DO probes
STARA-ESPH	pH electrode holder for Orion Star A-series armor
STARA-ESCD	Conductivity and DO probe holder for Orion Star A-series armor
1010003	Optional universal power adapter, 100-240 V, 50/60 Hz
8107UWMMD	Orion ROSS Triode 3-in-1 pH/ATC probe, gel-filled, 3m cable
910410	Orion pH 4.01 buffer pouches, 10/pk
910710	Orion pH 7.00 buffer pouches, 10/pk
911010	Orion pH 10.01 buffer pouches, 10/pk
911110	Orion pH rinse solution pouches, 10/pk
013005MD	Orion DuraProbe conductivity cell with 1.5m cable, 4-cell, K=0.475
013010MD	Orion DuraProbe conductivity cell with 3m cable, 4-cell, K=0.475
013020MD	Orion DuraProbe conductivity cell with 6m cable, 4-cell, K=0.475
013025MD	Orion DuraProbe conductivity cell with 10m cable, 4-cell, K=0.475
011008	Orion conductivity standard, 100 μ S/cm, 5x60 mL bottles
01100710	Orion conductivity standard pouches, 1413 μ S/cm, 10/pk
01100610	Orion conductivity standard pouches, 12.9 mS/cm, 10/pk
1010001	Orion conductivity calibration resistor kit
087010MD	Orion RDO optical DO probe, 3m cable with stainless steel guard and calibration sleeve
087020MD	Orion RDO optical DO probe, 6m cable with stainless steel guard and calibration sleeve
087030MD	Orion RDO optical DO probe, 10m cable with stainless steel guard and calibration sleeve
087050MD	Orion RDO optical DO probe, 15m cable with stainless steel guard and calibration sleeve
087100MD	Orion RDO optical DO probe, 30m cable with stainless steel guard and calibration sleeve
083005MD	Orion polarographic DO probe, 1.5m cable
080513	Orion polarographic DO probe maintenance kit
080514	Orion polarographic DO probe electrolyte solution, 60 mL
080017	Calibration sleeve for Orion polarographic DO probes
087003	Replacement calibration sleeve for Orion RDO optical probes
087001	Replacement optical cap for Orion RDO probes
9512HPBNWP	Orion high-performance ammonia ISE
9512BNWP	Orion standard ammonia ISE
951007	Ammonia standard, 1000 ppm, 475 mL
951210	Low-level ammonia ISA
951211	Ammonia ISA, 475 mL
951209	Fill solution for Orion high-performance ammonia ISE, 60 mL
951202	Fill solution for standard ammonia ISE, 60 mL
951213	Ammonia ISE storage solution
9609BNWP	Orion fluoride combination ISE
040906	Fluoride standard, 1 ppm with TISAB II, 475 mL
040907	Fluoride standard, 2 ppm with TISAB II, 475 mL
040908	Fluoride standard, 10 ppm with TISAB II, 475 mL
940909	TISAB II, 1 gallon
8611BNWP	Orion ROSS sodium combination ISE

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.

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