



# Thermo Scientific Orion Star A216

pH/RDO/Dissolved Oxygen Benchtop Meter

The Thermo Scientific Orion Star A216 pH/RDO/Dissolved Oxygen Benchtop Meter is great for checking pH and dissolved oxygen levels at the same time from various wastewater samples. Get the information you need quickly and easily from the large, backlit graphic LCD display. Informative display shows individual pH/mV/RmV result, dissolved oxygen in percent saturation or concentration results with temperature, or all results at once. Additional helpful information includes electrode status, time, date, sample ID, user ID and calibration. For advanced users, features such as stability and averaging choices provide additional options.



#### **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 and calibration editing to fix errors without a complete recalibration
- No need to worry about DO probe compatibility the meter accepts and automatically recognizes Orion polarographic and RDO optical/luminescence-based probes
- Accurate DO results are easier with automatic temperature, manual salinity and automatic/manual barometric pressure compensation
- Calibrate DO by using water-saturated air, air-saturated water, a Winkler titration or zero point calibration
- Non-volatile memory holds up to 2000 data points with time and date stamp
- Stores up to 10 methods allow for customized procedures to differentiate between tests and/or users
- Easily transfer data and keep meter software up-to-date with the USB and RS232 ports and complimentary data analysis software
- To mix samples without a stir plate or for faster BOD readings, meter can directly control the 096019 Orion Star stirrer or 086030MD Orion AUTO-STIR™ DO probes (each sold separately)
- Included electrode arm and newly-designed probe holder make it easier to maintain and place probes into samples
- Works with almost every AC power source with the included universal power adapter, or use four AA batteries (sold separately) to run the meter on DC power
- IP54-rated housing handles splashes and is wall-mountable if table space is a problem
- 3 year meter replacement warranty



### **Product Specifications**

Product Specifications		
		CE   TUV   FCC
	Range	-2.000 to 20.000
рН	Resolution	0.1, 0.01, 0.001
	Relative Accuracy	±0.002
	Calibration Points	Up to 5
	Calibration Editing	Yes
mV/Rel mV/ ORP	Range	±2000.0 mV
	Resolution	0.1
	Relative	±0.2 mV or ±0.05 % of reading
	Accuracy	whichever is greater
	E <sub>H</sub> ORP Mode	Yes
	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
Dissolved Oxygen	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
73	% Saturation -	
	Range	0 to 500
	Resolution	0.1, 1
	Relative Accuracy	±2 %
	Manual Barometric Pressure Correction	450.0 to 850.0 mm Hg
	Manual Salinity Factor Correction	0 to 45 ppt
	Calibration Features	Water-saturated air, air saturated water, manual (Winkler) and zero point
	Probe Characteristics	Polarographic or RDO
	Range Resolution	0 to 50 °C, 32 to 122 °F 0.1
Temperature	Relative Accuracy	±0.1
	Offset Calibration	1 point
Datalogging	Number of Datalogs	2000 with time and date stamp
Jamiogging	Log Function	Manual, ready (includes AUTO-READ™), timed
	pH Electrode	BNC, reference pin
Inputs	DO with Temp. Probe	9-pin mini-DIN
Output		RS232, USB
	AC Adapter	Optional – universal, 100-240 VAC
Power	<b>Battery Power</b>	Optional – 4 AAs
	Battery Life	800 hrs

## **Meter Ordering Information**

Cat. No.	Description
STARA2160	Orion Star A216 pH/Dissolved Oxygen Benchtop Multiparameter Meter - Electrode arm with redesigned holder - Universal power adapter
STARA2165	Orion Star A216 pH/Dissolved Oxygen Benchtop Multiparameter Meter Kit  - 8157BNUMD Orion ROSS Ultra Triode pH/ATC electrode  - 083005MD Orion polarographic DO probe with calibration sleeve  - 080513 polarographic DO probe maintenance kit  - BOD adapter, funnel and stirrer  - 810199 ROSS solution kit (475 mL each of pH 4, 7 and 10 buffers; storage solution; cleaning solution; and pH electrode storage bottle)  - Electrode arm with redesigned holder  - Universal power adapter

#### Accessories

Cat. No.	Description
096019	Orion Star stirrer probe
STARA-BEA	Benchtop electrode arm for Orion Star A-series meters
STARA-HB	Freestanding base for use with Orion Star A-series benchtop electrode arm
8302BNUMD	Orion ROSS Triode 3-in-1 pH/ATC probe, refillable, glass body
8102BNUWP	Orion ROSS Ultra refillable pH electrode, glass body
927007MD	Orion ATC probe, stainless steel
810199	Orion ROSS All-in-One pH buffer kit
910104	Orion pH 4.01 buffer, 475 mL
910107	Orion pH 7.00 buffer, 475 mL
910110	Orion pH 10.01 buffer, 475 mL
083005MD	Orion polarographic DO probe, 1.5m cable
086030MD	Orion polarographic AUTO-STIR DO/BOD probe, 1.5m cable
087010MD	Orion RDO optical DO probe, 3m cable with stainless steel guard and calibration sleeve
970802	Orion BOD funnel and stirrer for use with polarographic probes
080360	Orion BOD bottle adapter for use with polarographic probes

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DO

Temp