

Dissolved Oxygen Meter with Galvanic Probe Oxan 600

The Oxan 600 measures up to 20.0 parts per million of dissolved oxygen in aqueous solutions or p to 100% concentration of oxygen in an atmospheric environment. This meter is user friendly and is easily operated by non-technical personnel.

Unlike other oxygen meters, the Oxan 600 does not have a zero adjustment for setting the meter to zero oxygen concentration. To calibrate the Oxan 600, you simply adjust the calibrate control to make the meter read 20.9% oxygen in air. The calibration is that quick and easy.

The electrode needs no maintenance whatsoever. There are no membranes or filling solutions to change, as is the case with competitors' meters. This allows the non-technical operator to use the meter without difficulty. Under normal conditions, the Oxan 600's maintenance-free electrode has 12-month life.

The Oxan 600 kit includes the meter, electrode, a carrying case, and easy-to-understand instructions. The standard kit includes a 5-foot electrode. Electrodes up to 100 feet can be manufactured upon request.

Oxan Extender Kit

With proper storage in an oxygen-free environment, the life of the oxygen electrode can be extended significantly. The oxygen electrode is manufactured with a lead cathode and operates like a battery. The lead is consumed whenever the electrode is exposed to oxygen. When the lead is totally consumed, the electrode is dead.



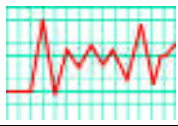
The Oxan Extender Kit is an accessory providing an oxygen-free soaker chamber for storing the electrode. Each kit includes the soaker chamber, a 1-ounce mixing bottle, a 1 ounce bottle of sodium bisulfite, and a 0.25g measuring spoon.

Specifications

	Oxan 600
Meter	
Range	Dissolved Oxygen 0-20.0 PPM Concentration 0-100%
Accuracy	±0.25 PPM; ±5% Concentration
Precision	±0.1% Concentration or PPM
Hysteresis	Non-Existant
Temperature Compensation	Automatic from 0 to 40°C
Response Time	90% of final reading in 12 seconds
Zero	True zero in absence of oxygen
Pressure	25 psi max. (60 foot depth in water)
Controls	
Switch	OFF-%-PPM
Calibrate	Calibrates the meter to 20.9% in air
Miscellaneous	
Display	0.5 inch LCD
Power	9-volt battery
Battery Indicator	"BAT" lights when low
Size	Kit - 12.25 x 8 x 3.5 inches, 30.6 x 20.3 x 8.2 cm Electrode - 1.25 in. dia. x 1.62 in long; Cable - 5 ft Electrode - 3.1 cm dia. x 4.1 cm long; Cable- 1.542 m
Warranty	Meter - 2 years; Electrode - 6 months

Ordering Information

ITEM	DESCRIPTION
OXAN600	Meter kit with Electrode and Case
OXAN-Elec-05	Electrode with 5 ft cable
OXAN-Extend	Electrode Extender kit



Dissolved Oxygen Meter DO 100

- No meter warm-up required
- Easy-to-service, low maintenance probe
- Key in salinity and pressure values manually
- Independent 100% and zero adjustment calibrations
- Offset adjustment capabilities
- Stores and recalls 16 dissolved oxygen readings with corresponding temperature
- Displays electrode diagnostics
- Dual display shows mg/l (ppm) or percent saturation plus temperature

Application

Aquacultural: Use this meter to monitor oxygen levels in catfish and shrimp farming; game fishing ponds; ornamental fish tanks and ponds; and in other fish farming applications.

Environmental: Use this meter to test water quality, monitor health of aquatic ecosystems, survey surface and ground water drinking supplies, and meet EPA regulations.

Industrial: Use this meter to check the quality of plant water intake and discharge, waste water and water treatment, recirculating systems, and industrial process systems.

Educational: This economical meter is ideal for quick, accurate dissolved oxygen readings in labs and schools.



Specifications

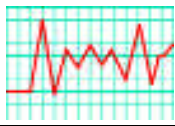
	DO 100 Meter
Range	
mg/l (ppm)	0.00 to 20.00 mg/l (ppm)
% saturation	0.0 to 200.0%
Temperature	0.0 to 50.0°C
Resolution	
mg/l (ppm)	0.01 mg/l (ppm)
% saturation	0.1%
Temperature	0.1 °C
Accuracy	
mg/l (ppm)	±1.5% full scale
% saturation	±1.5% full scale
Temperature	±0.1°C
Salinity correction	Range: 0.0 to 50.0 ppt
	Resolution: 0.1 ppt
	Method: Key in manually and automatic correction
Barometric pressure correction	Range: 555 to 808 mm Hg
	Resolution: 1 mm Hg
	Method: Key in manually and automatic correction
Probe	galvanic probe
Memory	stores and recalls 16 sets
Power	4 x 1.5 V AAA batteries >50 hours continuous use (included); 9V, 500 mA AC adapter (optional)
Dimensions	Meter: 7.5"L x 3.5"W x 1.75"H (19 x 9 x 4.5 cm)
	Boxed: 9.2"L x 9.2"W x 2.75"H (23 x 23 x 7 cm)
	Probe: 6.8"L x 1.3" dia (17,3 cm L x 3.2 cm dia)
Weight	Meter: 1.0 lb (0.45 kg)
	Boxed: 1.4 lbs (0.64 kg)

Ordering Information

ITEM	DESCRIPTION
WD-35640-60	DO 100 meter kit (meter not included) Includes 500 ml of electrolyte solution, 5 replacement membranes with O-rings, 3 sample bottles, and hard carrying case with space for your meter and probe.
WD-35640-01	DO 100 meter only
WD-35640-00	DO 100 meter only. Includes DO probe with 10ft cable
WD-35615-07	AC adapter, 9VDC to 110VAC

All meters include probe, replacement membrane with O-rings, membrane replacement tool, membrane electrolyte solution, instructions and batteries





Dissolved Oxygen Meter DO 300

- Very low drift probe
- Input salinity and pressure values manually
- Independent 100% and zero adjustment calibrations
- Offset adjustment capabilities
- Keypad adjustable backlit display
- No meter warm-up required
- Easy-to-service, low maintenance probe
- Expanded memory stores up to 50 DO/temp readings; real-time clock
- Display electrode diagnostics
- Large dual display
- Waterproof and dustproof with IP67 rating °C/°F Selectable



Ordering Information

ITEM	DESCRIPTION
WD-35641-00	DO 300 meter with backlit display. Includes DO probe with 10-ft cable
WD-35641-01	DO 300 meter with backlit display. Meter only. order probe separately.
WD-35640-60	DO 100 meter kit. (meter not included)
WD-09376-00	Replacement batteries, 1.5 V AAA. Pack of 12
WD-00653-00	Zero oxygen calibration solution
WD-35640-50	Replacement DO probe with 10-ft cable
WD-35640-52	DO probe with 25-ft cable
WD-35640-54	DO probe with 50-ft cable
WD-35640-56	DO probe with 100-ft cable
WD-35640-71	Replacement electrolyte solution, premixed 500ml
WD-35640-70	Replacement electrolyte powder, 58.5g. Mix your own electrolyte solution-makes 400ml. Has longer shelf life in unmixed form
WD-35640-72	Replacement membrane assembly. This item consists of a preassembled membrane, membrane lock, O-ring and cap. Simply screw replacement membrane assembly onto the probe you already have
WD-35640-74	Replacement HDPE membranes, pack of 5, requires installation tool WD-35640-79
WD-35640-75	Replacement HDPE membranes, pack of 25, requires installation tool WD-35640-79
WD-35640-79	Membrane installation tool

All meters include probe, electrolyte solution, operating instructions and batteries. Shipping weight 1.4 lbs (0.6 kg)
DO meter kit includes 500 ml of electrolyte solution, 5 replacement membranes, three rinse bottles and hard carrying case with space for your meter and probe. Shpg wt. 2.0lb (0.9 kg)

Specifications

Range	
mg/l (ppm)	0.00 to 20.00 mg/l (ppm)
% saturation	0.0 to 200.0%
Temperature	0.0 to 50.0°C / 32.0 to 122.0°F
Resolution	
mg/l (ppm)	0.01 mg/l (ppm)
% saturation	0.1%
Temperature	0.1°C / 0.1°F
Accuracy	
mg/l (ppm)	±1.5% full scale
% saturation	±1.5% full scale
Temperature	±0.3°C/±0.3°F
Temperature compensation	automatic from 0 to 50°C
Operating temperature	0 to 50°C
Salinity correction	Range: 0.0 to 50.0 ppt; Resolution: 0.1 ppt Method: Key in manually and automatic correction
Barometric pressure	Range: 500 to 1499 mm Hg / 66.6 to 199.9 kPa
correction	Resolution: 1 mm Hg / 0.1 kPa Method: Key in manually and automatic correction
Probe	galvanic probe
Memory	Up to 50 sets
Real-time clock	stamps calibration data and stored data with time and date (month and day)
Backlit display (DO 310 mtr.)	select from eight levels of brightness
Power	4 x 1.5 V AAA batteries >100 hours continuous use (included)
DO 310 meter only	use of backlit display decreases battery life
Dimensions	Meter: 7.5"L x 3.5"W x 1.75"H (19 x 9 x 4.5 cm) Boxed: 9.2"L x 9.2"W x 2.75"H (23 x 23 x 7 cm) Probe: 6.8"L x 1.3" dia (17.3 cm L x 3.2 cm dia)
Weight	Meter: 1.0 lb (0.5 kg); Boxed: 2.0 lbs (0.9 kg)



pH and Dissolved Oxygen Meter pH/DO 300

- Waterproof and dustproof with IP67 rating
- Toggle between dissolved oxygen/temperature and pH/temperature
- Backlit display
- Automatic Temperature Compensation
- °C/°F selectable
- DO features: No meter warm-up required
- Easy-to-service, low maintenance DO probe
- Salinity and pressure compensation
- Independent 100% and zero adjustment calibrations
- Offset adjustment capabilities
- pH features: Push-button pH calibration at five points with automatic buffer recognition



Ordering Information

ITEM	DESCRIPTION
WD-35632-02	pH/DO 300 Meter
WD-35632-00	Meter includes DO probe with 10ft cable, pH electrode with 10ft cable, and electrolyte solution.
WD-35632-69	pH/DO kit, includes pH "Singles" pouches, 500ml of electrolyte solution, rinse bottle and foam-lined hard carrying case. Meter not included; order separately.
WD-35632-60	pH/DO 300 meter plus DO probe with 10ft cable and pH electrode with 10-ft cable, pH "Singles" pouches, 500 ml of electrolyte solution, 5 replacement membranes, membrane replacement tool, rinse bottle and foam-lined hard carrying case.
WD-35640-50	DO probe with 10ft cable
WD-35640-52	DO probe with 25ft cable
WD-35640-54	DO probe with 50ft cable
WD-35640-56	DO probe with 100ft cable
WD-35805-23	Submersible pH electrode, with 10ft cable, single junction, ABS plastic housing
WD-35805-24	Submersible pH electrode, with 10ft cable, double junction, ABS plastic housing
WD-35640-71	Electrolyte solution, premixed 500 ml
WD-35640-70	Electrolyte powder, 58.5g. Mix your own electrolyte soln.-makes 400ml. Has longer shelf life in unmixed form
WD-35640-72	Replacement membrane assembly. Includes pre-assembled membrane, membrane lock, O-ring and cap
WD-35640-74	Replacement membrane assembly, packs of 5, requires installation tool WD-35640-79
WD-35640-75	Replacement membrane assembly, packs of 25, requires installation tool WD-35640-79
WD-35640-79	Membrane installation tool
WD-00653-00	Zero oxygen calibration solution

Specifications

	pH/DO 300 meter
Range	
pH	-2.00 to 16.00 pH
DO in mg/l (ppm)	0.00 to 20.00 mg/l (ppm)
DO in % saturation	0.00 to 200.00%
Temperature	0.0 to 50.0°C / 32.0 to 122.0°F
Resolution	
pH	0.01 pH
DO in mg/l (ppm)	0.01 mg/l (ppm)
DO in % saturation	0.1%
Temperature	0.1°C / 0.1°F
Accuracy	
pH	±0.01 pH
DO in mg/l (ppm)	±1.5% full scale
DO in % saturation	±1.5% full scale
Temperature	±0.3°C/±0.5°F
Calibration	
pH	up to 5pts: pH 1.68; 4.01; 7.00; 10.01; 12.45
DO in mg/l (ppm) / % saturation	one or two pts.(100% and 0% saturation); plus separate mg/l (ppm) offset
Temperature	offset up to ±5°C or °F
Temp. Compensation	Automatic from 0 to 50°C
Operating Temp	0 to 50°C
Salinity correction	Range: 0.0 to 50.0 ppt; Resolution: 0.1 ppt;
	Method: Key in manually and automatic correction
Barometric pressure	Range: 500 to 1499 mm Hg/66.6 to 199.9 kPa;
	Resolution: 1mm Hg/0.1 kPa; Method: key in manually and automatic correction
DO probe type	galvanic
Backlit display	select from eight levels of brightness
Power	4 x 1.5 V AAA batteries >100hrs continuous use use of backlit display decreases battery life
Dimension	Meter: 7.5"L x 3.75" W x 2.25" H (19x9.5x5.7cm) Boxed: 9.2"L x 9.2" W x 2.75" H (23x23x7cm)
Weight	Meter: 1.0 lb (0.5 kg); Boxed: 2.0 lbs (0.9 kg)

Orion SENSORLINK®

- Measure Dissolved Oxygen and Temperature from Grab Sample or BOD Bottle
- Salinity and Barometric Pressure Compensation
- 3 Calibration Options

SensorLink systems are easy-to-use and incorporate advanced Orion meter features into standard Windows programs with pulldown menus, with electronic data storage and direct exportability to other Windows applications. A context driven help menu provides on-screen assistance. A calibration wizard instructs the operator at each step and reports status to the user. Calibration data is graphically displayed and current calibration can be viewed at any time.

The adjustable real-time graph displays sensor inputs over time or from the sample log. Data can be collected by timed intervals, by electrode stability or on command. Alarm parameters may be set to document events or notify the operator. Time and date stamped data, sensor ID, sample, project and user notes fields are printed on the report of the calibration and data.

Sensorlink PCM800 allows any desktop or a laptop computer to be a high-quality DO meter by combining Orion software with the fast data collection of PCMCIA card technology. The PCM800 offers three options for calibration, AUTO-CAL™ Air Calibration, Air Saturated Water or User Defined Standard. The data can be stored electronically and can also be easily exported to standard Windows® programs for further analysis or presentation. The number of data points is virtually unlimited allowing for long term studies to be completed with minimum user intervention. Data collection intervals down to one second enable users to better understand sample dynamics. The real time graph allows a visual representation of the data within the program itself. SensorLink is also available in pH or for Windows, ISE/pH/ORP and Conductivity.



Specifications

Dissolved Oxygen	
Range, mg/L (ppm)	0 to 20.00mg/L
	0 to 90.0 mg/L
Range, % Saturation	0 to 200%
	0 to 600%
Resolution, mg/L (ppm)	0.01 mg/L
Resolution, % Saturation	0.1%
Relative Accuracy	1% of full scale
Temperature	
Range	-5 to 45°C
Resolution	0.1
Accuracy	±0.1
Salinity Correction	0.0 to 70.0 ppt
Barometric Pressure Comp.	Automatic
Display	Windows®†
Inputs	8 pin DIN
Outputs	--
Datalogging (points)	Unlimited
24 Hour Clock	Yes
Printing Capability	Yes
Power Requirements	Computer Dependent
Agency Approvals	CE
Environmental Requirements	-10 to 55 °C, to 95% RH, non-condensing
Waterproof Rating	--
System Requirements	Recommended 486 PC 66 MHz or better
	16 MB RAM
	Type II or III PCMCIA slot (2.10 compliant)
	Windows 95 or 98
	Minimum 10 MB free Hard Disk space for Program

Ordering Information

ITEM	DESCRIPTION
PCM800	DO for Windows

Orion Dissolved Oxygen Electrode

Orion 9708

- Biochemical Oxygen Demand (BOD)
- Use with any pH Meter
- Air Calibration and Automatic Temperature Compensation
- Convenient Membrane/Electrolyte Modules

Dissolved Oxygen is a common measurement in water and waste water, lakes and ponds, rivers and other water systems. It is a indicator of the health of the water, and is required to be monitored by many government authorities.

BOD measurements read the Biochemical Oxygen Demand, and are conducted by specially designed dissolved oxygen sensors to fit special BOD bottles.

The Orion 9708 DO sensor allows BOD measurements using a standard pH meter and makes BOD measurement simple and easy to conduct.

When used with your standard pH meter, the Orion 9708 Oxygen electrode simplifies routine dissolved oxygen measurements, especially for BOD. Built-in circuits convert output to a signal that can be read by most pH meters. Standardization is fast and easy using water-saturated air or a chemical standard. An overflow funnel for use in BOD bottles allows measurements to be made in the same bottle before and after incubation. Maintenance is easy with the pre-assembled membrane/electrolyte module. There are no



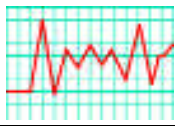
membranes to cut or solutions to pour. Each Model 97-08 is packaged complete with two membrane/electrolyte modules, overflow funnel with built-in stirring bar, and batteries. Requires pH meter with either BNC or US Standard connectors.

Ordering Information

ITEM	DESCRIPTION
970800	Dissolved Oxygen Electrode
970801	Membrane/Electrode Module
970802	Overflow Funnel with Stir Box
970803	Two Duracell 10L/4 Batteries
970899	Dissolved Oxygen Electrode with BNC

Specifications

Electrode Type	Gas Sensing Combination
Range	0 to 14 ppm (nominal)
Accuracy	±0.05 ppm or 2% of reading, whichever is greater
Response Time	96% response in less than 30 seconds between Oxygen-free and air-saturated water at 22°C
Oxygen Consumption	0.1 mg/hr
Battery Life	One year based on 4 hours/day operation
Temperature Range	0 to 45°C



Dissolved Oxygen Controller DO 1000

- Large dual display shows DO plus temperature
- Readout in mg/L, ppm or % saturation
- Select between three control types
- Two set point, two SPDT relay operation
- Separate alarm relay
- 0 to 2000 second time delay adjustment on all relays
- Key in salinity and barometric pressure manually
- Separately adjustable high and low set point hysteresis bands
- Push button calibration
- 0-20/4-20 mA transmitter/ recorder output
- Two level password protection
- LED indicators signal control activities
- Nonvolatile memory

Application

Use this instrument for monitoring temperature and control of dissolved oxygen in your wastewater treatment and aquaculture applications. Use with valves, blowers, or aerators to ensure proper system operation.



Specifications

Range	
mg/L (ppm)	0.0 to 20.00 mg/l (ppm)
% saturation	0.00 to 200.0%
Temperature	0 to 50°C
Resolution	
mg/L (ppm)	0.01 mg/l (ppm)
% saturation	1%
Temperature	0.1°C
Accuracy	
mg/L (ppm)	±1.5% full scale
% saturation	±1.5% full scale
Temperature	±0.5°C

Ordering Information

ITEM	DESCRIPTION
WD-35400-00	DO 1000 controller, 110 VAC, 48-62 Hz

Controllers include panel mounting hardware. Order power cord separately.

Probes / Probe Cleaning System

WD-35201-50	Industrial DO galvanic probe, 0 to 20ppm, 10ft cable
WD-35201-55	Industrial DO galvanic probe, 0 to 20ppm, 50ft cable
WD-35201-51	Rugged DO galvanic probe with Teflon® membrane, 0 to 20ppm
WD-35201-52	Industrial DO galvanic probe, 0 to 10ppm
WD-35201-60	DO probe cleaning system
WD-35201-62	Timer for DO cleaning system. Lets you set on/off intervals for cleaning system to activate.
WD-35201-64	Power supply. 12 VDC. Plust into 110 VAC outlet.

Accessories

WD-35640-71	Replacement electrolyte fluid, 500 mL
WD-35640-70	Replacement electroyte powder, 58.5g. Mix your own electrolyte solution—makes 400 mL. Has longer shelf life in unmixed form
WD-35201-65	Replacement Teflon® membranes. Pack of 5
WD-35640-76	Teflon® membranes. Pack of 25
WD-35100-90	Power cord; 3ft with bare leads, 3 prong U.S. plug, 120 VAC
WD-00653-00	Zero% dissolved oxygen calibration solution, 500 mL

