

YSI 5300A Biological Oxygen Monitoring System

Two independently operated channels each with display and output

- Ideal for cell physiology and metabolism applications
- RS-232 and recorder outputs

The 5300A runs two batch or flow-through testing experiments simultaneously. Oxygen up-take or evolution curves are produced in two to 15 minutes. Measure percent of oxygen saturation in substrate volumes from 1 to 8 mL with the bath assembly and conversion kit (sold separately below).



Oxygen monitor
05520-44 with 05520-10
bath assembly

Specifications

Consumption-rate range:

Air-saturated solution: 3 to 250 $\mu\text{L O}_2/\text{hr}$
 O_2 -saturated solution: 15 to 250 $\mu\text{L O}_2/\text{hr}$

Sample size: 1 mL to 8 mL

O₂ consumption by probe: less than 6×10^{-7} g O_2/hr (0.1 $\mu\text{L O}_2/\text{hr}$) in air

System stability: $\pm 1\%$ of full scale

Stabilization time: 60 seconds max

Response time: approximately 10 seconds (90% of final reading, from nitrogen to air)

Oxygen leak rate: less than 1% full scale in 15 min of operation (50% saturation)

Temperature stability: $\pm 0.04^\circ\text{F}$; $\pm 0.02^\circ\text{C}$ with circulator

Recorder output: 0 to 2,000 V full scale with 20 k Ω

Sample temperature range: 5 to 40°C (41 to 104°F)

Oxygen Monitor features a two-channel, dual-display monitor for samples of 1 to 8 mL. Each channel uses the polarographic oxygen probe model 05520-16 (sold separately) for a stable, fast response. Switch between displays of percent of oxygen saturation in air or oxygen with a simple turn of a knob. Monitor contains a 0.7 V plateau testing mode for each channel to ensure probes are functioning properly.

Catalog number	Power (50/60 Hz)	Price
K-05520-44	115 VAC	
K-05520-46	220 VAC	

Oxygen Probe measures samples from 3 to 8 mL or down to 1 mL with the optional micro conversion kit 05520-40 (sold separately).

Catalog number	Description	Price
K-05520-16	Oxygen probe, 10 cm L x 8 mm dia	

K-05520-14 Lucite plunger, expels extra air from probe

K-05522-00 Replacement membrane kit. Contains 30 standard Teflon® membranes and 1-oz KCl crystals

K-05522-10 High-sensitivity membrane kit. Contains 30 Teflon membranes and 1-oz KCl crystals. Use below 15°C

Bath Assembly holds substrate volumes from 3 to 8 mL in three chambers. Convert to micro substrate volumes as low as 1 mL with the optional micro conversion kit (sold separately). Bath assembly includes magnetic stirring capabilities, two Lucite plungers, chamber pack (six glass chambers), sealing O-rings,

Catalog number	Power (50/60 Hz)	Price
K-05520-10	115 VAC	
K-05520-12	220 VAC	

K-05520-50 Chamber kit. Includes six replacement chambers and O-rings for bath assembly

K-05520-40 Micro conversion kit. Modifies the standard bath assembly and oxygen probe to measure sample volume down to 1 mL. Kit includes two Lucite plungers, two stirring bars, and a magnetic retriever

ExStik® II Dissolved Oxygen Meter

Measures in percent saturation or concentration

- Adjustable altitude and salinity compensation

Features include data hold, auto power off, low-battery indicator, and analog bar graph that indicates trends. Order optional extension cable with probe weight to keep probe submerged and protected.

What's included: DO electrode, protective sensor cap, spare membrane cap, electrolyte, neckstrap, and four 1.5 V batteries.

New



Specifications & Ordering Info

Mode	mg/L (ppm)	% Saturation	Temperature
Range	0 to 20.00	0 to 200.0	32 to 122°F (0 to 50°C)
Resolution	0.01	0.1	0.1°
Accuracy	0.4	$\pm 2\%$ FS	$\pm 1.8^\circ\text{F}$ (1°C)

Temperature compensation: automatic

Salinity compensation: 0 to 50 ppt

Barometric pressure compensation: 0 to 20,000 ft in 1000 ft increments

Probe type: polarographic

Memory: 25 data sets

Dimensions: 1.4" W x 6.9" H x 1.6" D

Catalog number	Description	Power	Price
K-53026-20	Waterproof ExStik II DO Meter	Four 1.5 V batteries	

K-53026-22 Replacement membrane cap; includes six membrane caps, 15 mL of filling solution, and polishing cloth

K-53026-26 Extension cable, 3 ft with probe weight

K-53026-28 Extension cable, 16 ft with probe weight

K-09377-14 Replacement batteries, 1.5 V. Pack of 6

Economical Dissolved Oxygen Meter

Low-cost meter with advanced features

- Built-in RS-232 serial interface
- Toggle switch for dissolved oxygen reading expressed in mg/L or % oxygen in air

Meter features a simultaneous display of oxygen and temperature readings, min/max/average readings, data hold, and a 1.4" H LCD with manual contrast adjustment. Use the optional data acquisition software 10200-10 with an RS-232 serial interface to connect the meter to your PC to set alarms, time intervals, or to store data to your PC.

What's included: DO probe with 44" cable, ten membranes, KCl solution, rubber holster, 9 V battery, instruction manual, and carrying case.

53026-00



Specifications & Ordering Information

Range

DO: 0 to 19.9 mg/L; 0 to 100% O_2 in air
 Temperature: 32 to 140°F (0 to 60°C)

Resolution: 0.1 mg/L; 0.1% O_2 ; 0.1/ 1°F / $^\circ\text{C}$

Accuracy: ± 0.4 mg/L; $\pm 0.7\%$ O_2 ; $\pm 1.5^\circ\text{F}$ ($\pm 0.8^\circ\text{C}$)

Probe type: polarographic

Compensation

Barometric pressure: manual, 0 to 3900 meters

Salinity: manual, 0 to 39% salt
 Temperature: automatic, 0 to 50°C

Catalog number	Description	Probe cable length	Output	Power	Price
K-53026-00	Economical dissolved oxygen meter kit	DO probe 4-ft cable	RS-232	9 V battery	

K-53026-02 Replacement DO electrode

K-10200-10 Data acquisition software with interface cable for use with meter 53026-00

K-53026-10 Replacement membranes. Pack of 10

K-53026-11 Replacement KCl solution. Pack of 2