

BIOPROFILE®
PHOx®

pH/PCO₂/PO₂ Analyzer for Cell Culture and Fermentation



**Measures pH, PCO₂, PO₂, Calculates TCO₂, HCO₃,
CO₂ Saturation, Air Saturation**

**Wide Measurement Ranges Designed for
Cell Culture and Fermentation**

Results in 45 Seconds

Onboard Automated Quality Control

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BioProfile pHOx® is the first analyzer designed to specifically provide rapid, accurate measurement of acid base and respiratory parameters in cell culture and fermentation samples. This compact, easy-to-use analyzer measures pH, PCO₂, and PO₂ in the most appropriate ranges for cell culture and fermentation processes, and provides calculated values for total CO₂, bicarbonate, CO₂ saturation, and air saturation (dissolved oxygen).



BioProfile pHOx features a snap-in, all-liquid calibration cartridge system that eliminates gas tanks, regulators, and humidifiers.

Calibrations are performed automatically every 2, 4, or 6 hours. Samples can be aspirated directly from syringes, pipettes, test tubes, flasks, or sample cups with a volume requirement of only 300 µL. Test results are available in just 45 seconds. An onboard, automated quality control system dramatically reduces the need for manual quality control.

Test results are displayed and printed, and can be stored for review. Results also can be transmitted to an external computer for further analysis.

BioProfile pHOx Specifications

Measured Parameters

Parameter	Methodology	Range
pH	ISE	5.00–8.00
PCO ₂	ISE	3.0–200 mm Hg
PO ₂	Amperometric	0–800 mm Hg

Calculated Parameters:..... Total CO₂, Bicarbonate, Air Saturation, CO₂ Saturation

Sample Containers:..... Syringe, pipette, test tube, or flask

Sample Size:.....300 µL

Sample Analysis Time:.....45 seconds

Calibration:..... User-selectable, fully-automatic two-point calibration every 2, 4 or 6 hours; user-selectable

Data Transmission Ports:..... RS-232 serial, ASTM protocol, USB (input only)

Electrical requirements:..... 100-120; 220-240 VAC, 50/60 Hz, 200W

System Printer:..... 52-column thermal—Built-in

Certifications:..... ISO 9001, CSA, CE

User Definable Features: Parameters to be reported, offset range, units of measure, auto or manual data presentation, date and time, out-of-range flagging levels, alert range flagging levels, quality control ranges, quality control reminder.

System Size and Weight:

Height:.....15.5 in (39.4 cm)

Width:.....12.0 in (30.5 cm)

Depth:.....15.0 in (38.1 cm)

Weight:.....18 lbs (8.2 kg) without reagent pack

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