

MOXUS Metabolic Cart

Using Legendary CD-3A & S-3A Gas Analyzers

The Standard for Respiratory Gas Measurement for over 45 years



Ideal For: Research, Teaching and Clinical Studies

Unsurpassed Accuracy / Fastest Response Time

Unwavering Stability means Data you can depend on

Human Performance Testing:

VO₂ Max / Sub-Max Testing for Elite Athletes,

Obese Adults, Small Children, Geriatric, & Rehab
Every Breath Recorded Accurately & Unerringly

Resting Energy Testing: Canopy Systems

Flow variable for every Test Subject: Small Children
to Super Obese Adults ensuring correct REE / RMR

Easy to use Software:

Quickly guides you through set up and calibration

Cardiac Output Option:

CO₂ Re-breathing using the Fick method

Animal Respirometry Option:

Single or Multi-Channel for Mice, Rats & other lab animals



Features Exclusive to AEI MOXUS

Unique Cardio Output Option:

Carbon Dioxide Re-breathing using the Fick Method

4.2 Liter Active Mixing Chamber:

Insuring precise breath measurements

New T/P/H Monitor

Temperature, Humidity & Pressure Monitoring

Dual Stage Nafion Tube drying system:

Eliminating water vapor errors

Inhalation Side Flow Sensor:

Not contaminated by testing

Easy connect to Douglas Bag Systems

For validation and analysis

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Standard Features:

- S-3A/I Oxygen Analyzer
- CD-3A Carbon Dioxide Analyzer
- Breath Volume Measurement System
- Sample Pump and Flow Controller
- Windows Software and Interface Package
- 2 Channels for external analog instruments
- RS-232 Connection for Treadmills and Ergometers
- Heart Rate Interface with Polar monitor
- 4.2 Liter Active Mixing Chamber
- Efficient Nafion-based desiccant box with molecular sieve & silica gel indicator
- Two-Way Breathing Valve and Tubing Connections with Headgear and Mouthpieces
- Heavy-Duty Cart with articulating support arm
- Calibration Gases: Two tanks primary laboratory standard
- New Continues Temperature, Humidity & Pressure Monitoring
- Easily connect to Douglas Bag Systems for validation and analysis

Optional Features:

- Laptop Computer and Color Ink Jet Printer
- System setup, calibration, and training at your facility
- Canopy System for Resting Energy Measurement
- Animal Respirometry System
- Desktop Computer; with
17 Inch Flat panel Monitor
- MOXUS Software and Interface Box available for users with their own analyzers
- System minus computer and / or cart – lower cost and lower shipping charges
- Alcohol Burn Validation Kit Available
- Cardiac Output (CO₂ Re-breathe) Available
- Extended Warranties Available

Specifications for S-3A/I Oxygen Analyzer:

Speed of Response: To 90% of final value in less than 100 milliseconds for a step change in oxygen concentration

Accuracy: $\pm 0.02\%$ O₂ on the percent oxygen scale, within working range

Sensitivity: $\pm 0.001\%$ Oxygen

Resolution: Digital Display: ± 0.01 on Oxygen

Working Range: Calibration gas value $\pm 5\%$ of full scale value

Stability: $\pm 0.01\%$ oxygen in 24 hours with constant temperature and pressure

Analog Outputs: Buffered 0-100% O₂ - (0 to 10 Volts)

Ambient Temperature: 0-40°C

Sample Flow Rate: 10-300 ml/min, 250 ml/min recommended for most applications

Display: Continuous display of O₂ concentration

Calibration Gases: Two Tanks Primary Labortor Standard

Specifications for CD-3A Carbon Dioxide Analyzer:

Speed of Response: To 90% of final value in less than 100 milliseconds for a step change in carbon dioxide concentration

Accuracy: $\pm 0.02\%$ carbon dioxide or 1% of the reading, whichever is larger

Sensitivity: $\pm 0.01\%$ carbon dioxide

Resolution: Digital Display: $\pm 0.01\%$ carbon dioxide

Working Range: 0-15% carbon dioxide

Stability: $\pm 0.02\%$ carbon dioxide at 5% in 8 hours maximum drift

Analog Output: Buffered 0 to 15% CO₂ - (0 to 7.5 Volts)

Ambient Temperature: 0-40°C

Sample Flow Rate: 10-1000 ml/min

Display: Continuous display of CO₂ concentration, or End Tidal for each breath

