

Ultima Series™

Cardiorespiratory Diagnostic Systems



MODEL:

Ultima PFX™

Pulmonary Function / Stress Testing System

ONE PLATFORM, **ONE** FLOW SENSOR,
TWO DIAGNOSTIC TESTING SUITES

The Ultima Series™ cardiorespiratory diagnostic systems offer maximum flexibility to configure both pulmonary function testing (PFT) and gas exchange testing. The Ultima PFX® pulmonary function/stress testing system offers complete pulmonary function and metabolic assessment options for pediatric through adult patients.

- Proprietary breath-by-breath metabolic analysis testing during both rest and exercise.
- Compact and versatile pulmonary function platform.



UNIQUE SYSTEM DESIGN

The Ultima system's all-in-one design allows for maximum testing comfort for the technician and the patient while utilizing the latest technology for unparalleled performance and reliability.

- Fully adjustable desktop allows for expansive personal workspace whether the technician is sitting or standing.
- Room to room portability with gas tanks.
- BreezeSuite Scheduler allows for automatic warm-up so the system is always ready for testing.



ONE FLOW SENSOR FOR SIMPLICITY AND ACCURACY

Our proprietary preVent® flow sensor saves time between patients and provides maximum infection control while meeting or exceeding ATS/ERS standards and specifications.

- Eliminates warm-up or flow recalibration between patients.
- Simple snap-in setup contains no moving parts or electronics for cost-effective testing.
- Options to use with a filter (PFT), sterilize or discard.



TEST SPECIFIC QUICK CALIBRATION

Test specific quick calibration sampling via the calibration tower allows for simplified gas calibration based on the test being performed (pulmonary function or metabolic) without compromising accuracy of test results and lab efficiency.



The Ultima Series™ cardiorespiratory diagnostic systems offer maximum flexibility to configure both pulmonary function testing (PFT) and gas exchange systems. Simply select the product that best meets your needs, or talk to your product sales representative for more info.

TESTING CAPABILITIES	PF	PFX	CPX	CARDIO ₂	CCM
PULMONARY FUNCTION TESTS:					
◦ Spirometry (FVC, SVC, MVV)	✓	✓	✓	✓	✓
◦ Respiratory mechanics (MIP/MEP)	✓	✓	-	○	-
◦ Diffusing capacity	✓	✓	-	○	-
◦ Nitrogen washout	✓	✓	-	○	-
◦ Single breath N ₂	✓	✓	-	○	-
◦ Arterial blood gases (ABG manual entry)	✓	✓	✓	✓	✓
ECG/HEART RATE CONFIGURATIONS:					
◦ Integrated 12-lead ECG	-	○	-	✓	-
GAS EXCHANGE TESTS:					
◦ Direct fick cardiac output	-	✓	✓	✓	✓
◦ Indirect fick cardiac output (NICO)	-	○	○	○	○
◦ Exercise capacity (O ₂ and CO ₂)	-	✓	✓	✓	○
◦ Nutrition assessment: REE/RMR (O ₂ and CO ₂)	-	○	○	○	✓
			✓ standard	○ optional	

SPECIFICATIONS

ULTIMA SYSTEM

- Workspace: W x D: 24 x 21 in (70 x 53.3 cm)
- Base: W x D: 25 x 31 (63.5 x 78.7 cm)
- Height: 49 in (124.5 cm)

PATIENT INTERFACE ADJUSTMENT (PF ARM)

- Horizontal extension: 26" in (58.5 cm)
- Radius: 110°

PREVENT® FLOW SENSOR

- Bidirectional Pitot tube flow sensor
- Range: ±18 L/s
- Accuracy: ±3% or 50 mL, whichever is greater
- Resistance: <1.5 cm H₂O @ 14 L/s
- Dead space: 39 mL

POWER REQUIREMENTS

- 100-240 V/50-60 Hz

O₂ ANALYSIS

- Type: Galvanic
- Range: 0-100%
- Response: (10-90%) <180 ms
- Accuracy: ±1%

CO₂ ANALYSIS

- Type: Non-dispersive infrared (NDIR)
- Range: 0-15%
- Response: (10-90%) <180 ms
- Accuracy: ±0.1% (0-10% CO₂)

DIFFUSION ANALYSIS: RTD™ REAL-TIME DIFFUSION

- Analysis time: <1 sec
- Range: CO, 0-0.35%; CH₄, 0-0.35%
- Accuracy: CO, ±0.003%; CH₄, ±0.003%
- Linearity: <1% full scale
- Resolution: CO, 0.0005%; CH₄, 0.0005%

GAS SAMPLE

- Proprietary gas-drying sample circuit

GAS REQUIREMENTS*

ULTIMA PFX

- Calibration gas: 5% CO₂, 12% O₂, bal N₂ (5-7 psi)
- DLco mix (135 psi) 0.3% CO, 0.3% CH₄, 21% O₂, bal N₂
- 99.95% O₂ (135 psi)

*Can accommodate up to three 25" x 4.5" cylinders



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