



- RS-232 Port
 Wireless
 *option
 USB Port
 TTL

Technical Specifications

Tests	w/Unit	w/Software
Cardio Pulmonary Exercise Testing		
Cardiorespiratory Fitness (VO_{2max} , Anaerobic Threshold)	•	•
Automatic Control of Ergometers (Bikes or Treadmills)	•	•
HR Interface w/External ECG (TTL)	○	
Indirect Cardiac Output (Wassermann)		•
VO_{2} /HR Training Zones (based on AT)	•	•
Exercise Intensity for Cardiac Rehabilitation		•
Spirometry		
Forced and Slow Vital Capacity (FVC, SVC)	•	•
Maximal Voluntary Ventilation (MVV)	•	•
Bronchial Dilator Test (Pre-Post)	•	•
Cardiovascular Risk Analysis		
Framingham Index	•	•
Duke Score	•	•
Bode Index	•	•
European Cardio Score	•	•
Nutritional Assessment		
Resting Energy Expenditure (REE, RMR)	•	
Weight Management Program (Energy Balance)	•	•
Physical Activity Monitoring (integration with accelerometer)		○
Diet Software w/Weekly Meal Planner		•
Other Measurements		
Body Composition (skinfold)	•	
Standard Measurements (blood pressure, WHR, resting heart rate, BMI)	•	
Integrated Pulse Oximeter (SpO_{2}) - resting only	○	

Oxygen Consumption Measurements

Sensor Type	GFC (Galvanic Fuel Cell)
O_{2} Measurement Range	0-25%
Sampling Type	Dynamic Mixing Chamber (international patent)
Sampling Rate	30 sec / 60 sec
Calibration	Automatic on room air (less than 20 seconds)
Warm-Up Time	10 seconds
Accuracy	$\pm 2\%$ (REE) $\pm 0.02\%$ (O_{2})
O_{2} Sensor Lifespan	12-18 months

Flowmeter	\varnothing 18mm	\varnothing 28mm
Type	Bidirectional Digital Turbine	Bidirectional Digital Turbine
Ventilation Range	0-50 l/min	0-300 l/min
Flow Resistance	<0.7 cmH ₂ O/l/s @ 3l/s	<0.6 cmH ₂ O/l/s @ 14l/s
Accuracy Flow/Volume	$\pm 2\%$	$\pm 2\%$

Hardware

Dimensions & Weight	9.4 x 7.8 x 3.1 in (24 x 20 x 8 cm) / 3.3lb (1.5 kg)
Display (pixels)	Color LCD 320 x 240
Printer	4.7 in (12 cm) High Speed Thermal Printer

Standard Packaging Includes

Fitmate MED unit, RMR - flowmeter, RMR masks (10 ea.), VO_{2max} - flowmeter, silicone face mask, (size med.), head cap for silicone mask, AC/DC adapter, USB cable, Fitmate PC software (CD-Rom), mouthpieces (10 ea.), pediatric mouthpiece adapter, body meter, oxygen sensor, HR belt and probe

Available Languages

Firmware	Italian, English, Spanish, German, French, Greek, Finnish, Dutch, Portuguese, Japanese, Chinese, Turkish, Russian, Polish, Slovenian
Software	Italian, English, Spanish, German, French, Greek, Dutch, Portuguese, Chinese, Slovenian

Safety & Quality Standards

Equipment complies with MDD (93/42 EEC); EN 60601-1 (safety)/ EN 60601-1-2 (EMC) FDA 510(k) cleared. COSMED is an organization whose quality management system is certified by CERMET according to UNI EN ISO 9001:2008 and UNI EN ISO 13485:2004.