

Quark PFT

Pulmonary Function Testing



Technical Specifications

Product	Description	REF		
Quark PFT	Pulmonary Function Testing Laboratory	C09072-02-99		
Standard packaging	Unit, Smart Valve X9, Smart Valve Turbine, 3L Calibration Syringe, OMNIA PC software, adapters, cables, probes fuses and user manual			
Standard Measurements				
Spirometry	Forced Vital Capacity (FVC) Pre/Post, Slow Vital Capacity (SVC) Pre/Post, Maximum Voluntary Ventilation (MVV), Bronchoprovocation test			
Optional Measurements				
Integrated Dosimeter	Broncho challenge tests with integrated nebulizer	C03250-01-11		
Forced Oscillations	Respiratory mechanics (Impedance Zrs, Resistance R & Reactance X)	C05090-01-11		
Cardio Pulmonary Exercise Test (CPET)	Pulmonary Gas Exchange ($\dot{V}O_2$, $\dot{V}CO_2$), $\dot{V}O_{2,max}$, Sub-max $\dot{V}O_2$, Thresholds (AT, RC), EFVL, Heart Rate	C03254-02-11		
Lung Diffusing Capacity	Lung diffusing capacity (DLCO single-breath, DLCO intra-breath and DLCO membrane diffusion)	C03240-01-11		
Lung Volumes N_2 WO	FRC by Multi-Breath Nitrogen Wash-out, Closing Volume by Single-Breath 100% O_2	C03255-01-11		
Body Plethysmography	Lung Volumes (TGV, TLC, FRC), Airway Resistance (RAW, sRAW, GAW, sGAW)	C03251-01-11		
Respiratory Mechanics	Maximum Inspiratory/Expiratory Pressure (MIP/MEP), P0.1	C03257-01-11		
Airway Resistance (Rocc)	Occlusion Resistance measurement (Pre and Post BD)	C02700-01-11		
Indirect Calorimetry	Resting Energy Expenditure (REE, RMR) with mouthpiece or face mask, Respiratory Quotient (RQ), Substrates Analysis (%FAT, %PRO, %CHO)	C03254-02-11		
Flowmeter	X9 PNT	Turbine 2000		
Type	Pneumotach	Bidirectional digital turbine		
Flow range	0-14 L/s	0.08-20 L/s		
Flow accuracy	± 2% or 20 mL/s	± 2% or 20 mL/s		
Ventilation range	--	0.08-300 L/min		
Ventilation accuracy	--	±2% or 100 mL/min		
Resistance	<1.0 cmH ₂ O/L/s @14L/s	<0.6 cmH ₂ O/L/s @ 14L/s		
Gas Analyzers	O₂	CO₂	CO	CH₄
Tests	Metabolic, N ₂ WO	Metabolic, N ₂ WO	DLCO	DLCO
Type	Paramagnetic	NDIR	NDIR	NDIR
Range	0-100%	0-10%	0-0.35%	0-0.35%
Accuracy	± 0.1 %	± 0.02 % Vol.	± 0.003 % Vol.	± 0.003 % Vol.
Hardware				
Dimensions & Weight	16x33x41 cm / 11 kg (depending on configuration)			
Ports	USB A-B, RS-232, HR-TTL, SpO ₂			
Electrical requirements	100-240V, 50/60 Hz			
Environmental conditions	Temperature 0-50 °C; Barometric pressure 400-800 mmHg; Humidity 0-100%			
Software				
Available languages	OMNIA English, Chinese (Traditional & Simplified), Czech, Dutch, French, German, Greek, Hebrew (interpretation only), Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Spanish, Turkish.			
PC Requirements	Windows 7 SP1 (32/64 bit) or Windows 8.x (32/64 bit) or Windows 10 (32/64bit), CPU ≥ 2GHz, RAM ≥ 4GB, HD ≥ 10GB for full installation, Monitor resolution ≥ 1366x768 pixel, ≥2 USB port			

CE
0476



COSMED
The Metabolic Company

Options	Description	REF
Pulse Oximetry	Oximeter (several probes available)	C02600-01-05
Heart Rate	HR Receiver	C03280-01-05
	HR Transmitter	A-661-200-094
Mixing Chamber	Physical Mixing Chamber	C03261-02-11
Quark C12x	12 lead stress test ECG with USB interface	C09080-01-99
Quark T12x	12 lead stress test ECG with wireless interface	C09081-01-99
Tango	Automated non-invasive blood pressure monitor	A-661-200-035
High/Low FiO ₂ Kit	Kit for CPET test with enriched gas mixture	C03471-01-11
Physioflow Q-Link	Non-invasive cardiac output monitor with USB interface	A-661-200-069
Physioflow Enduro	Non-invasive cardiac output monitor with wireless interface	A-661-200-067
Accessories	Description	REF
Medical Grade Cart	1 cylinder holder (120V or 240V)	C03550-0X-04
	3 cylinder holder with drawer (120V or 240V)	C02900-0X-04
Articulated arm	Articulated arm for Medical Cart	C05160-01-11
Face Masks	Reusable oro-nasal mask (Petite, XS, S, M, L)	C0370X-01-10
Headcap	Reusable headcap (Petite/XS, S/M, L)	A-800-900-02X
Filter adapter	Reusable for tests with antibacterial/antiviral filters	C05085-01-20
Calibration Gas for metabolic tests	Gas cylinder 16% O ₂ , 5% CO ₂ , N ₂ bal	A-860-000-004
Pressure regulator	Pressure regulator for calibration gas cylinder for metabolic tests	A-870-150-005
Gas for DLCO tests	Gas cylinder 0.3% CO, 0.3% CH ₄ , 21% O ₂ , N ₂ bal	A-860-000-005
Pressure regulator	Pressure regulator for DLCO gas cylinder	A-870-150-011
Gas for N ₂ WO tests	Gas cylinder 99.99% O ₂	A-860-000-007
Pressure regulator	Pressure regulator for N ₂ WO gas cylinder	A-870-150-006
Consumables	Description	REF
Sampling Line	Reusable gas sampling line	C02210-02-08
Antibacterial/Antiviral filters	Single use with round mouthpiece (50 pcs.)	A-182-300-004
Rubber mouthpiece	Single use (200 pcs.)	C00568-01-98
Mouthpiece w/saliva trap	Reusable	A-800-500-001
Nose clip	Single use (25 pcs.)	A-662-100-001
Safety & Quality Standards		
MDD (93/42 EEC); FDA 510(k); EN 60601-1 (safety) / EN 60601-1-2 (EMC)		



COSMED Srl

Via dei Piani di Monte Savello 37
Albano Laziale - Rome 00041
Italy
+39 (06) 931-5492 Phone
+39 (06) 931-4580 Fax

cosmed.com

Distributed by

