



Technical Specifications

Product	Description	REF
K5	Wearable Metabolic System	C09090-01-99
Standard packaging	K5 unit, flowmeters (2pcs.), sampling line, masks (XS, S, M), headcaps (Petite/XS, S/M), harness, ANT® HR module, rechargeable batteries (2 pcs.), battery charger, AC/DC adapter, scrubber, earphones, adapters, SD card, carrying case, USB cable, OMNIA® Software, user manual	
Measurements		
Gas Exchange (standard)	CPET Breath by Breath	
Gas Exchange (optional)	CPET Mixing Chamber	
Hardware		
IP (Ingress Protection)	IP54 - dust and water splash protected	
Dimensions & Weight	174x111x64 mm / 750 g (900 g including battery)	
Display (LCD)	3.5", transfective, 320x240 pixel, 65K colors, LED-backlit, TFT	
Display (Touch-screen)	Resistive technology - allows gloves and wet fingers	
Keyboard	4 keys for main functions	
Harness	Ergonomic, adjustable to patient size	
Mount	Standard 1/4" 20 UNC screw thread	
Wireless Connectivity		
Telemetry (standard)	Bluetooth 2.1 + EDR Class II (range: 10 m line-of-sight)	
Telemetry (optional)	Long range Bluetooth 2.1 + EDR Class I (range: up to 1000 m line-of-sight)	
Navigation/Motion Sensors		
GPS	10Hz GPS/QZSS receiver - position accuracy 2.5 m, speed accuracy 0.1 m/s	
Altimeter	Barometric + GPS offset (altitude and grade)	
Gas Analyzers	Oxygen (O ₂)	Carbon Dioxide (CO ₂)
Type	GFC	NDIR
Range	0-25%, optional 0-100%	0-10%
Response time t90	120 ms	100 ms
Accuracy	±0.02% Vol.	±0.02% Vol.
Flowmeter	Turbine 2000	
Type	Bidirectional digital turbine	
Ventilation range	0-300 L/min	
Accuracy	±2% or 100 mL/min	
Resolution	12 mL	
Resistance	<0.6 cmH ₂ O/L/s @14L/s	
Power		
Power supply	Medical grade 100-240 AC/DC adapter for direct power supply and battery charging	
Battery	Rechargeable Li-Ion 7.2V, 3100 mAh, "Smart battery" w/ LCD charge status - 4 hours autonomy, user replaceable	
Battery Charger	100-240 VAC	
Environment		
Pressure sensors	integrated barometer (-600 to +5500m), continuous monitoring of analysers pressure	
Temperature & Humidity sensors	4 integrated sensors (internal and external)	
CPU & data storage		
CPU	456 MHz w/ 128MB RAM	
Storage	512 MB flash (data storage and OS), up to 2.048.000 breaths	
Auxiliary memory	SD-HC card 32GB/FAT32 - internal user accessible slot (for data transfer/FW upgrade)	
Ports		
USB	USB-device (2.5 KV galvanic-isolated)	
AUX	Heart rate - Polar® receiver, ECG TTL	

OS & Software		
PC Software	OMNIA - multi-language, Windows 10 compatible, touch-screen interface	
Device	Linux OS	
Options	Description	REF
IntelliMET™ Module	Testing in Mixing Chamber modality	C04271-01-11
Long range Module	Telemetry Bluetooth® range up to 1000 m	C04270-01-11
ANT®+ Module	Auxiliary device integration via ANT®+ protocol (8 channels)	C04272-01-11
Pulse Oximetry	Nonin® 3150 wrist-based Bluetooth® pulse oximeter	A-661-600-018
Acquatrainer	Snorkel to test swimmers	C04470-01-11 (unit) C04480-02-11 (K5 kit)
Accessories	Description	REF
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	Gas cylinder 16% O ₂ , 5% CO ₂ , N ₂ bal	A-860-000-004
Pressure regulator	Pressure regulator for calibration gas cylinder	A-870-150-005
Battery charger for car	12V DC vehicle charger adapter	A-497-500-004
Consumables	Description	REF
O2 sensor	User replacable O2 sensor	A-558-250-005
Sampling Line	Reusable gas sampling line	C04254-01-08
Scrubber	Reusable CO2 scrubber for indoor tests	C04408-01-07
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); EN 60601-1 (safety) / EN 60601-1-2 (EMC)		



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