

Alpha Spirometer

The Alpha is an all-in-one V-Core™ powered diagnostic spirometer providing accurate and versatile testing, with integrated printer and EMR connectivity. Vitalograph Connect provides versatile connectivity to your electronic medical records, taking spirometry testing to the next level.



Technical Specifications

Product	Vitalograph Model 6000 Alpha
Model	6000
Flow detection principle	Fleisch type pneumotachograph
Essential performance test limits	PEF Accuracy $\pm 10\%$ or $\pm 10\text{L/min}$ of the reading (ISO 23747:2015)
Back pressure	Less than 0.15kPa/L/second @ 14L/s , complies with ATS/ERS 2019
Volume detection	Flow integration sampling @ 100Hz
Test parameters measured	VC Test: VC, EVC, IVC, TV, IRV, ERV, IC FVC Test: VC, FVC, FIVC, FIVC/FVC, $\text{FEV}_{0.5}$, $\text{FEV}_{0.5}/\text{FVC}$, $\text{FEV}_{0.75}$, $\text{FEV}_{0.75}/\text{FVC}$, FEV_1 , FEV_{1R} , FEV_1/VC , FEV_1/EVC , FEV_1/IVC , FEV_1/FVC , FEV_1/FIVC , $\text{FEV}_1/\text{FEV}_6$, FEV_1/PEF , FEV_3 , FEV_3/VC , FEV_3/FVC , FEV_6 , PEF L/s , PEF L/min , FEF_{25} , FEF_{50} , FEF_{75} , $\text{FEF}_{0.2-1.2}$, FEF_{25-75} , $\text{FEF}_{25-75}/\text{FVC}$, FEF_{75-85} , FIV_1 , FIV_1/FVC , FIV_1/FIVC , PIF L/s , PIF L/min , FIF_{25} , FIF_{50} , FIF_{75} , $\text{FIF}_{50}-\text{FEF}_{50}$, $\text{FEF}_{50}-\text{FIF}_{50}$, MVVind , FMFT , FET , FRC , TV , RV , TLC , IRV , ERV , IC , Rind , ELA , tPEF , Text , EV , EV/FVC ,
Volume accuracy	$\pm 2.5\%$ ATS/ERS 2019, ISO 26782:2009
Voltage/frequency	Power supply: Input $100-240\text{V}$, $50/60\text{Hz}$ Output 12V , 1.5A Battery: 7.2V , 2.2Ahr
Accuracy when operated in temperature range conditions	Flow $\pm 10\%$, Max. flow rate $\pm 16\text{ L/s}$, Min. flow rate $\pm 0.02\text{ L/s}$
Operating temperature range	ISO 26782 limits: $17-37^\circ\text{C}$ Design limits: $10-40^\circ\text{C}$
Operating humidity range	$30\%-75\%$
Ambient pressure range	$850\text{hPa}-1060\text{hPa}$
Performance standards	ATS/ERS 2019, ISO 23747:2015 & ISO 26782:2009
Safety standards	EN 60601-1:2006 +A1:2013 +A2:2021
QA/GMP standards	EN ISO 13485, FDA 21 CFR 820, SOR/98-282 & Japan's PMD Act

Dimensions	204mm (length) x 253mm (width)
Weight	1.5kg
Communications	USB (Device Studio & Spirotrac 6), Ethernet/WiFi (Connect)
EMR Connectivity	HL7, GDT via Vitalograph Connect
Device Classification	Ila per Annex IX of the MDD