

# lung monitor USB

Handheld device for remote lung function monitoring. Ideal for primary, secondary care, or occupational health. Produce PDF reports via Vitalograph Reports Software (included).

For chronic respiratory conditions such as COPD, cystic fibrosis, & post-transplant patients.

## Technical Specifications

<b>Product:</b>	Respiratory Monitor lung monitor USB
<b>Model:</b>	4000
<b>Dimensions:</b>	109mm (length) x 63mm (width) x 42mm (height)
<b>Weight:</b>	63g (not including batteries)
<b>Flow Detection Principle:</b>	Stator/rotor
<b>Accuracy:</b>	Better than $\pm 3\%$ (FEV1)
<b>Back pressure:</b>	Less than 0.15kPa/L/second at 14L/s
<b>Measurement Range:</b>	FEV1, FEV6: 0 – 9.99L BTPS FEF25/75: 25 – 840 L/min BTPS
<b>Maximum test duration:</b>	6 seconds
<b>Power Supply:</b>	3V (2 x 1.5V AAA batteries)
<b>Expected Battery Life:</b>	3 months of use at 3 tests per day (Batteries near the end of their shelf life will have reduced capacity.)
<b>Expected Product Life:</b>	6 years.
<b>Operating temperature range:</b>	17–37°C
<b>Operating humidity range:</b>	30%–75%
<b>Ambient pressure range:</b>	850hPa–1060hPa
<b>Performance standards:</b>	ATS/ERS 2019, ISO 23747:2015, ISO 26782:2009
<b>Safety standards:</b>	EN 60601-1, EN 60601-1-11
<b>EMC Standards:</b>	EN 60601-1-2
<b>QA/GMP standards:</b>	EN ISO 13485, FDA 21 CFR 820, CMDR SOR/98-282, JPAL, MDSAP.
<b>Communications:</b>	USB2.0/3.0



# Comparison Table

	micro BT Smart	lung monitor BT Smart	lung monitor USB	lung monitor	asma-1
<b>Tests</b>					
VC	✓	✗	✗	✗	✗
FVC	✓	FEV*	✗	✗	✗
FEV1	✓	✓	✓	✓	✓
FEV6	✓	✓	✓	✓	✗
FEV1/FEV6	✓	✓	✓	✓	✗
FEV1/FVC	✓	FEV1/FEV*	✗	✗	✗
FEV 25-75	✓	✓	✓	✗	✗
FEV 0.5	✓	✗	✗	✗	✗
FEV 0.75	✓	✓	✗	✗	✗
PEF	✓	✓	✗	✗	✓
Post BD	✓	✗	✗	✗	✗
Total Parameters Available	8 (of 48)	8	4	3	2
<b>Quality Measures</b>					
Predicted Values	✓	✗	✗	✗	✗
Personal Best Zones	✗	✓	✓	✓	✓
Quality Prompts	✓	✓	✓	✓	✓
GLI	✓	✗	✗	✗	✗
<b>Data Exchange</b>					
Software Developers Kit (SDK) Connectivity	✓	✓	✓	✗	✗
<b>General Features</b>					
Touch Screen	✓	✗	✗	✗	✗
Colour Display	✓	✗	✗	✗	✗
Internal Battery	✓	✓	✓	✓	✓
Memory	750	600	200	200	600
<b>SDK Data Exchange Compatibility</b>					
Windows	✓	✓	✓	✗	✗
Android	✓	✓	✗	✗	✗
iOS	✓	✓	✗	✗	✗

\*FEV – Forced Expiratory Volume (up to 10 seconds). May be used as a surrogate for FVC.

**Vitalograph**® and Vitalograph®, micro™, asma-1™ are trademarks or registered trademarks of Vitalograph Ltd. Android is a trademark of Google LLC. Windows is a trademark of Microsoft Inc. All other trademarks and trade names are those of their respective owners.