smart*pft*spiro

Simplicity, precision and design as a symbiosis

1 Small USB Spirometry device in a robust aluminum box .

2 The aluminum housing covers a combined temperature and humidity sensor as well as an ambient pressure sensor for automatic BTPS correction.

3 All connectors are color coded to avoid confusion.

4 The flow sensor dead space is < 30 ml, it is physically linear and requires no software linearity correction. Flow sensor type is a variable orifice with low resistance at all flow rates. It is not influenced by breathing humidity.

5 A 14 pin connector at the bottom side allows firmware upgrading as well as option upgrading for Resistance- and Respiratory drive tests.

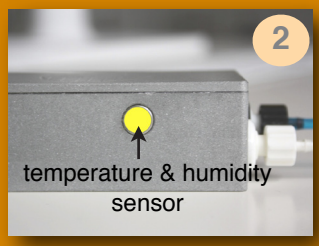
6 3D stand, shutter and adapter for filters are available as option.

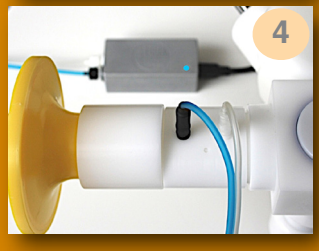
7 USB 2.0 interface for a simple and safe PC connection.

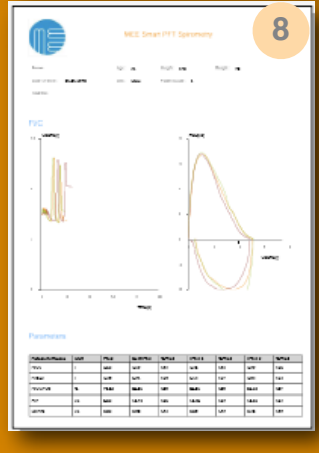
8 A comfortable report generator allows modification of existing print templates and to create new print templates.

Safe auto zeroing means, the patient can breath during the zeroing procedure. Ambient condition sensors make the manual input of these data unnecessary. We want to make the lung function testing as safe and simple as possible.
The test software is programmed using C# for .NET, a SQL server based data base guarantees a save data management in large networks and high data volume.

!! includes ambient conditions sensors and safe auto zeroing .







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technical data : flow sensor

type	differ. pressure variable orifice	
housing material	POM	
screen material	Hostaphab RN50	
weight	34	g
dimenions oval (d1/ d2 / l)	42 / 29 / 88	mm
effective dead space	< 30	ml
back pressure @ 0,1 l/s	0,072	kPa/l*s
back pressure @ 15 l/s	0,068	kPa/l*s
flow range	0,01 - 16	l/s
flow resolution	0,007	l/s
physical linearity error	±3	%
volume resolution	0,01	ml
effective dead space with filter & mouthpiece **	< 80	ml
back pressure flow sensor & filter @ 1 l/s **	< 0,11	kPa/l*s

technical data : elecrtonic box

material	aluminum	
weight	145	g
dimenions (l / w / h)	81 / 39 / 30	mm
flow sensor connectors	Luer	
PC connector	mini USB	
PC interface	USB 2.0	
power supply voltage (USB)	5	V
electrical power max.	2,5	VA
flow pressure transducer	piezo resistive	
flow pressure range	12,5	mbar
flow pressure linearity error	±0,05	% fs
flow pressure ADU	12	bit
ambient pressure range	800 - 1100	mbar
ambient pressure error	±0,05	% fs
temperature sensor range	-40 to 125	°C
temperature sensor error	± 2	K
humidity sensor	0-100	%rel
humidity sensor error	1,8	%rel
working temperature	10 to 40	°C
working humidity not condensing	0 to 95	%rel
storage temperature	-20 to +50	°C
storage humidity not condensing	0 to 95	%rel
sampling rate	125	Hz
software requirements	WINXP, WIN7	*

technical data : options available

resistance test :	ROCC
respiratory drive :	P0,1 / MEP / MIP
rhinomanometry:	flow@150 Pa / res@ 150 Pa
compliance:	C static / dynamic
challenge testing :	software
incentive graphs:	software
HL7 :	interface
ASCII:	interface
statistics:	software
data backup system	hard & software

table system also as trolley

Manufacturer:

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** in combination with a Lemon Medical filter type pulmosave

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