



CardioSoft Spirometry

A broader perspective on cardiac patient management

CardioSoft™ Spirometry and the Spiro-SP TrueFlow™ Sensor meets the key requirements for successful Spirometry testing: accuracy, ease, and comfort.



Calibration-free & Quick Spirometry

TrueFlow technology, high-quality & optimized components and Swiss precision-manufacturing deliver quick & accurate results without calibration.

Quality Feedback & Interpretation

Immediate test quality feedback in accordance with ATS/ERS criteria

Integrated reporting via CardioSoft System

The physician sees a summary table of the trials, comparison with predicted sets, visual graphs and loops. Reports can be easily exported as a PDF to EMRs, PACS and MUSE.™

CardioSoft can be expanded to perform Resting, Exercise ECG & Ambulatory blood pressure analysis for an even broader perspective on your patient.

REDUCED LUNG FUNCTION

is related to **INCREASED RISK** of **CVD¹**



Spirometry Specifications

Test modes	FVC, FVL, SVC, MVV, Pre/Post
Measuring accuracy	
Volume	±2% or 0.050 L
Flow	±2% or 0.020 L/s (except PEF)
PEF	±5% or 0.200 L/s
MVV	±5% or 5 L/min.
Measuring range	
Resolution, volume	1 mL
Resolution, flow	4 mL/s
Range, volume	±12 L
Range, flow	±16 l/s
Resistance	0.3 cm H ₂ O/L/s at 16 L/s
Respiratory tube	Disposable spirette
Measurement principle	Ultrasound transit-time measurement
Dimensions	160 × 120 × 70 mm (sensor only)
Weight	140 grams (incl. cable)

Parameters	<p>FVC: FVC, FEV1, FEV1/FVC, FEF25-75%, PEF, FET, BEV, BTPS ex, BTPS in, EOTV, FEF10%, FEF25%, FEF2575/6s, FEF40%, FEF50%, FEF60%, FEF75%, FEF75-85%, FEF80%, FET25-75%, FEV.25, FEV.5, FEV.75, FEV.75/FVC, FEV1/FEV6, FEV3, FEV3/FVC, FEV6, FVC6, MEF20, MEF25 MEF40, MEF50, MEF60, MEF75, MEF90, MMEF, PEF, PEFT, t0</p> <p>FVL: FVC, FEV1, FEV1/FVC, FEF25-75%, PEF, FET, FIVC, PIF, BEV, BTPS ex, BTPS in, EOTV, FEF10%, FEF25%, FEF2575/6s, FEF40%, FEF50%, FEF60%, FEF75%, FEF75-85%, FEF80%, FET25-75%, FEV.25, FEV.5, FEV.75, FEV.75/FVC, FEV1/FEV6, FEV3, FEV3/FVC, FEV6, FIF25%, FIF25-75%, FIF50%, FIF75%, FIV.25, FIV.5, FIV1, MEF20, MEF25, MEF40, MEF50, MEF60, MEF75, MEF90, MIF25, MIF50, MIF75, MMEF, MMIF, PEF, PEFT, PIF, t0</p> <p>SVC: SVC, VCex, VCin, IRV, IC, VT, RF, BTPS ex, BTPS in, ERV</p> <p>MVV: MVV, MVV6, MVV time, VT, f, BTPS ex, BTPS in</p>
Adult predicted	Hankinson (NHANES III), 1999; Knudson, 1976; Knudson, 1983; Crapo, 1981; Morris, 1971; ERS (ECCS / EGKS), 1993; Forche (Austria), 1988; Roca (Spain, Separ), 1982; Berglund, Birath (Sweden), 1963; Gulsvik (Norway), 1985; Hedenström (Sweden), 1985/1986; Gore, Crockett, 1995; Finnish, 1982/1998; JRS, 2001; Pereira, 1992; Brändli (Sapaldia, Swiss), 1996; Pereira, 2006/2008; Forche (Austria), 1994; Gutierrez (Canada), 2004; Mengesha (Ethiopia), 1985; Chile, 2010/1997; Langhammer (Norway), 2001; Stanojevic (GLI), 2009; Pérez-Padilla (PLATINO), 2006; Pérez Padilla (Mexico), 2001; Klement (Russia); Falaschetti, 2004; Quanjer (GLI), 2012; Garcia-Rio (Separ), 2013
Pediatric predicted	Dockery (Harvard), 1993; Hsu, 1979; Zapletal, 1977; Hibbert, 1989; Polgar, 1971; Eigen, 2001; Rosenthal, 1993; Vilozni, 2005; Nystad, 2002; Pérez Padilla (Mexico), 2003; Zapletal, 2003
Hardware interface	USB 2.0 (compatible with USB 1.1, 2.0, 3.0 and 3.1 ports)
Operating voltage	5V DC
Mode of Operation	Continuous operation
IP Code	IP20
Classification	The Spiro-SP TrueFlow Sensor is a type BF applied part with double insulation.
Operating conditions	
Temperature	0 to 40°C
Relative humidity	5% to 95%
Ambient pressure	500 to 1060 hPa
Meets standards	2005 ATS/ERS Standardization of Spirometry, NIOSH/ OSHA, EN ISO 26782 , EN ISO 23747

Computer Specifications

Microprocessor	Minimum Pentium® 4 class processor with 2 GHz
RAM	Minimum 2 GB
Hard drive	Minimum 80 GB and 4 GB of free space if used as a standalone system
Software installation	DVD-ROM drive or USB
Pointer	Mouse
Display resolution	Minimum: 1280 × 768 / Maximum: 3840 × 2160
Interfaces	Minimum: 2 USB ports (1.1, 2.0, or 3.0) for each device using this type of interface, CD-RW, SD card, network interface card (recommended)
Operating system	Windows® 10 Enterprise (64 bit), Windows 10 Professional (64 bit), Windows 8.1 Enterprise (64 bit), Window 8.1 Pro (64 bit), Windows 7 Professional (64 bit) with SP1
Printer	Equivalent to HP® P3015dn (Customer Supplied)

1. D. D. Sin, L. Wu, and S. F. P. Man, "The relationship between reduced lung function and cardiovascular mortality: a population-based study and a systematic review of the literature," Chest, vol. 127, no. 6, pp. 1952-1959, 2005.

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