

ADVANCED

MINISPIRTM

Handheld, PC-based Spirometer

Real-Time Flow/Volume and Volume/Time curves on your PC for a comprehensive Spirometry.



MAIN features



REAL-TIME TEST

Spirometry: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison



PLUG AND PLAY

Power via USB, no internal memory, no display, no maintenance, carrying case included



COMPLIANCE ATS/ERS 2019

And other Standards including ISO 26782 (for Spirometry), ISO 23747 (for PEF), and more. CE0476, FDA 510 (k)



SPIROMETRY PARAMETERS

Spirometry: FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25, FEF50, FEF75, FEF2575, FET, ELA, EVOL, FIVC, FIV1, PIF, FIV1/FIVC%, PIF, IRV, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, tI, tE, ti/tTOT, VT/tI, MVV



PC CONNECTION VIA USB

Real-time test on PC screen, connect with your EHR/EMR, print Medical Report and more



DISTINCTIVE features



PREDICTED SETS & VALUES

Large Selection, including comparison %Pred, Z-score and LLN. Include GLI equations



GENERAL PRACTICE

Easy-to-Use, real time spirometry curve and complete test results available in PC-mode



EHR/EMR CONNECTIVITY

Via PC, integration with patient database on your EHR/EMR (in HL7, GDT)



COVID-19 PREVENTION

Complete Disposable Set with Antiviral filter available, to reduce risk of cross-contamination

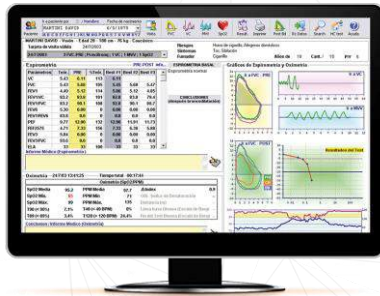
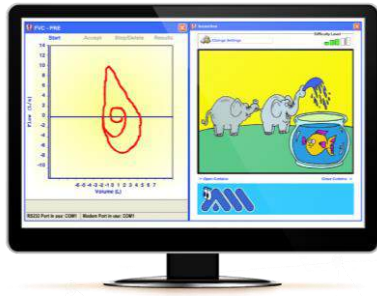
Always INCLUDED

- Carrying case
- Noseclip
- PC Software license



Compatible SOFTWARE

winspiroPRO



Pediatric Incentive (PATENTED) to improve patient compliance during the test.

Acceptability Messages, Test interpretation and Quality Control Grade according to the latest **Spirometry Standards**

MAIN FEATURES

Windows-based solution for Spirometry, Oximetry and Telemedicine.

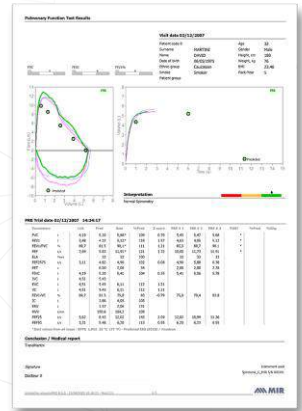
Wide range of predicted sets and values, including **GLI Predicted sets, LLN and Z-score.**

Embedded **EHR/EMR connectivity.**

NET VERSION available, share one database between different PC workstations.

MEDICAL REPORT

Specialized and **customizable printout**



spiro Connect



MAIN FEATURES

Windows-based solution, **direct integration** with your EHR/EMR.

Real time test include **Spirometry**

Standardized communication in **HL7 or Exchange Protocol.**

Select patient info directly from your own **EHR/EMR**

Spirometry test: FVC-Pre, FVC-Post, VC-Pre

GO-TO-MARKET TOOLKIT

Software Development Kit available for System Integrators and App Developers.
OEM service available for Spirometry and Oximetry.



Learn more about available SDK and OEM



Compatible TURBINES

flowMIR™
Disposable Turbine



Reusable Turbine



Mouthpiece

Included Disposable

Required, Not Included

Turbine Disinfection

Not required

Required

Turbine Calibration

Not required

Required

Packaging

Individually sealed: 60 or 10 units / box

1 unit in Carton box

Antiviral Filter

Available Disposable

Required Disposable

PLAY VIDEO



SCIENTIFIC PUBLICATIONS



Also available in **MORE CONFIGURATIONS**



Technical Specification

Minispir

Minispir Light

TYPE OF SPIROMETER	PC-Based	PC-Based
COMPATIBLE TURBINES	flowMIR™ Disposable Turbine, Reusable Turbine Flowmeter	flowMIR™ Disposable Turbine
COMPATIBLE SOFTWARES	Winspiro PRO, spiro Connect	Winspiro Light
EXTERNAL CONTROL	Real time test on PC screen, connect with your EHR/EMR, back-up database on PC memory and much more Connect to your PC via USB	Real time test on PC screen, print visit report, back-up database on PC memory and much more Connect to your PC via USB
EHR CONNECTIVITY	Via PC, integration with patient database on your EHR/EMR (in HL7, GDT)	
MEASURED PARAMETERS	Spirometry: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison Spirometry: FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25, FEF50, FEF75, FEF2575, FET, ELA, EVOL, FIVC, FIV1, PIF, FIV1/FIVC%, PIF, IRV, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, tI, tE, ti/tTOT, VT/tI, MVV	Spirometry: FVC, VC, PRE/POST Bronchodilator comparison Spirometry: FVC, FEV1, FEV6, FEV1/FVC, PEF, FEF2575, ELA, FIVC, IVC, EVC

[COMPARE ON WEBSITE](#)



PRODUCT CODES – 911006E0 - Spirometer; 911006E1 - Spirometer with reusable turbine

Technical specification

Width	49.7 mm
Length	142 mm
Thickness	26 mm
Weight	65 g

Turbine

Reusable turbine (code 910002)

Disposable turbine (code 910004)

Supply voltage	5 V d.c. USB connection
Rated electrical power	0.25 W
Rated input current	50 mA max
Backup battery voltage	none
Connectivity	USB 2.0
Display	none
Mouthpieces	Ø 30 mm (1.18 inch)
IP protection level	IPX1
Type of electrical protection	Class II device
Safety level for shock hazard	Type BF Apparatus

Conditions of use Apparatus for continuous use

Storage conditions

Temperature:	MIN -20 °C, MAX +60 °C
Humidity:	MIN 10% RH; MAX 95%RH

Operating Conditions

Temperature:	MIN +10 °C, MAX +40 °C
Humidity:	MIN 10% RH MAX 95%RH

Memory capacity database PC software
PC software winspiroPRO
Applicable standards IEC 60601-1:2005 + Amd1:2012
 EN 60601-1-2: 2015
 ISO 26782: 2009
 ISO 23747: 2015
 ATS/ERS: 2005, 2019 update
 ISO 80601-2-61: 2017

Spirometry

Flow sensor	bi-directional digital turbine
Volume range	10 L
Flow range	±16L/s
Volume accuracy (ATS 2019)	±2.5% or 50 mL
Flow accuracy	±5% or 200 mL/s
Dynamic resistance	<0.5 cm H ₂ O/L/s
Temperature sensor	semiconductor (0-45°C)
Test available	FVC, VC, IVC, MVV, PRE-POST FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25, FEF50, FEF75, FEF2575, FET, ELA, EVOL, FIVC, FIV1, PIF, FIV1/FIVC%, PIF, IRV, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, t _f , t _E , ti/t _{TOT} , VT/t _f , MVV
Measured parameters	

Oximetry (optional)

Measurement method	Red and infrared absorption
SpO₂ range	0-99%
SpO₂ accuracy	± 2% between 70-99% SpO ₂
Average number of heart beats for the %SpO₂ calculation	8 beats
Pulse Rate range	30-300 BPM
Pulse Rate accuracy	± 2BPM or 2% whichever is greater
Average interval for the calculation of cardiac pulse	8 seconds
Signal quality indication	0 - 8 segments on display
Test available	spot
Measured parameters	SpO ₂ % min, max, average BPM min, max, average Test duration % Bradycardia Duration (<40 BPM) % Tachycardia Duration (>120 BPM) % of Time with SpO ₂ ≤ 90% (T90%, T89%)

Certificates & Registrations

CE 0476	MED 9826
FDA 510 (k)	K 122384
Health Canada	71191 (class II)
CND code	Z12150102
GMDN code	13680
Ministry of Health	678828/R

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