SPIRODOC® - SPIROMETER AND OXIMETER

Internal software and CD manual: GB, FR, IT, ES, DE, PT (only manual)

SPIROMETER + OXIMETER + 3D ACCELEROMETER IN ONE UNIT

- **33532 SPIRODOC SPIROMETER + SOFTWARE WINSPIRO PRO - bluetooth**
- **33533 SPIRODOC OXIMETER + SOFTWARE WINSPIRO PRO**
- **33534 SPIRODOC SPIROMETER + OXIMETER + SOFTWARE - bluetooth**

One touch laboratory for respiratory analysis suitable for professional and personal use.

Complete spirometer ATS/ERS compliant

Specialist-level analysis, screening and Home-care monitoring. It has been developed with various operation modes: "advanced" parameters for the specialist, "reduced" set of parameters for screening as well as a "simplified" version for Home-care operation. FVC, VC, IVC, MVV, PRE-POST.

Precise spirometry interpretation including post bronchodilator. All tests are automatically memorized. Automatic BTPS conversion. Memory capacity: 10.000 tests. Wide selection of predicted values.

Intelligent pulse oximeter with on-screen results

Simple, clear SpO_2 and Pulse Rate measurements with plethysmographic curve. During the single six-minute walk test (6 MWT), Spirodoc® estimates the level of oxygen therapy required by the patient. Spirodoc® carries out sleep desaturation studies and memorizes events as well as body position.

3D Accelerometer with motion analysis

Spirodoc® is the first 3D Oximeter® incorporating a triaxial motion sensor to correlate the saturation level ($\%SpO_2$) with physical activity (walk counter, movement analysis and VMU).

Home-care symptoms diary

Fast on-screen symptoms entry. Touch screen with settable questions and automatic answer recording for homecare patient use (eDiary).

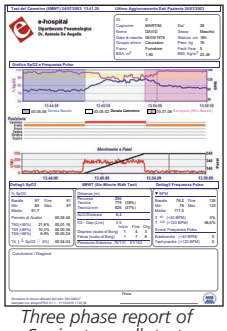
High performance PC software for spirometry and oximetry

All tests memorized in Spirodoc® are automatically downloaded into WinspiroPRO and a patient data card is created with a preview of the spirometry curve. WinspiroPRO can easily be connected to a database, EPR, hospital or occupational health system. This software also gives trend graphs of any parameter. All stored tests and curves of every patient can be reviewed on a single page and the results, including oximetry tests, can be compared. Supplied with reusable turbine.

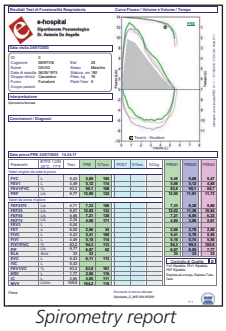
Multilanguage software: GB, FR, IT, ES, DE, PT, PL, NL SE, CZ, LV, TR, RU, CN, JP.

33534

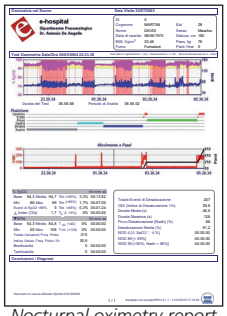
Easy touch-screen display



Three phase report of 6 minutes walk test: baseline, walk, recovery



Spirometry report



Nocturnal oximetry report with desaturation analysis

TECHNICAL SPECIFICATIONS

Central unit
Display: LCD backlit touch screen display 128x64 pixels
Power supply: Lithium ion 3.7 V, 1100 mA rechargeable battery with 50 hours measurement back up
Accelerometer: Triaxial ±2 g, 400 Hz sampling
Dimension and weight: central unit 101x48x16 mm, 99 g removable turbine head: 46x47x24 mm, 17 g

Spirometry
Flow sensor: Bi-directional digital turbine
Flow range: ±16 L/s
Volume accuracy: ±3% or 50 mL, whichever is greater
Flow accuracy: ±5% or 200 mL, whichever is greater
Dynamic resistance at 12 L/s: <0.5 cm H_2O/L/s
Temperature sensor: semiconductor (0-45°C)

Spirometer measured parameters
FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25%-75%, FET, Estimated Lung Age, Extr. Vol., FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MW measured, MW calculated

Oximetry
SpO_2 range: 0 -100%, ±2% (50-100% SpO_2)
Pulse rate range: 20-254 BPM, ±2 BPM or 2%

Pulseoximeter measured parameters
SpO_2 [Baseline, Min, Max, Mean], Pulse rate [Baseline, Min, Max, Mean], T90% [SpO_2<90%], T89%[SpO_2<89%], T88% [SpO_2<88%], T5% [ΔSpO_2>5%], Δindex [12s], SpO_2 events, Pulse rate events [Bradycardia, Tachycardia], Step counter, Movement [VMU], Recording time, Analysis time

Sleep analysis
Body position, SpO_2 events, Desaturation index (ODI), Desaturation [Mean Value, Mean duration, Longest duration, Nadir Peak], ΔSpO_2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, NOD89% [SpO_2<89%; >5min], NOD4% [SpO_2 Basale-4%; >5min], NOD90% [SpO_2<90%; Nadir<86%; >5min]

MINISPIR® LIGHT AND MINISPIR®-USB

- **33527 MINISPIR with Winspiro Light**

Minispir Light measures 10 essential parameters for a diagnostic spirometry: FEV6, FVC, FEV1, FEV1%, PEF, FEF25/75%, FIVC, Lung Age, VC, IVC. Pediatric incentives. Flow/Volume loop and Volume/Time curve. Spirometry test interpretation. Temperature sensor for BTPS conversion. Minispir Light meets the requirements of integrated healthcare platforms and tablet applications. For use with FlowMir disposable turbine only (33507).

Winspiro Light is an intuitive and efficient software, for complete diagnosis included in Minispir Light.

FOR ESSENTIAL RESPIRATORY TESTING

- **33528 MINISPIR with Winspiro PRO**
- **33529 MINISPIR+OXYMETER with Winspiro PRO**

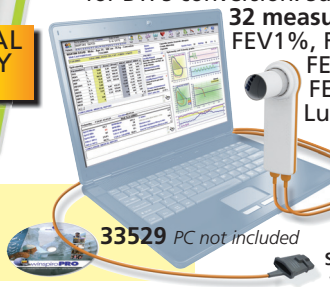
Real time Flow/Volume loop and Volume/time curve with PRE/POST comparison. Advanced spirometry test interpretation. Pediatric incentive animations. Lung Age. Bronchial provocation test including new Mannitol protocol with FEV1 response curve. Temperature sensor for BTPS conversion. Supplied with reusable turbine.

32 measured parameters: FVC, FEV1, FEV1%, FEV3, FEV3%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25-75%, FET, Vext, Lung Age, FIVC, FIV1, FIV1%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV.

CD manual GB, FR, IT, ES, DE, PT.

Winspiro PRO is a unique spirometry and oximetry software, which comes standard with Minispir. All patient records are shown on simple, single-screen patient cards with dynamic management of all data and graphs.

FOR COMPLETE RESPIRATORY ANALYSIS



33529 *PC not included*

PC SYSTEM REQUIREMENTS FOR WINSPIRO LIGHT/PRO
Microsoft Windows: XP, Vista 32/64 bit, Seven 32/64 bit, 8
Screen resolution: 1024x768 Hard disk: 128 MB (better 256 MB)
USB socket
Multilanguage: GB, FR, IT, ES, PT, DE, PL, SE, NL, CZ, LV, TR, RU, CN, JP

TECHNICAL SPECIFICATIONS MINISPIR/MINISPIR LIGHT

Temperature sensor: semiconductor (0-45°C)
Flow sensor: bi-directional digital turbine
Flow range: ± 16 L/s
Volume accuracy: ± 3% or 50 mL
Flow accuracy: ± 5% or 200 mL/s
Dynamic resistance at 12 L/s: <0.5 cm H_2O/L/s
Communication port: USB
Power Supply: line powered from USB port
Dimension: 50x142x26 mm
Weight: 65 g

TECHNICAL SPECIFICATIONS MINISPIR SpO_2

SpO_2 range: 0-99%
SpO_2 accuracy: ± 2% tra 70-99% SpO_2
Pulse Rate range: 30-300 BPM
Pulse Rate accuracy: ± 2 BPM or 2%

Measured parameters
SpO_2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90 [SpO_2<90%], T89 [SpO_2<89%], T88 [SpO_2<88%], T5 [ΔSpO_2>5%], Δ Index [12s], SpO_2 Events, Pulse Rate Events [Bradycardia, Tachycardia]

GIMA code	SPARE PARTS AND ACCESSORIES
33507	Flowmir disposable turbine with integrated mouthpiece - box of 60
33410	Adult mouthpieces Ø ext 3 cm - box of 500 pieces (only for 33526)
33526	Reusable turbine (only for 33528-9)