



REGISTRUL DE STAT AL DISPOZITIVELOR MEDICALE

Tip	Denumire
I.2. Declarația de conformitate CE	Declarații de conformitate CE
I.3. Certificatul CE	Certificat CE

Введите текст для поиска...										
Nr	Denumire	Den.comerc.	Model	Nr. catalog	Tara	Producatorul	Reprezentant	Ordin	Data	Cod vamal
			spir			MIR				
DM000323219	SPIROMETRU	MIR	MINISPIR LIGHT		Italia	MIR S.R.L. - MEDICAL INTERNATIONAL RESEARCH	HEALTH MEDICAL SOLUTIONS S.R.L.	Rg04-000276	10-11-2021	
DM000323218	SPIROMETRU/OXIME	MIR	SPIROBANK II		Italia	MIR S.R.L. - MEDICAL INTERNATIONAL RESEARCH	HEALTH MEDICAL SOLUTIONS S.R.L.	Rg04-000276	10-11-2021	
DM000323217	SPIROMETRU/OXIME	MIR	SPIROBANK OXI		Italia	MIR S.R.L. - MEDICAL INTERNATIONAL RESEARCH	HEALTH MEDICAL SOLUTIONS S.R.L.	Rg04-000276	10-11-2021	
DM000323221	SPIROMETRU	MIR	SPIROBANK SMART		Italia	MIR S.R.L. - MEDICAL INTERNATIONAL RESEARCH	HEALTH MEDICAL SOLUTIONS S.R.L.	Rg04-000276	10-11-2021	
DM000323215	SPIROMETRU/OXIME	MIR	SPIROLAB		Italia	MIR S.R.L. - MEDICAL INTERNATIONAL RESEARCH	HEALTH MEDICAL SOLUTIONS S.R.L.	Rg04-000276	10-11-2021	
DM000323216	SPIROMETRU/OXIME	MIR	SPIRODOC		Italia	MIR S.R.L. - MEDICAL INTERNATIONAL RESEARCH	HEALTH MEDICAL SOLUTIONS S.R.L.	Rg04-000276	10-11-2021	

✓ Содержит([Productorul], 'MIR') И Содержит([Model], 'spir')

Anexa nr. 1
La Procedurile administrative pentru notificarea
dispozitivelor medicale care dețin marcajul CE

Către Agenția Medicamentului
și Dispozitivelor Medicale

NOTIFICARE
pentru înregistrarea dispozitivelor medicale în Registrul de stat
al dispozitivelor medicale

nr. 45 din 09.06.2023

Solicitantul **FCPC „DataControl” S.R.L.**, cu sediul **mun. Chișinău, str. N. Testemițanu, 17/6**, tel./fax: 022 27 37 12, e-mail: contact@datacontrol.md, solicit
înregistrarea în Registrul de stat al dispozitivelor medicale a următoarelor categorii și tipuri
de dispozitive medicale pentru introducerea și punerea la dispoziție pe piață a:

Product: SPIROMETER

Model: MINISPIR

911006,
911006T,
911006E0,
911006E1,
911006I0,
911006I1,
911003.

Se anexează următoarele acte:

1. Declarație de Conformitate CE
2. Certificatul de Conformitate CE
3. Actul prin care producătorul își desemnează reprezentantul
4. Declarație pe propria răspundere.

Data **09.06.2023**

Semnătura



Tabelul de recepționare a notificării

(se completează de către Agenție în momentul depunerii notificării de către solicitant)

Comentarii cu privire la acceptul/refuzul recepționării notificării, inclusiv motivul refuzului	
Data/nr. de ordine atribuit notificării de către Agenție (în cazul acceptării recepționării)	
Numele, prenumele, funcția persoanei responsabile de recepționarea dosarului	
Semnătura persoanei responsabile	

Către
Agenția Medicamentului
și Dispozitivelor Medicale

DECLARAȚIE PE PROPRIE RĂSPUNDERE

Solicitantul **F.C.P.C. "DataControl" S.R.L.**, cu sediul în **mun. Chișinău, str. N. Testemițanu 17/6**, tel./fax: **022 27 37 12**, e-mail: contact@datacontrol.md,

declar pe proprie răspundere, cunoscând prevederile art. 352¹, Codul Penal al Republicii Moldova cu privire la falsul în declarații, că documentele și datele furnizate pentru notificarea dispozitivului medical:

Product: SPIROMETER

Model: MINISPIR

911006,
911006T,
911006E0,
911006E1,
911006I0,
911006I1,
911003.

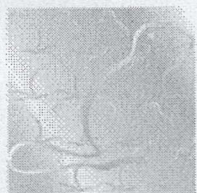
Sunt autentice și corespund realității

Alexandru Grabazei, director

Semnătura

Data: **09.06.2023**





Reg. Numero / Reg. Number	MDR 00020-A	Revisione / Revision	0
Primo rilascio / First issue date	2023-02-16	Valido da / Valid from	2023-02-16
Scadenza / Valid until	2028-02-15	Ultima modifica / Last change date	2023-02-16
Data Scadenza Precedente / Previous Expiry			

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Certificato UE del Sistema di Gestione della Qualità EU Quality Management System Certificate

Kiwa Cermet Italia certifica che, sulla base dei risultati delle valutazioni effettuate, il Sistema di Gestione della Qualità dell'Organizzazione:
Kiwa Cermet Italia certifies that, on the basis of the assessment carried out, the Quality Management System of the Organization:

MIR - MEDICAL INTERNATIONAL RESEARCH S.p.A.

Operatore economico / Economic operator: Fabbricante

Sede Legale e Operativa

Via del Magliolino, 125 - 00155 Roma (RM) - Italia

E' conforme ai requisiti applicabili del Regolamento (UE) 2017/745, Allegato IX capo I e III, per le seguenti tipologie di dispositivi:
Is in compliance with the applicable requirements of Regulation (EU) 2017/745, Annex IX Chapter I and III, for the following devices types:

Z120503 - Elettrocardiografi / *Electrocardiographs*

Z1203020408 - PULSOSSIMETRI / *PULSE OXIMETERS*

Z12150102 - Spirometri per picco di flusso / *Peak flow spirometers*

Z12150180 - Strumentazione per spirometria - accessori hardware / *Spirometry instruments - hardware accessories*



Kiwa Cermet Italia S.p.A.
Società con socio unico, soggetta
all'attività di direzione e coordinamento di
Kiwa Italia Holding Srl
Via Cadriano, 23
40057 Granarolo dell'Emilia (BO)
Tel +39.051.459.3.111
Fax +39.051.763.382
E-mail: info@kiwacermet.it
www.kiwa.it

Organismo Notificato n. 0476
Notified Body nr. 0476

CERMET
MOD P022A2_MED_MDR rev. 0

Presidente / President

Giampiero Belcredi

Firmato digitalmente da: BELCREDI GIAMPIERO
Data: 17/02/2023 09:07:28



Reg. Numero /
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2023-02-16

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2028-02-15

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Previous Expiry

Revisione /
Revision

0

Valido da /
Valid from

2023-02-16

Ultima modifica /
Last change date

2023-02-16

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Allegato tecnico al Certificato Technical sheet enclosed to the Certificate

Identificazione dei Dispositivi / Devices identification:

Tipologia / Type:

Z120503 - Elettrocardiografi / *Electrocardiographs*

Classe di rischio / Risk class:

II a

Nome / Name:

Elettrocardiografo / *Electrocardiograph*

Nome commerciale / Brandname:

Cardionica

Tipologia / Type:

Z1203020408 - PULSOSSIMETRI / *PULSE OXIMETERS*

Classe di rischio / Risk class:

II a

Nome / Name:

Ossimetro / *Oximeter*

Nome commerciale / Brandname:

Spirodoc

Tipologia / Type:

Z12150102 - Spirometri per picco di flusso / *Peak flow spirometers*

Classe di rischio / Risk class:

II a

Nome / Name:

Spirometro / *Spirometer*

Nome commerciale / Brandname:

Spirobank Smart; mSpirometer; AsthmaTuner; Smart One; cSpirometer

Classe di rischio / Risk class:



Presidente / President

Giampiero Belcredi

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Kiwa Cermet Italia S.p.A.
Società con socio unico, soggetta
all'attività di direzione e coordinamento di
Kiwa Italia Holding Srl
Via Cadriano, 23
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Tel +39.051.459.3.111
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E-mail: info@kiwacermet.it
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Revisione /
Revision

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Valid from

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Last change date

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Data Scadenza Precedente /
Previous Expiry

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Allegato tecnico al Certificato Technical sheet enclosed to the Certificate

Identificazione dei Dispositivi / Devices identification:

II a

Nome / Name:

Spirometro II / Spirometer

✓ Nome commerciale / Brandname:

MiniSpir; MiniSpir Light POST BD

Classe di rischio / Risk class:

II a

Nome / Name:

Spirometro con o senza ossimetro / Spirometer with or without oximeter

Nome commerciale / Brandname:

Spirolab

Classe di rischio / Risk class:

II a

Nome / Name:

Spirometro con o senza ossimetro II / Spirometer with or without oximeter

Nome commerciale / Brandname:

Spirodoc

Classe di rischio / Risk class:

II a

Nome / Name:

Spirometro con o senza ossimetro II / Spirometer with or without oximeter

Nome commerciale / Brandname:

Spirobank II; Spirobank II with Bluetooth smart

Classe di rischio / Risk class:

II a



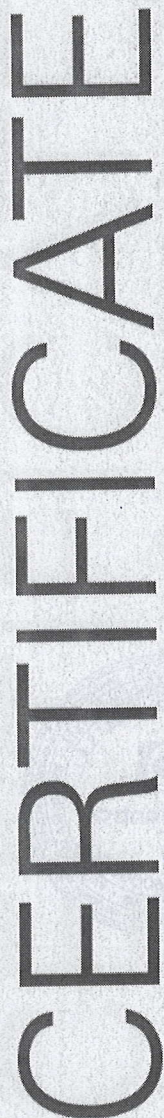
Kiwa Cermet Italia S.p.A.
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www.kiwa.it

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Data: 17/02/2023 09:12:48

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Data: 17/02/2023 09:12:48



Reg. Numero /
Reg. Number

MDR 00020-A

Primo rilascio /
First issue date

2023-02-16

Scadenza /
Valid until

2028-02-15

Data Scadenza Precedente /
Previous Expiry

Revisione /
Revision

0

Valido da /
Valid from

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Ultima modifica /
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CERTIFICATE



La lista completa dei codici, relativi ai modelli certificati, è disponibile presso Kiwa Cermet Italia.

The complete list of the codes related to the certificated models is available at Kiwa Cermet Italia.

Il presente Certificato è soggetto al rispetto dei requisiti contrattuali di Kiwa Cermet Italia ed è valido solo per le tipologie di dispositivi sopra identificate soggette a sorveglianza periodica.

This Certificate is subject to Kiwa Cermet Italia regulations and it is valid only for the aforementioned types of devices that are subject to periodic survey.

L'allegato tecnico è parte integrante del presente Certificato

The technical sheet is an integrating part of this Certificate.

Kiwa Cermet Italia S.p.A.
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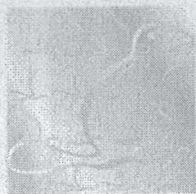
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Notified Body nr. 0476

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Presidente / President

Giampiero Belcredi

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Storia del Certificato
Certificate History

Rev. Rev.	Data Date	Descrizione modifica Description of Change	Rapporto di valutazione ⁽¹⁾ del Certificate History
0	16/02/2023	Certificazione iniziale Initial certification	Rapporto di audit del / Audit report dated: 10-11-12/01/2023 Analisi documentazione tecnica del / Technical documentation analysis dated: 14/11/2022; 12/01/2023; 13/01/2023 Valutazione dati clinici del / Clinical data assessment dated: 03/05/2022; 12/01/2023; 13/01/2023

⁽¹⁾ I rapporti di valutazione sono disponibili su richiesta / Assessment reports are available upon request



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MOD P022A2_MED_MDR rev. 0

Presidente / President
Giampiero Belcredi

Firmato digitalmente da: BELCREDI GIAMPIERO
Data: 17/02/2023 09:17:27

Nome del Fabbrikante: <i>Name of the Manufacturer:</i>	MIR - Medical International Research S.p.A.
Sede Legale: <i>Registered Place of Business:</i>	Via del Maggiolino 125, 00155 Rome, Italy
Numero di Registrazione Unico (NRU): <i>Single Registration Number (SRN):</i>	IT-MF-000014026

Il Fabbricante rilascia sotto la sua responsabilità esclusiva la presente Dichiarazione di Conformità UE e dichiara che il seguente dispositivo medico è conforme ai requisiti del Regolamento (UE) 2017/745 relativo ai dispositivi medici.

Regolamento (UE) 2017/745 relativo ai dispositivi medici.
The Manufacturer issues under its own exclusive responsibility this EU Declaration of Conformity and declares that the following medical device is in compliance with the requirements of Regulation (EU) 2017/745 on medical devices.

Nome Modello: <i>Model Name:</i>	MiniSpir
Codice commerciale: <i>Commercial code:</i>	911006, 911006T, 911006E0, 911006E1, 911006I0, 911006I1, 911003
UDI-DI di Base: <i>Basic UDI-DI:</i>	805299032052-053D4
Destinazione d'uso: <i>Intended use:</i>	Lo spirometro MiniSpir è destinato all'uso da parte di personale medico, da un professionista sanitario autorizzato o di un paziente sotto la supervisione di un medico. Il dispositivo ha lo scopo di testare la funzionalità polmonare e può eseguire test spirometrici su persone di tutte le età, esclusi neonati e neonati Può essere utilizzato in fabbrica, farmacia, ospedale o studio medico <i>MiniSpir spirometer is intended to be used either by a physician, respiratory therapist, technician or patient under physician supervision. The device is intended to test lung function and can make spirometry testing in people of all ages excluding infants and neonates. It can be used in hospital setting, physician's office, factory, pharmacy.</i>
Classe di Rischio: <i>Risk Class:</i>	Ila
Regola di classificazione <i>Classification Rule</i>	Regola 10, terzo trattino <i>Rule 10, third indent</i>

Procedura di valutazione della conformità applicata: <i>Conformity assessment procedure performed:</i>	Allegato IX, capi I e III <i>Annex IX, chapter I and III</i>
Organismo Notificato (ON): <i>Notified Body (NB):</i>	Kiwa Cermet Italia S.p.A.
Numero identificativo ON: <i>NB identification number:</i>	0476
Identificativo del Certificato rilasciato: <i>Identification of issued Certificate:</i>	MDR 00020-A

Lista delle Specifiche
che Comuni (SC) a cui il dispositivo medico è conforme:

List of Common Specifications (CS) to which the medical device is conform to:

Nessuna SC applicabile.

No applicable CS.

Data e Luogo <i>Date and Place</i>	Roma 16.02.2023 <i>Rome 16th February 2023</i>
Ruolo, nome e firma <i>Role, name and signature</i>	Amministratore Delegato <i>Chief Executive Officer</i> Ing. Giovanni Carlino 



ADVANCED

SPIROLABTM

Desktop, Stand-alone and PC-based Spirometer, with Oximetry Option

All-in-one Spirometer with 7" display,
Embedded Printer and Oximetry option,
to carry on the go



MAIN features



REAL-TIME TEST

Spirometry: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison
Oximetry (optional): Spot test (SpO2%, Pulse BPM)



CARRY EVERYWHERE

7" LCD Color Touchscreen Display, Long-lasting rechargeable battery, massive Internal Storage



COMPLIANCE ATS/ERS 2019

And other Standards including ISO 26782 (for Spirometry), ISO 23747 (for PEF), ISO 80601-2-61 (for Oximetry), and more. CE0476, FDA 510 (k)



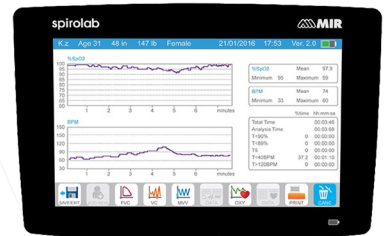
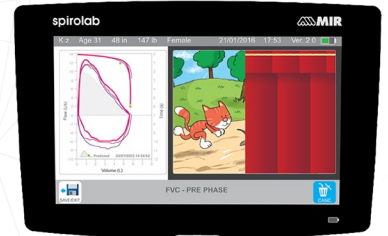
PC CONNECTION AVAILABLE

Real-time test on PC screen, connect with your EHR/EMR, back-up internal memory and more, via USB and Bluetooth



CALIBRATION SOFTWARE

Available on device, with printable calibration report (no separate software required)



DISTINCTIVE features



PREDICTED SETS & VALUES

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



PRINTED EMBEDDED

Thermal printer. Paper size 112mm. Direct external print also available via PC software



PEDIATRIC INCENTIVE

Real-time animation on display to improve patient compliance during the test



COVID-19 PREVENTION

Complete Disposable Set with Antiviral filter. Bluetooth connection to test at safety distance

Always INCLUDED

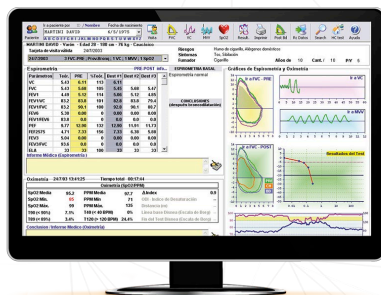
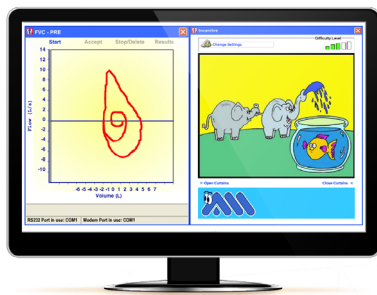
- Carrying case
- Power supply/battery charger
- USB cable
- 1 Roll of thermal printer paper

- Noseclip
- PC Software license
- With Oximetry Option:
 - Finger Probe



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.

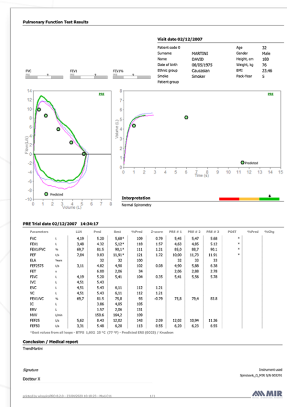
Wide range of predicted sets and values, including **GLI Predicted sets, LLN and Z-score.**

Embedded **EHR/EMR connectivity.**

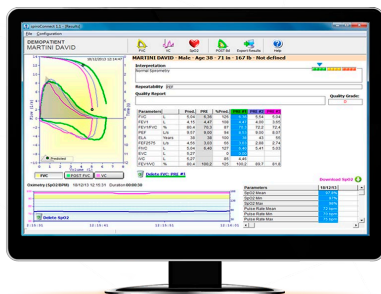
NET VERSION available, share one database between different PC workstations.

MEDICAL REPORT

Specialized and **customizable printout**



spiro Connect



MAIN FEATURES

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

Real time test include **Spirometry** and **Oximetry**
Standardized communication in **HL7** or **Exchange Protocol.**

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

Spirometry test: FVC-Pre, FVC-Post, VC-Pre
Oximetry Test: SpO2 (%), Pulse (BPM)

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



PRODUCT CODES - Spirolab Configurations

911080E0 – Spirometer • 911080E1 - Spirometer with reusable turbine

911081E0 - Spirometer + Oximeter • 911081E1 - Spirometer + Oximeter with reusable turbine

Technical specification

Width	220 mm
Length	210 mm
Thickness	51 mm
Weight	1450 g (battery pack included)

Sensors



miniflowmeter (code 900595)
for reusable and disposable turbine
dimension (Ø 30 mm, 42 mm)

Reusable soft, adult, MIR sensor for
oximetry tests (code 919024) only
spirolab code 911081

Power supply

power
Current capacity

Consumption

Backup battery voltage

Batteries charger

Rechargeable battery and mains

Ni-MH, 6 elements

4500 mAh

average 250 mA

none

Output voltage=12 V, current=1A,
compliant with EN 60601-1

~10 hours

Autonomy

Connectivity

Display

Display

Keyboard

Mouthpieces

Type of electrical

Protection

Safety level for shock hazard

Conditions of use

USB 2.0, Bluetooth® 2.1

7 inch colour touch screen LCD

with 800x480 resolution

absent, touchscreen

Ø 30 mm (1.18 inch)

Internally powered

Class II while charging battery

Type BF Apparatus

Apparatus for continuous use

Storage conditions

Temperature: MIN -40 °C,
MAX +70 °C
Humidity: MIN 10% RH;
MAX 95%RH

Transport conditions

Temperature: MIN -40 °C,
MAX +70 °C
Humidity: MIN 10% RH;
MAX 95%RH

Operating conditions

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

Applied norms

Electrical Safety EN 60601-1
Electro Magnetic Compatibility
EN 60601-1-2

Degree of protection

against water penetration

IPX1 appliance protected against
water leaks

Codes and equipments

911080E0	spiro
911080E1	spiro with reusable turbine
911080E2	spiro with 120 FlowMir
911081E0	spiro+oxy
911081E1	spiro+oxy with reusable turbine
911081E2	spiro+oxy with 120 FlowMir

Spirometry

Flow sensor	bi-directional digital turbine
Volume rate	10 L
Flow range	±16L/s
Volume accuracy	±2.5% or 50 mL
Flow accuracy	±5% or 200 mL/s
Dynamic resistance	<0.5 cm H2O/L/s
Temperature sensor	semiconductor (0-45°C)
Test available	FVC, VC, IVC, MVV, PRE-POST FVC, FEV1, FEV1/FVC%, FEV1/PEF, FEV1/VC, FEV1/FEF0.5, DTPEF, FEV FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV1/FEV6, PEF, FEF25, FEF50, FEF2575, FEF7585, FET, Vext, ELA, FIVC, FIV1, PIF, FIV1/FIVC, FIF25, FIF75, R50, MVVcal, PIF, IRV, VC, IVC, IC, ERV, IRV, FEV1/VC, TV, VE, te, ti/t-tot, TV/ti, MVV
Measured parameters	Up to 10000 tests

Oximetry (on request)

Measurement method	Red and infrared absorption
SpO2 range	0-99%
SpO2 accuracy	± 2% between 70-99% SpO2
Average number of heart beats for the %SpO2 calculation	8 beats
Pulse Rate range	18-300 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	SpO2% min, max, average BPM min, max, average Test duration % Bradycardia Duration (<40 BPM) % Tachycardia Duration (>120 BPM) % of Time with SpO2 ≤ 90% (T90%, T89%), T5 about 500 hours oximetry

Memory capacity

Certificates & Registrations

CE 0476	MED 9826
FDA 510 (k)	K 052140
Health Canada	71191 (class II)
CND code	Z12150102 (spiro)
	Z1203020408 (spiro + oxy)
GMDN code	46906 (spiro), 45607 (spiro + oxy)
Ministry of Health	1272475/R (spiro)
	1272476/R (spiro + oxy)
	1645455/R (spiro)

ITALY

MIR Head Office
Via del Maggolino, 125
00155 Roma
Tel. +39 06 22 754 777
Fax +39 06 22 754 785
Mir.spirometry.com

USA

MIR USA, Inc.
5462 S. Westridge Drive
New Berlin, WI 53151
Phone +1 (262) 565-6797
Fax +1 (262) 364-2030

FRANCE

MIR Local Office
Jardin des Entreprises,
290, Chemin de Saint Dionisy
30980 LANGLADE (France)
Phone +33 (0)4 66 37 20 68
Fax +33 (0)4 84 25 14 32

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

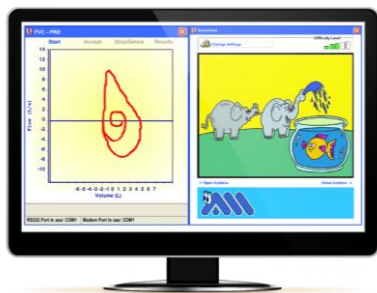
Always INCLUDED

- 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.

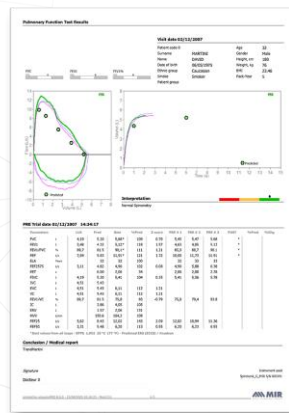
Wide range of predicted sets and values, including **GLI Predicted sets, LLN and Z-score**.

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



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 H₂O/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, R_f, t_p, t_E, t_i/t_{TOT}, VT/t_p, MVV

Oximetry (optional)

Measurement method Red and infrared absorption
SpO₂ range 0-99%
SpO₂ accuracy ± 2% between 70-99% SpO₂
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 SpO₂% min, max, average
BPM min, max, average
Test duration
% Bradycardia Duration (<40 BPM)
% Tachycardia Duration (>120 BPM)
% of Time with SpO₂ ≤ 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

ITALY

MIR Head Office
Via del Maggolino, 125
00155 Roma
Tel. +39 06 22 754 777
Fax +39 06 22 754 785
Mir.spirometry.com

USA

MIR USA, Inc.
5462 S. Westridge Drive
New Berlin, WI 53151
Phone +1 (262) 565-6797
Fax +1 (262) 364-2030

FRANCE

MIR Local Office
Jardin des Entreprises,
290, Chemin de Saint Dionisy
30980 LANGLADE (France)
Phone +33 (0)4 66 37 20 68
Fax +33 (0)4 84 25 14 32

MIR MiniSpir datasheet code 911006 (spiro); 911010 (spiro+oxy)



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

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

Spirometry

Flow sensor bi-directional digital turbine
Volume range 10 L
Flow range ±16L/s
Volume accuracy ±2.5% or 50 mL
(ATS 2019)

Flow accuracy ±5% or 200 mL/s
Dynamic resistance <0.5 cm H₂O/L/s
Temperature sensor semiconductor (0-45°C)
Test available FVC, VC, IVC, MVV, PRE-POST
Measured parameters 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_i, t_E,
t_i/t_{TOT}, VT/t_i, MVV

Oximetry (optional)

Measurement method Red and infrared absorption
SpO₂ range 0-99%
SpO₂ accuracy ± 2% between 70-99% SpO₂
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 SpO₂% min, max, average
BPM min, max, average
Test duration
% Bradycardia Duration (<40 BPM)
% Tachycardia Duration (>120 BPM)
% of Time with SpO₂ ≤ 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



Technical specification

Width	220 mm
Length	210 mm
Thickness	51 mm
Weight	1450 g (battery pack included)

Sensors



miniflowmeter (code 900595)
for reusable and disposable turbine
dimension (Ø 30 mm, 42 mm)



Reusable soft, adult, MIR sensor for oximetry tests (code 919024) only for spirolab code 911081

Power supply	Rechargeable battery and mains power Ni-MH, 6 elements
Current capacity	4500 mAh
Consumption	average 250 mA
Backup battery voltage	none
Batteries charger	Output voltage=12 V, current=1A, compliant with EN 60601-1
Autonomy	~10 hours
Connectivity	USB 2.0, Bluetooth® 2.1
Display	7 inch colour touch screen LCD Display with 800x480 resolution
Keyboard	absent, touchscreen
Mouthpieces	Ø 30 mm (1.18 inch)
Type of electrical protection	Internally powered Class II while charging battery
Safety level for shock hazard	Type BF Apparatus
Conditions of use	Apparatus for continuous use
Storage conditions	Temperature: MIN -40 °C, MAX +70 °C Humidity: MIN 10% RH; MAX 95%RH

Transport conditions	Temperature: MIN -40 °C, MAX +70 °C Humidity: MIN 10% RH; MAX 95%RH
Operating conditions	Temperature: MIN + 10 °C, MAX + 40 °C Humidity: MIN 10% RH, MAX 95%RH

Applied norms	Electrical Safety EN 60601-1 Electro Magnetic Compatibility EN 60601-1-2
Degree of protection against water penetration	IPX1 appliance protected against water leaks

Codes and equipments

911080E0	spiro
911080E1	spiro with reusable turbine

911080E2	spiro with 120 FlowMir
911081E0	spiro+oxy
911081E1	spiro+oxy with reusable turbine
911081E2	spiro+oxy with 120 FlowMir

Spirometry

Flow sensor	bi-directional digital turbine
Volume rate	10 L
Flow range	±16L/s
Volume accuracy	±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%, FEV1/PEF, FEV1/VC, FEV1/FEF0.5, DTPEF, FEV 0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, PEF, FEF25, FEF50, FEF75, FEF2575, FEF7585, FET, Vext, ELA, EVOL, FIVC, FIV1, PIF, FIV1/FIVC, FIF25, FIF50, FIF75, R50, MVVcal, PIF, IRV, VC, EVC, IVC, IC, ERV, IRV, FEV1/VC, TV, VE, RR, ti, te, ti/t-tot, TV/ti, MVV
Measured parameters	Up to 10000 tests
Memory capacity	

Oximetry (on request)

Measurement method	Red and infrared absorption
SpO ₂ range	0-99%
SpO ₂ accuracy	± 2% between 70-99% SpO ₂
Average number of heart beats for the %SpO ₂ calculation	8 beats
Pulse Rate range	18-300 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%), T5
Memory capacity	about 500 hours oximetry

Certificates & Registrations

CE 0476	MED 9826
FDA 510 (k)	K 052140
Health Canada	71191 (class II)
CND code	Z12150102 (spiro) Z1203020408 (spiro + oxy)
GMDN code	46906 (spiro), 45607 (spiro + oxy)
Ministry of Health	1272475/R (spiro) 1272476/R (spiro + oxy) 1645455/R (spiro)