

# Minispir



**USB Spirometer**  
Real time tests directly on PC

# Key features

## Plug & Play

Device powered via integrated USB cable, without screen, without internal memory and with direct data recording on **MIR Spiro** software



## Real-time tests

Real-time tests displayed on the PC screen via **MIR Spiro** software  
Spirometry: FVC, VC, MVV, PRE/POST bronchodilator comparison

## Pediatric incentive

Real-time animation for improved patient collaboration during the test

## Integrated temperature sensor

Automatic BTPS Conversion

## Predicted values



Wide selection of predicted values including GLI, ERS and others in PC mode

## EMR/EHR connectivity

Integration via **MIR Spiro** software with EMR/EHR (in HL7, GDT, FHIR, EXCHANGE PROTOCOL)



## Compatible turbines

		Mouthpiece	Turbine disinfection	Turbine calibration	Packaging	Antiviral filter
FlowMIR® disposable turbine		Disposable included	Not required	Not required	Individually packaged: packs of 60 pieces	Optional
Single patient reusable turbine		Required, not included	Required	Required	Pack of 1 unit	Recommended by ATS

# Measured parameters

	<b>From MIR Spiro software via connection to the device</b>
<b>Spirometry</b>	FVC, FEV1, PEF, FEF75, FEF25-75, FET, FEV1/FVC, FEV6, FEV1/FEV6, FEF25, FEF50, FIVC, FEV1/VC, ELA, MVV(cal), Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEF75-85, Extr. Vol, VC, EVC, IVC, IC, VC, ERV FEV3, FIV1, FIV1/FIVC, PIF, FEV3/FVC, PIF, FEV2, FEV2/FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV0.5 (RFEV), TV, VE, RR, tI

# Datasheet

Size	49.7 x 142 x 26 mm
Weight	65 g
Turbines	· Reusable Turbine (code 910002) · Disposable turbine (code 910004)
Supply voltage	5V USB connection
Nominal electrical power	0.25W
Nominal input current	50mA max
Backup battery voltage	absent
Connectivity	USB 2.0
Display	absent
Mouthpiece	Ø 30 mm (1.18 inches)
IP protection level	IPX1
Electrical protection	Class II device
Electrical safety level	Type BF device
Terms of use	Device for continuous use
Storage conditions	Temp: MIN -40°C, MAX +70°C Humidity: MIN 10% RH; MAX 95%RH
Terms of use	Temp: MIN +10°C, MAX +40°C Humidity: MIN 10% RH, MAX 95%RH
PC Software	MIR Spiro
Memory capacity	PC software database

<b>Spirometry</b>	
Flow sensor	two-way digital turbine
Flow Range	± 16 L/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)
Available tests	FVC, VC, IVC, MVV, PRE-POST
Measured parameters	FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, TPEF, FEF25, FEF50, FEF75, FEF2575, FEF7585, FET, FEV05, FEV05%, FEV075, FEV075%, FEV2, FEV2%, ELA, BEV, FIVC, FIV1, PIF, FIV1/FIVC%, PIF, IRV, VC, IVC, EVC, IC, EI, RFEV, ERV, FIVC, FIV1/FIVC, FEV1/VC%, FIF25, FIF50, FIF75, R50, VT, VE, RR, tI, tE, ti/tTOT, VT/tI, MVV, MVV cal, MV

<b>Certificates and registrations</b>	
CE 0476	MDR 2017/745
FDA 510 (k)	K 122384
Health Canada	71191 (Class II)
EMDN liv.4	Z121501
CND Code	Z12150102
GMDN Code	46906 (spiral)
Ministry of Health	2494682/R (911006I0) 2494688/R (911006I1)
Applicable regulations	Electrical Safety IEC 60601-1 Electro Magnetic Compatibility EN 60601-1-2 ISO 26782: 2009 ISO 23747: 2015 ATS/ERS:2005, 2019(update) IEC 60601-1-6:2010 IEC 60601-1-9:2007+AMD1:2013 IEC 62304:2006 + A1:2015 ISO 10993-1:2018

## Compliance with guidelines and standards

**Spirometry:** ATS/ERS 2005 + update to 2019;  
ISO 23747: 2015; ISO 26782: 2009