DATOSPIR MICRO

Spirometers

DIAGNOSTICS

DATOSPIR MICRO

Spirometers

Main features:

- **Choose from 3 different models to suit your spirometry needs.**
- **Meets 2005 ERS/ATS standards.**
- **Clinic and home studies.**
- **Large 1,000 patient test memory.**
- **Check-up program for test quality assessment.**
- **Export data to other management systems.**
- **Bluetooth and USB connection to PC and external printer**
- **PIN (Personal Identification Number) available.**
- **Comprehensive Touch Screen.**

**** to see configuration.***

Operating Modes, The DATOSPIR MICRO spirometer has two operating modes. The Home mode, allows you to program the unit to monitor your asthmatic patients at home. It includes a traffic light indicator for PEF, FEV1 or FVC parameters. When programmed in the hospital mode it allows you to use the DATOSPIR MICRO as a sophisticated spirometer with multiple options and configurations.

Security, In compliance with the Data Protection Act (LOPD), for preserving the privacy of patient data, the DATOSPIR MICRO has a 4 digit PIN.

Maintenance Program, The equipment has a maintenance program to adjust and/or check the status of certain options, including, setting the calibration warnings, adjusting the screen contrast, instrument self-check, checkup with pre-saved standard curves, etc.

Flash Memory Updates, The spirometer includes a Flash memory which allows you to update, without having to send the unit to the manufacturer. This allows new program versions including improvements as well as options to the spirometer (Bluetooth Bronchodilator response, etc.).

Exporting tests to other systems, Your spirometer can export tests previously saved in the internal database to other management systems used in health care centers. The format of the exported file is compatible with many different systems.

USB

Bluetooth®

CE

Description

The *DATOSPIR MICRO* is a revolutionary spirometer, that incorporates the latest communications systems (USB, Bluetooth) as well as a touch screen (PDA type) on its models B and C. It meets the latest 2005 ATS / ERS recommendations.

Main Features

- 3 models for expanded versatility.
- USB connectivity (PC and Printer) and Bluetooth (optional).
- Touch screen, PDA type (models B and C).
- Internal data base (up to 1,000 graphical tests).
- Data export to other management systems.
- Bidirectional volumetric turbine.
- Integrated oxymeter (optional).
- Automatic BTPS correction.
- Meets 2005 ERS/ATS Standards.
- PIN code.

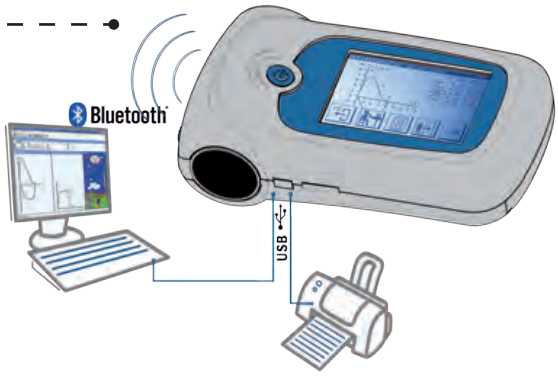
Communications

One of the most important features of the DATOSPIR MICRO is its communication system, which allows it to:

- Transfer equipment check data.
- Internal Software Update.
- Transfer patients tests to a PC.
- Export patient tests to other management systems.

Communications can be made through three different channels:

- Direct USB connection to PC.
- Direct USB connection to printer.
- Bluetooth.
- RS232.



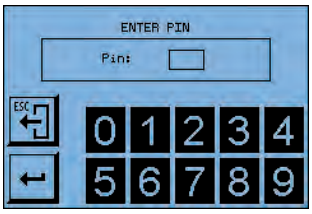
Measurement Systems

The *DATOSPIR MICRO* has a new bidirectional volumetric turbine with an opto-electronic rotary sensor. It is detachable for cleaning and sterilization. Rotation is made on sapphire bearings for high reproducibility and test duration.

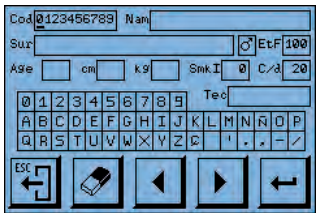
Firmware

The spirometer has been developed to make it user-friendly, so that it is easy to use. All functions are accessible from the 4 silicon keys located below the screen (model A) or by using the icons on the touch screen that can be selected using a pointer stylus (Models B and C).

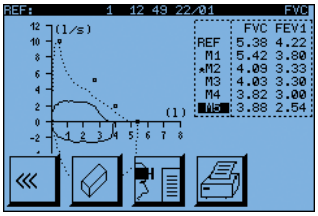
MODELS B and C



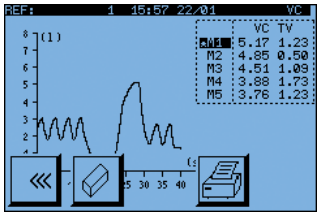
PIN



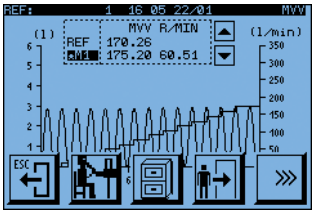
PATIENTS PARAMETERS



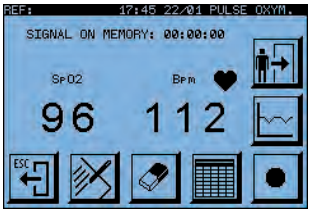
FVC



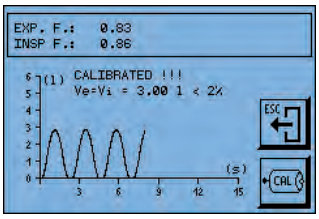
VC



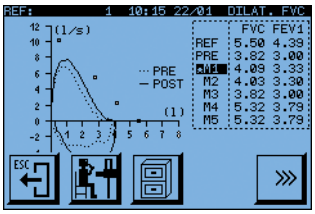
MVV



SpO_2

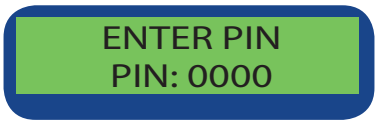


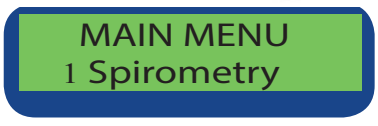
CALIBRATION

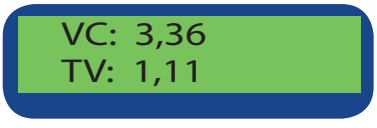


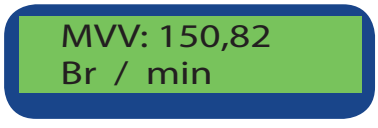
BRONCHODILATION

MODEL A









Pulse Oximetry

The *DATOSPIR MICRO* includes an electronic module exclusively for measuring Oxygen Saturation and Pulse Rate. The pulse oximetry measurement principle is based on the absorption of different wave lengths (red and infrared) by the blood, depending on the amount of haemoglobin in red cells.
The wave lengths used are 660 nm for red and 910 nm for infrared.

Two functioning modes:
Specific measurements or up to 8 hours.
- SpO_2 and PR displayed on the screen.
- Adjustable alarm settings for maximum and minimum SpO_2 and PR values.
- Printing reports of: CT90, IDH, SpO_2 mid./min.-SpO_2, PR máx. – med./min.-PR.

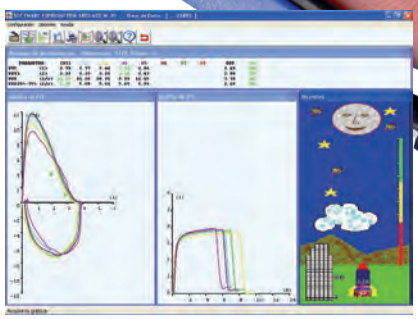
Technical Specifications

SpO_2 measurement range:	0% to 100%
Resolution:	1%
Precision:	70% to 100%:+2% < 70% S.E.
Pulse measurement range:	25 to 250 BPM
Resolution:	1%
Precision:	± 1 BPM or 3% (the highest)

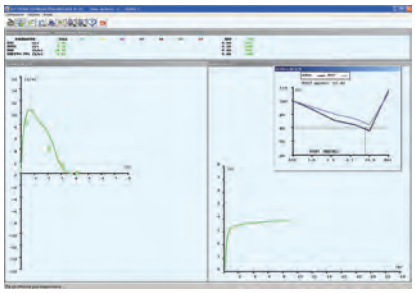
Software W20

The *Software W20* is a Windows ®program for the transfer, analysis, storage and registry of spirometric signals. It is compatible with many DATOSPIR spirometers and it can work in real or deferred time. Among other functions, W-20 software allows for:

- Management of different Data Bases.
- Performance of FVC, VC and MVV .
- Performance of Postbronchodilation tests.
- Graphical presentation in F/V and V/T modes.
- Selection of many reference parameters.
- Selection of different types of diagnosis.
- Trends graph.
- Printing of several reports
- Incentive for children.
- SpO_2 and Maximal Respiratory Pressures modules.



FVC WITH INCENTIVE FOR CHILDREN



BRONCHOCONSTRICTION TEST

TRENDS

Configuration according to model	A	B	C
TURBINE Transducer	■	■	■
USB PC Connection Link	■	■	■
Carrying Case	■	■	■
PC - RS232 Connection Link	●	●	●
Bronchodilation	■	■	■
Spirometry Software W20 Demo	■	■	■
Quick Reference	■	■	■
Large 1000 Test Data Base	●	■	■
USB External Printer Connectivity	■	●	■
Diagnostic Firmware Option	●	●	■
Bluetooth Module	●	●	●
Bluetooth Adapter	●	●	●
Flex Pulse Oximetry Module	---	●	●
Spirometry Software W20 (Full License)	●	●	■
Pulse Oximetry W20 Software	---	●	●
Bronchoconstriction W20 Software	●	●	●
4 Battery Charger	●	●	●

■ STANDARD ● OPTIONAL

Measured Parameters

- FVC (l)
- FEV.5 (l)
- FEV1 (l)
- FEV3 (l)
- FEV1/FVC (%)
- FEV3/FVC (%)
- FEV1/VC (%)
- PEF (l/s)
- MEF75% (l/s)
- MEF50% (l/s)
- MEF25% (l/s)
- FEF25-75% (l/s)
- FEF75-85% (l/s)
- FET25-75 (s)
- FET100 (s)
- MEF50/MIF50
- FEV1/FEV.5
- FEV1/PEF
- FIV1 (l)
- FIV1/FIVC (%)
- FEV1/FIV1 (%)
- MIF50% (l/s)
- FIVC (l)
- PIF (l/s)
- MTT (s)
- PEF/PIF
- Vext (%)
- MVVInd (l/min)
- FEV6 (l)
- FEV1/FEV6 (%)
- EPOC Risk
- Lung Age
- VC (l)
- TV (l)
- ERV (l)
- IRV (l)
- IC (l)
- Ti (s)
- Te (s)
- Tt (s)
- Ti/Tt
- MVV (l/min)
- Br./min (Br/min)

Technical Specifications

Flow Transducer: TURBINE.
Measuring range: Flow from 0 to +/- 16 l/s; volume from 0 to 10l.
Flow-volume accuracy: 5% or 200 ml/s – 3% or 50ml, whichever is greater (ERS/ATS)
Flow resistance: <1.25 cm H_2O/l/s at 14 l/s (ERS/ATS)
Bluetooth module: Compliant with V. 2.0 specification.
Maximum duration and number of maneuvres: FVC: 25s (5 curves); VC: 45s (5 curves); MVV: 15s (5 curves)
Working temperature and humidity: 10 to 40° C – Less than 75% without condensation
Safety Standards: EN 60601-1:2006+AC:2010, EN 60601-1-2:2007+AC:2010
Power supply: 1.5 V battery (alkaline recommended) or 1.2 V NiMh battery (recommended > 2200mAh).
Power: Less than 400mW.
Dimensions: 153.5 x 80 x 52 mm.
Weight: 250g.
Meets 2005 ERS/ATS standards.

CE

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