

SpiroStar DX



World's smallest Windows® compatible spirometer

System components

- Personal computer (minimum requirements) without incentive:
 - Pentium 433MHz, Windows 95/98/Me/NT4 with 64MB RAM, Windows 2000/XP with 256MB RAM, 800x600 display with 256 colours, CD-drive, floppy drive, keyboard, mouse and graphics printer
- Personal computer (minimum requirements) with incentive:
 - Pentium 1.3 GHz or higher, Windows NT4 with 128MB RAM or more, Windows 2000/XP with 512MB RAM or more, 800x600 display with true colours, CD-drive, floppy drive, keyboard, mouse and graphics printer
- More memory may be required to run additional applications simultaneously
- IE5.01 and 32-bit ODBC drivers (included in Spiro2000 installation kit)
- SpiroStar DX Spirometry system:
 - SpiroStar DX spirometer unit (M9453)
 - SpiroSafe disposable flow transducer (M9228)
 - Tubing (M9220)
 - Spiro2000 spirometer software (M9831)
 - Quick Instructions Guide and Installation Guide
 - User's Manual (electronic)

Technical specifications

SpiroStar DX spirometer unit

- Physical dimensions: 74 mm x 36 mm x 23 mm
- Weight: 26 g
- Frequency response: 0...30 Hz (-3 dB)
- Supply voltage: via signals in RS-232-C serial port
- Temperature correction: software-based
- Temperature range (operating): +10...+40°C
- Temperature range (storage): -10...+50°C
- Relative humidity range: 5...85%
- Pressure range: 600...1060 hPa
- Safety standards : EN60601-1, Class IIa medical device (MDD, 93/42/EEC), CE certified

SpiroSafe disposable flow transducer - the best solution to patient safety

- Screen-type interchangeable disposable pneumotach
- Material polyethylene, can be disposed with incineration without toxic emissions
- Flow range -14...+14 l/s
- Back pressure: less than 0.6 kPa/(l/s), meets ATS, ACCP & ECCS standards
- Accuracy: 3% without calibration, 2% with volume calibration
- Sterilisation not required, the entire Flow Transducer is disposable

Spiro2000 spirometer software for the professionals

Operating System:

- Windows 95/98/Me/NT4/2000/XP

Remote use

- Database access via local area network (LAN)
- Final Report and signal data transfer via e-mail

Calibration

- Calibration with standard 3000 ml pulmonary calibration syringe, user defined volumes allowed
- Calibration results are recorded and stored in the calibration log file

Measurement

- Collection of whole signal data, collection rate: 100 Hz
- Max duration of one measurement: 60 s
- Measurement protocols: TV, VC, FVC, FEVC, FIVC, MVV
- Maximum number of measurements: 8 pre and 8 post measurements
- Meets ATS/ERS standards
- Determination of 0-time in FVC by back extrapolation
- Metric and U.S. units
- Calculated variables:
 - TV, FR, MV
 - VC
 - FVC, FEV0.5, FEV1, FEV6, FEV0.5%, FEV%, PEF, MEF75, MEF50, MEF25, MMEF(FEF25-75), METT, AEFV, FET and VEXT
 - FIVC, FIV0.5, FIV1, FIV6, FIV0.5%, FIV%, PIF, MIF75, MIF50, MIF25, MMIF(FIF25-75), MITT, AIFV, FIT and VIEXT
 - MVV, MVVFR and MVVT
- Encouraging spirometry incentive for the children

Results and Databases

- Criteria of best results: according to ATS and ERS recommendation
- Automatic interpretation of bronchodilatation test
- Several interactive graphs and tables. Detailed viewing by zoom, signal change by check boxes, trending
- Reference values: several pre-defined national sets. Reference values also in a histogram form. Reference addition and reference set edition by MS Access
- Final report: Page size A4/Letter, HTML based, user-defined, several pre-defined formats available
- Database: MS Access or any other ODBC and SQL capable database
- XML based import and export functions

