Micro Medical

a subsidiary of VIASYS Healthcare

MicroRint

A simple method to measure airway resistance

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A simple test for childhood asthma

Micro Medical's unique design has taken a hitherto specialised measurement out of the pulmonary function laboratory and into the clinic or home. MicroRint enables airway resistance to be measured with the same ease as peak flow but without effort or technique from the patient. The subject simply breathes passively through a mouthpiece or face mask. A rapidly occluding valve automatically interrupts the airflow for a period so brief as to be imperceptible to the patient. The airway resistance result is automatically computed and displayed.

The whole procedure takes only a few minutes and can be performed on all age ranges from neonates to adults. With the transducer weighing only 350g, the instrument is palm sized, easy to use and comes complete with all accessories in a sturdy carrying case.

MicroRint Cat. No. MR5000

Features

- Lightweight and portable, operating from internal rechargeable batteries.
- Rapid, non-invasive inspiratory and expiratory measurements.
- An alternative to spirometry for pre-school age children.
- Well tolerated by neonates and geriatric patients.
- Fully configurable features menu.
- Pre and post medication comparisons with predicted values.
- Results printed directly to Hewlett Packard or Canon printers. Compatible models specified by Micro Medical.
- Rida airway resistance database and analysis software avaiable as an option.
- 1000 + patient memory.
- The MicroRint transducer (Cat. No. MRT6000) can be purchased as an option for SuperSpiro, MicroLoop and MicroLab spirometers.

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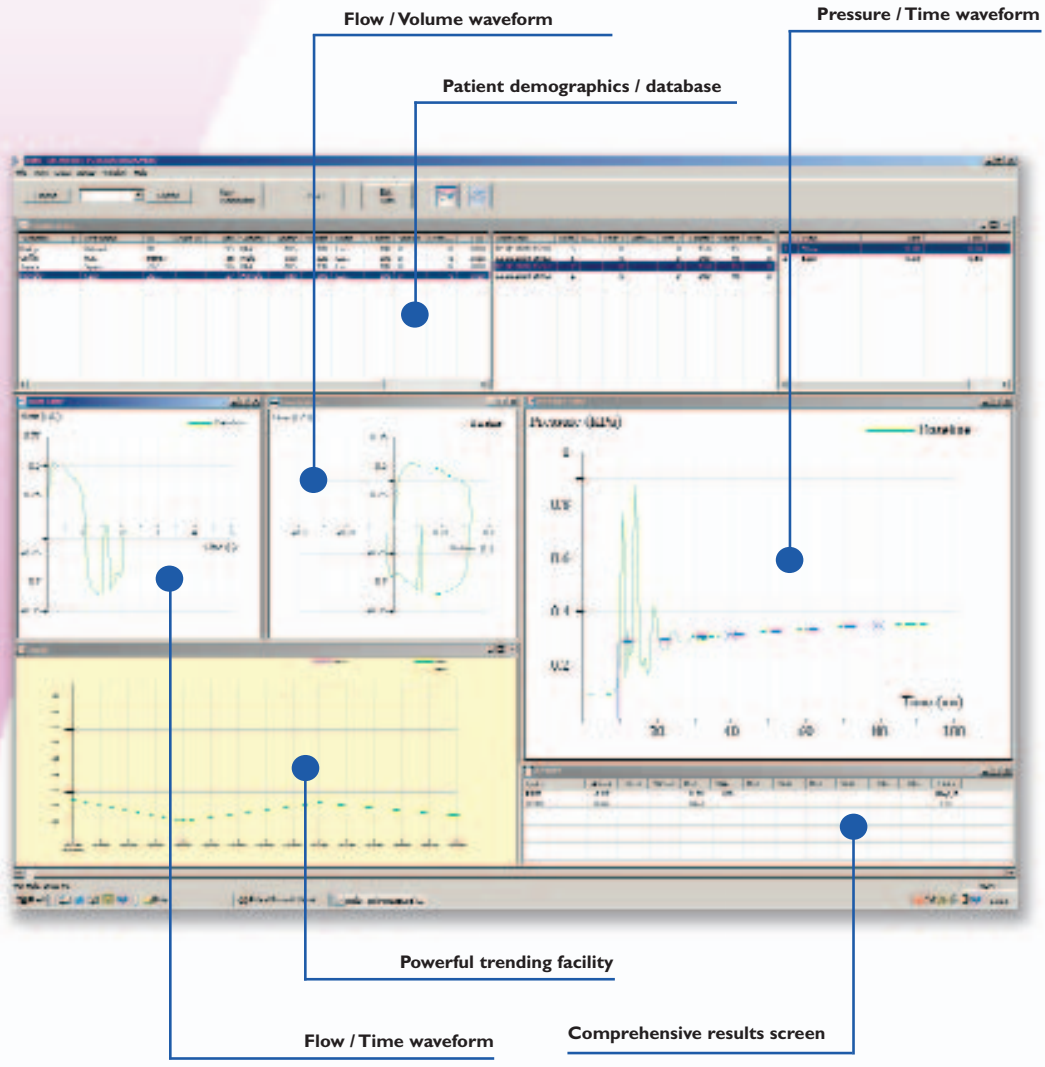
Rida

Rint database and analysis software

An option to MicroRint is Rida, a 32 bit PC based software for displaying results and the waveforms developed during airway resistance testing

Rida has a user friendly, modern, multi-window visual interface and is compatible with all the latest Windows operating systems. Patient databases are easily created, a powerful search facility and the long term trending of patient results are also possible.

Bronchodilator and Steroid assessment can be made and Flow/Volume, Pressure/Time or Flow/Time waveforms can be displayed simultaneously ensuring quality testing and accurate results are obtained different sets of normal values are selectable and the printout format is fully customisable



System Requirements

- *PC with Microsoft Windows 2000 or later*
- *32 MB of RAM*
- *50 MB of free hard drive space*
- *Free Serial Port or USB Port*
- *MicroSoft® Internet Explorer version 4.01 or above*
- *Video: SVGA 800x600, 256 colour*

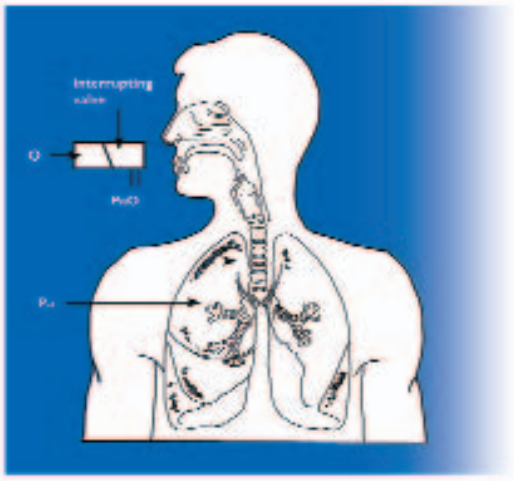
Rida Cat. No. RD1000

Features

- Multi-window layout for ease of use
- Real-time waveform displays ensuring quality testing
- Bronchodilator and Steroid assessment is possible
- Choice of predicted values
- Configurable print out format

The problem

Wheeziness is a common problem in pre-school children. Objective assessment of this is difficult because such children cannot usually co-operate with conventional tests of pulmonary function such as peak expiratory flow (PEF), or spirometry (FEV_1 - FVC). This has hindered both the diagnosis of respiratory tract conditions and assessment of the response to therapy.



Q Respiratory flow rate just before interruption

PaO Airway pressure (mouth pressure) immediately after interruption

Pa Alveolar pressure. Equilibrates with PaO immediately after interruption

Rint Airway resistance result (kPa/l/s) computed from PaO/Q

Specification

Storage Capacity	1024 tests
Printer compatibility	Hewlett Packard or Canon printer [adaptor needed - Cat. No MLA 350]
Predicted values	Percent predicted and normal range reported
Display	Graphic LCD 240 x 160 pixels
Transducer type	Flow: Pneumotachometer
Pressure	Piezo resistive
Resolution	0.01 l/s
Flow range	0 to 2 l/s
Power supply	Either primary 230V AC 50 Hertz secondary 9V DC 300mA or primary 120V AC 60 Hertz secondary 9V DC 300mA
Battery Pack	Micro controller unit: Rechargeable NiCad 3.6V 600mA hours
	Transducer: Rechargeable NiCad 6V 50mA hours
Dimensions	Micro controller unit 274 x 134 x 36mm
	Transducer: 160 x 65 x 40mm
Weight	1kg, 2.75kg with carrycase and accessories

Bibliography

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The MicroRint and Rida are part of an extensive range of respiratory monitoring equipment manufactured by MicroMedical Ltd and is offered as Cat No. MR5000. (Rida Cat No. RD1000).

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