



medisoft®  
CARDIO-RESPIRATORY INSTRUMENTATION



## Ergocard Clinical & Professional models

Cardiopulmonary exercise testing

[www.medisoft.be](http://www.medisoft.be)

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**Exercise testing systems** with accuracy, high performance, modularity and affordability in mind.



The Medisoft metabolic carts product line is the ideal solution for your cardiopulmonary exercise testing needs, with 2 models, to meet any requirements from any clinical, sports and research lab :

- The basic **CLINICAL** device, with NDIR CO<sub>2</sub> and electrochemical O<sub>2</sub> sensor.
- The advanced **PROFESSIONAL** system, fully expandable with multiple options, featuring NDIR CO<sub>2</sub> and Physical O<sub>2</sub> sensor with minimum 7 years life span.

Special flow "Pitot tube" transducer, lightweight, lowest resistance, insensitive to humidity, turbulence and temperature of exhaled gas is accurate and linear up to 20 l/sec 350 l/min nominal ventilations, from pediatrics to high range athletes/sports medicine application, can be used with face mask or mouthpiece.

Expair software assists and guides the operator before, during, after the test, featuring easy gas and volume calibration, results quality control from the beginning of the test to the reporting, true breath-by-breath mode with time and breaths averaging, V-Slope, 3 lines method, RER range and user definable methods to determine the Ventilatory thresholds.

Included in the **basic standard configuration : Complete basic Spirometry** for Forced Vital Capacity, Slow Vital Capacity, Maximum Voluntary Ventilation and Minute Tidal Ventilation including bronchochallenge testing software.

**Ideal for :** Pulmonary and cardiac rehabilitation, heart-failure assessment and follow up, exercise prescription, sports medicine, physiology and research,

## Options available for both models, **Clinical** and **Professional** :

- Exercise flow-volume loop with flow-limitation evaluation.
- Interface and control of most Bike Ergometers and Treadmills.
- Heart rate chest belt.
- Advanced integrated 12 leads ECG module, for resting and exercise applications, one touch operation with complete ECG analysis, arrhythmia detection and analysis, real time printing.
- SpO2 integrated module to Clinical optional on Professional.
- Automated Blood pressure external Tango™ option, with exercise artifact rejection.

### Can be combined with the following devices:

ECG, FeNO+, FOT Resmon Pro, BodyBox, HypAir, Micro 5000, Micro 6000, SpiroAir.



## Additional options, available on **Professional** version :

- IC change during Exercise.
- Re-breathing Indirect Fick Cardiac Output (Qc) test.
- Intra-Breath diffusion test under exercise, with Cardiac Output (Qc), single breath method.
- Lung volumes measurements (TLC, FRC, ERV etc.) with Multi-breath Nitrogen Washout module.
- Hypoxic and Hyperoxic testing mode.
- Nutritional diagnostics, indirect calorimetry, resting energy expenditure test, with face mask.
- Diffusion RTD with Helium (He) or Methane (CH<sub>4</sub>) trace gas.

## ExpAir, the Medisoft software

The most intuitive, user-friendly and complete software package available today, for all Medisoft devices.

- Advanced, data array storage allowing re-evaluation and calculation of test parameters, with export and HL7 messaging capabilities for research and integrating to Hospital systems.
- Trend tabular data reporting of any parameter.
- Interpretation function (GLi 2012 guidelines).
- Comments and offline input.
- Online data transfer.
- Report designer.
- Predicted value editor, new interpretation algorithm based on LLN, ULN, Z-score and percentile.
- Choice of languages and units of measurement.
- Bronchial challenge testing software included.
- Manual entry of blood gases.
- Full calculation function: display of calculation points with manual correction capability.
- Quality control automated software, diagnostic functions and full program control.
- Remote assistance using Teamviewer™.

**Intended users :** Medical diagnostic device, Class IIa, should only be used by doctors, physiologists, trained respiratory technicians/nurses or under supervision of such. Data obtained must be interpreted and reported by trained medical staff only.



### Technical specifications :

Physical Dimensions	Module	Trolley
(H x W x D) cm	36 x 27 x 14	Standing - 140 x 73 x 70 Seated - 120 x 73 x 70
Weight	± 8 Kg	± 35 Kg

<b>Power requirements :</b>	230 VAC 50 Hz or 115 VAC 60 Hz
<b>Power consumption :</b>	± 62 VA (module)
<b>Warmup time :</b>	20 min.
<b>Meets all electrical safety requirements :</b>	IEC60601-1
<b>Classification :</b>	IIa
<b>CE MARK :</b>	CE 0029
<b>MDD :</b>	93/42/EC and harmonized standards
<b>Computer interfacing :</b>	Windows 7 Pro / Ultimate/ 8.0 / 8.1™ Serial interface RS232 / USB 2.0

### Ambient conditions for use

<b>Temperature :</b>	10 - 35°C
<b>Relative humidity :</b>	25 to 85 % (non condensed)
<b>Barometric pressure :</b>	No restriction



A MGC Diagnostics subsidiary

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