PowerCube[®]-Ergo

Because cost effectiveness is not just a question of the purchase price

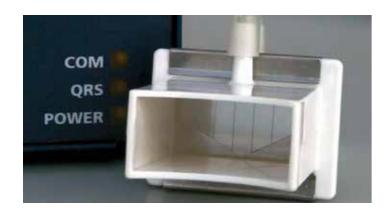
GANSHORN devices are known for their high reliability. They are easy to operate, economical and they maintain consistently high quality measurement evaluations — and not only during the measurements.

The operator can perform and document system checks for quality assurance quickly and easily.

All GANSHORN gas analysers operate reliably and virtually maintenance free. Due to its compact design you can clean the »Blendenspirozeptors« in a short amount of time: not applicable concerning disassembling and assembling. It is also less susceptible to structural failure than complex systems e.g. with moving parts.

Efficient team work

The PowerCube-Ergo provides interfaces for data exchange with external devices. Well-proven, user-friendly interfaces exist to connect many different ergometers and ECGs. Benefit from the know how of world wide leading manufacturers cooperating with GANSHORN.



Technical Data PowerCube®-Ergo

Ergospirometry measurement system PowerCube®-Ergo (Ref.No.013370043) consisting in measurement module PowerCube, software package LF8 for Microsoft Windows®, base accessories, trolley with movable support bar, support for gas cylinder and med. 230V Insulation transformer 1000 VA. With complete PC package incl. colour ink jet printer. For the measurement programs Spirometry, Flow/volume, MW, Ergospirometry, off-screen input of blood gas values. Including partial measurements Flow/volume curve under load, lindirect Calorimetry; Including Software Assistant ErgoCheck.

Options:

013370048 02 measurement via micro fuel cell 015540030 Evaluation software LFSport 013370046 Cardiac Output (C02-Rebreathing) 012230020 Pulse Oximetry Sp02 Further options e.g. ECG, ergometer, peripheral devices on request. The software is network capable and has interfaces to external software programs.

Active medical product of class II a RS 232 - infrared interface for 4 KV-separation between PowerCube and PC

Measurement module: PowerCube

Weight: measurement module approx. 2.5 kg, Complete system approx. 70 kg

Dimensions complete system (d x w x h):

approx. $65~\mathrm{cm}~\mathrm{x}~65~\mathrm{cm}~\mathrm{x}~150~\mathrm{cm}$

Flow transducer standard: Pneumotachograph

»Blendenspirozeptor«, bidirectional

 $\begin{tabular}{ll} \textbf{Measurement principle:} & \textbf{difference pressure measurement} \\ \textbf{with variable orifice Weight only 29 g, dead space eff. 24.5 ml} \\ \end{tabular}$

O2 analyser: measurement principle: chemical Measurement range: 0-100 % O2 Optional: measurement principle micro fuel cell

Measurement range: 0-21 % 02

CO₂ analyser:

Measurement principle ultrasound transit time (patented)
Measurement range 0-15 % CO2

PowerCube[®]-Ergo

The versatile system for perfect Ergospirometry



PowerCube[®]-Ergo

Whether it is for differential diagnosis or for the medically secured support of sportsmen: Ergospirometry has become the indispensabletool for the cardiopulmonary function diagnostics.

Gain valuable information with the PowerCube-Ergo for diagnosis, therapy or training support

The PowerCube-Ergo is the ideal system for measuring and the evaluation of breathing gases O2/CO2 under load.

Important measuring programs round off the PowerCube-Ergo basic edition

Spirometry can be used separately for basic diagnosis; the Flow/volume curve under load (intrabreath) also serves for the determination of pulmonary limitations. The Maximum Voluntary Ventilation MVV has a special meaning in Ergospirometry for the determination of the breathing reserve. A profile assistant permits the simple creation of load profiles e.g. when using a pulse belt.

The software assistant ErgoCheck accomplishes a plausibility check of the measurement at the push of a button – as the patient's exhaustion is a substantial factor for the evaluation and comparability of measurements. It also offers, for the first time, the possibility of determining the ventilatory threshold's range by a combination of different threshold models.



This basic system module is extendable for different options e.g. Pulse Oximetry SpO₂.



Adapted from the outset to meet the special requirements of Ergospirometry

The GANSHORN pneumotachograph »Blendenspirozeptor« demonstrates its unique qualities facing the high requirements of Ergospirometry.

The way in which GANSHORN has interpreted the measurement principle of the variable orifice, makes it absolutely insensitive to the moisture of breathing air, condensation and to water droplets (perspiration, sputum).

After being cleaned it is immediately operational again and requires no drying time. Weighing at approx. 29 grams it is substantially lighter than other systems and therefore more comfortable for the patient. It has been skillfully engineered to ensure small dead space and low resistance even at high flow rates.

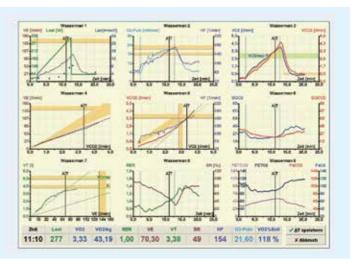
Quick response times and high sampling rates - the best conditions for genuine »breath-by-breath« measurements

The GANSHORN gas analysers provide accurate values even at high flow rates that may e.g. be too high for the measuring principle of the mixing chamber. The accuracy of the analysers cannot be affected e.g. by vibrations next to a treadmill. The 2-point gas calibration with economical gas consumption not only performs a fully automated calibration of the analysers, but additionally calibrates the entire gas leading system - exactly as it will be used for the measurement.

The GANSHORN Software LF8: The main focus is on the subject - not on the computer

Clear on-screen displays and logical user guidance permit guick measurement procedures and individual working routines.

- Simultaneous display of the 9-panel-diagram according to Wasserman also on-screen during the measurement
- High resolution full screen display of each of the 9-panel-diagrams for the exact threshold detection
- Large format diagram for monitoring selectable parameters with alarm function
- Automated determination of the anaerobic threshold by set method (V-Slope, CO2- excess,
- EQ02 Minimum, RQ=1) or manually in the diagrams



The physician in charge can edit and re-evaluate even archived measurements by retrieving stored data from the original files.

Issue reports are fully configurable with different parameter representations: numerical, in tables, graphically in charts, as graphic files or as data files for transfer to external programs.

LFSport - The ideal complement to Ergospirometry with LF8

The software LFSport (optional) combines Ergospirometry testing with lactate diagnosis and a training plan - the ideal companion for your performance diagnostics!