



SB-500

SB-1000

Ergometers bike



LABORATORY



SB-500/SB-1000

Ergometers Bike

Features

The bike ergometers SB-500 and SB-1000 were developed for use in the cardiology sector based on the proven previous models, with particular care to ensure highest stability and practicability. The devices are used for performing defined exercises during ergometric examinations and therapeutic applications.

SB-1000 is available in both versions "easy" and "smart".

The "easy" version is particularly suitable for applications with a master device (remote operation: ECG, PC, ...), whereas the "smart" version is best used as a stand-alone device. Upon customer request, many options can be added to the available features on both devices.

- Blood pressure measurement using QRS trigger
- Electrical saddle height adjustment
- SpO2 measurement
- WLAN connection (to master device)
- Bluetooth connection
- Pivoting display 180°
- Colour touch display
- Almost noiseless operation (even at high speed)
- Remote (type "easy") and stand-alone (type "smart") operation
- Low access
- Elegant, robust and easy to clean casing
- Stable steel construction (additional tilt protection available optionally)
- Load range 20-999 Watts
- Various optional extensions available (see technical data)

Regardless of their features, the devices meet the highest quality standards according to DIN VDE 0750-238 for accurate physical exertion tests to conduct measurements in cardiovascular and pulmonary function diagnostics.

Specifications

Standards	93/42/EEC (EC Medical Device Directive) DIN VDE 0750-238 (medical ergometer)
Braking principle	Computer-controlled eddy current brake with permanent torque measurement (the brake unit is independent of revolutions per minute)
Drive mechanism	Almost noiseless and maintenance-free drive mechanism with Poly-V belt (no chain)
Load range	work area independent of revolutions per minute (acc. to standard) 1 to 20 watts, work area dependent of revolutions per minute Adjustable in steps of 1 watts
Range of revolutions	30 to 130 n/min, controlled with foot pedal (independent of revolutions per minute)
Load tolerance	According to DIN VDE 0750-238 (in range of independent revolutions per minute)
Load parameters	Externally through master device (ECG, PC, ...) via interface Freely programmable load software on device (stand-alone operation) only SB-1000 smart
Time intervals	1 to 99 minutes
Display	TFT screen 57x43mm (VGA, resolution 65k colours) SB-500 SB-1000 easy 5,0" multi-touch widescreen display (1280x720 pixel) SB-1000 smart
Patient's height	Infinitely adjustable for body height between 140 - 210 cm
Power supply	230-240 V, 50 Hz 110-120 V, 60 Hz (on customer's request)
Patient's weight	Maximum patient weight 160 kg
Long-term accuracy	Continuous torque control and equalisation according to weight
Interfaces	RS-232 (galvanically isolated)
Storage space	45 x 83 cm
Blood pressure measurement (optional only SB-1000 easy and SB-1000 smart)	Blood pressure measurement using QRS trigger Indirectly, with a specific, modified measuring system based on R-R, and computer analysis including maximal suppression of artefacts during ergometry. Measuring range 40 - 300 mmHg Automatic pressure release by 3 mmHg/pulse, with high amplitude and quick pressure release in the average range
Electrical height	Automatic setting through master device is possible (rehab system) only SB-1000 easy and SB-1000 smart
SpO2 measurement	Only SB-1000 easy and SB-1000 smart
WLAN (optional)	To control the load / For data transmission of blood pressure and SpO2 only SB-1000 easy and SB-1000 smart
Pulse measurement	With blood pressure measuring device / Polar pulse tester (optional) only SB-1000 smart
ECG amplifier module	For use in rehab installations only SB-1000 easy and SB-1000 smart
ECG display (optional)	In conjunction with ergosana chest belt ECG "SanaBlue" Stable ECG signal, not susceptible to interference only SB-1000 smart

SB-500/SB-1000

Ergonometer bikes

Control panels



SMART

Ergometers equipped with a “smart” control panel, can be used for remote as well as for stand-alone operation.

Exercise instructions can be transmitted from a master device (ECG, PC, ...) or from a programmable ergometry program located on the ergometer. Further, training programs with exercise types such as pulse steady state, constant load and interval training can also be programmed.



EASY

Ergometers equipped with an “easy” control panel, on which they receive exercise specifications from a master device (ECG, PC, ...), are used for remote operation. All major exercise data (such as blood pressure, heart rate, pedalling rate, instruction concerning correct pedalling rate) is displayed in a compact format. The optional features, such as blood pressure measurement and electric saddle height adjustment, can also be conveniently adjusted from the Touch display.



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