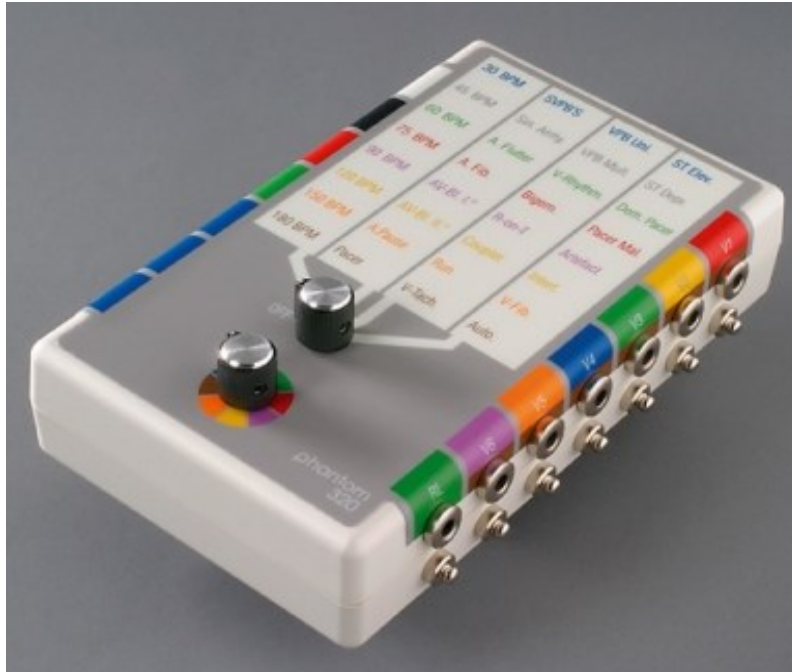


EP-MS59010 ECG Simulator Phantom MS320



N.B. Product is subject to change without prior notice. The actual product might differ from the pictures here shown.

Description

The phantom 320 is a simulator usable in many ways. This device allows you to test the precise function of:

- ECG and prolonged ECG devices
- Monitors
- ECG Recorders
- Arrhythmia Computers etc.

For device demonstration purposes the digital storage technology guarantees independent and genuine ECG waves for all 32 programs.

The standard of ECG Simulators in the entire branch of medical engineering: the phantom 320.

Most test laboratories such as TÜV, Dekra and other inspection authorities are using the handy device. The phantom 320 is the indispensable tool for quality assurance of medical engineering products, for service and test technicians or for sales demonstrations.

The friendly user interface and its compatibility to all device manufacturers, its versatility completes the power of the phantom 320. The simulator is not only verifying the precise function of ECG and prolonged ECG devices but also checks Monitors, ECG Recorders, Arrhythmia Computers etc.

Normal or pathological ECGs: you revive independent and genuine ECG waves for up to 32 ECG signals.

Among other features you can simulate

- eight normal sinus rhythm
- seven supraventricular and
- nine ventricular arrhythmias as well as
- three pacemakers.

A special automatic program executes a typical selection of normal and pathological signals within approx. 17 minutes.

CALIBRATION EVERY 60 MONTHS!

Technical features

- 12 leads: I,II,III,avR,avL,avF,V1,V2,V3,V4,V5,V6
- 14 connections with 4 mm banana plugs and pushbuttons
- Identification and colour code: DIN EN 60601-2-51
- Digital storage 1,6 Mbit
- Amplitude resolution 8 Bit
- Scanning frequency 256 Hz
- Signal bandwidth 0 – 120 Hz
- Signal amplitudes (min – max)
 - Lead I + 1.35 – 1.49 mV
 - Lead II + 2.35 – 2.49 mV
 - Lead III + 0.95 – 1.06 mV
 - Lead V1 - 2.12 – 2.30 mV
 - Lead V2 - 0.55 – 0.61 mV
 - Lead V3 + 1.03 – 1.14 mV
 - Lead V4 + 2.11 – 2.21 mV
 - Lead V5 + 1.75 – 1.85 mV
 - Lead V6 + 1.40 – 1.51 mV
- Time base Quarz 32768 Hz
- Output impedance: Electrode connections: 20 Ohm; 1V outputs: 100 Ohm
- Waveforms
 - 8 sinus rhythms (normal QRS)
 - 30,45,60,75,90,120,150,180 BPM
 - 7 supraventricular arrhythmia
 - 9 ventricular arrhythmia
 - 3 pacemaker
 - 2 ST segments (elevation, depression)
 - Each with horizontal, ascending and descending ST wave
 - Bradycardia
 - Tachycardia
 - ECG with artefacts
 - ECG with interference 50/60 Hz
- Signal width: PQ, QRS, QT depending on RR interval (after Lepeschkin)
- Battery Standard 2 x 1.5-V LR 6
- Battery life Approx. 100 hours continuous operation
- Surroundings
 - Working temperature 0 bis 40 °C
 - Storage temperature -20 bis 80 °C
 - Air humidity: 10% - 90% noncondensing
 - Barometric pressure 700 - 1500 hPa
 - Dimensions (LxWxH) 150 x 100 x 40 mm
 - Weight 400 grams, including battery

