CARDIOVIT CS-104

CARDIOVIT CS-104 Configurations

CARDIOVIT CS-104 System

ECG: MS-12 blue or MS-12 USB or FT-1 ECG recorder and:

– Trolley with PC, monitor and software installed
– Resting/Rhythm ECG
– Exercise ECG

Dimensions Trolley: approx. 1400 x 631 x 590 mm (height with monitor attached 1600 mm)

Weight: approx. 24 kg (with monitor 28 kg)

Integrated power supplies and cabling: 100 - 240 VAC, max. 4.5 A, 50-60Hz (fully equipped)

CARDIOVIT CS-104

ECG: MS-12 blue or MS-12 USB or FT-1 ECG recorder and:

– Software (without PC)
– Resting/Rhythm ECG

CARDIOVIT CS-104 Spirometry

Spirometry software (without PC) and SpiroScout SP plus sensor (see next page)

PC Specification

CARDIOVIT CS-104 System

Operating system: Windows® IoT

Network: Intel® Wi-Fi 6 AX201 2x2 (Gig+) + Bluetooth 5.1 and 1x nLAN (RJ-45)

Working RAM: 8 GB

Bluetooth: Bluetooth 5.1

Interfaces:

– 1 USB 3.2 Gen2 Type-C port (front)
– 1 USB 3.2 Gen2 Type-A port with PowerShare (front)
– 1 Universal Audio Jack (front)
– 1 Line-out port (front)
– 2 USB 3.2 Gen2 Type-A ports (rear)
– 1 USB 3.2 Gen1 Type-A port (rear)
– 1 USB 3.2 Gen1 Type-A port with Smart Power on (rear)
– 1 USB 3.2 Gen1 Type-A port (rear) (for Discrete graphics)
– 2 Display Port 1.4 ports (rear)
– 1 RJ-45 port 10/100/1000 Mbps (rear)
– 2-pin Connector for external switch on

MS-12 Blue

Device

Dimensions: 90 x 58 x 20 mm

Weight: 118 g incl. batteries

Electrical data

Power: 2 x AA NI-MH rechargeable batteries

Charging time: 3 h

Battery capacity: 36 hours of continuous display

Interface

Bluetooth 2.0 and 2.1 + EDR

Profile: SPP

Module type: class 2

Safety: Pairing to ensure data transfer to the correct addressee. Smart pairing is supported.

Display

OLED

ECG Amplifier

Complies with IEC standard 60601-2-25 and ANS/I/AAMI EC11.

MS-12 USB

Device

Dimensions: 95 x 62 x 14 mm

Weight: 140 g incl. USB cable

Cable Length: 2.5 m

Controls and Indicators

Function button: Button for initiating a resting ECG with Integrated LED for:

– indicating PC connection and on/off status (light blue)
– indicating function button active for auto ECG recording (blinking light blue)

Interface

USB interface for data transmission and unit power

Patient Input (applied part)

Fully floating and isolated, defibrillation protected (with original SCHILLER patient cable), type CF.

ECG Amplifier

Complies with IEC standard 60601-2-25 and ANS/I/AAMI EC11.

FT-1 ECG Recorder

CARDIOVIT FT-1

see separate technical datasheet (Art. No. 2. 500684)

ECG

Filter

User set filter: Low pass 25 Hz, 40 Hz, or 150 Hz and RNSF for Exercise ECG

Recording functions ECG

Analysis: Simultaneous 12 channels, on-screen review of ECG

Rhythm recording: Resting Rhythm up to 20 minutes

Lead order: Standard or Cabrera

QT correction: Bazett, Fredericia, Fremingham or Hodges

Re-measurement tool

ECG framer

Lead selection: Standard 12-lead, Standard with C4r, Right precordials, Left posterior, Balanced, Nehb, paediatric, XYZ (Frank and Bipolar)

Spirometry

Recording functions Spirometry

Sensor: SpiroScout SP plus (see over)

Tests: FVC (with incentive screen), SVC, MVV

Standards: Normal standards selected for predicted value calculation

Review: On screen review of PRE and POST measurements

Interpretation: Automatic interpretation of FVC

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CARDIOVIT CS-104

Environmental Conditions

Temperature
Operation: 10 to 40 °C

Transport: -10 to 50 °C

Storage: 5 to 50 °C

Humidity
Operation: 15 to 95 % non-condensing

Transport/storage: 10 to 95 % non-condensing

Pressure
Operation: 700 to 1060 hPa

Transport/storage: 500 to 1060 hPa

Standards

Classification
Safety and performance standard: Conforms with IEC/EN 60601-1 and IEC/EN 60601-2-25

Protection class according 60601-1: II

Applied part according 60601-1: CF

Classification according Directive 93/42/EEC: IIa

Notified body: C€ 0123

Environmental protection class: IP20

Options ECG

CS-104 System and CS-104
ETM (computer-aided ECG interpretation): (5.111002) for adults and children and ETM sport - Seattle Criteria

Advanced interpretation editor: (5.111003) - (standard in CS-104 System)

Exercise ECG: (5.111006) 12 Lead ECG EXEC Expert (standard in the CS-104 System)

Advanced Arrhythmia detection: (5.111004) exercise and rhythm ECG

Vector ECG: (5.111005)

Worklist: (5.111008) - (standard in the CS-104 System)

Spirometry: Spirometry software application activated with SpiroScout SP plus sensor 1.500041

Options Spirometry

CS-104 Spiro
Worklist: (5.111008)

Options Communication

Communication
SCHILLER server required

– HIS/EMR/PACS order import for Worklist (5.111008)
– DICOM/HL7 ECG export to HIS/PACS (5.602101)
– HIS/EMR patient import for ADT (5.602102)
– HIS / EMR Results Export (5.602103)
– HIS/EMR/PACS order import for Worklist (5.602104)

Data Export
Export Formats: SEMA3, PDF, GDT

Spirometry Sensor

Sensor
Name: SpiroScout SP plus

Dimensions: 14 cm x 5 cm x 9 cm

Weight: 185 g

Electrical data
Power: Powered via USB 2.0, 4.5 to 5.25 VDC, 500 mA

Power consumption: Standby: 275 mA, 5 VDC (1.4 W), Measurement: 500 mA, 5 VDC (2.5 W)

Temperature
Operation: 15 to 35 °C

Transport/Storage: -20 to 50 °C

Humidity
Operation: 10 to 95 % non-condensing

Transport/storage: 10 to 95 % non-condensing

Pressure
Operation: 700 to 1060 hPa

Transport/storage: 600 to 1060 hPa

General
Measurement Method: Ultrasound

Patient protection and hygiene: ScoutTube: single patient use, disposable breathing insert ergonomically shaped mouthpiece and standard cone 22 mm

Respiratory resistance: 0.002 kPa/l/s = approx. 0.02 cmH$_2$ O/l/s

Dead space, complete: 18 cm^3

Measurement Ranges:

– Flow: 0 to 18 l/s
– Volume: no limit

Measurement Accuracy:

– Flow: ± 2 % or 50 ml/s (for Flow from 0 to 16 l/s)
– Volume: ± 2 % or 50 ml
– Temperature Drift: ± 2 %

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