

vsign100

The vsign100 monitor is a surveillance monitor, powered by mains supply and battery (optional), each unit can take up to two batteries which make it suitable to be used for monitoring patients even during transportation.

Two versions of the vsign100 monitor are available, with or without the incorporated EtcO₂ option.

The device can provide a variety of information on the patient's condition, selectable according to differing needs. The biometric signals provided by the apparatus include:

- ECG
- Heart rate
- ST segment measurement
- Respiratory rate
- Non-invasive blood pressure, systolic, diastolic and mean
- Percentage of oxygen saturation in the blood obtained by measuring the variables during the pulse cycle of arterial blood in the tissues, SpO₂
- Body temperature detected at two points
- Invasive blood pressure detected at two points, maximum, systolic, diastolic and mean.
- EtcO₂ (optional)

The device can also display six traces on the screen:

- Up to two ECG traces
- Respiratory wave
- Invasive pressure, two channels
- Plethysmographic wave
- Capnograph (optional)

The user can set the alarm values for each parameter measured by pressing the buttons on the front panel.

vsign100 is equipped with a two channel thermal printer capable of printing an ECG trace (selectable by the user) plus another trace from those displayed; it is also possible to print the trend table of measured parameters.



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Technical characteristics

Display specifications

TFT Colour LCD Display
 Screen size 10,4 inch (26,42 cm)
 Traces/parameters displayed.... ECG, SpO₂, IBP 1/2, Resp, EtCO₂; HR, SpO₂, Pulse,
 NIBP, IBP 1/2, Temp 1/2, EtCO₂, FiCO₂

ECG

ECG Leads 7 leads (I, II, III, aVR, aVL, aVF, V)
 Measurement interval 20 ~ 300 bpm

SpO₂ – Pulse oximeter (optional)

Measurement interval 20 ~ 100% SpO₂

NIBP - Non-invasive Pressure (optional)

Measurement method..... Oscillometric, automatic measurement
 Measured values Systolic, diastolic and mean pressure
 Measurement type Manual, automatic, interval 2 – 5 – 10 – 30 – 60 – 120
 minutes

Respiration

Measurement interval 0 ~ 150 rpm

IBP 1/2 (Invasive pressure, optional)

Measurement interval -40 ~ 360 mmHg

Temperature 1/2 (optional)

Measurement interval 10 ~ 45 °C

EtCO₂: End-Tidal CO₂ (optional)

Measurement method..... Microstream
 Measurement interval 0 ~ 99 mmHg

Printer

Printing method..... Thermal
 Printing Mode..... Waveform (ECG + 1 trace chosen from SpO₂, IBP1,
 IBP2, RESP, EtCO₂ max 2 waveforms)
 Waveform + Trend

Paper width..... 57 mm

Trend

Parameters Heart rate, SpO₂, Pulse Rate, NIBP, IBP 1/2, Temp 1/2
 (temperature), EtCO₂ 72 hours (resolution 1 minute:
 saved data 4320)

Physical specifications

Size and weight 310 x 290 x 160 mm (LxLxH); 7,5kg
 Electrical supply..... AC 100~240V, 50/60Hz, 90VA (MAX)
 Battery (optional) 11,1V 4Ah Lithium-ion, up to 2 batteries can be inserted
 Recharging time..... 7 hours
 Operation time with battery 50 minutes (1 battery)

Classification

Class..... Device Class I with applied parts type CF protected
 from defibrillation discharge for ECG monitoring, Resp,
 IBP and with applied parts type BF for monitoring
 SpO₂, NIBP, Temp and EtCO₂.

Noise level The device mod. vsign100 has been considered to
 belong to Group I, Class B with reference to the
 requirements of radiated field and conducted disturbs
 according to provision of EN 60601-1-2:2001.
 Moreover, the same appliance has been considered as
 not life supporting with reference to immunity
 requirements and levels of EN 60601-1-2:2001.

IP protection grade IPX 0

Alarm parameters conformity.... The device's alarm parameters conform to international
 standard "EN 475:1995".

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