



The **Philips SureSign VM8** is a part of the Philips VM series patient monitors. The VM8 is a compact patient monitor that is only 8 pound, making flexible to fit any situation. The monitor can go from a bedside monitor to a transport monitor in seconds. The monitor can measure multiple parameters; 3-5 lead ECG, SpO2, temperature, non-invasive blood pressure, respiration, and basic arrhythmia. The monitor is used on patients ranging from neonates to adults. The color 10-inch color display screen shows up to 4 different waveforms at a time. The system can store up to 96 hours of trending data. The SureSigns VM 8 comes with a USB port making it easy to maintain and update the software.

Features

- Multi-parameter monitor suitable for use in adult, pediatric and neonatal care settings.
- Portable design features integrated bed rail hanger and carrying handle.
- Bright, easy to read display panel shows up to four waveforms.
- Fixed keys for quick and efficient operation.
- Choose between three or five-lead ECG, with pulse detection and safety alarms.
- Philips SpO2 technology supports sensors from industry-leading brands in adult, pediatric and neonatal configurations.
- Various Non-Invasive Blood Pressure modes: manual, interval and STAT.
- Store up to 96 hours of measurement trends on one monitor.
- Complete software upgrades easily with USB port.
- Optional — On-board bar-code scanner for quick patient ID entry.
- Optional — Microstream EtCO2 for intubated and non-intubated patients.
- Optional — Printer for paper documentation.



Specifications

Dimensions

32 cm W x 27 cm H x 17.5 cm D (12.6" W x 10.6" H x 6.9" D)

Weight

3.5 kg (7.7 lbs) excluding optional recorder and CO2

Screen

Screen type: 26.4 cm (10.4") SVGA TFT-AM LCD display
Display resolution: 800 active pixels/line, 600 active lines/frame
Screen active area: 211.2 mm x 158.4 mm (8.31" x 6.24")
Screen refresh frequency: 60 Hz
Pixel size: 0.264 mm (inch)
Viewing angle: approx. 60 °
Alarm Audio Range: 45 - 85 dB
System Response Time: 1 sec

Electrical

Internal battery: Lithium ion, Smart battery 10.9 V to 11.1 V, 7200 mAh
Battery operating time (new, fully charged): 4 hr
Battery charge time: <lt/>4 hr
Internal power supply: 100 to 240 VAC
Power consumption: 72 W
Frequency: 50/60 Hz

Recorder

Recorder type: Thermal
Paper width: 58 mm (inch)
User Selectable Speeds: 6.25, 12.5, 25, and 50 ml/s

Environmental

Mechanical Shock: Complies with mechanical shock requirement in ISO 9919 standards for use within the healthcare facility.
Mechanical Vibration: Complies with mechanical vibration requirement in ISO 9919 standards for use within the healthcare facility.
Operating temperature: 10 to 40 °C (50 to 104 °F)
Storage temperature (device): -20 to 50°C (-4 to 122 °F)
Storage temperature (device plus accessories): -20 to 40°C (-4 to 104 °F)
Operating humidity: Up to 80% RH, non-condensing
Storage humidity: Up to 90% RH, non-condensing
Altitude: Up to 3000 meters above sea level

ECG

Heart rate range: 15 to 300 beats per minute
Heart rate accuracy: Greater of ±10% or ±5 bpm
Bandwidth (normal monitoring): 0.67 to 40 Hz
Bandwidth (filtered monitoring): 0.67 to 20 Hz
Leads: 3-lead and 5-lead (user-selectable)
Display sweep speeds: 12.5, 25, and 50 ml/s
Pacemaker detection: Indicator on waveform display (user-selectable)
ECG size (sensitivity): 2.0, 1.0, 0.5 or 0.25 cm/mV or Auto

Specifications

ECG (continued)

Lead Off condition: Detected and displayed

Input impedance: Signal reduction is less than 20% in the 0.67 to 40 Hz bandwidth

Input signal range: ± 5 mV

Impedance Respiration

Technique: Trans-thoracic impedance

Measurement range: 0 to 150 r/min

Accuracy: ± 1 rpm in the range of 0 to 120 rpm; ± 2 rpm in the range of > 120 rpm

ECG leads used: RA to LL

Display sweep speeds: 6.25, 12.5, 25, or 50 ml/s

Lead Off condition: Detected and displayed

Non-invasive Blood Pressure

Technique: Oscillometric using stepwise deflation pressure

Adult measurement range - systolic: 30 mmHg to 270 mmHg (4.0 kPa to 36.0 kPa)

Adult measurement range - diastolic: 10 mmHg to 245 mmHg (1.3 kPa to 32.7 kPa)

Initial cuff inflation - Adult: 160 mmHg (21.3 kPa)

Adult measurement range - MAP: 20 mmHg to 255 mmHg (2.7 kPa to 34.0 kPa)

Adult measurement range - pulse rate: 40 to 300 beats per minute

Pediatric measurement range - systolic: 30 mmHg to 180 mmHg (4.0 kPa to 24.0 kPa)

Pediatric measurement range - diastolic: 10 mmHg to 150 mmHg (1.3 kPa to 20.0 kPa)

Initial cuff inflation - Pediatric: 140 mmHg (18.7 kPa)

Pediatric measurement range - MAP: 20 mmHg to 160 mmHg (2.7 kPa to 21.3 kPa)

Pediatric measurement range - pulse rate: 40 to 300 beats per minute

Neonatal measurement range - systolic: 30 mmHg to 130 mmHg (4.0 kPa to 17.0 kPa)

Neonatal measurement range - diastolic: 10 mmHg to 100 mmHg (1.3 kPa to 13.3 kPa)

Neonatal measurement range - MAP: 20 mmHg to 120 mmHg (2.7 kPa to 16.0 kPa)

Neonatal measurement range - pulse rate: 40 to 300 beats per minute

Blood pressure accuracy: 8 mmHg maximum standard deviation; ± 5 mmHg maximum mean error

Pulse rate accuracy: 40 to 100 bpm: ± 5 bpm; 101 to 200 bpm: $\pm 5\%$ of reading; 201 to 300 bpm: $\pm 10\%$ of reading

Initial cuff inflation - neonatal: 100 mmHg (13.3 kPa): NBP intervals

Automatic measurements at intervals of 1, 2, 3, 5, 10, 15, 30, 60, 90, 120 minutes, and STAT