



# SureSigns VM Series

## Patient Monitors Technical Data Sheet

The SureSigns<sup>®</sup> VM4, VM6, and VM8 are portable, versatile bedside monitors that measure ECG, SpO<sub>2</sub>, non-invasive blood pressure, temperature (optional on VM4), and respiration. Depending on the model, the monitors can also measure:

- Invasive blood pressure (SureSigns VM6 and VM8)
- Microstream CO<sub>2</sub> (SureSigns VM8)
- Basic arrhythmia (SureSigns VM6 and VM8)

The SureSigns VM Series patient monitors are for monitoring, recording and alarming multiple physiological parameters of adults, pediatrics, and neonates in healthcare environments. Additionally, the monitors can be used in transport situations within a healthcare facility.

### Features and Benefits

- Easy-to-read display with large color-coded numerics and waveforms
- Flexible display formats
- Lithium ion battery
- Alarm output
- Available with roll stand, wall mount, and bedrail hook mounting options
- Optional integrated recorder
- Compatible with a wide range of Philips accessories
- Automatic or prompted patient ID entry using optional barcode scanner
- Synchronization of the monitor clock when connected to a designated network server clock
- HL7 data export via LAN or serial connection

# PHILIPS

- Password-protected administrator/maintenance mode
- Easy software upgrades by USB port
- Connectivity to SureSigns Vital Signs Viewer (VSV)

## Main Components

### Display

The SureSigns VM4 and VM6 monitors feature a color LCD display with an 8.4-inch (20.3 cm) screen. The SureSigns VM8 monitor features a 10.4-inch (26.4 cm) screen.

### Front Panel

The following fixed keys are located on the monitor's front panel:

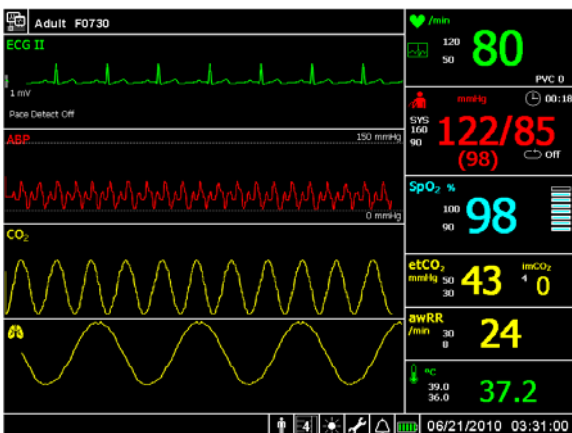
- Alarm Silence
- NBP start/stop
- Print
- Main Screen
- Trends
- On/Standby

The following LED indicators are located on the monitor's front panel:

- Power
- Battery Charging

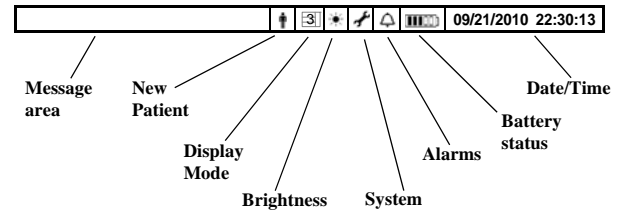
### User Interface

The main screen displays parameter values, real-time waveforms, alarm messages, and screen selection buttons. You can change the appearance of the main screen by selecting a layout from the **Display Mode** menu. You can view parameter data in a graphical trend or tabular trend display mode. Numeric panes display measurements as numeric values. Waveform panes display real-time waveforms.



The bottom bar contains the following elements:

- Message area
- New Patient button
- Display Mode button
- Brightness button
- System button
- Alarms button
- Battery Status icon
- Date/Time pane



Use the navigation wheel to cycle through the screens and menus. Rotate the wheel until the desired area is highlighted, and then press it to display a new menu.

### Mounting Options

The SureSigns VM Series monitor has three mounting options:

- Roll stand
- Wall mount
- Bedrail hook

### Application Features

#### Trends

- Collect and store (maximum 96 hours) graphical and tabular trend data
- User configurable display interval
- Printouts containing user-specified time ranges (tabular trends only)
- Trend data export to USB flash drive (tabular trends only)

#### SpotCheck Mode (SureSigns VM4 only)

Stores up to 100 patient records

#### Alarms

- Three alarm severities (high, medium, low) that determine the monitor's visual and audio response
  - Visual alarm indicators, including flashing numeric panes, alarm messages, and alarm icons
  - Audible alarms, configurable for volume, tone, and silence
- Configurable alarm limits
- Ability to latch all physiological alarms
- Auto-set alarm limits for quickly setting alarm limits based on the patient's current vital sign values

## Device Connections

- USB port for software upgrades, tabular trend data export, barcode scanner connection, or serial interface adapter connection. The port complies with USB 1.1 standard as a full-speed host.
- Ethernet port for exporting HL7 data or connecting the monitor to the SureSigns VSV
- Nurse call connector for alarm output to a nurse call system
- Defib sync port

## Safety Standards

- EN/IEC 60601-1, EN/IEC 60601-1-1 (as applicable), EN/IEC 60601-1-2, EN/IEC 60601-2-27, EN/IEC 60601-2-30, EN/IEC 60601-2-34, EN/IEC 60601-2-49, ISO 9919, ISO 21647
- Protection class: Class I, internally powered equipment, per EN/IEC 60601-1
- Degree of protection: Type CF defibrillator-proof, per EN/IEC 60601-1
- Mode of Operation: Continuous

## Physical Specifications

### Size – SureSigns VM4 and VM6

- Width: 26 cm (10.2 in)
- Height: 22 cm (8.6 in)
- Depth: 14.5 cm (5.7 in)
- Weight (excluding optional recorder and temperature module): 3.0 kg (6.6 lbs)

### Size – SureSigns VM8

- Width: 32 cm (12.6 in)
- Height: 27 cm (10.6 in)
- Depth: 17.5 cm (6.9 in)
- Weight (excluding optional recorder and CO<sub>2</sub>): 3.5 kg (7.7 lbs)

### Display – SureSigns VM4 and VM6

- Screen type: 8.4" (20.3 cm) SVGA TFT-AM LCD display
- Resolution: 800 active pixels/line, 600 active lines/frame
- Screen active area: 170.4 x 127.8 mm (6.71 x 5.03 in)
- Refresh frequency: 60Hz
- Pixel size: 0.213 mm
- Viewing angle:  $\pm 60^\circ$

### Display – SureSigns VM8

- Screen type: 10.4" (26.4 cm) SVGA TFT-AM LCD display
- Resolution: 800 active pixels/line, 600 active lines/frame
- Screen active area: 211.2 x 158.4 mm (8.31 x 6.24 in)
- Refresh frequency: 60Hz
- Pixel size: 0.264 mm
- Viewing angle:  $\pm 60^\circ$

## Alarm Audio Range

52 – 79 dB

## System Response Time

1 second

## Recorder

- Recorder type: Thermal
- Paper width: 58 mm
- Speed: 6.25, 12.5, 25, and 50 mm/s, user selectable

## Environmental Specifications

### Mechanical Shock

- Complies with mechanical shock requirement in ISO 9919 standards for use within the healthcare facility. Test conditions include:
- Peak Acceleration: 150 m/s<sup>2</sup> (15.3g)
  - Duration: 11ms
  - Pulse shape: Half sine
  - Number of shocks: 3 shocks per direction per axis (18 total)

### Mechanical Vibration

- Complies with mechanical vibration requirement in ISO 9919 standards for use within the healthcare facility. Test conditions include:
- Frequency range: 10 – 2000 Hz
  - Resolution: 10 Hz
  - Acceleration amplitude:
    - 10 – 100 Hz: 1.0 (m/s<sup>2</sup>)<sup>2</sup>/Hz
    - 100 – 200 Hz: -3.0 dB/octave
    - 200 – 2000 Hz: 0.5 (m/s<sup>2</sup>)<sup>2</sup>/Hz
  - Duration: 10 minutes per each perpendicular axis (3 total)

### Thermal

- Operating temperature: 10 – 40°C (50 – 104°F)
- Storage temperature:
  - -20 – 50°C (-4 – 122°F) for the device
  - -20 – 40°C (-4 – 104°F) for the device plus accessories

### Humidity

- Operating: Up to 80% RH, non-condensing
- Storage: Up to 90% RH, non-condensing

## Altitude

Up to 10,000 ft. above sea level (708 mbar)

## Electromagnetic Compatibility

Meets the EN 60601-1-2:2001 standard

## Electrical Specifications

- Internal battery: Lithium ion, Smart battery 10.8 – 11.1 V, 7200 mAh
- Battery operating time (new, fully-charged battery): 4 hours
- Battery charge time: < 4 hours
- Internal power supply: 100 – 240 VAC
- Power consumption: 72 Watts
- Frequency: 50/60 Hz

## Measurement Specifications

### ECG

- Heart rate range: 15 – 300 bpm
- Heart rate accuracy: Greater of  $\pm 1\%$  or  $\pm 5$  bpm
- Bandwidth:<sup>1</sup>
  - Normal monitoring: 0.15 – 40 Hz
  - Filtered monitoring: 0.5 – 20 Hz
- Leads:
  - SureSigns VM4: 3-lead
  - SureSigns VM6 and VM8: 3- and 5-lead (user-selectable)
- Display sweep speeds: 12.5, 25, and 50 mm/s
- Pacemaker detection: Indicator on waveform display (user-selectable)
- ECG size (sensitivity): 2.0, 1.0, 0.5, 0.25 cm/mV or Auto
- Lead Off condition detected and displayed
- Differential input impedance: > 2 M $\Omega$
- Common Mode Rejection Ratio: > 86 db (with a 51 K $\Omega$  /47nF imbalance)
- Input signal range:  $\pm 5$  mV

### Impedance Respiration

- Technique: Trans-thoracic impedance
- Measurement range: 0 – 150 rpm
- Accuracy:
  - $\pm 1$  rpm in the range of 0 – 120 rpm
  - $\pm 2$  rpm in the range of > 120 rpm
- ECG leads used: RA to LL
- Display sweep speeds: 6.25, 12.5, 25, 50 mm/s
- Lead Off condition detected and displayed

<sup>1</sup> The SureSigns VM Series monitors comply with AAMI EC-13/IEC 60601-2-27 in Normal monitoring mode only.

## Non-invasive Blood Pressure (NBP)

- Technique: Oscillometric using stepwise deflation pressure
- Adult measurement range
  - Systolic: 30 – 270 mmHg (4.0 – 36.0 kPa)
  - Diastolic: 10 – 245 mmHg (1.3 – 32.7 kPa)
  - MAP: 20 – 255 mmHg (2.7 – 34.0 kPa)
  - Pulse rate range: 40 – 300 bpm
- Pediatric measurement range
  - Systolic: 30 – 180 mmHg (4.0 – 24.0 kPa)
  - Diastolic: 10 – 150 mmHg (1.3 – 20.0 kPa)
  - MAP: 20 – 160 mmHg (2.7 – 21.3 kPa)
  - Pulse rate range: 40 – 300 bpm
- Neonatal measurement range
  - Systolic: 30 – 130 mmHg (4.0 – 17.0 kPa)
  - Diastolic: 10 – 100 mmHg (1.3 – 13.3 kPa)
  - MAP: 20 – 120 mmHg (2.7 – 16.0 kPa)
  - Pulse rate range: 40 – 300 bpm
- Blood pressure accuracy:
  - Maximum Standard Deviation: 8 mmHg
  - Maximum Mean Error:  $\pm 5$  mmHg
- Pulse rate accuracy:
  - 40 – 100 bpm:  $\pm 5$  bpm
  - 101 – 200 bpm:  $\pm 5\%$  of reading
  - 201 – 300 bpm:  $\pm 10\%$  of reading
- Initial cuff inflation
  - Adult: 160 mmHg (21.3 kPa)
  - Pediatric: 140 mmHg (18.7 kPa)
  - 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

## Temperature Measurements – SureSigns VM4

- Measurement Range
  - Monitored mode: 26.7 – 43.3°C (80 – 110°F)
  - Predictive mode: 34.4 – 40.6°C (93.9 – 105°F)
- Accuracy:  $\pm 0.1^\circ\text{C}$  ( $\pm 0.2^\circ\text{F}$ ) (Monitored mode)
- Measurement time
  - Oral: 4 seconds
  - Axillary and rectal: <16 seconds
- Resolution: 0.1°C (0.2°F)

## Temperature Measurements – SureSigns VM6 and VM8

- Measurement Range: 25 – 45°C (77 – 113°F)
- Accuracy:  $\pm 0.1^\circ\text{C}$  ( $\pm 0.2^\circ\text{F}$ )

## SpO<sub>2</sub>

- Measurement range
  - SpO<sub>2</sub>: 0 – 100%
  - Pulse rate: 30 – 300 bpm
- SpO<sub>2</sub> accuracy: 70 – 100%
  - Philips reusable sensors
    - ± 2% - M1191B, M1191BL, M1192A
    - ± 3% - M1193A, M1194A, M1195A, M1196A, M1191T, M1192T, M1196T
    - ± 4% - M1193T (Neonatal)
  - Philips disposable sensors
    - ± 3% - M1131A, M1133A, M1134A (Neonatal)
    - ± 2% - M1132A, M1133A, M1134A (Adult/infant)
  - Nellcor disposable sensors
    - ± 3% - M1901B, M1902B, M1903B, M1904B
- Pulse rate accuracy: Greater of 2% or 1 bpm
- Wavelength range: 500 – 1000 nm for all specified sensors
- Maximum optical output power: ≤15 mW for all specified sensors
- Complies with EN ISO 9919 standard

## CO<sub>2</sub> – SureSigns VM8

- Measurement range: 0 – 150 mmHg
- Flow rate: 50 ml/min, +15 ml/min, -7.5 ml/min
- CO<sub>2</sub> Waveform Resolution: 0.1 mmHg
- etCO<sub>2</sub>, imCO<sub>2</sub> Resolution: 1.0 mmHg
- Initialization time: 30 seconds (typical), 3 minutes maximum
- Total response time, calculated as follows:<sup>1</sup>  
*Delay time + Rise time + System response time*  
2.7 seconds + 0.2 seconds + 1.0 seconds = 3.9 seconds
- Calibration interval: Initial calibration after 1,200 hours, then once per year or every 4000 hours, whichever comes first
- Auto zero interval: Once per hour (typical)
- Leak tightness: <40 mBar/min
- Accuracy:
  - 0 – 38 mmHg: ±2 mmHg
  - 39 – 150 mmHg: ±(5% of reading + 0.08% for every 1 mmHg above 38 mmHg)

<sup>1</sup> Long FilterLines and Smart CapnoLines add an additional 3 seconds to the overall response time.

- Respiration rate range: 0 – 150 breaths/min
- Respiration accuracy
  - ±1 rpm in the range of 0 – 70 rpm
  - ±2 rpm in the range of 71 – 120 rpm
  - ±3 rpm in the range of 121 – 150 rpm

## Invasive Blood Pressure – SureSigns VM6 and VM8

- ABP/CVP/PAP measurement range: -40 – 360 mmHg
- Input Sensitivity: 5µ V/V/mmHg
- Frequency response: DC – 40 Hz
- Zero adjustment
  - Range: ± 200 mmHg
  - Accuracy: ± 1 mmHg
- Gain Accuracy
  - Accuracy: ± 1%
  - Drift: less than 0.05%/°C
- Transducer
  - Load impedance: 200 – 2000 Ω
  - Output impedance: ≤ 3000 Ω
- Overall accuracy (including transducer): Greater of ±4 mmHg or ±4%
- Volume displacement of CPJ840J6: 0.1 mm<sup>3</sup>/100 mmHg

## Ordering Information

### 863063: SureSigns VM4

**Standard:** NBP, SpO<sub>2</sub>, 3-Lead ECG, Respiration

**Monitor options:** Predictive temperature, Recorder

Option	Accessories
A01	Standard monitor includes: <ul style="list-style-type: none"><li>• Adult cuff</li><li>• NBP tubing, 3 m long</li><li>• Adult finger SpO<sub>2</sub> sensor, reusable</li><li>• ECG 3-lead set (AAMI or IEC)</li><li>• Battery</li></ul>
A02	No accessories included with monitor.
T01	Predictive temperature monitor option includes: <ul style="list-style-type: none"><li>• Oral temperature probe</li><li>• 1 box of temperature probe covers</li></ul>
R01	Recorder monitor option includes: <ul style="list-style-type: none"><li>• 5 rolls of recorder paper</li></ul>

### 863064: SureSigns VM6

**Standard:** 3- and 5-lead ECG, Respiration, SpO<sub>2</sub>, NBP, Continuous temperature, Arrhythmia analysis

**Monitor option:** Recorder

Option	Accessories
A01	Standard monitor includes: <ul style="list-style-type: none"><li>• Adult cuff</li><li>• NBP tubing, 3 m long</li><li>• Adult finger SpO<sub>2</sub> sensor, reusable</li><li>• ECG 3-lead set (AAMI or IEC)</li><li>• Battery</li></ul>
A02	No accessories included with monitor.
R01	Recorder monitor option includes: <ul style="list-style-type: none"><li>• 5 rolls of recorder paper</li></ul>

### 863065: SureSigns VM6 with IBP

**Standard:** 3- and 5-lead ECG, Respiration, SpO<sub>2</sub>, NBP, Continuous temperature, Arrhythmia analysis, IBP

**Monitor option:** Recorder

Option	Accessories
A01	Standard monitor includes: <ul style="list-style-type: none"><li>• Adult cuff</li><li>• NBP tubing, 3 m long</li><li>• Adult finger SpO<sub>2</sub> sensor, reusable</li><li>• ECG 3-lead set (AAMI or IEC)</li><li>• Battery</li></ul>
A02	No accessories included with monitor.
R01	Recorder monitor option includes: <ul style="list-style-type: none"><li>• 5 rolls of recorder paper</li></ul>

### 863066: SureSigns VM8 with CO<sub>2</sub>

**Standard:** CO<sub>2</sub>, 3- and 5-lead ECG, Respiration, SpO<sub>2</sub>, NBP, Continuous temperature, IBP, etCO<sub>2</sub>, Arrhythmia analysis, Recorder

Option	Accessories
A01	Standard monitor includes: <ul style="list-style-type: none"><li>• Adult cuff</li><li>• NBP tubing, 3 m long</li><li>• Adult finger SpO<sub>2</sub> sensor, reusable</li><li>• ECG 3-lead set (AAMI or IEC)</li><li>• Battery</li><li>• 5 rolls of recorder paper</li></ul>
A02	No accessories included with monitor.

### 863068: SureSigns VM8

**Standard:** 3- and 5-lead ECG, Respiration, SpO<sub>2</sub>, NBP, Continuous temperature, IBP, Arrhythmia analysis

**Monitor option:** Recorder

Option	Accessories
A01	Standard monitor includes: <ul style="list-style-type: none"><li>• Adult cuff</li><li>• NBP tubing, 3 m long</li><li>• Adult finger SpO<sub>2</sub> sensor, reusable</li><li>• ECG 3-lead set (AAMI or IEC)</li><li>• Battery</li></ul>
A02	No accessories included with monitor.
R01	Recorder monitor option includes: <ul style="list-style-type: none"><li>• 5 rolls of recorder paper</li></ul>

## SureSigns VM Series Accessories

### ECG Accessories

#### 3-Lead Sets (Recommended)

Part Number	Description
M1622A	Miniclip, general use, AAMI
M1624A	Miniclip, general use, AAMI
M1626A	Miniclip, general use, IEC
M1671A	Grabber, general use, AAMI
M1672A	Grabber, general use, IEC
M1673A	Snaps, general use, AAMI
M1674A	Snaps, general use, IEC
M1675A	Grabber, OR use, AAMI
M1678A	Grabber, OR use, IEC

#### 5-Lead Sets (Recommended)

Part Number	Description
M1644A	Snaps, general use, AAMI
M1645A	Snaps, general use, IEC
M1647A	Miniclip, general use, AAMI
M1648A	Miniclip, general use, IEC
M1968A	Grabber, general use, AAMI
M1971A	Grabber, general use, IEC
M1973A	Grabber, OR use, AAMI
M1974A	Grabber, OR use, IEC

**One Piece Cable Sets (Supported)**

Part Number	Description
989803143171	3-lead, grabber, general use, IEC
989803143181	3-lead, grabber, general use, AAMI
989803143191	5-lead, grabber, general use, IEC
989803143201	5-lead, grabber, general use, AAMI

**3-Lead Sets (Supported)**

Part Number	Description
M1601A	3-lead, grabber, OR use, AAMI
M1603A	3-lead, grabber, general use, AAMI
M1605A	3-lead, snaps, general use, AAMI
M1611A	3-lead, grabber, OR use, IEC
M1613A	3-lead, grabber, general use, IEC
M1615A	3-lead, snaps, general use, IEC

**5-Lead Sets (Supported)**

Part Number	Description
M1621A	5-lead, grabber, OR use AAMI
M1623A	5-lead, grabber, general use, AAMI
M1625A	5-lead, snaps, general use, AAMI
M1631A	5-lead, grabber, OR use, IEC
M1633A	5-lead, grabber, general use, IEC
M1635A	5-lead, snaps, general use, IEC

**ECG Electrodes**

Part Number	Description
40493D	Silver/silver chloride sensor, foam, pre-gelled (5/pack, 300/case)
40493E	Silver/silver chloride sensor, foam, pre-gelled (30/pack, 300/case)

**ECG Trunk Cables**

Part Number	Description
M1500A	3-lead trunk cable, AAMI
M1510A	3-lead trunk cable, IEC
M1520A	5-lead trunk cable, AAMI
M1530A	5-lead trunk cable, IEC
M1668A	5-lead trunk cable, AAMI/IEC
M1669A	3-lead trunk cable, AAMI/IEC

**Philips Reusable Sensors**

Part Number	Description
M1191B	Adult finger
M1191BL	Adult finger (long cable)
M1191T	Adult finger clip
M1192A	Pediatric/small adult finger
M1192T	Pediatric finger clip
M1193A	Neonatal foot/hand
M1193T	Neonatal foot/hand
M1194A	Adult ear clip
M1195A	Infant finger
M1196A	Adult finger clip (long cable)
M1196T	Pediatric/small adult finger clip

**Philips Disposable Sensors**

Part Number	Description
M1131A	Adult/pediatric finger
M1132A	Infant digit
M1133A	Neonatal/infant/adult: Foot/hand sensor for neonate, big toe/thumb for infant, finger for adult.
M1134A	Neonatal/infant/adult: Foot/hand sensor for neonate, big toe/thumb for infant, finger for adult.

**Nellcor Disposable Sensors<sup>a</sup>**

Part Number	Description
M1901B	Neonate foot, adult digit
M1902B	Infant digit
M1903B	Pediatric digit
M1904B	Adult digit

<sup>a</sup> Available from Philips in Europe and Japan. In other countries, contact Nellcor directly.

**SpO<sub>2</sub> Extension and Adapter Cables**

Part Number	Description
989803148221	3 m LNCS adapter cable for Masimo sensors
M1020-61100	3.6 m LNOP adapter cable for Masimo sensors
M1941A	2 m extension cable for Philips reusable sensors
M1943A	1.1 m adapter cable for Philips and Nellcor disposable sensors
M1943AL	3 m adapter cable for Philips and Nellcor disposable sensors

## NBP Accessories

### Philips Interconnect Tubing

Part Number	Description
M1596B	Neonate pressure interconnect cable, 1.5 m
M1596C	Neonate pressure interconnect cable, 1.5 m
M1597B	Neonate pressure interconnect cable, 3.0 m
M1597C	Neonate pressure interconnect cable, 3.0 m
M1598B	Adult interconnect tubing, 1.5 m
M1599B	Interconnect tubing, 3 m

### Reusable Comfort Cuffs

Part Number	Description
M1571A	Infant
M1572A	Pediatric
M1573A	Small adult
M1574A	Adult
M1575A	Large adult
M1576A	Thigh

### Reusable Traditional Cuffs

Part Number	Description
40401A	Infant
40401B	Pediatric
40401C	Adult
40401D	Large adult
40401E	Thigh
40400A	Pediatric, adult, large adult kit
40400B	Infant, pediatric, adult, large adult, thigh kit

### Reusable Easy Care Cuffs (Single Hose)

Part Number	Description
M4552B	Infant
M4553B	Pediatric
M4554B	Small adult
M4555B	Adult
M4556B	Adult, X-long
M4557B	Large adult
M4558B	Large adult, X-long
M4559B	Thigh

### Disposable Soft Adult/Pediatric Cuffs

Part Number	Description
M4572B	Infant
M4573B	Pediatric
M4574B	Small adult
M4575B	Adult
M4576B	Adult X-long
M4577B	Large adult
M4578B	Large adult X-long
M4579B	Thigh

### Disposable Adult/Pediatric Cuffs

Part Number	Description
M1874A	Infant
M1875A	Pediatric
M1876A	Small adult
M1877A	Adult
M1878A	Large adult
M1879A	Thigh

### Disposable Neonatal Cuffs (Luer Connector)<sup>a</sup>

Part Number	Description
M1866A	Size 1
M1868A	Size 2
M1870A	Size 3
M1872A	Size 4

<sup>a</sup> The Luer connector cuffs and air hoses are not available in EEA (European Economic Area) countries.

### Disposable Neonatal Cuffs (Safety Connector)<sup>a</sup>

Part Number	Description
M1866B	Size 1
M1868B	Size 2
M1870B	Size 3
M1872B	Size 4
M1873B	Size 5 Infant

<sup>a</sup> The safety connector cuffs and air hoses may not be available in all countries. Check with your local sales organization.

### Invasive Blood Pressure Accessories

Part Number	Description
CPJ840J6	Reusable pressure transducer
CPJ84022	Single use sterile domes



## Temperature Accessories

### Reusable Probes (SureSigns VM6 and VM8)

Part Number	Description
21075A	Esophageal/rectal, adult
21076A	Esophageal/rectal, infant/pediatric
21078A	Skin surface, all patient types

### Disposable Probes (SureSigns VM6 and VM8)

Part Number	Description
21090A	Esophageal/rectal, 12FR
21091A	Skin surface, all patient types
21093A	Esophageal/stethoscope, 12FR, all patient types
21094A	Esophageal/stethoscope, 18FR, all patient types
21095A	Esophageal/stethoscope, 24FR, all patient types
21096A	Foley catheter, 16FR, esophageal/rectal
21097A	Foley catheter, 18FR, esophageal/rectal
M1837A	Esophageal/rectal, 9FR, pediatric
M2255A	Foley catheter, 14FR

### Adapter Cables (SureSigns VM6 and VM8)

Part Number	Description
21082B	1.5 m adapter cable
21082A	3.0 m adapter cable

### Probes for SureSigns VM4

Part Number	Description
989803143381	Oral/axillary probe and well kit, all patient types
989803143391	Rectal probe and well kit, all patient types
M4823A	Disposable probe covers, 1000/case

## CO<sub>2</sub> Accessories

### Intubated Circuits

Part Number	Description
989803159571	VitaLine™ H Set, adult/pediatric
989803159581	VitaLine H Set, infant/neonatal
989803160241	FilterLine® Set Long, adult/pediatric
989803160251	FilterLine H Set Long, adult/pediatric
989803160261	FilterLine H Set Long, infant/neonatal
M1920A	FilterLine Set, adult/pediatric (25 sets/case)
M1921A	FilterLine H Set, adult/pediatric (25 sets/case)
M1923A	FilterLine H Set, infant/neonatal (yellow coded, 25/case)

## Non-Intubated Dual-Purpose Circuits

Part Number	Description
989803160271	Smart CapnoLine® O <sub>2</sub> Long, pediatric
989803160281	Smart CapnoLine O <sub>2</sub> Plus long
M2520A	Smart CapnoLine O <sub>2</sub> pediatric
M2522A	Smart CapnoLine O <sub>2</sub> Plus, adult/intermediate
M4680A	CapnoLine H O <sub>2</sub> , adult
M4681A	CapnoLine H O <sub>2</sub> , pediatric

## Non-Intubated Single-Purpose Circuits

Part Number	Description
98980316301	Smart CapnoLine Plus Long, adult
M2524A	Smart CapnoLine, pediatric
M2526A	Smart CapnoLine plus, adult/intermediate
M4689A	CapnoLine H, adult
M4690A	CapnoLine H, pediatric
M4691A	CapnoLine H, infant/neonatal

## Non-Intubated Ventilation Single-Purpose Circuits

Part Number	Description
M4686A	NIV Line, adult
M4687A	NIV Line, pediatric

## Miscellaneous Accessories

Part Number	Description
989803136891	Recorder paper (5 rolls)
989803144001	Roll stand with basket
989803144011	Wall mount
989803144631	Lithium ion battery
989803148841	Cable management kit
989803167691	1D barcode scanner (includes mounting arm to use with roll stand)
989803147821	2D barcode scanner (includes mounting arm to use with roll stand)
989803150281	Mount adapter
989803159601	Serial interface adapter
453564039661	USB hub, 4-port

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The SureSigns VM Series patient monitor complies with the requirements of the Council Directive 93/42/EEC of 14 June 1993 (Medical Device Directive).



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Printed in The Netherlands.  
4522 962 64781 \* JAN 2011