

Radius VSM™

Patient-worn, Continuous Vital Signs Monitor (VSM)



POWERED BY TRUSTED MASIMO TECHNOLOGY

Acoustic Respiration Rate (RRa®)

- > Continuous Respiration Rate

Continuous Temperature

- > Derives continuous measurement of skin temperature

Masimo ECG

- > Low noise continuous 6 waveform monitoring available (I, II, III, aVR, aVL, and aVF)
- > Lethal arrhythmia detection
- > Pacemaker pulse detection
- > Lightweight, adhesive, pre-connected 3-electrode leadwire set
- > Respiration rate (impedance)

Patient Position and Activity

- > Continuous patient position turn monitoring and notifications
- > Patient posture and head-of-the-bed angle
- > Notifications of patient activity:
 - Upright (standing or sitting)
 - Walking
- > Fall detection

Masimo Noninvasive Blood Pressure (NIBP)

- > Measure on inflation
- > Automatic interval measurements
- > Designed to suppress noise
- > Worn on either arm
- > Disposable, single-patient-use cuffs

Radius VSM

- > Wearable vital signs device
- > Up to 10 hours of battery life
- > 2.6" touchscreen
- > Full waveforms, trends
- > Audible and visual alarms
- > 96 hours of parameter trend data storage
- > Withstands splashing water (IP24)
- > Wi-Fi connectivity to Patient SafetyNet™*
- > Bluetooth® connectivity to Root®

Measure-through Motion and Low Perfusion™† Pulse Oximetry

- > Masimo SET®
- > Oxygen Saturation (SpO₂)
- > Pulse Rate (PR)
- > Perfusion Index (Pi)
- > Pleth Variability Index (PVi®)
- > Respiration Rate from Pleth (RRp®)

Radius VSM: A Connected Solution



* The use of the trademark Patient SafetyNet is under license from University HealthSystem Consortium.

Radius VSM Device Specifications

Battery Life	Up to 10 hours [†]
Device Weight	122g
Multifunctional Reusable Pod Weight	20g
Wi-Fi	Supports IEEE 802.11 a/b/g/n wireless standard
Bluetooth	Supports version BLE 4.2

Alarm	Supports Alarms (visual & audible) complies IEC 60601-1-8
Ingress Protection	IP24
Ruggedness	1 meter drop (EN 60601, 3 rd edition; IEC 60601)
Standards	ANSI/AAMI EC 12:2000/2015, ANSI/AAMI EC 57:2012; IEC 60601-1:2005/2012, IEC 60601-1-2:2014, IEC 60601-1-6:2013, IEC 60601-1-8:2012, IEC 60601-1-11:2015, IEC 60601-2-27:2011 IEC 80601-2-30:2018, IEC 80601-2-49:2018, ISO 80601-2-56:2017 ISO 80601-2-61:2017, ISO 10993-1:2018, IEC 62304:2015 IEC 62366-1:2015

Patient Position and Activity Specifications

Incline Angle Measurement Range	-180° to 180°
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Masimo SET[®] Specifications

Accuracy (ARMS [§])	SpO ₂ : 2% (no motion), 3% (motion), 2% (low perfusion) PR: 3bpm (no motion), 5 bpm (motion) RRp: 3 rpm, ± 1 rpm mean error
Recommended Sensors	RD SET CS-1, 1 ft. RD SET CS-2, 2 ft.
Connector Type	RD connector
Supported Parameters	SpO ₂ , PR, Pi, PVi, RRp

Masimo Noninvasive Blood Pressure (NIBP) Specifications

Blood Pressure Accuracy	Meets ANSI/AAMI SP10 and ISO 81060-2 (Mean difference of ≤ 5mmHg with a standard deviation of ≤ 8mmHg)
Diastolic Range	.40–130 mmHg
Systolic Range	.60–230 mmHg
Placement	Left or Right Upper Arm
Measurement Method	Oscillatory, Measure on inflation
Module Weight	.111g

Continuous Temperature Specifications

Skin Temperature Accuracy	Within +/-0.54°F in the range of 77°F to 109.4°F
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Acoustic Respiratory Rate Specifications

Accuracy (ARMS)	≤ 1 rpm (no motion)
Measurement Range	4-70 rpm (adults)

Masimo ECG Specifications

ECG Heart Rate Accuracy	≤ 2 bpm or ≤ 1% (whichever is greater)
Heart Rate Measurement Range	15-300 bpm
Lead Configuration (after HR accuracy)	6-waveform ECG (using 3 pre-connected lead wires)
Available Leads	I, II, III, aVR, aVL, aVF
Leads Analyzed	Single lead or multi-lead
Premature Ventricular Contractions (PVCs) Rate Display Range	0-99 PVCs/minute
Rhythm/Rate Classification/Detection	Normal Sinus Rhythm, Bradycardia, Extreme Bradycardia, Tachycardia, Extreme Tachycardia, Atrial Fibrillation
Lethal Arrhythmia Detection	Asystole, Ventricular Tachycardia, Ventricular Fibrillation

Pacer Detection	Detection Leads: I, II, and III (up to all three)
Beat Classification	Normal Ventricular Paced
ECG Waveform Display	Radius VSM Root Patient SafetyNet
Respiration Rate Accuracy	≤ 1 rpm mean error
Respiration Rate Measurement Range	4-120 rpm

Ordering Information

Radius VSM Device and Modules

Radius VSM Device, 1/box	9037
Radius VSM Bedside Charger	9040
Radius VSM Multi-Functional Reusable Pod	4888
Radius VSM NIBP Module	4889
Radius VSM Root Charger	4784

Ready-to-go Configuration Kit

Radius VSM Kit [¶]	9036
Kit Contents	2 Radius VSM Devices 1 Multi-functional Reusable Pod 1 NIBP Module

Sensors and Accessories

RD SET Adt CS-1, Adult Adhesive SpO ₂ Sensor, 20/box	4615
RD SET Neo CS-1, Neonatal/Adult Adhesive SpO ₂ Sensor, 20/box	4886
RD SET Adt CS-2 Adhesive Sensor (2-foot)	4470
RD SET NEO CS-2 Adhesive Sensor (2-foot)	4473
Radius VSM- ECG Electrode set, Adult 3-Leadwire, AAMI/AHA, 20/Box	4842
Radius VSM Disposable NIBP Cuff, Small Adult, 20/box	4825
Radius VSM Disposable NIBP Cuff, Adult, 20/box	4826
Radius VSM Disposable NIBP Cuff, Large Adult, 20/box	4827
Radius VSM RAS-45 Acoustic Respiration Sensor, Adult, 10/Box	4828
Radius VSM Disposable Arm Band, Large, 20/box	301027
Radius VSM Disposable Arm Band, Medium, 20/box	301028
Radius VSM Disposable Arm Band, Small, 20/box	301029

[†] Masimo SET[®] Measure-through Motion technology includes SpO₂ and PR. [‡] The typical battery run time is 10 hours minimum with the following typical configuration: continuous Masimo SET[®], RRa, 6-Lead ECG measurements with body temperature and posture orientation, display is off, Wi-Fi is on, periodic (4 times/hour) NIBP measurement, and no alarm or pulse tone is active. [§] ARMS accuracy is a statistical calculation of the difference between device measurements and reference measurements. Approximately two-thirds of the device measurement fell within ± ARMS of the reference measurements in a controlled study. [¶] Kit does not include Root charger, sensors, cuffs, or accessories. Items must be ordered separately.

Caution: Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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