

# Masimo Rad-57

## Handheld Pulse Oximeter

The world's most versatile handheld oximeter, featuring fully upgradable rainbow® technology

Get Measure-through Motion™ Masimo SET® oxygen saturation, pulse rate, and perfusion index now—and upgrade later to total hemoglobin, oxygen content, carboxyhemoglobin, methemoglobin, and pleth variability index.

### FEATURES

- › Quick and easy-to-use— requires no user calibration.
- › Complete replacement for existing handheld pulse oximeters.
- › Factory-ordered options or simple field installed software upgrades to continuous monitoring and spot-check measurements of SpHb, SpCO, SpMet, SpOC, and PVI.
- › Rugged and lightweight— ideal for field or hospital settings.
- › X-Cal provides an automatic method to detect when cables and sensors have been used beyond their expected life and guards patients against poor quality and performance of imitation sensors and cables.
- › Delivers about 8 hours of continuous battery life, with new batteries.
- › Up to 72 hours of trending memory.
- › FastSat® tracks rapid changes in arterial O2.
- › SmartTone™ beeps in sync with pulse, even under patient motion conditions.
- › Sensitivity options of APOD®, Normal, and MAX™ provide flexibility to support a range of clinical applications.

### TECHNOLOGY

- › More than 100 independent and objective studies demonstrate Masimo SET® provides the most reliable oxygen saturation (SpO2) and pulse rate (PR) measurements under challenging clinical conditions, including patient motion and low peripheral perfusion.
- › Masimo rainbow® technology analyzes multiple wavelengths of light to measure.
- › Masimo SET® measurements, total hemoglobin (SpHb®), carboxyhemoglobin (SpCO®), methemoglobin (SpMet®), and oxygen content (SpOC™).
- › Pleth Variability Index (PVI®) is a breakthrough measurement that may help clinicians noninvasively and continuously assess fluid status of patients.



## Measurement Range

<b>SpO2:</b> 0–100%	<b>SpMet:</b> 0–99.9%
<b>SpCO:</b> 0–99%	<b>Pulse Rate:</b> 25–240 bpm
<b>SpHb:</b> 0–25 g/dL	<b>Perfusion Index:</b> 0.02–20%
<b>SpOC:</b> 0–35 mL of O2/dL of blood	

## Arterial Oxygen Saturation Accuracy

<b>Saturation:</b> 60–80%	<b>Neonate:</b> ±3%
<b>No Motion</b>	<b>Motion</b>
<b>Adults, Infants, Pediatrics:</b> ±3%	<b>Adult, Infant, Pediatric, Neonate:</b> ±3%
<b>Saturation:</b> 70–100%	<b>Motion</b>
<b>No Motion</b>	<b>Adult, Infant, Pediatric, Neonate:</b> ±2%
<b>Adults, Infants, Pediatrics:</b> ±2%	

## Total Hemoglobin Saturation Accuracy\* (%SpHb g/dL)

**SpHb:**  
8–17 g/dL ±1 g/dL

## Carboxyhemoglobin Saturation Accuracy (%SpCO)

**SpCO:**  
1–40% ±3%

## Methemoglobin Saturation Accuracy (%SpMet)

**SpMet:**  
1–15% ±1%

## Pulse Rate Accuracy

<b>Pulse Rate:</b> 25–240 bpm	<b>Adult, Infant, Pediatric, Neonate:</b> ±5 bpm
<b>No Motion</b>	<b>Low Perfusion</b>
<b>Adult, Infant, Pediatric, Neonate:</b> ±3 bpm	<b>Adult, Infant, Pediatric, Neonate:</b> ±3 bpm
<b>Motion</b>	

## Resolution

<b>Oxygen Saturation:</b> 1%	<b>Total Hemoglobin Saturation (%SpHb) Numeric Display:</b> 0.1 g/dL
<b>Pulse Rate (bpm):</b> 1 bpm	<b>Methemoglobin Saturation (%SpMet) Numeric Display:</b> 0.1%
<b>Carboxyhemoglobin Saturation (%SpCO) Numeric Display:</b> 1%	

## Batteries

<b>Type:</b> 4 AA Alkaline	<b>Capacity:</b> up to 8 hours
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## Dimensions

**Handheld:**  
7" x 3" x 1.5"  
(15.8 cm x 7.6 cm x 3.6 cm)

## Weight

**Handheld:**  
12 oz (with batteries)

## Trending

Provides 72 hours of trending at 2-second resolution of SpO2, SpCO, SpHb, SpMet, Pulse Rate, Perfusion Index, and PVI. Output to PC running Masimo TrendCom™ Utility

## SpO2 Modes

<b>Averaging Modes:</b> 2, 4, 8, 10, 12, 14, or 16 seconds	<b>Sensitivity:</b> APOD, Normal, and Max
	<b>FastSat:</b> On / Off

## Alarms

Audible and visual alarms for high and low saturation and pulse rate (SpO2–99%, SpHb 1–24.5 g/dL, SpCO 1–98%, SpMet 1–99.5%, PI 0.03–19%, PVI 1–99%, and pulse rate 30–235 bpm)

**Data Display:**  
%SpO2, %SpCO, SpHb g/dL, SpOC mL/dL, %SpCO, %SpMet, SIQ bar, PI bar, Pulse Rate, Perfusion Index, PVI, low Signal IQ, alarm status, alarm silenced status, and battery status.

## Compliance

<b>EMC Compliance:</b> EN60601-1-2, Class B	<b>Degree of Protection:</b> Type BF-Applied part
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