

Rad-5v™

signal extraction pulse oximeter™

The power of Masimo SET® in the palm of your hand.

- Masimo SET technology is scientifically and clinically proven accurate during motion and low perfusion*
- Lightweight, convenient handheld
- Long battery life - up to 48 hours on 4 AA batteries
- Designed for spot check monitoring
- Perfusion Index & Signal IQ® displays
- Audible and visual alarms for Sensor Off & Low Battery
- Optional protective boot cover with built in table-top stand



Rad-5vTM

signal extraction pulse oximeterTM

Specifications

Signal IQ[®] (SIQTM) bar is used for signal identification and quality indication during motion and low signal to noise situations. The LED rises and falls with the pulse, its height indicating signal quality. When Signal IQ is very low, and the SpO₂ and pulse rate values may be suspect, the LED turns red (left graphic).



The Alarm Status Indicator flashes when an alarm condition is present.

Perfusion Index (PI) indicates arterial pulse signal strength and may be used as a diagnostic tool during low perfusion for the accurate prediction of illness severity*. The LED bar is highest and green when the quality of the perfused site is best (left graphic); when PI is poor the LED bar is low and turns red (left graphic).



Rad-5v Features

- One of the first dedicated handhelds with Masimo SET technology, clinically proven to read-through motion, provide the highest sensitivity, specificity, fidelity and reliability of any pulse oximeter technology available*
- Designed for spot check applications in hospital or home use
- Four AA alkaline batteries deliver up to 48 hours of continuous use
- FastStart allows for rapid measurement from the time the instrument is first turned on
- Perfusion Index (PI) indicates arterial pulse signal strength and may be used as a diagnostic tool during low perfusion**
- Signal IQ (SIQ) bar for signal identification and quality indication during motion and low signal to noise situations
- SmartTone™ beeps in sync with pulse, even under patient motion conditions

performance

measurement range	
SpO ₂ :	1 - 100%
Pulse Rate:	25 - 240 (bpm)
Perfusion:	0.02% - 20%

saturation accuracy

Saturation:	70% to 100%
<i>No Motion</i>	
Adults, Pediatrics:	±2 digits
Neonates:	±3 digits

Motion¹

Adults, Pediatrics:	±3 digits
Neonates:	±3 digits

Low Perfusion²

Adults, Pediatrics:	±2 digits
Neonates:	±3 digits

pulse rate accuracy

Pulse Rate:	25 - 240 bpm
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No Motion

Adults, Pediatrics, Neonates:	±3 digits
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Motion

Adults, Pediatrics, Neonates:	±5 digits
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Low Perfusion

Adults, Pediatrics, Neonates:	±3 digits
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resolution

Saturation (%SpO ₂):	1%
Pulse Rate (bpm):	1 bpm

electrical

batteries

Type:	4 AA Alkaline
Capacity:	up to 48 hours ³

environmental

Operating Temperature:	41°F to 104°F (5°C to 40°C)
Storage Temperature:	-40°F to 158°F (-40°C to 70°C)
Operating Humidity:	5% to 95%, non-condensing
Operating Altitude:	500 mbar to 1060 mbar pressure

physical characteristics

dimensions

Handheld:	15.8 cm x 7.6 cm x 3.6 cm
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weight

Handheld:	13 oz (.317 kg)
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alarms

Sensor condition, system failure and low battery alarms

display/indicators

Data display:	% SpO ₂ , pulse rate, perfusion index, alarm status, Signal IQ
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Type:

LED

compliance

EMC Compliance:	EN60601-1-2, Class B
Equipment Classification:	IEC 60601-1-1 / UL 2601-1
Degree of Protection:	Type BF-Applied part

References:

- * Hay WW, Rodden DJ, Collins SM, Melera DL, Hale KA, Fashaw LM, Reliability of conventional and new oximetry in neonatal patients. *Journal of Perinatology*. 2002; 22:360-366
- ** De Felice et al. The pulse oximeter perfusion index as a predictor for high illness severity in neonates. *Eur J Pediatr* 2002 ; 161 :561-562.

¹ Continuous rubbing and tapping motions at 2 to 4 Hz at an amplitude of 1 to 2 cm and continuous random frequency motion between 1 to 5 Hz at an amplitude of 2 to 3 cm

² Perfusion Index >0.02% and % Transmission > 5%
³ When using new, fully charged batteries

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