

Masimo-compatible Saturation Module, E-MASIMO

Oxygen saturation measurement with
Masimo SET technology

The E-MASIMO module is a single-width, plug-in module with Masimo SET® pulse oximetry. This technology provides accurate monitoring for patient care, including challenging cases where motion and/or low perfusion is likely to occur.

Features

- Utilizes Masimo SET pulse oximetry measurement algorithm
- Plethysmographic waveform
- Adjustable high and low alarm limits
- Compatible with a wide range of Masimo LNOP® and LNCS® sensors for adult, pediatric and infant patients



Technical specifications

Parameter specifications

OEM oximetry technology	Masimo SET
Measurement method	Red and infrared light absorption

Pulse oximetry/SpO₂

Range	1 to 100%
Accuracy (1)(2)(4)	
CARESCAPE™ modular monitors:	
70 to 100% (Arms) (3)	Without motion (70 to 100%): ±2 digits (% SpO ₂) With motion (70 to 100%): ±3 digits (% SpO ₂)
Low perfusion	(70 to 100%): ±2 digits (% SpO ₂) (< 70%) Unspecified
S/5 modular monitors:	
70 to 100% (Arms) (3)	±2 to ±4% (from non-motion to motion and low perfusion, depends on the sensor used)
30 to 69%	unspecified

Pulse rate

Range	
CARESCAPE modular monitors	25 to 240 bpm
S/5 modular monitors	30 to 240 bpm
Accuracy (5) (Arms) (3)	
CARESCAPE modular monitors	Without motion ±3 bpm With motion ±5 bpm Low perfusion ±3 bpm
S/5 modular monitors	±3 to ±5 bpm (from non-motion to motion and low perfusion, depending on the sensor used)
Display update period	1 second
Alarms	Adjustable high and low alarm limits

Pleth waveform

CARESCAPE modular monitors	Automatic, 1x, 2x, 4x, and 8x
S/5 modular monitors	Automatic scaling

Monitor compatibility

CARESCAPE modular monitors

AS/3, CS/3 and S/5 modular monitors using software S-STD94, S-ARK94, S-ANE97, S-ICU97 or later versions

Environmental specifications

Operating conditions

Temperature	10 to 40°C (50 to 104°F)
Relative humidity	10 to 90% non-condensing

Storage conditions

Temperature	-25 to 60°C (-13 to 140°F)
Relative humidity	10 to 90% non-condensing

Physical specifications

Dimensions (H x W x D)	11.2 x 3.7 x 18.8 cm (4.4 x 1.5 x 7.4 in)
Weight	0.3 kg (0.7 lb)

Warranty

One year

Notes:

- 1 Measurement modules using Masimo SET Technology with LNOP and LNCS sensors have been validated for no-motion accuracy in human blood studies on healthy adult volunteers in induced hypoxia studies in the range of 70-100% SpO₂ against a laboratory CO-oximeter and ECG monitor. Subjects comprised both adult men and women and spanned a range of skin pigmentations. One percent was added to accuracies for neonatal/infant sensors to account for accuracy variation due to properties of fetal hemoglobin. Refer to the directions for use of the Masimo SET Sensors.
- 2 Masimo SET Technology with LNOP and LNCS sensors have been validated for motion accuracy in human blood studies on healthy adult volunteers in induced hypoxia studies while performing rubbing and tapping motions, at 2 to 4 Hz at an amplitude of 1 to 2 cm and non-repetitive motion between 1 to 5 Hz at an amplitude of 2 to 3 cm in the range of 70 to 100% SpO₂ compared against a laboratory CO-oximeter and ECG monitor. The variation equals plus or minus one standard deviation, which encompasses 68% of the population. One percent was added to accuracies for neonatal/infant sensors to account for accuracy variation due to properties of fetal hemoglobin. NOTE: Accuracy during motion has not been specified for Masimo SET sensors LNOP TC-I, LNCS TC-I and LNCS TF-I.
- 3 About two-thirds of pulse oximeter equipment measurements can be expected to fall within \pm Arms of the value measured by a CO-oximeter.
- 4 Masimo SET Technology with LNOP and LNCS sensors have been validated for low-perfusion accuracy in bench-top testing against Bio-Tek Index 2 Simulator and Masimo's simulator with signal strength setting of greater than 0.02% and a % transmission of greater than 5% for saturation ranging from 70 to 100%. One percent was added to accuracies for neonatal/infant sensors to account for accuracy variation due to properties of fetal hemoglobin.
- 5 Masimo SET Technology with LNOP and LNCS sensors have been validated for pulse rate accuracy over the specified range in bench-top testing against Bio-Tek Index 2 Simulator.

© 2009 General Electric Company – All rights reserved.

GE, GE Monogram and CARESCAPE are trademarks of General Electric Company.

Masimo SET, LNOP, and LNCS are registered trademarks of Masimo Corporation.

GE Healthcare reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your GE Healthcare representative for the most current information.

GE Healthcare Finland Oy, doing business as GE Healthcare.

GE Healthcare, a division of General Electric Company.

About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality and efficiency around the world.

GE Healthcare
P.O. Box 900, FIN-00031 GE, Finland
Tel. +358 10 394 11
Fax +358 9 146 3310

www.gehealthcare.com



GE imagination at work