

SpO2 Modules (8210 & 8220 Series)

Alarms: Audible and visual alarms for high and low saturation and pulse rate, sensor condition, system failure and low battery conditions.

Alarm Limits:	<u>Low</u>	<u>High</u>
Pulse Rate:	30 - 239 bpm	31 - 240 bpm
SpO ₂	20 - 99%	21 - 100%

Dimensions: 3.3" W x 8.9" H x 5.5" D
(8.4 cm W x 22.6 cm H x 14 cm D)

Environmental Conditions:	<u>Operating</u>	<u>Storage/Transport</u>
Temperature Range:	41 - 104° F (5 - 40° C)	-4 - 140° F (-20 - 60° C)
Relative Humidity:	20 - 90% noncondensing	5 - 85% noncondensing
Atmospheric Pressure:	525 - 4560 mmHg (700 - 6080 hPa)	375 - 760 mmHg (500 - 1013 hPa)

Fluid Ingress Protection: IPX1, Drip Proof

Mode of Operation: Continuous

Shock Protection: Type BF

Weight: 2 lbs (0.91 kg)

SpO2 Modules (8210 Series Only)

Accuracy Tolerance:	<u>Low Perfusion</u> ⓘ	<u>Adult</u> ⓘ	<u>Neonate</u> ⓘ
Pulse Rate:	20 - 250 bpm ±3 digits	20 - 250 bpm ±3 digits	20 - 250 bpm ±3 digits
Functional Saturation:	70 - 100% ±2 digits	70 - 100% ±2 digits	70 - 100% ±3 digits

Display Update Period: 2.25 seconds

Measurement Range:

Perfusion	0.03 - 20%
Pulse Rate	20 - 250 bpm
SpO ₂	1 - 100%

Pulse Amplitude Display: Visual indicators for pulse signals represent proportional pulse amplitude strength.

Sensor: Emitted light wavelength range is within 500 - 1000 nm. Output power does not exceed 15 mw.

SpO2 Modules (8220 Series Only)

Accuracy and Motion Tolerance:

	<u>Low Perfusion</u> ⓘ	<u>Motion</u> ⤴ ⤵	<u>No Motion</u> ⤴	<u>Resolution</u>
Pulse Rate:	25 - 240 bpm ±3 digits Adults, Pediatrics, Neonates	25 - 240 bpm ±5 digits Adults, Pediatrics, Neonates	25 - 240 bpm ±3 digits Adults, Pediatrics, Neonates	1 bpm
Saturation:	70 - 100% Adults, Pediatrics: ±2 digits; Neonates: ±3 digits	70 - 100% ±3 digits Adults, Pediatrics, Neonates	70 - 100% Adults, Pediatrics: ±2 digits; Neonates: ±3 digits	1% SpO ₂

Display Update Period: Approximately 1 second.

Measurement Range:

Perfusion	0.02 - 20%
Pulse Rate	25 - 240 bpm
SpO ₂	1 - 100%

Pulse Amplitude Display: Proportional to height of I.Q. signal.

Sensor: Emitted light wavelength range is within 500 - 1000 nm. Output power does not exceed 1 mw.

NOTES:

- ⓘ Specification applies to monitor performance.
- ⓘ Adult specifications are shown for OXiMAX MAX-A and MAX-N sensors. Neonate specifications are shown for OXiMAX MAX-N sensors. Saturation accuracy varies by sensor type.
- ⓘ Masimo® Board performance has been validated for low perfusion accuracy in bench-top testing against a BIO-TEK simulator and a Masimo® simulator.
- ⤴ Masimo® Board performance has 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 - 4 Hz at an amplitude of 1 - 2 cm and a nonrepetitive range of 70 - 100% SpO₂ against a laboratory co-oximeter and ECG monitor. This variation equals plus or minus one standard deviation. Plus or minus one standard deviation encompasses 68% of the population.
- ⤴ Masimo® Board performance with Masimo® LNOP® Neo and Neo Pt sensors has been validated for neonatal motion accuracy in human blood studies on neonates, while moving the neonate's foot at 2 - 4 Hz at an amplitude of 1 - 2 cm against a laboratory co-oximeter and ECG monitor. This variation equals plus or minus one standard deviation. Plus or minus one standard deviation encompasses 68% of the population.
- ⤴ Masimo® Board performance has 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. This variation equals plus or minus one standard deviation. Plus or minus one standard deviation encompasses 68% of the population.

