MONITOR WITH CONFIDENCE

Nellcor™ Bedside SpO_2 Patient Monitoring System

ACCURACY
Accurately assesses patients' status with pulse oximetry measurements of ± 2 for 70% to 100% saturation, and low saturation accuracy of ± 3 for 60% to 80%.

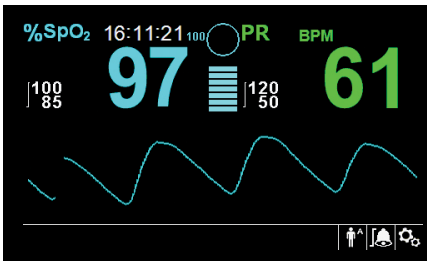
SPEED
Reacts to patient status with technology that displays patient oxygenation and pulse rate more quickly than other technologies.[4,5]

MOTION TOLERANCE
Accurately assesses patients' status during periods of movement or noise, avoiding dropouts or delays. Medtronic is the first company to receive FDA clearance for a motion-tolerant pulse oximeter that is also compliant with ISO 80601-2-61.[3,6]

FLEXIBLE. AFFORDABLE. INTUITIVE
- Simple, intuitive operation and space-saving design.
- Distinctive digital signal processing technology from Medtronic.
- Variable pitch beep tone which enables clinicians to hear point-by-point changes in SpO_2.
- Five-hour battery life with an optional ten-hour battery.
- 96-hour trend memory captured every four seconds.
- Patient trend data can be stored on a PC for archive and analysis.
- Easy-to-use jog dial for simple navigation and control of the display and monitoring system functions.
- Compact, portable, lightweight, durable, easy-to-transport design with a built-in handle.
- Multiple-language graphical user interface.
- Capable of displaying plethysmographic waveforms, pulse amplitude, and current measured SpO2 and pulse rate.
- Multicolor display screen with a black background which provides ideal contrast.
- Back-up audible alarm.
- On-screen help messages to assist the user in the use of the monitor.

THE NELLCOR™ BEDSIDE SpO_2 PATIENT MONITORING SYSTEM
- Incorporates the latest Nellcor™ digital signal processing technology for accurate, reliable readings even during low perfusion, motion and other forms of signal interference[1,2]
- Provides clinicians with real-time information regarding their patients' respiratory status, including continuous SpO_2 and pulse rate monitoring and trending data
- Includes SatSeconds alarm management, a clinician-controlled feature that can distinguish between real, clinically significant events and transient events by taking into account both the severity and the duration of any desaturation event

With the Nellcor™ Bedside SpO_2 Patient Monitoring System clinicians can feel confident in their ability to detect respiratory complications early and intervene promptly.



Medtronic
Further, Together

Features and specifications

Performance

MEASUREMENT RANGE	
SpO_2	1 to 100%
Pulse rate	20 to 250 beats per minute (bpm)
Pulse amplitude	0.03 to 20%

Measurement Accuracy

SATURATION	
Adult and neonate	70 to 100% ± 2 digits
Adult and neonate low sat	70 to 100% ± 3 digits
Low perfusion	70 to 100% ± 2 digits
Adult and neonate with motion	70 to 100% ± 3 digits
PULSE RATE	
Adult and neonate	20 to 250bpm ± 3 digits
Low perfusion	20 to 250bpm ± 3 digits
Adult and neonate with motion	20 to 250bpm ± 5 digits

Electrical

INSTRUMENT	
Power requirements	100 to 240 VAC, 50/60 Hz, 45 VA
Fuse rating	Fast-acting 2 A 32VAC/DC, Fast-acting 500 mA 32VAC/50DC
BATTERY	
Type	Lithium ion
Battery capacity	Minimum of five hours using new, fully charged battery with no alarms; optional 10-hour battery

Environmental

OPERATING TEMPERATURE	
Instrument	5°C to 40°C (41°F to 104°F)
Transport/Storage Temperature (in shipping carton)	-20°C to 60°C (-4°F to 140°F)
OPERATING HUMIDITY	
15 to 93% non-condensing	
OPERATING ALTITUDE	
-170m to 4877m (-557ft to 16,000ft)	

Physical Characteristics

Weight	1.6kg (3.5 lbs) including battery
Size	82H x 255W x 165D (mm), (3.23H x 10.04W x 6.50D (in))

Equipment Compliance

Standards Compliance

- EN ISO 9919:2009, EN ISO 80601-2-61:2011
- EN IEC 60601-1:2005
- EN IEC 60601-1-2:2nd edition
- EN IEC 60601-1:1998 + A1:1991 + A2:1995
- EN 60601-1:1990 + A11:1993 + A12:1993 + A13:1996
- CAN/CSA C22.2 No. 601.1 M90
- UL 60601-1: 1st editiony

Equipment Classifications

Type of protection against electric shock	Class 1 (internally powered)
Degree of protection against electric shock	Type BF – Applied part
Mode of operation	Continuous
Electromagnetic compatibility	IEC 60601-1-2:2007
Liquid ingress	IPX2
Degree of safety	Not suitable for use in the presence of flammable anesthetics

Display/Indicators

- Pulse amplitude indicator (eight segments)
- Visual indicators: Pulse search, audible alarms silenced or off, interference indicator, battery charging, and SatSeconds alarm management clock, pleth waveform

Alarms

- Audible and visual alarms for high/low saturation and pulse rate
- SatSeconds Alarm Management settings: 10, 25, 50 and 100, or OFF
- Audible and visual warning indicators for low battery and sensor off
- Audible and visual sensor disconnect alarms

Optional Accessories

- Adapter Plate
- Interface cables
- 10 hour battery

Connectivity

- Supports wired and USB trend data export to an external personal computer for archiving or data analysis
- Nurse call capability

Simple set up and maintenance

The Nellcor™ Bedside SpO_2 Patient Monitoring System meets medical electrical equipment standards,[3] is RoHs compliant,[6] and enables hospital staff to set institutional defaults, replace the battery, perform diagnostics to troubleshoot performance issues, and perform on-site maintenance on the monitor.

References

1. Clinical Report, COVMOPR0384, Motion, LAMP-C (p/n 10099560)
2. Clinical Report, COVMOPR0250, LowSat Accuracy, LAMP-C (p/n 10099561)
3. 510(k) K123581 and certificate US-23250-M1-UL
4. Saraswat A, Simionato L, Dawson J, et al. Determining the best method of Nellcor pulse oximeter sensor application in neonates. Acta Paediatr. 2012;10195):484-487.
5. O'Donnell CPF, Kamlin COF, Davis PG, Morley CJ. Obtaining pulse oximetry data in neonates: a randomized crossover study of sensor application techniques. Arch Dis Child Fetal Neonatal Ed. 2005;90:F84-F85.
6. Declaration of Conformity n°10138709 rev A - Sept 24th, 2014

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