

DINAMAP® PRO 100-400

PATIENT MONITOR

It's What's Inside That Counts!

With the DINAMAP PRO Series, you can take BP measurements that are fast, accurate and comfortable. Get reliable temperature readings in seconds and get oxygen saturation readings with your choice of two superior SpO₂ technologies. Which means you can spend less time checking vitals and more time on actual patient care.

Market-Leading Technologies

Designed for quality driven healthcare professionals who demand proven world-class technology in every parameter. The DINAMAP PRO 100-400 Series brings these technologies together for the first time in one complete line of flexible monitors.

Built to Last

Above all, you need a monitor you can depend on. As we strive to continuously improve our products, our latest generation includes enhancements in performance, reliability and serviceability. In addition to incorporating the highest-quality materials for "hospital grade" durability, the new PRO Series is also designed to require little maintenance and be easy to repair. Furthermore, our warranty is the best in the business and fully backed by GE - one of the most respected companies in the world. That's peace of mind that delivers day in and day out.



Mechanical

Dimensions

Height: 9.8 in (25.0 cm)
Width: 9.8 in (24.8 cm)
Depth: 6.9 in (17.5 cm)

Weight, Including Battery Mountings Portability Classification Information

7.8 lb (3.5 kg)
Self-supporting on rubber feet or pole mountable
Carried by recessed handle or pole mounted
Mode of operation: continuous
Degree of protection against harmful ingress of water: Drip-proof IPX1

Power Requirements

AC input voltage: 100-240 VAC, 50 / 60 Hz (nominal)
90 ~ 253 VAC, 47 ~ 63 Hz (range), 50VA.
Protection against electrical shock: Class I
DC input voltage: 24 VDC (nominal), 12-30 VDC, 36VA, supplied from a source conforming to IEC 601-1.
AC input is protected by two internal fuses, replaceable by qualified service personnel only. DC input line is protected by an internal auto-resetting fuse.
Battery: 12 volt, 2.3 amp-hours protected by internal auto-resetting fuse.
Minimum operation time: 2 hrs (5 min cycle with adult cuff at 25 °C with power save mode enabled) from full charge.
Time for full recharge: 1 hr 50 min from full discharge when the Monitor is switched off and 8 hrs when the Monitor is switched on.

Environmental

Operating Temperature

+ 5 °C to + 40 °C
(+ 41 °F to + 104 °F)

Operating Atmospheric Pressure

700 hPa to 1060 hPa

Storage Temperature

ñ 20 °C to + 50 °C

(ñ 4 °F to + 122 °F)

Storage/Transportation Atmospheric Pressure

500 hPa to 1060 hPa

Humidity Range

0% to 95% noncondensing

Radio Frequency

Complies with IEC

Publication 601-1-2 (April 1993) Medical Electrical Equipment,

Electromagnetic

Compatibility Requirements and Tests and CISPR 11 (Group 1, Class A) for radiated and conducted emissions.

IPX1

The DINAMAP PRO Monitor is protected against vertically falling drops of water and conforms to IEC-529 standard at level of IPX1. Vertically falling drops of water shall have no harmful effects to the Monitor.



GE Medical Systems
Information Technologies

We bring good things to life.

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NIBP

Cuff Pressure Range
(Normal operating range)
Default Target: Cuff Inflation

0 to 290 mmHg (adult)
0 to 140 mmHg (neonate)
160 ± 15 mmHg (adult)
110 ± 15 mmHg (neonate)
100 to 250 mmHg (adult)
100 to 140 mmHg (neonate)

Target Cuff Inflation:
Adjustment Range
(in 5 mmHg increments)
Blood Pressure Measurement

Range (mmHg)	Systolic	MAP	Diastolic
Adult 30 - 245	15 - 215	10 - 195	
Neonate	40 - 140	30 - 115	20 - 100

Blood Pressure Accuracy: Meets or exceeds ANSI/AAMI standard SP-10 (mean error ±5 mmHg, standard deviation ±8 mmHg)

Maximum Determination Time
Overpressure Cutoff

120 s (adult)
85 s (neonate)
300 to 330 mmHg (adult)
150 to 165 mmHg (neonate)

Pulse Rate Range

30 to 200 beats/min (adult)
30 to 200 beats/min (neonate)

Pulse Rate Accuracy

± 3.5%

Turbo•Temp Temperature

Scale
Range

Fahrenheit (F)
Celsius (C)

Range

Predictive mode Max: 41.1°C; 106.0°F
Min: 33.6°C; 96.0°F

Monitor mode

Max: 41.1°C; 106.0°F

Monitor mode accuracy

Min: 26.7°C; 80.0°F

Table 1, in range specified)

Predictive mode accuracy

± 1.0°F

Determination time

± 0.6°C
less than 60 seconds

Use only IVAC probes and probe covers. The size, shape, and thermal characteristics of the probe covers can affect the performance of the instrument. Inaccurate readings or retention problems may occur unless IVAC probes and probe covers are used.

Nellcor SpO2

Measurement Range

SpO2 1 to 100%
Pulse Rate 20 to 250 beats/min
Perfusion Range 0.03 to 20%

Accuracy and Motion Tolerance

Saturation
Without Motion - Adults* 70 to 100% ±2 digits
Without Motion - Neonate* 70 to 100% ±3 digits
With Motion - Adults/Neo** 70 to 100% ±3 digits
Low Perfusion 70 to 100% ±2 digits

Pulse Rate

Without Motion 20 to 250 beats/min ±3 digits

With Motion

normal physiologic range

Low Perfusion

55 to 125 beats/min ±5 digits

*Adult specifications are shown for OXIMAX MAX-A and MAX-N sensors. Neonate specifications are shown for OXIMAX MAX-N. Saturation accuracy will vary by sensor type.

**Applicability: OXIMAX MAX-A, MAX-AL, MAX-P, MAX-I, and MAX-N sensors.

Default Settings

SpO2 (%) HIGH: 100
SpO2 (%) LOW: 90
Response Mode 2 (for Mode 2: Fast Response)

Sat Seconds

0

Audible Indicator

Pitch changes continuously with saturation; volume from 0 (off) to 9

Waveforms

Pulse plethysmograph waveform on LCD gain compensated

Sensor Connect/

Disconnect From Patient

Monitor detect attachment or disconnection of sensor from patient within 15 s

Pulse Detection

Monitor will detect pulse or enter no signal state within 15 s of being

attached to patient

Loss of Pulse

Monitor will detect loss of pulse from patient and enter no signal state

within 10 s

Sensor Light Source

Infrared: 890 nm (nominal)

Wavelength

Red: 660 nm (nominal)

Power Dissipation

52.5 mW (max)

Masimo SET SpO2

Measurement Range

SpO2 1 to 100%
Pulse Rate 25 to 240 beats/min
Perfusion Range 0.02 to 20%

Accuracy and Motion Tolerance

Saturation
Without Motion - Adult/Ped* 70 to 100% ±2 digits
Without Motion - Neonate* 70 to 100% ±3 digits
With Motion - Adult/Ped/Neo** 70 to 100% ±3 digits
Low Perfusion† 70 to 100% ±2 digits
0 to 69% unspecified

Pulse Rate

Without Motion 25 to 240 beats/min ±3 digits
With Motion normal physiologic range
25 to 240 beats/min ±5 digits

*The Masimo SET SpO2 parameter with LNOP-Adt sensors 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.

**The Masimo SET SpO2 parameter with LNOP-Adt sensors 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 to 4 Hz at an amplitude of 1 to 2 cm and a non repetitive motion before 1 to 5 Hz at an amplitude of 2 to 3 cm 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.

†The Masimo SET SpO2 parameter with LNOP-Neo Pt sensors has been validated for neonatal motion accuracy in human blood studies on neonates while moving the neonate's foot at 2 to 4 cm against a laboratory co-oximeter and ECG monitor. This validation equals plus or minus, one standard deviation. Plus or minus one standard deviation encompasses 68% of the population.

‡The Masimo SET SpO2 parameter has been validated for low perfusion accuracy in bench top testing against a Biotek Index 2 simulator and Masimo's simulator with signal strengths of greater than 0.02% and a % transmission of greater than 5% for saturations ranging from 70 to 100%. This variation equals plus or minus, one standard deviation. Plus or minus one standard deviation encompasses 68% of the population.

Masimo Sensor Accuracy

Sensor Model SpO2 Range 70% - 100%

LNOP

LNOP-ADT ±2 digits

LNOP-ADT Long ±2 digits

LNOP-PDT ±2 digits

LNOP-NEO ±3 digits

LNOP-NEO PT ±3 digits

LNOP-DCI (reusable) ±2 digits

LNOP-DCSC (reusable) ±2 digits

LNOP-DCIP (reusable) ±2 digits

NRI25 (reusable) ±2 digits

Resolution

Saturation (% SpO2) 1%

Pulse Rate (bpm) 1

Low Perfusion Performance

>0.02% Pulse Amplitude and % Transmission >5% Saturation (% SpO2) ±2 digits

Interfering Substances Pulse Rate ±3 digits

Carboxyhemoglobin may erroneously increase readings. The level of increase is approximately equal to the amount of carboxyhemoglobin present. Dyes, or any substance containing dyes, that change usual arterial pigmentation may cause erroneous readings.

Sensor Light Source

Wavelength Infrared: 905 nm (nominal)

Red: 660 nm (nominal)

Infrared: 22.5 mW (max)

Red: 27.5 mW (max)

Power Dissipation

Default Settings

SpO2 (%) HIGH: 100

SpO2 (%) LOW: 90

Sensitivity Mode 2 (for low perfusion-Default)

Averaging Time 12 seconds

FastSAT Mode 0 (for Off)



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