

PureLight[®] PureSAT[®] sensor & signal technology

PureLight[®] sensors produce the pure light spectrum which eliminates variations in readings from patient-to-patient and sensor-to-sensor. Accurate and dependable SpO₂ readings start with PureLight sensors.

Nonin's PureSAT[®] technology makes greater use of signal characteristics for artifact rejection, using improved pulse detection technology for faster, more precise pulse detection and quick readings.

Comprehensive Data Capture



With integrated SpO₂ & heart rate memory, the Avant[®] 9700 can be used for extended monitoring situations. When used with Nonin's proprietary software, nVISION[®], a clear picture of the trended SpO₂

and heart rate data can be reviewed instantly - including the ability to edit parameters for event identification.

Select Your Options

- ✓ Sensors & Cables - Use with Nonin's complete line of PureLight sensors & cables (Neonate, Infant, Pediatric, Adult)
- ✓ Nurse Call Cable - A variety of cables are available
- ✓ Carrying Case - Convenient for transport and storage - Avant Series Product
- ✓ Rolling Stand - Standard or deluxe 5 point stand increases portability - Avant Series Product
- ✓ Pole Clamp - Mounts horizontal or vertical - Avant Series Product
- ✓ Output Options - nVISION[®] Data Management Software for oximetry screening
 - Portable thermal printer
 - Digital to Analog Converter Module



Your Partner of Choice

With over 18 years of experience and dedication to the design and support of noninvasive monitoring devices, Nonin has helped many medical professionals meet clinical and economic objectives. Trusted by clinicians worldwide, countless tests are performed every day on thousands of Nonin pulse oximeters in more than 125 countries. Nonin's dedication to technological leadership, precision manufacturing and uncompromised customer support ensures quality products and service you expect.

Please contact your authorized distributor for more information.

Specifications

Oximeter

Oxygen Saturation Range (%SpO ₂)	0% to 100%
Pulse Rate Range	18 to 300 pulses per minute
Displays	
Numeric Displays	3-digit LED's, Tricolor (red, green, amber)
Pulse Strength Indicator	Tricolor LED segments
Pulse Quality Indicator	Amber LED
LCD	16 color; 256 x 64 pixel
Accuracy*	
Blood Oxygen Saturation (%SpO ₂ ±1 SD) [†]	
No Motion: Adults, Pediatrics	70 - 100% ±2 digits
Neonates	70 - 100% ±3 digits
Motion: Adults, Pediatrics	70 - 100% ±2 digits
Neonates	70 - 100% ±3 digits
Low Perfusion: Adults, Pediatrics	70 - 100% ±2 digits
Neonates	70 - 100% ±3 digits
Pulse Rate	
No Motion	18 to 300 bpm ±3 digits
Motion	60 to 240 bpm ±5 digits
Low Perfusion	60 to 240 bpm ±3 digits
Temperature	
Operating	+32° to +122°F (+0° to +50°C)
Storage/Transportation	-22° to +122°F (-30° to +50°C)
Humidity	
Operating	10% to 90% noncondensing
Storage/Transportation	10% to 95% noncondensing
Altitude	
Operating	Up to 40,000 feet (12,192 m)
Power Requirements	
Mains	100-240 VAC 50-60 Hz
DC Input	12 VDC 1.5A AC adapter
Internal Power	
Battery	7.2 volt battery pack (6 cells)
Operating	Minimum 12 hours of continuous operation with a fully charged battery pack and LCD backlight off
	Minimum 8 hours of continuous operation with a fully charged battery pack and LCD backlight on
Storage	27 days
Recharge	4 hours
Dimensions	
	7.25" wide x 5.5" high x 4.5" deep
	18.4 cm x 14 cm x 11.4 cm
Weight (excluding Pole Mount System)	
	2.4 pounds (1.1 kg)
Memory	
	115 hours non-volatile
Warranty	
	3 years

Classifications per IEC 60601-1/UL2601-1

Type of Protection	Class I (when on AC power with 300PS-UNIV battery charger) Internally powered (on battery power)
Degree of Protection	Type BF-Applied Part
Nurse Call	
Maximum Voltage	30 V, AC or DC (non-polarized)
Maximum Load Current	20mA continuous
Output Impedance	320 ohms typical
Output	Normally Open or Normally Closed; switch selectable
Output Connector	0.141" miniature phone jack

*Accuracy is expressed for adult patients and determined with the Reusable 8000AA Finger Clip Sensor and 8000J Flex Sensor. All accuracy specifications are results determined by induced hypoxia studies on healthy adult volunteers. Motion accuracy specifications apply to the 8000AA Finger Clip Sensor and 8000J Flex Sensor. The low perfusion specifications apply to monitor performance.

[†]S.D. (Standard Deviation) is a statistical measure; up to 32% of the readings may fall outside these limits.

Quality Systems are registered to ISO 13485:2003 and EC certificates per Annex II, clause 3 of EC Directive No. 93/42/EEC concerning medical devices.



Specifications are subject to change without notice.



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✓ Where People Make the Difference



Pulse Oximetry

9700[®] Avant

Tabletop/Portable Digital Pulse Oximeter with Waveform



Product Highlights

- ✓ Easy-to-Use - Intuitive, color coded displays
- ✓ Versatile - Monitor neonates to adults; acute care to homecare
- ✓ Powerful - On-demand printing & minimum 8 hour battery life
- ✓ Flexible - Patient Security Mode, Nurse Call & User-Defined Defaults
- ✓ Intelligent - Nonin's Next Generation PureSAT[®] signal processing technology
- ✓ Convenient - Compact, lightweight & durable

✓ Where People Make the Difference



Distinctive Displays – Dependable Performance

The plethysmographic waveform alters color as a real-time reflection of the patient's pulse signal quality – alerting you to patient changes. The high-resolution color display complements the signal quality indicators and LED values. The Avant® 9700 combines flexible alarm options, unparalleled non-volatile memory, and Nonin's time-honored technology to give you an easy-to-use and efficient monitor.

Intuitive Displays



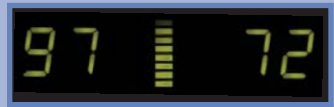
Green = Good



Amber = Alert



Red = Action



Dynamic color changes correlated to the patient's pulse signal quality provide the caregiver with an immediate evaluation tool. The 16-color high-resolution Liquid Crystal Display (LCD) provides:

Color Coded Waveforms

- ✓ A green waveform represents a strong signal
- ✓ An amber waveform represents a marginal signal
- ✓ A red waveform represents a weak signal

Automatic Scaling Factor

- ✓ Automatically scales for optimum waveform visualization.
- ✓ Scaling factors are: x1, x2, x4, x8 & x16.

Crystal Clear LEDs

Bright, adjustable Light Emitting Diodes (LEDs) allow patient monitoring to continue even when the LCD backlight is turned off.

User-Friendly Interface

The Avant 9700 provides a variety of display indicators to ensure reliable readings for easy patient evaluation.

Qualitative Pulse Strength - Color-coded bar graph assists in assessing the patient's status. An audible tone is generated with each pulse; the pitch changes with the patient's saturation level.



Pulse Quality Indicator - Detects movement or signal quality changes that may necessitate the need for sensor site stabilization.



Sensor Indicator - The sensor icon indicates the lack of sensor presence or the need for sensor attention.



A quick and complete assessment of your patient's oximetry readings is made easier with the combination of information supplied by the Qualitative Pulse Strength bar graph, variable pitch pulse/saturation tone and Pulse Quality Indicator.

9700 Avant®

Tabletop/Portable Digital Pulse Oximeter with Waveform



LCD Contrast

LCD Screens: Scroll Between Waveform, Trending and Histogram

Scroll Through Adjustable Parameters or Saved Data

Alarm Silence

Settings/Memory

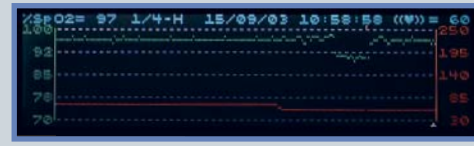
Change parameter values, LED intensity, and zoom screens

On/Standby

On-Screen Trending & Histogram

The Avant 9700 color LCD offers clear viewing of on-screen trending. The high resolution screen quickly displays an easy-to-read trend graph and histogram.

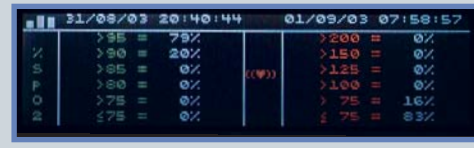
The dual-scale (SpO₂ & heart rate) color chart draws gridlines so data values can be clearly graphed and evaluated at a glance. On screen viewing of up to 24 hours of SpO₂ & heart rate trends.



Up to 115 hours of data is stored in non-volatile memory for access with nVISION® Data Management Software. Most recent 24 hours of patient data is available for on screen recall.



The patient histogram offers a concise tabulation of the recorded SpO₂ & heart rate values over the length of the record.



Flexible & Versatile Alarm Settings

Patient Security Mode	Locks alarm limits, volume and time/date settings, preventing unintentional changes.
Nurse Call	Facility's call indicator light system connects via cable connection.
Latched Mode	Audible and visual indication of an alarm continues even after an event has ended.
Unlatched Mode	Audible and visual indication of an alarm state concludes when an event has ended.
Recall Function	Reinstatement of user's last customized alarm settings.
User-Defined Defaults	Alarm settings return to user customized settings on every power up.

Printing Options

The Avant 9700 has two convenient printing options:

1. Print-on-Demand – one touch printing
2. Real-time Printing – once-per-second outputs

