

Onyx[®] Vantage 9590

Finger Pulse Oximeter



Accuracy you can act on[™].

When you need to make decisions quickly, you do not have time to question the accuracy of your finger pulse oximeter. You can trust Nonin Medical's Onyx[®] Vantage finger pulse oximeter with PureSAT[®] technology to quickly and accurately capture SpO₂ and pulse rate measurements — even on patients where low perfusion is a challenge. In fact, Onyx is the only finger pulse oximeter brand whose accuracy and performance claims are supported by published peer-reviewed, clinical studies. Accuracy matters, and Onyx Vantage provides accurate data for actionable decision making.

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Product Highlights

The Onyx is the only finger pulse oximeter with scientifically proven accuracy and is tested for use on fingers, thumbs and toes.

- **Proven Accuracy** – Scientifically proven accuracy in the widest range of patients.
- **Reliable Results** – Accurate readings on your challenging cases due to low perfusion and darker skin tones. And, Onyx Vantage 9590 has been tested in motion.
- **Versatile** – One unit works on pediatric to larger adult patients and can be used on fingers, thumbs or toes.
- **Cost Efficient** – 4-year warranty and up to 6,000 spot checks on two AAA batteries.



The Onyx Vantage is a valuable tool in any situation where a fast and accurate reading of blood oxygen saturation and pulse rates are needed. The Onyx Vantage finger pulse oximeter is intended for use by health professionals and features:

Clinician-facing, easy-to-read, bright LED – SpO₂ and pulse rate can be read from any angle, in all lighting conditions, day or night.

Three-color pulse quality indicator LED – Green, yellow or red light provides a quick assessment of patient pulse quality.

Accuracy in the widest range of patients and conditions – Only Nonin uses PureSAT[®] SpO₂ technology – an intelligent pulse-by-pulse filtering to provide accuracy in situations that are challenging due to dark skin tones, low perfusion and more.

One product for pediatric to adult patients –

Automatically adjusts to each patient from pediatric to adult quickly and accurately and accommodates fingers, thumbs and toes with digit thicknesses:

8 mm to 25.4 mm (0.3" to 1.0").



Proven durability – Onyx Vantage is tough enough to withstand a minimum of 50 drops, is rugged enough to be used in the most demanding situations and exceeds IP32 water ingress testing.

Automatic turn on and off – No on/off button! Just insert digit for fast and easy spot checks. The auto-on/off mechanism allows two AAA batteries to provide up to 6,000 spot checks before being replaced!

Portable – Take the Onyx Vantage anywhere — it is lightweight and weighs less than two ounces.

Available in four colors – Black, Red, Blue and Purple. Complete with lanyard, instructions on CD and two AAA batteries. Optional carrying case and retractable lanyard available.



Specifications

Dimensions	5.59 cm (2.2") L x 3.3 cm (1.3") W x 3.23 cm (1.27") H
Warranty	4 years
Oxygen Saturation Display Range	0 – 100% SpO ₂
Pulse Rate Display Range	18 – 321 beats per minute (BPM)
Oxygen Saturation Declared Accuracy	
Range (A_{rms}*)	70 – 100% SpO ₂ ±2 digits
Low Perfusion Oxygen Saturation Declared Accuracy Range (A_{rms}*)	70 – 100% SpO ₂ ±2 digits
Pulse Rate Declared Accuracy	
Range (A_{rms}*)	20 – 250 BPM ±3 digits
Low Perfusion Pulse Rate Declared Accuracy	
Range (A_{rms}*)	40 – 240 BPM ±3 digits
Measurement Wavelengths and Output Power**	
Red	660 nanometers @ 0.8 mw maximum average
Infrared	910 nanometers @ 1.2 mw maximum average
Temperature	
Operating	-5° to +40°C (+23° to +104°F)
Storage/Transportation	-40° to +70°C (-40° to +158°F)
Humidity	
Operating	10 – 90% non-condensing
Storage/Transportation	10 – 95% non-condensing
Altitude	
Operating	Up to 12,192 meters (40,000 feet)
Hyperbaric Pressure	Up to 4 atmospheres
Battery Life	
Operating	Approximately 6,000 spot-checks or 36 hours of continuous operation using new AAA-size alkaline batteries
Storage	12 months

Classifications per IEC 60601-1 / CAN/CSA-C22.2 No. 601.1 / UL 60601-1:

Degree of Protection	Type BF-Applied Part
Mode of Operation	Continuous
Enclosure Degree of Ingress Protection	IP32

This product complies with ISO 10993-1, Biological evaluation of medical devices – Part 1: Evaluation and testing.

*±1 A_{rms} represents approximately 68% of measurements.

**This information is especially useful for clinicians performing photodynamic therapy.

Specifications are subject to change without notice.

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