



Instructions for Use—English



Model 8000Q2 Ear Clip
Pulse Oximeter Sensor

⚠ Cautions:
Federal law (USA) restricts this device to sale by or on the order of a licensed practitioner.

Indications for Use
The Nonin Model 8000Q2 Ear Clip Sensor is designed for patients weighing greater than 88 pounds (40 kilograms) where fingertip monitoring is impractical. The recommended application site is the ear lobe.

Note: Ear clip sensors generally do not perform as well as sensors applied on the fingers.

Contraindications:

- Do not use the device in an MRI environment, in an explosive atmosphere, or on infant or neonatal patients.
- This device is not defibrillation proof per IEC 60601-1:1990 clause 17h.

Warnings:

- The use of sensor and oximeter combinations other than Nonin-branded products have not been tested for accuracy as a system and may affect performance of the system. Refer to Nonin pulse oximeter operator's manuals for a complete listing of Nonin-branded oximeters, sensors, and accessories.

⚠ Cautions:

- Do not use a damaged sensor. If the sensor is damaged, discontinue use immediately.
- Inspect the sensor application site at least every 6 to 8 hours to ensure correct sensor alignment and skin integrity. Patient sensitivity to sensors may vary due to medical status or skin condition.
- Do not sterilize, autoclave or immerse in liquid of any kind.
- Do not use caustic or abrasive cleaning agents on the sensor.
- Follow local governing ordinances and recycling instructions regarding disposal or recycling of the sensor and any components.
- A functional tester cannot be used to assess the accuracy of a pulse oximeter monitor or sensor.
- Ear clip sensors are not recommended for pediatric patients less than 88 pounds (40 kilograms) or neonatal use.
- Remove earrings from the patient's ear before applying the ear clip sensor.
- Refer to the pulse oximeter operator's manual for additional warnings and cautions.
- Factors that may degrade pulse oximeter performance include the following:
 - excessive ambient light
 - excessive motion
 - electrosurgical interference
 - moisture in the sensor
 - improperly applied sensor
 - carboxyhemoglobin
 - methemoglobin
 - incorrect sensor type
 - poor pulse quality
 - venous pulsations
 - anemia or low hemoglobin concentrations
 - cardiovascular dyes
 - dysfunctional hemoglobin

Symbols:

Symbol	Definition of Symbol
	Follow Instructions for Use
	CAUTION!
	CE Marking indicating conformance to EC Directive No. 93/42/EEC concerning medical devices
IP32	Protected against vertically falling water drops when enclosure is tilted up to 15 degrees and ingress of solid foreign objects greater than or equal to 2.5 mm in diameter per IEC 60529.



Attaching the Ear Clip Sensor

- Rub the ear lobe vigorously for at least 5 seconds.
- Apply the ear clip sensor to the lobe of the ear (Figure 1). Ensure that the ear clip sensor is positioned so the light emitter and light detector are completely covered by the earlobe. This ensures that no ambient light bypasses the earlobe, which can cause SpO₂ inaccuracies.

Note: Proper sensor placement is critical for good performance. If the sensor is not positioned properly, light may bypass the tissue and result in SpO₂ inaccuracies.

Cleaning the Reusable Sensor

⚠ Cautions:

- Clean the sensor before applying it to a new patient.
- Unplug the sensor from the pulse oximeter before cleaning.
- Do not sterilize, autoclave or immerse the sensor in liquid of any kind. Do not pour or spray any liquids onto the sensor.
- Do not use caustic or abrasive cleaning agents on the sensor. Do not use cleaning agents containing ammonium chloride.

- To clean the sensor, wipe all patient contact surfaces with a soft cloth dampened a 10% bleach/90% water solution (household bleach [containing less than 10% sodium hypochlorite]).
- Allow the sensor to dry thoroughly before reusing.

Note: To minimize cable deterioration - when cleaning the cable, gently wipe away from the plug end towards the sensor end.

Specifications

SpO₂ Accuracy: 70 - 100% ±3 digits (A_{rms})*^{1, 2}
Pulse Rate Accuracy: 18 to 300 BPM ±3 digits (A_{rms})*¹
Temperature:
Operating: 0 °C to 40 °C (32 °F to 104 °F)
Storage/Transportation: -30 °C to 50 °C (-22 °F to 122 °F)
Humidity:
Operating: 10 to 90% non-condensing
Storage/Transportation: 10 to 95% non-condensing

* ±1 A_{rms} encompasses 68% of the population.
¹Accuracy specifications based on testing with the Model 7500, OEM III pulse oximeter module, LifeSense LS1-9R and PulseSense LS1P-9R.
²Additional accuracy and performance information can be found in the sensor accuracy document on the operator's manual CD.

Measurement Wavelengths and Output Power**

Red: 660 nanometers @ 0.8 mW nominal
Infrared: 910 nanometers @ 1.2 mW nominal

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

Compliance

This product complies with ISO 10993-1.
Not made with natural rubber latex.

Warranty

90 days from the date of delivery.