SenSmart™ Model 8204CA

Dual Emitter Regional Oximetry (rSO_2) Sensor

Greater Accuracy and Reliability for Enhanced Patient Outcomes

An advancement in near-infrared spectroscopy (NIRS) regional oximetry, the SenSmart Model 8204CA dual emitter regional oximetry sensor for use with the SenSmart Universal Oximetry (rSO_2/SpO_2) System, offers clinicians absolute accuracy to optimize patient care. SenSmart Technology offers accurate rSO_2 values on all patients…no more guessing when the system doesn't provide a reading, and no more outliers that misrepresent patients' true physiologic condition.[1,2]

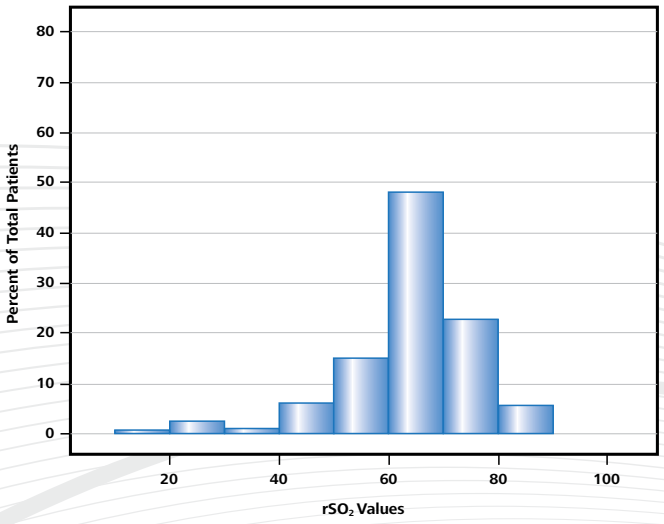
NONIN
Leaders in Noninvasive Medical Monitoring

SenSmart™ rSO_2 Technology: Four-Wavelength Optics

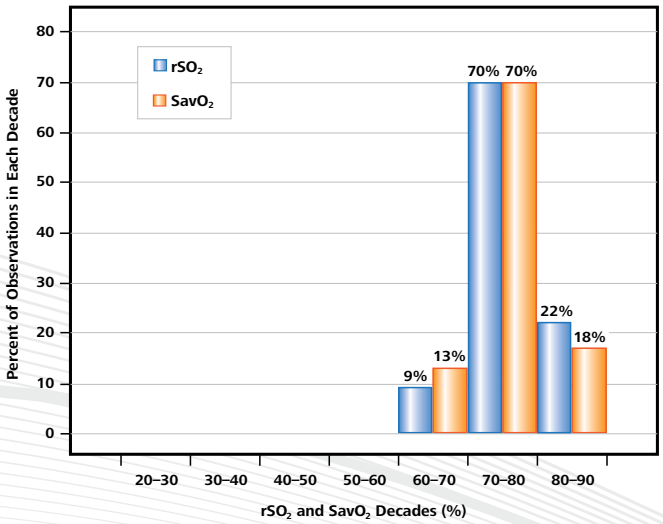
Greater Accuracy and Reliability through Better Science

SenSmart rSO_2 Technology utilizes four wavelengths of light to measure the balance of oxy- and deoxy-hemoglobin, while compensating for tissue factors that reduce rSO_2 accuracy. The result is highly accurate measurements of patients' true tissue oxygen saturation.

Conventional Two-Wavelength, Single-Emitter NIRS Trending Variability[1]



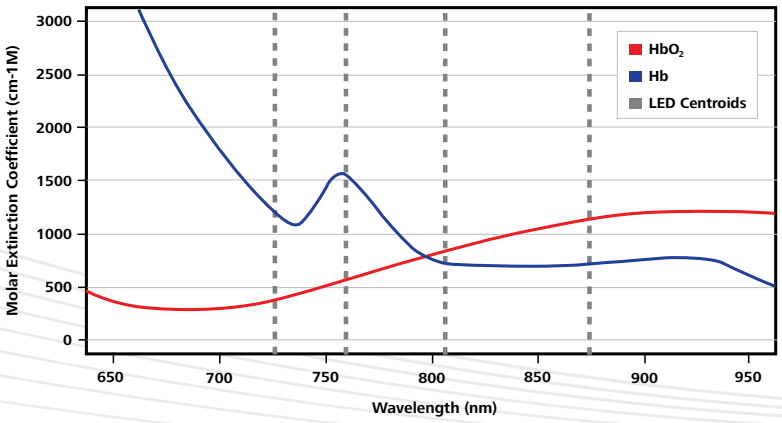
Nonin rSO_2 Technology Four-Wavelength rSO_2 Values Aligned with $SavO_2$[1]



Data rounded up, percentages add up to greater than 100%

Compared to traditional NIRS trending technology, SenSmart rSO_2 Technology is absolute, providing enhanced accuracy in rSO_2 measurements on all patients, regardless of skin color[1]…no more guessing or over-treatment if patients do not read, or read inaccurately.

Nonin SenSmart rSO_2 Technology Four-Wavelength Accuracy[1]



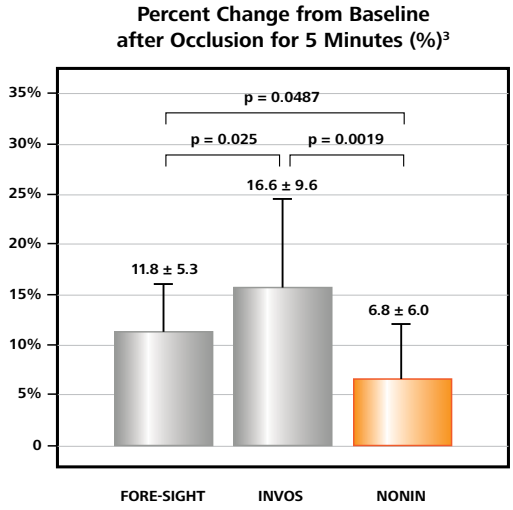
"Being able to measure absolute values of cerebral tissue oxygen saturation opens new possibilities for the clinician."

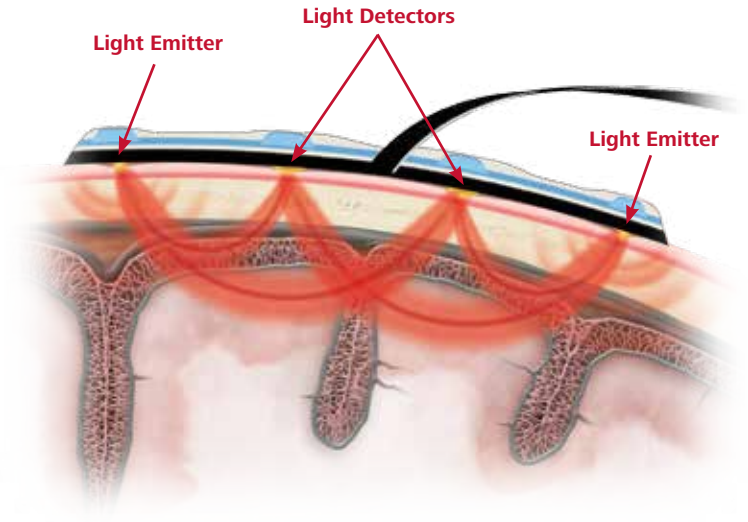
Greg Fischer, M.D., Mount Sinai Medical Center, New York

SenSmart™ rSO_2 Technology: Dual-Emitter Architecture

Effectively Removes Surface Tissue Artifacts

Only the patented SenSmart rSO_2 sensors use dual emitters and dual detectors to provide repeatable cerebral cortex measurements that are minimally affected by intervening tissue or surface effects.[3]





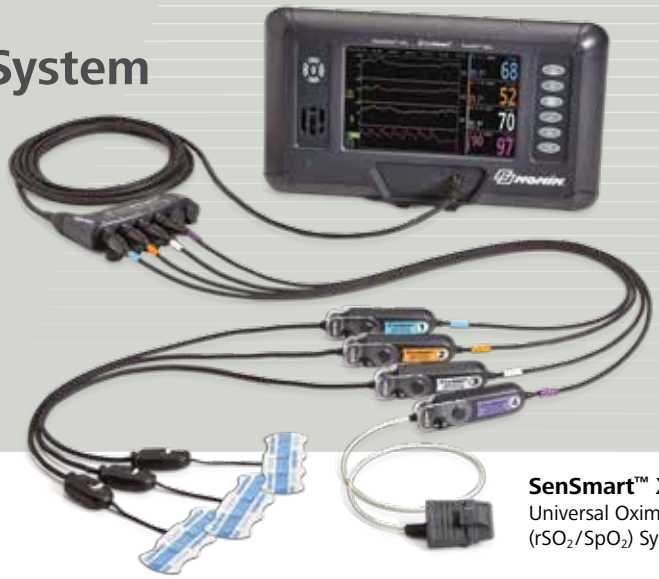
A recent independent, peer-reviewed study showed in a statistically significant manner that of the three cerebral oximeters, Nonin's rSO_2 technology had the least interference from extracranial tissue.[3]

Older NIRS technology claimed to be absolute, but clinician confidence suffered when the technology could not read some patients. In a recent series of 50 healthy adults, Nonin's rSO_2 technology captured data on all subjects, regardless of gender, body type or skin color, while 5% of subjects did not read using other technologies.[1]

SenSmart™ Model X-100 Universal Oximetry (rSO_2/SpO_2) System

Product Highlights

- **Absolute Accuracy**[1] – 4.1 A_{rms}*
- **Consistent** – Repeatable results for maximum efficiency and time savings[4]
- **Immediate Response** – Near-instant measurements ensure readings from the moment the sensor is placed
- **Real-time Readings** – Sampling rates less than two seconds apart guarantee up-to-date saturation readings



SenSmart™ X-100
Universal Oximetry
(rSO_2/SpO_2) System

Portable and durable, the SenSmart X-100 Universal Oximetry System has six-channel display and the ability to monitor rSO_2 and SpO_2 at the same time.

SenSmart™ Model 8204CA Regional Oximetry (rSO_2) Sensor

Improved rSO_2 Sensor Utility

- 13% smaller footprint than 8004CA
- Quick-connect intermediate cable that can stay connected to signal processor between cases
- Proven, reliable adhesion; even with highly diaphoretic patients
- Nonin dual-emitter absolute accuracy
- Same "over the top" vs side-of-head cable exit angle
- Write-on Sharpie strip on sensor face for time/date of placement (e.g. ICU use)

INT-100
Intermediate Cable

8204CA
Regional Oximetry Sensor

References:

[1] Data on file at Nonin Medical, Inc. Plymouth, MN.
[2] Fischer G et al; J Thorac Cardiovasc Surg 2011; 141:815.
[3] Davie SN, Grocott HP. Impact of Extracranial Contamination on Regional Cerebral Oxygen Saturation: A Comparison of Three Cerebral Oximetry Technologies. *Anesthesiology*. 2012; 116(4):834–40.
[4] Lobbestael A et al; White Paper 2009; Nonin Medical, Inc.

*Accuracy for SenSmart™ EQUANOX Advance™ Sensor, Model 8004CA only. Pediatric through adult >40 kg.

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