

INVOS® SYSTEM SPECIFICATIONS



The INVOS® Cerebral/Somatic Oximeter is the only noninvasive oximeter to simultaneously monitor changes in regional blood oxygen saturation in the brain and skeletal muscle (somatic) tissue of the body. It may be used for cerebral oximetry, somatic oximetry or both simultaneously.

INVOS System technology is applicable to adult, pediatric and neonatal patients in any clinical setting where the brain and body are at risk of reduced-flow or no-flow ischemic states. Examples include use during cardiac, vascular and general surgery; in the interventional cardiac catheterization lab; and in the post-op intensive care unit.

Available in either two or four data channels, the user-friendly INVOS System comes pre-calibrated and ready to use in 30 seconds.

INVOS 5100C Cerebral/Somatic Oximeter

Physical

Dimensions

Height	9.5" (24 cm)
Width	11.25" (29 cm)
Depth	7.5" (19 cm)
Weight	10.9 lbs. (4.95 kg)
Preamplifier Cable Length	15 feet (4.5 m)
SomaSensor Cable Length	5 feet (1.5 m)

Operational

Range of rSO ₂	15 – 95 (updated every 5 – 6 seconds)
Repeatability	Hardware (including sensor) repeatability is within 1 rSO ₂ index point from unit to unit (measured in vitro).
Alarm Limit Range	High: 20 – 95; Low: 15 – 90 High and low limits cannot cross
Trend Memory	24 hours at 2 samples per minute 28 cases saved in memory
Diagnostics	Automatic self-test
Safety Class	Continuous Operation Type BF Class I
Power	External AC mains or backup battery

Electrical

Input Voltage	100 – 240VAC
Frequency	50/60Hz
Current	1.0A – 0.5A (maximum at 100 and 240 volts respectively)
Fuse	F2.5A 250V
Backup Battery	12VDC; approximately 20 minutes
Digital Output	RS-232 communications
USB Port	USB 2.0 Flash Memory

Environmental Requirements

Operating Temperature	+60°F to +90°F (+16°C to +32°C)
Storage Temperature	-4°F to 110°F (-20°C to +45°C)
Humidity	20% - 80%, non-condensing
Altitude	To 10,000 feet (3,048 m)

Regulatory Standards

The INVOS System complies with the following U.S. and international regulatory standards for medical equipment:

UL 60601-1
CSA C22.2.601.1
EN 60601-1



Specifications subject to change without notice.

Ordering Information

INVOS® 5100C Cerebral/Somatic Oximeter System

System* includes:

- Cerebral/Somatic Oximeter, Model 5100C
- Preamplifier with Cable, Channel 1 & 2, Model 5100C-PA
- Reusable Sensor Cable, Channel 1, Model RSC-1
- Reusable Sensor Cable, Channel 2, Model RSC-2
- USB Flash Drive, Model 5100C-USB
- Power Cord
- Operations Manual
- 1 Year Warranty

**System components are for two-channel monitoring. For four-channel monitoring, Preamp 5100C-PB and Reusable Sensor Cables RSC-3 and RSC-4 also should be ordered*

Disposable, Noninvasive Sensor

- Disposable, Adult SomaSensor, (>40 kg), Model SAFB-SM
- Disposable, Pediatric SomaSensor, (<40 kg), Model SPFB-USA

Available accessories and replacement parts include:

Preamplifier with Cable, Channel 1 & 2, Model 5100C-PA

*Preamplifier with Cable, Channel 3 & 4, Model 5100C-PB

Reusable Sensor Cable, Channel 1, Model RSC-1

Reusable Sensor Cable, Channel 2, Model RSC-2

*Reusable Sensor Cable, Channel 3, Model RSC-3

*Reusable Sensor Cable, Channel 4, Model RSC-4

USB Flash Drive, Model 5100C-USB

VueLink Adapter Cable (for connecting to a Philips VueLink Interface Module), Model VLI

Portable Roll Stand, Model 5100C-RS

Swivel Arm, Model 5100C-SA

Field Test Device, Model 4100-FTD

SOMANETICS®
INVOS® CEREBRAL/SOMATIC OXIMETER

REFLECTING THE COLOR OF LIFE™

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The noninvasive INVOS Cerebral / Somatic Oximeter is intended for use as an adjunct trend monitor of regional hemoglobin oxygen saturation of blood in the brain of an individual. It is also intended for use as an adjunct trend monitor of hemoglobin oxygen saturation of blood in a region of skeletal muscle tissue beneath the sensor in infants, children or adults at risk for reduced-flow or no-flow ischemic states. The prospective clinical value of data from the INVOS System has not been demonstrated in disease states. The INVOS System should not be used as the sole basis for diagnosis or therapy.

US federal regulations restrict the sale of this device to, or on the order of, licensed medical practitioners. For complete instructions, warnings and precautions, see the Operations Manual.

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