# Nellcor™ with OxiMax™ Technology
## Product Ordering Guide
### A Full Line of Oximetry Sensors and Monitors

## SPECIALTY SENSORS

### Forehead SpO₂ Sensor

For patients with low perfusion; suitable for long-term monitoring

- **Forehead Sensor and Headband**
- **Adult/Pediatric >10 kg**

<table>
<thead>
<tr>
<th>CATALOG NO.</th>
<th>MAXFAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASE/24</td>
<td></td>
</tr>
</tbody>
</table>

- Sensors with low saturation expanded accuracy range.

## SPECIALTY SENSORS

### Adult/Neonatal SpO₂ Sensor, Nonadhesive

For patients with fragile skin; suitable for long-term monitoring

<table>
<thead>
<tr>
<th>Adult &gt;40 kg</th>
<th>Neonatal 1.5-5 kg</th>
<th>Preterm Infant &lt;1.5 kg</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>CATALOG NO.</th>
<th>SC-A</th>
<th>SC-NEO</th>
<th>SC-PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASE/24</td>
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</tbody>
</table>
### SINGLE-PATIENT-USE SENSORS

**Adhesive \( \text{SpO}_2 \) Sensors**

Comfortable, form-fitting sensors; suitable for long-term monitoring.

<table>
<thead>
<tr>
<th>Size</th>
<th>MAXA</th>
<th>MAXAL*</th>
<th>MAXN</th>
<th>MAXI</th>
<th>MAXP</th>
<th>MAXR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult &gt;30 kg</td>
<td></td>
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<tr>
<td>Neonatal/Adult &lt;3 kg or &gt;40 kg</td>
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<tr>
<td>Infant 3-20 kg</td>
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<tr>
<td>Pediatric 10-50 kg</td>
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<tr>
<td>Adult Nasal &gt;50 kg</td>
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</tr>
</tbody>
</table>

* Catalog NO. MAXA/MAXAL* MAXN MAXI MAXP MAXR
* Case/24, *36" Cable

Sensors with low saturation expanded accuracy range.

### TWO-PIECE SENSORS

**\( \text{SpO}_2 \) Sensors**

Single-patient-use adhesive bandage, reusable cable.

<table>
<thead>
<tr>
<th>Size</th>
<th>A</th>
<th>N</th>
<th>I</th>
<th>P</th>
<th>Sensor Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult &gt;30 kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neonatal/Adult &lt;3 kg or &gt;40 kg</td>
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</tr>
<tr>
<td>Infant 3-20 kg</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pediatric 10-50 kg</td>
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<tr>
<td>Sensor Cable 3’</td>
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</tbody>
</table>

* Catalog NO. A N I P OC-3
* Case/24 sensors, 1/pkg cable

### REUSABLE SENSORS

**Reusable \( \text{SpO}_2 \) Sensors**

Single-patient-use adhesive bandage, reusable cable.

<table>
<thead>
<tr>
<th>Size</th>
<th>DS100A-1</th>
<th>OXI-A/N</th>
<th>OXI-P/I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult &gt;30 kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neonatal/Adult &lt;3 kg or &gt;40 kg</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Pediatric/Infant 3-40 kg</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Catalog NO. DS100A-1 OXI-A/N OXI-P/I
* Case/24 sensors, 1/pkg cable
### Reusable Multisite Spo₂ Sensors

- **Multisite**
  - >1 kg
- **Ear Clip**
  - Use with Spo₂ sensor >30 kg
- **Pediatric Clip**
  - Use with Spo₂ sensor 3-40 kg

<table>
<thead>
<tr>
<th>CATALOG NO.</th>
<th>D-YS</th>
<th>D-YSE</th>
<th>D-YSPD</th>
<th>PDSLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/PKG sensors/Clips, 1 pair/sleeves</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Reusable Sensor Wraps

For Spo₂ sensors with wraps and multisite, reusable Spo₂ sensors.

<table>
<thead>
<tr>
<th>Wrap</th>
<th>Adhesive Wraps</th>
<th>Foam Wraps</th>
</tr>
</thead>
<tbody>
<tr>
<td>For OXI-P/I, OXI-A/N, D-YS</td>
<td>For OXI-P/I, D-YS</td>
<td>For OXI-P/I, D-YS</td>
</tr>
<tr>
<td>For OXI-A/N, D-YS</td>
<td>For OXI-A/N, D-YS</td>
<td>For OXI-A/N, D-YS</td>
</tr>
<tr>
<td>For OXI-A/N, D-YS</td>
<td>For OXI-A/N, D-YS</td>
<td>For OXI-P/I, D-YS</td>
</tr>
<tr>
<td>For OXI-A/N, D-YS</td>
<td>For OXI-P/I, D-YS</td>
<td>For OXI-P/I, D-YS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATALOG NO.</th>
<th>POSEY</th>
<th>ADH-A/N</th>
<th>ADH-P/I</th>
<th>FOAM A/N</th>
<th>FOAM P/I</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASE/24 POSEY, 100/PKG OTHERS</td>
<td></td>
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</tbody>
</table>

### Sensor Extension Cables

For Nellcor™ pulse oximeters with and without OxiMax™ technology.

- 4’ or 8’ Sensor Extension Cable
- 10’ Patient Interface Cable

<table>
<thead>
<tr>
<th>CATALOG NO.</th>
<th>DECO-DEC-8</th>
<th>MC-10</th>
<th>DOC-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/PKG</td>
<td></td>
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</tbody>
</table>

For more information call 800-NELLCOR or visit www.covidien.com.
NELLCOR™ N-600x PULSE OXIMETER WITH OXIMAX™ TECHNOLOGY ALARM MANAGEMENT SYSTEM†

Features and Specifications

**PERFORMANCE**

**MEASUREMENT RANGE**
- $\text{SpO}_2$: 1% to 100%
- Pulse rate: 20 to 250 beats per minute (bpm)
- Perfusion range: 0.03% to 20%

**ACCUACY†**
- Saturation (% $\text{SpO}_2 \pm 1 \text{ SD}$)
  - 70% to 100% ± 2 digits
  - 60% to 80% ± 3 digits
- Low perfusion: 70% to 100% ± 2 digits
- Pulse rate: 20 to 250 bpm ± 3 digits
- Low perfusion: 20 to 250 bpm ± 3 digits

**ELECTRICAL**

**INSTRUMENT**
- Power requirements: 100 to 120 VAC, 200 to 240 VAC, 50/60 Hz, 20 VA
- Fuse rating: 0.5 Amperes

**BATTERY**
- Type: Sealed lead-acid internal battery
- Battery capacity: Typically 7 hours using new, fully charged battery
- Charge time: 8-12 hours

**ENVIRONMENTAL**

**OPERATING TEMPERATURE**
- Instrument: 5°C to 40°C
- Transport/storage temperature (in shipping carton): -20°C to 70°C
- Operating humidity: 15% to 95% noncondensing
- Operating altitude: -1,280 ft to 12,000 ft

**PHYSICAL CHARACTERISTICS**

- Weight: 5.7 lb (2.6 kg)
- Size: 3.3 in H x 10.4 in W x 6.8 in D (8.4 cm x 26.4 cm x 17.3 cm)

**EQUIPMENT CLASSIFICATION**
- IEC 60601-1
- ISO 9919
- CSA 601.1
- EN/IEC 60601-1-2 (2nd ed.)
- UL 2601-1
- IPX1
- EN865

**EMISSIONS COMPLIANCE**
- EN55011, Group 1, Class B

**OUTPUT**
- EIA-232 and RS-422 digital output from serial port
- OxiNet Communications Output Protocol
- Nurse call capability
- Analog output (0-1V); $\text{SpO}_2$, pulse rate and plethysmographic waveform

**DISPLAYS/INDICATORS**
- High-quality LCD graphical screen
- Visual indicators: Pulse search, audible alarms silenced or off, interference indicator, low battery and battery charging, battery fuel gauge, sensor off, sensor disconnect, data in sensor and SatSeconds alarm management clock

**ALARMS**
- Audible and visual alarms for high/low saturation and pulse rate
- SatSeconds alarm management settings: 10, 25, 50, 100 or OFF
- Audible and visual warning indicators for low battery
- Audible sensor disconnect alarm and sensor off alarm
- Displayed saturation and pulse rate alarm limits
- Backup speaker with escalating alarm tones

**OPTIONAL ACCESSORIES**
- GCX mounting options
- Interface cables
- Carrying cases

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† Refer to the Nellcor™ N-600x pulse oximeter operator’s manual for complete descriptions, instructions, warnings, cautions and specifications. Specifications are subject to change without notice.
NELLCOR™ N-560 PULSE OXIMETER WITH OXIMAX™ TECHNOLOGY†

Features and Specifications

PERFORMANCE

MEASUREMENT RANGE

SpO2: 1% to 100%
Pulse rate: 20 to 250 beats per minute (bpm)
Perfusion range: 0.03% to 20%

ACCURACY†

Saturation (% SpO2 ± 1 SD)
70% to 100% ± 2 digits
60% to 80% ± 3 digits
Low perfusion: 70% to 100% ± 2 digits
Pulse rate: 20 to 250 bpm ± 3 digits
Low perfusion: 20 to 250 bpm ± 3 digits

ELECTRICAL

INSTRUMENT

Power requirements: 100 to 240 VAC, 25 to 39 VA
Fuse rating: Qty 2, 2A, 250 volts, slow-blow IEC (5x20 mm)

BATTERY

Type: NiMH
Battery capacity: Minimum of 8 hours using new, fully charged battery with no alarms, no serial data

ENVIRONMENTAL

OPERATING TEMPERATURE

Instrument: 10°C to 45°C
Transport/storage temperature (in shipping carton): -20°C to 70°C
Operating humidity: 15% to 95% noncondensing
Operating altitude: -1,280 ft to 18,288 ft

PHYSICAL CHARACTERISTICS

Weight: 3.07 lb (1.39 kg)
Size: 7.95 H x 9.06 W x 5.04 D (inches)
(20 cm x 23.0 cm x 12.8 cm)

EQUIPMENT CLASSIFICATION

• IEC 60601-1
• ISO 9919:2005
• CSA 601.1
• EN/IEC 60601-1-2 (2nd ed.)
• UL 2601-1
• IPX1

EMISSIONS COMPLIANCE

• EN55011, Group 1, Class B

OUTPUT

• EIA-232 digital output from serial port
• OxiNet Communications Output Protocol
• Nurse call capability

DISPLAYS/INDICATORS

• High-quality LED display changes from green to red during alarm conditions
• Pulse amplitude indicator (10-segment LED)
• Visual indicators: Pulse search, audible alarms silenced or off, interference indicator, battery charging, data in sensor and SatSeconds alarm management clock

ALARMS

• Audible and visual alarms for high/low saturation and pulse rate
• SatSeconds Alarm Management settings: 10, 25, 50, 100 or OFF
• Audible and visual warning indicators for low battery and sensor off
• Audible sensor disconnect alarm

OPTIONAL ACCESSORIES

• GCX mounting adapter
• Pole mount clamp
• Interface cables
• Visual alarm indicator antenna

CATALOG NO. N560

† Refer to the Nellcor™ N-560 pulse oximeter operator’s manual for complete descriptions, instructions, warnings, cautions and specifications. Specifications are subject to change without notice.
# Features and Specifications

## PERFORMANCE

### DISPLAY RANGE
- \( \text{SpO}_2 \): 0% to 100%
- Pulse rate: 20 to 250 beats per minute (bpm)

### ACCURACY
- Saturation (% SpO\(_2\) ± 1 SD):
  - 70% to 100% ± 2 digits
  - 60% to 80% ± 3 digits
  - Low perfusion: 70% to 100% ± 2 digits
- Pulse rate: 20 to 250 bpm ± 3 digits
- Low perfusion: 20 to 250 bpm ± 3 digits

## PHYSICAL CHARACTERISTICS

- Weight (with batteries): 0.65 lb (0.29 kg)
- Size: 2.8 x 6.2 x 1.4 inches (7.3 cm x 15.8 cm x 3.5 cm)

## POWER

### REQUIREMENTS
- 6 V supplied by four AA-size batteries

### BATTERY LIFE
- Alkaline: 19 hours (typical)
- Lithium: 40 hours (typical)

## ENVIRONMENTAL

- Storage/shipping temperature: -4°F to 158°F (-20°C to 70°C)
- Operating temperature: 41°F to 104°F (5°C to 40°C # del)
- Operating altitude: -1,254 ft to 9,882 ft (-382 m to 3,012 m)
- Relative humidity: 15% to 95% noncondensing

## STANDARDS

- EN60601-1-2: 2001 (CISPR 11, Class B)
- EN60601-1: 1990 (A1+A2)
- UL 60601-1, CAN/CSA C22.2 No. 601.1
  - (Class: Internally Powered, Type BF)
- EN60601-1-8
- EN865

## DISPLAYS

- Oxygen saturation, pulse rate, vertical bar graph

## INDICATORS

- Pulse amplitude, pulse search, low battery, alarm silence, interference, data in sensor, sensor disconnect, print

## OPTIONAL ACCESSORIES

- Protective boot (3 color options)
- Moisture-resistant jacket
- Carrying case
- Citizen portable infrared printer

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\( ^\dagger \) Refer to the Nellcor™ N-65 pulse oximeter operator’s manual for complete descriptions, instructions, warnings, cautions and specifications. Specifications are subject to change without notice.
**Features and Specifications**

**PERFORMANCE**

**CAPNOGRAPH**
- Display range: 0 to 99 mm Hg (0-13.2 kPa and 0-13.0 vol% at sea level)
- Sampling rate: 50 ± 7.5 mL/min
- Warm-up time: 30 seconds typical, reaches steady-state accuracy 20 minutes after power up
- Accuracy: 0 to 38 mm Hg ±2 mm Hg
  - 39 to 99 mm Hg ±5% of reading
- Respiration rate: 0 to 150 breaths/minute

**PULSE OXIMETER**
- Display range: SpO₂: 0% to 100%
- Pulse rate: 20 to 250 beats/minute

**ACCURACY**
- Saturation (% SpO₂ ± 1 SD)
  - 70% to 100% ± 2 digits
  - 60% to 80% ± 3 digits
- Low perfusion: 70% to 100% ± 2 digits
- Pulse rate: 20 to 250 bpm ± 3 digits
- Low perfusion: 20 to 250 bpm ± 3 digits

**COMMUNICATION INTERFACE**
- RS-232 interface @ 9600 baud; full duplex serial interface via RJ-45 connector

**ELECTRICAL**
- Power requirements: AC input of 100 to 230 VAC @ 60/50 Hz

**BATTERY**
- Type: Rechargeable NiMH
- Battery capacity: Supplies power for 4 to 7 hours (depending on power management)
- Fully recharges in approximately 4.5 hours

**ENVIRONMENTAL**
- Operating temperature: 32°F to 113°F (0°C to 45°C)
- Storage temperature: -31°F to 158°F (-35°C to 70°C)
- Operating and storage:
  - Pressure: 430 mm Hg to 795 mm Hg
  - Altitude: -1,250 ft to 15,000 ft (-381 m to 4,572 m)
- Humidity: 10% to 95% noncondensing
- Shock test IEC 68-2-27
- Sinusoidal vibration test IEC 68-2-6
- Random vibration wide band test IEC 68-2-34
- Drop test MIL-STD-810E, method 516.4-II

**STANDARDS**
- IEC 60601-1/EN 60601-1
- EN60601-1-2 second edition
- EN 864
- EN 865
- UL 2601-1
- EN 475
- EN 55011-Class B-Group 1
- CSA C22.2 No.601.1-M90

**PHYSICAL CHARACTERISTICS**
- Weight: 1.87 lb (850 g)
- Size: 8.11 in H x 3.46 in W x 2.06 in D (206 mm x 88 mm x 53 mm)

**DISPLAYED PARAMETERS**
- CO₂ and plethysmographic waveforms, etCO₂, SpO₂, pulse rate, respiration rate, trend data

**DISPLAY**
- Graphic LCD display (128 x 64 dots) with LED backlight (contrast and backlight control); two numeric fields, three digits each, using 7-segment LED; two-color LED alarm bar

**ALARMS**
- Adjustable alarm limits for all parameters; audio level as defined in ISO 9703-2 standard

**CO₂ ACCESSORIES**
- Nonintubated applications:
  - Smart CapnoLine® and Smart CapnoLine® O₂ oral/nasal circuits
  - CapnoLine® H and CapnoLine® H O₂ nasal circuits
- NIV Line nasal circuit
- Intubated applications:
  - FilterLine® Set and FilterLine® H Set combination etCO₂ circuit and airway adapter

**OTHER ACCESSORIES**
- Carrying case
- Protective boot
- Pole mount clamp
- Digital to analog converter
- Communication adapter kits
- Calibration gas kit
- External battery charger
- Extra rechargeable battery pack
- Battery pack carrying pouch
- Nurse call and remote monitoring interface kits

**CATALOG NO.** N85

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* Refer to the Nellcor™ N-85 pulse oximeter operator’s manual for complete descriptions, instructions, warnings, cautions and specifications. Specifications are subject to change without notice.
For your OEM or Nellcor™ technology solutions, please contact your local Covidien sales representative at 800-NELLCOR.

1. Adult and neonate specifications are shown for the Nellcor™ MAX-A and MAX-N sensors with OxiMax™ technology. Saturation accuracy will vary by sensor type. Refer to Nellcor Sensor Accuracy Grid Card for details.