The ISA OR+ sidestream multigas analyzer with the Masimo Root® patient monitoring and connectivity platform provides the following features and benefits:

- During general anesthesia, the ISA OR+ monitors the inhaled and exhaled concentration of five anesthetic gas agents (Sevoflurane, Isoflurane, Halothane, Desflurane, Enflurane), carbon dioxide (CO2), nitrous oxide (N2O), and oxygen (O2), in addition to respiration rate.

- Requires only 50 ml sampling flow to support monitoring.

- Time-saving in critical situations with virtually no warm-up time and full accuracy performance in less than 20 seconds.

- Automatic anesthetic agent identification.

- Supports monitoring patients with high respiration rates, up to 150 bpm.

- Low-power consumption and automatic temperature and pressure compensation.

- Provides minimal alveolar concentration (MAC) calculated from the measured anesthetic agents and N2O.

- Appropriate for monitoring adult, pediatric, or infant patients in a range of clinical environments including the operating room and intensive care unit.

- Compatible with Masimo’s Nomoline™ Adapter and the Nomoline Airway Adapter Set to interface with endotracheal tubing.
COMPONENTS

When technology modules are connected with Root, multiple additional parameters are available including Masimo SET® pulse oximetry, noninvasive and continuous hemoglobin (SpHb®), PVI®, SedLine® brain function monitoring, and O3™ Regional Oximetry (not available for sale in the U.S.)

PERFORMANCE AND SPECIFICATIONS

GENERAL
Weight .......................................................... < 420 g
Size .......................................................... 49 x 90 x 100 mm (1.9 x 3.5 x 3.9 inches)
Power Supply .................................................. 4.5 to 5.5 VDC
< 2.0 W (normal op.)

ENVIRONMENTAL
Operating temperature .................................... 5 to 50 °C (41 to 122 °F)
Storage .......................................................... -40 to 70 °C (-40 to 158 °F)
Operating humidity ........................................... < 4 kPa H2O (non-condensing) (95 %RH at 30 °C)
Operating atmospheric pressure ....................... 525 – 1200 hPa (< 5211 m)

PATIENT CONNECTIONS
Nomoline .......................................................... See separate Nomoline information for full details of available options

GAS ANALYZER
Automatic compensation ................................ Pressure, temperature, and broadening effects on CO2
Warm-up time ................................................ < 20 sec
ISA sampling flow rate .................................... 50 ± 10 ml/min

Accuracy during standard conditions:

<table>
<thead>
<tr>
<th>RANGE</th>
<th>ACCURACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>± (0.2 vol% + 2% of reading)</td>
</tr>
<tr>
<td>N2O</td>
<td>± (2 vol% + 2% of reading)</td>
</tr>
<tr>
<td>HAL, ISO, ENF</td>
<td>± (0.15 vol% + 5% of reading)</td>
</tr>
<tr>
<td>SEV</td>
<td>± (0.15 vol% + 5% of reading)</td>
</tr>
<tr>
<td>DES</td>
<td>± (0.15 vol% + 5% of reading)</td>
</tr>
<tr>
<td>O2</td>
<td>± (1 vol% + 2% of reading)</td>
</tr>
<tr>
<td>Rise time</td>
<td>≤ 250 ms, N2O, Agents ≤ 350 ms, O2 ≤ 450 ms</td>
</tr>
<tr>
<td>Total system response time</td>
<td>≤ 3 sec</td>
</tr>
<tr>
<td>Breath detect</td>
<td>Adaptive threshold, minimum 1 vol% CO2 change</td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>0 – 150 bpm ± 1 bpm</td>
</tr>
</tbody>
</table>

CERTIFICATIONS
CE Marked according to the 93/42/EEC Medical Device Directive
Data subject to change without notice

* Altitude, patient age and other individual factors are not considered in the MAC calculation.

Caution: Federal law restricts this device to sale by or on the order of a physician.

For professional use. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions, and adverse events.