RVS-100/200
ri-vital®

Vital Signs Patient Monitors
RVS-100
ADVANCED VITAL SIGNS MONITOR

The RVS-100 is an advanced vital signs monitor which offers pulse oximetry, blood pressure and temperature measurements. The device has 'Monitor', 'Spot Check' and 'Triage' profile options and a high performance touchscreen. The RVS - 100 can communicate through a wired or wireless connection to the hospital’s EMR, according to the HL7 standard. The highly flexible, modular design offers many configurations and settings to suit the needs of hospitals and clinics as well as office based and long-term care settings.

Key Features

- 3 measurement modes [Monitor, Spot-check, Triage]
- High-sensitivity 8” TFT colour touch screen with self-explanatory user interface and integrated help-function
- Displays SYS, DIA, MAP, Pulse, Temp, Plethysmogram
- Clinical grade NIBP* including averaging mode [2-5 readings]
- Riester*, Masimo* or Nellcor* Oximax SpO2
- Predictive Thermometer [Filac 3000]
- Connectivity with the EMR - follows the HL7 standard
- LAN Connectivity as standard
- Programmable alarms [audible, visible] with 3 priority levels
- Supports nurse call RJ11 port
- Available as wall, desk and floor model
- Internal memory for 5,000 measurements
- Lithium-ion battery with 11 hours run time [Automatic mode, 15min intervals]
- Li-ion battery with up to 17h ON-time
- 2 year warranty
  (*includes neonate mode)

Options

- Thermal printer [internal]
- Barcode reader
- Mobile stand including basket for storage [cuffs, sensors, cables]
- WiFi

Accessories supplied with monitor

- NIBP extension tube
- 2 cuffs [adult & adult large incl. connectors]
- SpO2 sensor adult
- SpO2 extension cable
- Oral temperature probe*
- Probe covers*
  (*only if pred. thermometer module is ordered)
### Order information – Riester Vital Signs Monitor RVS-100

<table>
<thead>
<tr>
<th>REF</th>
<th>Description</th>
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<tbody>
<tr>
<td>1960-RRXXE</td>
<td>NIBP [Riester] + SpO2 [Riester]</td>
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<tr>
<td>1960-RNXE</td>
<td>NIBP [Riester] + SpO2 [Nellcor]</td>
</tr>
<tr>
<td>1960-RMXXE</td>
<td>NIBP [Riester] + SpO2 [Masimo]</td>
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</tbody>
</table>

13315 Barcode Reader  
13317 Mobile Stand [basket included]  
12669 Oral probe (blue) for predictive thermometer  
12668 Rectal probe (red) for predictive thermometer  
12688 Probe covers for predictive thermometer, pack of 500 ea (25 x 20 ea)  
13300 SpO2-Sensor Riester Neonatal  
13301 SpO2-Sensor Riester Children  
13302 SpO2-Sensor Riester Adult  
13303 SpO2-Sensor Nellcor Neonatal  
13304 SpO2-Sensor Nellcor Children  
13305 SpO2-Sensor Nellcor Adult  
13306 SpO2-Sensor Masimo Neonatal  
13307 SpO2-Sensor Masimo Children  
13308 SpO2-Sensor Masimo Adult

Barcode Reader  
Basket for accessories including cable management  
Integrated thermal printer [optional]  
Port Overview  
Portable Device with an easy to hold handle  
Intuitive user interface highly responsive touch screen
RVS-200
RIESTER VITAL SIGNS WALL DIAGNOSTIC SYSTEM

The Riester RVS-200 wall diagnostic system is the unique combination of an advanced vital signs monitor and a modular diagnostic station. The highly flexible modular design allows for different configurations, to suit individual needs and reduce instrument complexity.

Key Features
- Includes all RVS-100 features
- Power supply for up to 3 diagnostic handles
- Maintenance-free HighPerformance LED illumination
- Wide range of EENT ri-scope L instruments
- Integrated Specula dispenser
- Easy and discrete mounting

Options
- Thermal printer (internal)
- Barcode reader
- WiFi

REF | Description
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1961-RRXXE | NIBP (Riester) + SpO2 (Riester)
1961-RRBXE | NIBP (Riester) + SpO2 (Riester) + Pred. Temp
1961-RRBPE | NIBP (Riester) + SpO2 (Riester) + Pred. Temp + Printer
1961-RNXXE | NIBP (Riester) + SpO2 (Nellcor)
1961-RNBXE | NIBP (Riester) + SpO2 (Nellcor) + Pred. Temp
1961-RNBPE | NIBP (Riester) + SpO2 (Nellcor) + Pred. Temp + Printer
1961-RMXXE | NIBP (Riester) + SpO2 (Masimo)
1961-RMBXE | NIBP (Riester) + SpO2 (Masimo) + Pred. Temp
1961-RMBPE | NIBP (Riester) + SpO2 (Masimo) + Pred. Temp + Printer
### Technical Data

**Monitor**

- **Power Supply:** 100 – 240 V AC, 50/60 Hz
- **Battery:** Lithium-Ion battery, rechargeable, 10.8 V DC, 6,600 mAh, Charging time to a 100%: 6 hours, Operating time approx. 11 hours (new and fully charged battery at 25°C ambient temperature with connected SpO2, Temp, and NIBP on AUTO mode (15 minutes interval])
- **Low battery indicator**
- **Charging battery indicator**
- **Dimensions Monitor:** L x H x W: 303 x 230 x 110 mm (11.93 x 9.05 x 4.33 in)
- **Weight:** 3600 g, (7.94 lb) including temp module, printer,
- **Dimensions Basket:** L x H x W: 270 x 225 x 200 mm (10.63 x 8.86 x 7.87 in)
- **Alarm:** Visible LEDs (Yellow, Red, Blue, Green, Orange)
- **Audible Speaker**
  - Gives audible alarm, QRS tone
  - Supports Pitch Tone and multi-level volume
  - Alarm tones meet the requirement of IEC 60601-1-8.
  - Alarm Pressure: 45 dB to 85 dB test distance is 1 meter from the tone.
- **Ports:**
  - 1 x AC power inlet
  - 1 x standard RJ45 interfaces.100 BASE-TX, IEEE 802.3
  - 4 x USB ports
  - 1 x Equipotential grounding point
  - 1 x RJ11 connector for nurse call
  - DC out port 15V/1.2 A

**Clinical-grade NIBP (non-invasive blood pressure)**

- **Measuring method:** automatic oscillometric
- **Measurement range:**
  - **Adult**
    - SYS: 30 – 270 mmHg, DIA: 10 – 220 mmHg, MAP: 20 – 235 mmHg
  - **Pediatric**
    - SYS: 30 – 235 mmHg, DIA: 10 – 220 mmHg, MAP: 20 – 225 mmHg
  - **Neonate**
    - SYS: 30-135 mmHg, DIA: 10-110 mmHg, MAP: 20-125 mmHg
- **Cuff pressure range:** 0 – 280 mmHg
- **Resolution:** 1 mmHg
- **Pressure accuracy:**
  - Static ±3 mmHg
  - Clinic ±5 mmHg, standard deviation ± 8 mmHg
- **Pulse rate range:** 40 – 240 bpm
- **Pulse rate accuracy:** 1 bpm
- **Initial inflation pressure:**
  - Adult 160 mmHg, Pediatric 130 mmHg, Neonate 75 mmHg
  - Double overpressure protection [hardware and software]
  - Adult 297 ± 3 mmHg, Pediatric 252 ± 3 mmHg, Neonate 147 ± 3 mmHg
- **Alarm range:**
  - SYS: 0 – 300 mmHg
  - DIA: 0 – 300 mmHg
  - MAP: 0 – 300 mmHg
## RVS-100/200
### RIESTER VITAL SIGNS MONITORS

#### Technical Data

<table>
<thead>
<tr>
<th>Monitor</th>
<th>Measurement range:</th>
<th>Resolution:</th>
<th>Accuracy:</th>
<th>Alarm range:</th>
<th>Average time:</th>
<th>Pulse rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Riester SpO2</strong></td>
<td>0 – 100%</td>
<td>1%</td>
<td>±2% (70 to 100%) ±3% (40% to 69%)</td>
<td>0 – 100%</td>
<td>4 sec, 8 sec, 16 sec</td>
<td>20 – 250 bpm</td>
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<tr>
<td><strong>Nellcor SpO2</strong></td>
<td>0 – 100%</td>
<td>1%</td>
<td>70 – 100%: ±2% (adult, pediatric)</td>
<td>0 – 100%</td>
<td>8 sec, 16 sec</td>
<td>20 – 300 bpm</td>
</tr>
<tr>
<td><strong>Masimo SpO2</strong></td>
<td>0 – 100%</td>
<td>1%</td>
<td>70 – 100%: ±2% (adult, pediatric, non-motion conditions) 70 – 100%: ±3% (neonate, non-motion conditions) 70 – 100%: ±3% (motion conditions) 0 – 69%: unspecified</td>
<td>2 – 4 sec, 4 – 6 sec, 8 sec, 10 sec, 12 sec, 14 sec, 16 sec</td>
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<tr>
<td><strong>Predictive thermometer</strong></td>
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<tr>
<td>- Oral [Quick Mode]</td>
<td>3-5 seconds</td>
<td>8-10 seconds</td>
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<tr>
<td>- Oral [Standard Mode]</td>
<td>6-10 seconds</td>
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<tr>
<td>- Axillary Mode</td>
<td>8-12 seconds</td>
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<tr>
<td>- Rectal Mode</td>
<td>10-14 seconds</td>
<td></td>
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<td></td>
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<tr>
<td>- Direct Mode</td>
<td>60-120 seconds</td>
<td>35.5°C - 42°C</td>
<td></td>
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<tr>
<td>- Measurement accuracy</td>
<td>±0.1°C (±0.2°F)</td>
<td>±0.3°C (±0.5°F)</td>
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VITAL SIGNS MONITORS
ri-vital®
SPOT-CHECK VITAL SIGNS MONITOR

ri-vital® spot-check monitor

Engineered for the mobile and fast recording of vital signs. Clinically validated for adults as well as newborns weighing as little as 1kg (2.2 lb). Simultaneous measurement of different vital signs within seconds.

- Coloured 4.3” TFT display (SYS, DIA, MAP, pulse, SpO2, Temp, plethysmogram)
- Temperature alternatively with infrared technology for the ear measurement or with Filac™ 3000 for the oral/rectal measurement including probe dispenser.
- Memory function for measurement readings and infrared interface for thermo printer.
- Options:
  - External wireless printer
  - Filac™ 3000 predictive oral/rectal thermometer
  - Ear thermometer

New mobile stand, brand-new Riester design

- Shock resistant.
- NIBP with mode for adults and neonates. Washable and disinfectable cuffs with coiled tube, extendable up to 2 m (78.74 in).
- SpO2 sensors with a cable length of 1.2 m (47.24 in) or optional 2.40 m (94.49 in).
  Optional with PEARL measuring technology for the use with critical patients (e. g. neonates).
- Easy handling via membrane keyboard (disinfectable) and self-explanatory menu.
- Practical storage facilities for accessories (cuffs, sensors, cable, probe covers).
- Efficient and lightweight rechargeable Li-ion battery pack (approx. 250 measurements).
- Portable version or mounted on a stable and smooth running mobile stand with large basket and optional printer holder.
- 2 year warranty, excluding spare parts and accessories.
**Ordering information:**

| ri-vital® NIBP, SpO2, bladderless cuffs for adults and large adults, finger sensor for adults | 1950-107 |
| ri-vital® NIBP, SpO2, bladderless cuffs for adults and large adults, Finger sensor for adults, ear thermometer | 1951-107 |
| ri-vital® NIBP, SpO2, bladderless cuffs for adults and large adults, finger sensor for adults, oral/axillary thermometer | 1953-107 |
| ri-vital® NIBP, SpO2, bladderless cuffs for adults and large adults, finger sensor for adults, rectal thermometer | 1954-107 |
| ri-vital® NIBP, SpO2, bladderless cuffs for adults and large adults, finger sensor for adults, oral/axillary thermometer | 1955-107 |
| ri-vital® NIBP, PEARL-SpO2, bladderless cuffs for adults and large adults, finger sensor for adults, oral/axillary thermometer | 1956-107 |
| ri-vital® NIBP, PEARL-SpO2, bladderless cuffs for adults and large adults, finger sensor for adults, rectal thermometer | 1957-107 |
| Extension module for infrared printer (holder and printer) | 12647 |
| Mobile stand with basket and holder for the mains adapter | 12660 |
| Bladderless cuff for neonates | 156 |
| Bladderless cuff for infants | 158 |
| Bladderless cuff for children | 154 |
| Bladderless cuffs for adults with thin arms | 160 |
| Bladderless cuffs for adults | 150 |
| Bladderless cuffs for large adults | 152 |
| Wrap sensor for newborns | 12663 |
| Finger sensor for children | 12662 |
| Finger sensor for adults | 12661 |
| Extension cable for SpO2 length approx. 1.20 m (47.24 in) | 12664 |
| Rectal probe 2.7 m [106.3 in] | 12648 |
| Oral/axillary probe 2.7 m [106.3 in] | 12669 |
| Probe covers for ear thermometer [pack with 100 pcs.] | 12704 |
| Probe covers for predictive thermometer [pack of 500 pcs.] | 12688 |
| Paper roll for infrared printer [pack with 20 pcs.] | 12685 |
| Infrared printer | 12687 |

**Technical data:**

**Pulsoximeter:**
- Measurement range SpO2: 0..100 % SpO2
- Display range: 0..99 % SpO2
- Accuracy: Adults ± 2 % (70–100 %)
  Children ± 3 % (70–100 %)
- Pulse measurement range: 30...250 bpm
- Accuracy: ± 1 %

**Blood pressure:**
- Measurement range:
  - Adults: 2...280 mmHg (systole)
  - 15...260 mmHg (MAP)
  - 10...220 mmHg (diasystole)
- Neonates: 20...155 mmHg (systole)
  10...130 mmHg (MAP)
  5...110 mmHg (diasystole)
- Overpressure protection: 300 mmHg

**Miscellaneous:**
- Independent protection system against excess pressures acc. to EN1060-3
- Measurement accuracy:
  - Deviation from average value: < 5 mmHg
- Battery:
  - ri-accu® L 7.4 V Li-Ion battery approx. 250 measurements NIBP and SpO2
- Charging time: 8 hours
- Mains adapter: AC/DC adapter plug with connector according IEC60320-C13, 100 V–240 V
- Basket: 250mm / 9.84 in (L) x 150mm / 5.9 in (W) x 200mm / 7.87 in (H)
- Display: Coloured and illuminated TFT display
- Dimension: without thermometer 203mm / 8 in (L) x 167mm / 6.58 in (W) x 232mm / 9.14 in (H)
- Weight: 1500 g / 3.31 lb without thermometer
- Casing: PC and ABS