

# VS 8

## Vital Sign Monitor

### DataSheet



#### Physical Specifications

Dimension	252 x 170 x 150 mm
Weight	2.5 kg (with Mindray SpO <sub>2</sub> , NIBP, recorder and a 5000mAh battery; without capacitive screen; without accessories.)
Screen	8-inch, 1024 x 768 pixels Capacitive touchscreen optional support multi-touch operation

#### TrueBP™ NIBP

Meet standards of ISO 80601-2-30.

Technique	Oscillometry, support inflation and deflation
Operation mode	Manual, Auto, STAT, Sequence, and BP averaging
Parameters	Systolic, Diastolic, Mean
Typical measurement time	≤ 15 s (Inflation algorithm, with CM1203/ CM1303/ CM1503 cuff, PR within 60 to 200 bpm and systolic pressure within 80 to 120 mmHg)

#### Max measurement time

Adult/Pediatric:	180 s
Neonate:	90 s

#### Systolic range

Adult:	25 to 290 mmHg
Pediatric:	25 to 240 mmHg
Neonate:	25 to 140 mmHg

#### Diastolic range

Adult:	10 to 250 mmHg
Pediatric:	10 to 200 mmHg
Neonate:	10 to 115 mmHg

#### Mean range

Adult:	15 to 260 mmHg
Pediatric:	15 to 215 mmHg
Neonate:	15 to 125 mmHg

#### Accuracy

Max mean error:	± 5 mmHg
Max standard deviation:	8 mmHg

NIBP resolution	1 mmHg
Assisting venous puncture	Yes

#### PR

PR range	20 to 300 bpm (from Mindray/Nellcor SpO <sub>2</sub> ) 25 to 240 bpm (from Masimo SpO <sub>2</sub> ) 30 to 300 bpm (from NIBP)
Accuracy	± 3 bpm (20 to 300 bpm, from Mindray SpO <sub>2</sub> ) ± 3 bpm (20 to 250 bpm, from Nellcor SpO <sub>2</sub> ) ± 3 bpm (non-motion, from Masimo SpO <sub>2</sub> ) ± 5 bpm (motion, from Masimo SpO <sub>2</sub> ) ± 3 bpm or ± 3 %, whichever is greater (from NIBP)
Refreshing rate	≤ 1 s

#### SpO<sub>2</sub>

Meet standards of ISO 80601-2-61.

Module	Mindray, Masimo, Nellcor
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#### Range

Mindray/Nellcor:	0 to 100%
Masimo:	1 to 100%

#### Resolution

1%

#### Accuracy

Mindray/Nellcor:	± 2 % (70 to 100%, Adult/Pediatric) ± 3 % (70 to 100%, Neonate) Unspecified (0 to 69%)
Masimo:	± 2 % (70 to 100%, Adult/Pediatric, non-motion) ± 3 % (70 to 100%, Neonate, non-motion) ± 3 % (70 to 100%, motion) Unspecified (1 to 69%)

Perfusion indicator (PI) Yes, for Mindray/Masimo SpO<sub>2</sub>

Pitch tone	Yes
Refresh rate	≤ 1 s

#### SmarTemp™ Temperature

Meet standard of ISO 80601-2-56.

Technique	Thermal resistance
Operating mode	Predictive mode, Monitor mode
Temp range	

Predictive mode	34 to 43 °C (93.2 to 109.4 °F)
Monitor mode	25 to 44 °C (77 to 111.2 °F)

#### Temp accuracy (Monitor mode)

25 to 32 °C (not including 32 °C):	± 0.2 °C
32 to 44 °C (including 32 °C):	± 0.1 °C
or	
77 to 89.6 °F (not including 89.6 °F):	± 0.4 °F
89.6 to 111.2 °F (including 89.6 °F):	± 0.2 °F

Temp resolution 0.1 °C

#### Genius™ 3 Tethered Tympanic Thermometer

Temp range	33.0 to 42.0 °C (91.4 to 107.6 °F)
Temp accuracy	± 0.3 °C
Temp resolution	0.1 °C

#### Exergen TemporalScanner™ Thermometer

Temp range	16.0 to 43.0 °C
Temp accuracy	± 0.2 °C
Temp resolution	0.1 °C

#### HeTaiDa™ Infrared Thermometer

Temp range	34.0 to 42.9 °C
Temp accuracy	34.0 to 34.9 °C: ± 0.3 °C 35.0 to 42.0 °C: ± 0.2 °C 42.1 to 42.9 °C: ± 0.3 °C
Temp resolution	0.1 °C

### Manual Input

Support up to 30 manual input parameters (customizable)

### Data Review

#### Trends data

Spot Check mode: Up to 5000 groups

Continuous mode: Up to 240 hours @ 30 seconds

Events Up to 200 events, including parameter alarms, technical alarms, and so on.

### Alarms

Audible indicator Yes, 3 different alarm tones, and prompt tone

Visible indicator Red/yellow/cyan LED, and alarm message display

Provide AlarmSight infographic alarm indicator.

### Clinical Assistive Application (CAA):

EWS (MEWS, NEWS, NEWS2, PEWS),

GCS, Pain score,

Targeted Goal View,

Orthostatic BP Measurement.

### Blue Tooth

Protocol Bluetooth 5

Modulation mode GFSK

Operating frequency 2402MHz to 2480MHz

Wireless data rate 2Mbps, 1Mbps, 125kbps

Output power  $\leq 8 \text{ dBm} \pm 4 \text{ dB}$

Data security AES128

### Interfacing

Main unit AC power connector (1)  
Network connector (1), RJ45

USB 2.0 connector (2)

Multi-Functions connect (1)

Equipotential grounding terminal (1)

External battery connector (1)

Support 1D and 2D barcode

3 traces (paper 50 mm width, 20 m length)

Barcode scanner

Thermal recorder

### Power

Line voltage 100 to 240 VAC ( $\pm 10\%$ )

Current 0.9 to 0.5A

Frequency 50/60 Hz ( $\pm 3$  Hz)

Battery 2500mAh or 5000mAh Li-ion battery

$\geq 4$  hours run time (2500mAh)

$\geq 8$  hours run time (5000mAh)

Recharge time (power off)

3 hours to 100% (2500mAh)

4 hours to 100% (5000mAh)

### Environmental requirements

#### Temperature

Operating: 0 to 40 °C

Storage: -20 to 60 °C

#### Humidity

Operating: 15 to 95 % (non condensing)

Storage: 10 to 95 % (non condensing)

#### Barometric

Operating: 120 to 805.5 mmHg (57 to 107.4 kPa)

Storage: 120 to 805.5 mmHg (16 to 107.4 kPa)

Some of functions marked with an asterisk may not be available. Please contact your local Mindray sales representative for the most current information.

[www.mindray.com](http://www.mindray.com)

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