VS 8

Vital Sign Monitor

DataSheet



Physical Specifications

Dimension	252 x 170 x 150 mm
Weight	2.5 kg (with Mindray SpO2, 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_2) 25 to 240 bpm (from Masimo SpO_2) 30 to 300 bpm (from NIBP)
Accuracy	± 3 bpm (20 to 300 bpm, from Mindray SpO_2) ± 3 bpm (20 to 250 bpm, from Nellcor SpO_2) ± 3 bpm (non-motion, from Masimo SpO_2) ± 5 bpm (motion, from Masimo SpO_2) ± 3 bpm or ±3 %, whichever is greater (from NIBP)
Refreshing rate	≤ 1 s

SpO_2

Meet standards of ISO 80601-2-61.

Module	Mindray, Masimo, Nellcor
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_2
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	≤ 8 dBm ± 4 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)
Barcode scanner	Support 1D and 2D barcode
Thermal recorder	3 traces (paper 50 mm width, 20 m length)

Power

Line voltage	100 to 240 VAC (±10 %)
Current	0.9 to 0.5A
Frequency	50/60 Hz (±3 Hz)
Battery	2500mAh or 5000mAh Li-ion battery
	⩾4 hours run time (2500mAh)
	⩾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.

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