BeneVision[™] See more With ease

BeneVision[™]N22/N19 Patient Monitor

Change your perspective, again. Maximize your confidence. Built for a paperless future.



www.mindray.com

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BeneVision N22/N19

Patient monitor

Always in sight, always in mind









BeneVision. Change your perspective, again.

BeneVision N22/N19

At Mindray, we believe the best way to predict the future is to create it today. We're thinking how to help you save your time in order to treat more patients effectively. We also focus on clinical safety, and efficiency. Now for the first time in the world, the BeneVision patient monitor ROTATES between landscape and portrait. You have both higher and wider clinical views when patient care demands them.







Design. Excellence for visionaries.

mindray

Original technology innovations have been combined with thoughtful considerations to improve patient monitoring experience.

During the design process, we strove to make the details "and" instead of "or", such as the ingenious portrait and landscape display, as well as the single-level menu user interface.









Modular design brings so many options.

- Parameter modularity allows you flexibility in patient care and makes the most of your equipment investment.
- iView module combines a powerful, embedded PC and the patient monitor in the same unit. The innovative design optimizes cooling without the need for a fan.
- Ultra-compact main unit and big screen can be used as a combined unit or separated to make use of the rotating screen feature.





Built-in







Auto

-

No fan

Seamless

Innovative. Maximize your confidence.

Everyday, Mindray delivers accurate, real-time, physiological measurement data from millions of patients worldwide, which clinicians have come to rely on when making decisions. BeneVision provides the worlds best monitoring technologies for you and promotes new ones continuously.

Cardiology

ΔST monitoring and ST segment templates. Real-time QT/QTc measurement. Glasgow 12-lead resting interpretation.

Hemodynamics and volumetric

Less-invasive PiCCO and ScvO₂ monitoring. Non-invasive cardiac output with ICG module.

Airway gas and lung mechanics

One-slot CO₂+O₂ module Volumetric CO₂ and metabolic measurements AION Multi-Gas +SPIRIT respiratory mechanics

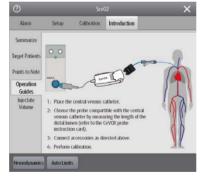
Tissue perfusion

INVOS rSO₂ provides a noninvasive and continuous reading of changes in regional oxygen saturation of blood in tissue microvascular circulation.

Neurology

EEG, and BIS/BISx4 monitoring. Advanced NMT monitoring technology can detect movement in all directions accurately.

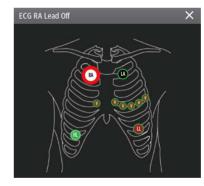




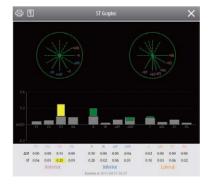




HemoSight[™] Help clinicians to make decisions through sets of hemodynamic assistance applications.

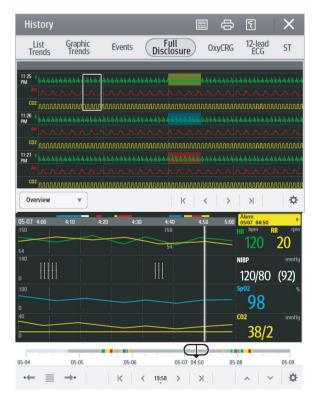






ST Graphic[™] Quickly and accurately detect changes in ST values for analysis.

	1		
-1			
1			
1			
1			



Comparison review Events summary and details ease contextual evaluation.



Since the introduction of the world's first portable cardiac monitor in 1964, Mindray has committed itself to being the pioneer in early patient mobilization for better recovery. BeneVision extends the typical mobile monitoring solution with more wireless roaming, data continuity, and streamlined workflow in every situation. Combined with its patient-worn telemetry monitor, which is also a cableless measurement module, BeneVision ensures a supreme level of mobility and offers more freedom to both patient and caregiver.



BeneVision N22/N19 wirelessly pairs with its TM80 and BP10 patient-worn modules for cableless measurement at the bedside and beyond.



Ambulatory patients monitored around the bedside and beyond.



The Mindray classical transport monitoring solution with BeneVision N1 also works seamlessly with BeneVision for unmatched patient safety.

Connected. Built for a paperless future.

As a pioneer in clinical informatics with patient monitoring, Mindray integrated the embedded PC (iView) in 2007, which enables a patient monitor to run user APPs for the first time in the world. BeneVision enhances the iView open platform with a more intuitive display, modular design, and powerful performance. Patient monitoring and healthcare applications are combined into one workstation at the point of care.



60

98

38

120 / 80 3 (93

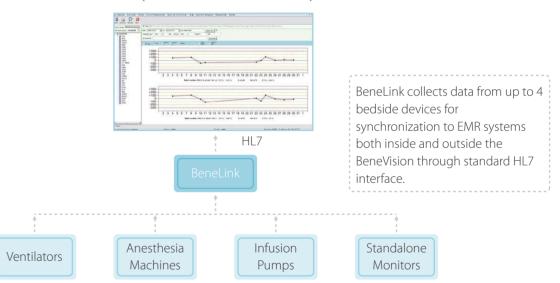
On

Mindray provides a flexible solution for monitoring your patient's status anywhere, anytime, even when you are away from the clinical environment...Based on layer 3 network structure, the Mindray patient monitoring system has a high network adaptability to integrate seamlessly with your hospital's current network.

With Mindray's central station and eGateway further connecting BeneVision with your clinical world, bedside device data and other clinical system data is shared to enhance your diagnosis and clinical decision making.



BeneVision EMR(Electronic Medical Record)



iView can run your own clinical Apps (such as PACS, LIS, HIS/CIS, and EMR) on one intuitive view and connects with your hospital network infrastructure directly without any additional server or gateway.

With its 1680 x 1050 pixels 22-inch screen, BeneVision N22 has a perfect split layout in portrait display. No need to worry that the waveforms will be obstructed by the iView application window as you browse the patient's information.

BeneVision N22/N19

Patient monitor



Physic	al Specifications		QT Analysis	
Weigh	it	Including main unit with a battery, screen with	Patient	Adult/Pediatric/Neonate.
		handle & navigation knob, iView module, and	Parameters	QT, QTc, ΔQTc
		Wi-Fi module.	QTc Formula	Bazett, Fridericia, Framingham, or Hodges
	N22:	11.5 kg (25.4 lbs)	Range	
	N19:	10.3 kg (22.7 lbs)	QT/QTc:	200 to 800 ms
Size		Including main unit, screen with handle.	QT-HR:	Adult: 15 to 150 bpm
	N22:	641 x 383 x 115 mm (portrait)		Pediatric/Neonate: 15 to 180 bpm
		566 x 458 x 115 mm (landscape)	QT Accuracy	± 30 ms
	N19:	584 x 348 x 115 mm (portrait)	Resolution	QT 4 ms; QTc 1 ms
		509 x 423 x 115 mm (landscape)	Respiration	
	Main unit:	268 x 268 x 68 mm	Range	0 to 200 bpm
Displa	ı y		Resolution	1 rpm
Туре		Medical-grade color TFT LCD, capacitive touch	Apnea Alarm Time	10, 15, 20, 25, 30, 35, 40 sec
		screen, support multi-touch operation.	Accuracy	
		Rotatable screen (Landscape and portrait)	0 - 120 rpm:	± 1 rpm
Resolu	ution	1680 x 1050 pixels	121 - 200 rpm:	± 2 rpm
Scree	ı		Lead	l, ll, or auto (default: lead ll)
	N22:	22-inch, 178° viewing angle	Pulse Oximetry	
	N19:	19-inch, 170° viewing angle	Meet standards of ISO 8	0601-2-61.
Wavef	orms	Up to 16 waveforms (portrait)	Module	Mindray, Masimo, Nellcor
		Up to 13 waveforms (landscape)	Range	0 to 100 %
ECG		• •	Resolution	1%
	standards of IEC 60	0601-2-27 and IEC 60601-2-25.	Accuracy	
Lead S		Automatic 3/5/6/12 - lead recognition	•	± 2 % (70 to 100%, Adult/Pediatric:)
	3-lead:	I, II, III		± 3 % (70 to 100%, Neonate)
	5-lead:	I, II, III, aVR, aVL, aVF, V		Unspecified (0 to 69%)
	6-lead:	I, II, III, aVR, aVL, aVF, Va, Vb	Masimo:	± 2 % (70 to 100%, Adult/Pediatric, non-mo
	12-lead:	I, II, III, aVR, aVL, aVF, V1 to V6	musility.	$\pm 3 \%$ (70 to 100%, Neonate, non-motion)
Sweer	o Speed	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s		\pm 3 % (70 to 100%, Neonate, non-motion) \pm 3 % (70 to 100%, motion)
	Selection			
		x 0.125, x 0.25, x 0.5, x 1, x 2, x 4, auto	Deufersien in diesten (DI)	Unspecified (0 to 69%)
	form format	Standard, Cabrera	Perfusion indicator (PI)	Yes, for Mindray/Masimo SpO ₂
	Signal Range	±8 mV (p-p)	Pitch Tone	Yes
		al Tolerance ± 500 mV	Dual-SpO ₂	Yes, SpO ₂ , SpO ₂ b, ΔSpO ₂
Bandy			Pulse Rate Range	
	Diagnostic Mode:		Mindray/Nellcor:	•
	Monitor Mode:	0.5 to 40 Hz	Masimo:	25 to 240 bpm
	Surgical Mode:	1 to 20 Hz	Pulse Rate Accuracy	
	ST Mode:	0.05 to 40 Hz	Mindray:	± 3 bpm (20 - 300 bpm)
	High Freq Cut-off	(for 12-lead ECG analysis):	Nellcor:	± 3 bpm (20 - 250 bpm)
		350 Hz, 150 Hz, 35 Hz, 20 Hz selectable	Masimo:	± 3 bpm (non-motion)
CMRR				± 5 bpm (motion)
	Diagnostic:	> 90 dB	PR Refresh Rate	1 sec
	Monitor, Surgical,	ST mode:	Temperature	
	-	> 105 dB (with notch filter on)	Meet standard of ISO 80	601-2-56.
Pace c	letection		Method	Thermal resistance
	Amplitude:	± 2 mV to ± 700 mV	Channels	Up to 8 channels
	Width:	0.1 to 2 ms	Units of Measure	Selectable °C or °F
	Rise time:	10 to 100 µs (without overshoot)	Range	0 to 50 °C / 32 to 122 °F
Defih		Withstand 5000VAC (360J) defibrillation	Resolution	0.1 °C, 0.1 °F
	Recovery Time	≤ 5 seconds	Accuracy	± 0.1 °C or ± 0.2 °F (without probe)
	•	≤ 5 seconds ≤ 10 s	Refresh Rate	1 sec
	ecovery time			
		g 12-lead ECG algorithm.	Genius [™] Tympanic The	
		4)-lead ECG monitoring analysis algorithm.	Measurement Range	33 to 42 °C / 91.4 to 107.6 °F
	•	ns are from MPM Platinum module.)	Calibrated Accuracy	\pm 0.1 °C (environment temperature 25 °C,
Heart				target temperature 36.7 to 38.9 °C)
Measu	urement Range			± 0.2 °C (environment temperature 16 °C,
	Adult:	15 to 300 bpm		target temperature 33 to 42 °C)
	Pediatric/Neonate		Resolution	0.1 °C, 0.1°F
Accura	асу	± 1 bpm or ± 1%, whichever is greater.	Response Time	< 2 sec
Resolu		1 bpm	Non-Invasive Blood Pres	
Arrhy	thmia Analysis		Meet standards of ISO 8	0601-2-30.
Patier	it	Adult/Pediatric/Neonate.	Method	Oscillometry
Monit	ored Arrhythmias	Asystole, VFib/VTac, VTac, Vent. Brady, Extreme	Modes	Manual, Auto, STAT, Sequence
		Tachy, Extreme Brady, Vrhythm, PVCs/min,	Units of Measure	mmHg, kPa (user-selectable)
		Pauses/min, Couplet, Bigeminy, Trigeminy, R	Resolution	1 mmHg
		on T, Run PVCs, PVC, Tachy, Brady, Missed	Systolic range	- 2
			Adult:	25 to 200 mmHg
		Beats, PNP, PNC, Multif. PVC, Nonsus. VTac,		25 to 290 mmHg
		Pause, Irr. Rhythm, AFib. SVT, SVTs/min	Pediatric:	25 to 240 mmHg
			Neonate:	25 to 140 mmHg
	gment Analysis			
Patier	nt	Adult/Pediatric.	Diastolic range	
Patier	nt	- 2.0 to + 2.0 mV (RTI)	Adult:	10 to 250 mmHg
	nt e		-	10 to 250 mmHg 10 to 200 mmHg
Patier Range	nt e	- 2.0 to + 2.0 mV (RTI)	Adult:	-

A .ll.	15 4 260 mml/m
Adult: Pediatric:	15 to 260 mmHg 15 to 215 mmHg
Neonate:	15 to 125 mmHg
Accuracy	15 to 125 mining
Max Mean Error:	± 5 mmHg
Max Standard Dev	viation: 8 mmHg
Cuff Deflation Technique	e Step bleed
Initial Cuff Inflation	
Adult: Pediatric:	80 to 280 mmHg (default: 160 mmHg) 80 to 210 mmHg (default: 140 mmHg)
Neonate:	60 to 140 mmHg (default: 90 mmHg)
Over Pressure Protection	
Adult/ Pediatric:	297 ± 3 mmHg
Neonate:	147 ± 3 mmHg
Max Measurement time	
Adult/Pediatric:	180 sec
Neonate:	90 sec
Assisting Venous Puncture Pulse Rate Range	30 to 300 bpm
Pulse Rate Accuracy	± 3 bpm or ± 3 %, whichever is greater
IBP	
Meet standard of IEC 60	601-2-34.
Number	Up to 8 channels
Measurement Range	-50 to 360 mmHg
Resolution	1 mmHg
Accuracy	± 1 mmHg or ±2 %, whichever is greater (excluding sensor error)
Sensitivity	5 μV/V/mmHg
Impedance Range	300 to 3000 Ω
PPV Range	0 to 50 %
PAWP	Yes
ICP measurement	Support
Support waveforms over	
Pulse Rate Range	25 to 350 bpm
Pulse Rate Accuracy Cardiac Output	±1 bpm or ±1 %, whichever is greater
Method	Thermodilution
Measurement Range	0.1 - 20 L/min
Resolution	0.1 L/min
Accuracy	±0.1 L/min or ±5%, whichever is greater
TB Range	23 to 43 °C / 73.4 to 109.4 °F
TB, TI Accuracy	± 0.1 °C (without sensor)
TB, TI Resolution PiCCO	0.1 °C
FICCO	
Parameters Meas	urement Range Coefficient of Variation
	urement Range Coefficient of Variation to 25.0 L/min < 2%
CCO 0.25	· · · · · · · · · · · · · · · · · · ·
CCO 0.25 C.O. 0.25	to 25.0 L/min ≤ 2%
CCO 0.25 f C.O. 0.25 f GEDV 40 to	to 25.0 L/min ≤ 2% to 25.0 L/min ≤ 2%
CCO 0.25 ft C.O. 0.25 ft GEDV 40 to SV 1 to 2 EVLW 10 to	to 25.0 L/min \leq 2% to 25.0 L/min \leq 2% 4800 ml \leq 3% 250 ml \leq 2% 5000 ml \leq 6%
CCO 0.25 ft C.O. 0.25 ft GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to	to 25.0 L/min \leq 2% to 25.0 L/min \leq 2% 4800 ml \leq 3% 250 ml \leq 2% 5000 ml \leq 6% 6000 ml \leq 3%
CCO 0.25 ft C.O. 0.25 ft GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is maintenance)	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms
CCO 0.25 ft C.O. 0.25 ft GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is m (laboratory testing.) Coefficient	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.)
CCO 0.25 ft C.O. 0.25 ft GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is maintenance)	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms
CCO0.25 ftC.O.0.25 ftGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficientTB Range	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F
CCO0.25 ftC.O.0.25 ftGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is n(laboratory testing.) CoefficiTB RangeTB, TI AccuracyTB, TI ResolutionpArt/pCVP Range	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg
CCO0.25 ftC.O.0.25 ftGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficientTB RangeTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP Accuracy	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ measured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C
CCO0.25 ftC.O.0.25 ftGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficientTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP AccuracyScvO2	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater
CCO 0.25 f C.O. 0.25 f GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is n (laboratory testing.) Coeffic TB Range TB, TI Accuracy TB, TI Resolution pArt/pCVP Range pArt/pCVP Range pArt/pCVP Range Range	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 %
CCO0.25 ftC.O.0.25 ftGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is n(laboratory testing.) CoefficientTB, TI AccuracyTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP AccuracyScvO2RangeAccuracy	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater
CCO 0.25 f C.O. 0.25 f GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is n (laboratory testing.) Coeffic TB Range TB, TI Accuracy TB, TI Resolution pArt/pCVP Range pArt/pCVP Range pArt/pCVP Range Range	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 22\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 % $\pm 3\%$ (50 to 80 %)
CCO 0.25 f C.O. 0.25 f GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is m (laboratory testing.) Coeffic TB Range TB, TI Accuracy TB, TI Resolution pArt/pCVP Range pArt/pCVP Accuracy ScvO ₂ Range Accuracy ICG	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 %
CCO0.25 ftC.O.0.25 ftGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficientTB RangeTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP RangepArt/pCVP AccuracyScvO2RangeAccuracyICGMethodHR RangeC.O. Range	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ measured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 % $\pm 3\%$ (50 to 80 %) Thoracic electrical bioimpediance (TEB) 40 to 200 bpm (ICG), accuracy ± 2 bpm 1.0 to 15 L/min
CCO0.25 fC.O.0.25 fGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficientTB RangeTB, TI AccuracyTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP RangepArt/pCVP AccuracyScvO2RangeAccuracyICGMethodHR RangeC.O. RangeSV Range	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ measured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 % $\pm 3\%$ (50 to 80 %) Thoracic electrical bioimpediance (TEB) 40 to 200 bpm (ICG), accuracy ± 2 bpm 1.0 to 15 L/min 5 to 250 ml
CCO0.25 fC.O.0.25 fGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficiTB RangeTB, TI AccuracyTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP RangepArt/pCVP AccuracyScvO2RangeAccuracyICGMethodHR RangeC.O. RangeSV RangeProvides Monitoring Par	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 6\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 % $\pm 3\%$ (50 to 80 %) Thoracic electrical bioimpediance (TEB) 40 to 200 bpm (ICG), accuracy ± 2 bpm 1.0 to 15 L/min 5 to 250 ml rameters ACI, VI, PEP, LVET, TFI, TFC, HR, C.O., C.I.,
CCO 0.25 f C.O. 0.25 f GEDV 40 to SV 1 to 2 EVLW 10 to ITBV 50 to (Coefficient of variation is n (laboratory testing.) Coeffic TB Range TB, TI Accuracy TB, TI Accuracy TB, TI Resolution pArt/pCVP Range pArt/pCVP Accuracy ScvO ₂ Range Accuracy ICG Method HR Range C.O. Range SV Range Provides Monitoring Par SV, SVI, SVR, SVRI, PVR, 1	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 250 ml $\leq 2\%$ 5000 ml $\leq 2\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 % $\pm 3\%$ (50 to 80 %) Thoracic electrical bioimpediance (TEB) 40 to 200 bpm (ICG), accuracy ± 2 bpm 1.0 to 15 L/min 5 to 250 ml ameters ACI, VI, PEP, LVET, TFI, TFC, HR, C.O., C.I., PVRI, LCW, LCWI, LVSW, LVSWI, STR, VEPT
CCO0.25 fC.O.0.25 fGEDV40 toSV1 to 2EVLW10 toITBV50 to(Coefficient of variation is m(laboratory testing.) CoefficiTB RangeTB, TI AccuracyTB, TI AccuracyTB, TI ResolutionpArt/pCVP RangepArt/pCVP RangepArt/pCVP AccuracyScvO2RangeAccuracyICGMethodHR RangeC.O. RangeSV RangeProvides Monitoring Par	to 25.0 L/min $\leq 2\%$ to 25.0 L/min $\leq 2\%$ 4800 ml $\leq 3\%$ 500 ml $\leq 2\%$ 500 ml $\leq 2\%$ 5000 ml $\leq 3\%$ 6000 ml $\leq 3\%$ neasured using synthetic and/or database wave forms ient of variation= SD/mean error.) 23 to 43 °C / 73.4 to 109.4 °F ± 0.1 °C (without sensor) 0.1 °C -50 to 300 mmHg ± 1 mmHg or $\pm 2\%$, whichever is greater 0 to 99 % $\pm 3\%$ (50 to 80 %) Thoracic electrical bioimpediance (TEB) 40 to 200 bpm (ICG), accuracy ± 2 bpm 1.0 to 15 L/min 5 to 250 ml ameters ACI, VI, PEP, LVET, TFI, TFC, HR, C.O., C.I., PVRI, LCW, LCWI, LVSW, LVSWI, STR, VEPT put Interface
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25.1 to 80 %: ±2 % 80.1 to 100 % ±3 % Resolution etCO₂: 1 mmHa O₂ (optional): 1% Sample Flow Rate 120 ml/min (with or without O2 monitoring) Adult/Pediatric: 70 ml/min or 90 ml/min, selectable Neonate: 90 ml/min (with O2 monitoring) **Sample Flow Rate Tolerance** ±15 ml/min or ±15 %, whichever is greater. Warm-up Time 90 sec (maximum), 20 sec (typically) Measured with a neonatal watertrap and 2.5-meter neonatal sampling line, or an adult watertrap and a 2.5-meter adult sampling line: **Rise Time** ≤ 250 ms @ 70 ml/min (Neonate watertrap) etCO₂ ≤ 250 ms @ 90 ml/min (Neonate watertrap) ≤ 300 ms @ 120 ml/min (Adult watertrap) O₂ (optional): ≤ 800 ms @ 90 ml/min (Neonate watertrap) ≤ 750 ms @ 120 ml/min (Adult watertrap) **Sampling Delay Time** ≤ 5.0 sec @ 70 ml/min (Neonate watertrap) etCO₂: ≤ 4.5 sec @ 90 ml/min (Neonate watertrap) ≤ 5.0 sec @ 120 ml/min (Adult watertrap) O₂ (optional): ≤ 4.5 sec @ 90 ml/min (Neonate watertrap) ≤ 5.0 sec @ 120 ml/min (Adult watertrap) awRR Range 0 to 150 rpm awRR Accuracy 0 to 60 rpm: ± 1 rpm 61 to 150 rpm: ± 2 rpm 10, 15, 20, 25, 30, 35, 40 sec Apnea Time Provide VCO₂, VO₂, MVCO₂, MVO₂, EE, RQ parameters, when monitoring with RM module. **Oridion Microstream CO₂ Measurement Range** 0 to 99 mmHg Resolution 1 mmHg Accuracy 0 to 38 mmHa: ±2 mmHg 39 to 99 mmHg: $\pm 5~\% + 0.08~\%$ of the reading – 38 mmHg Sample Flow Rate 50 ^{-7.5}+15 ml/min Start-up Time 30 sec (typical) **Response Time** 2.9 s (typical) awRR Range 0 to 150 rpm awRR Accuracy 0 to 70 rpm: ±1 rpm 71 to 120 rpm: ±2 rpm 121 to 150 rpm: ±3 rpm 10, 15, 20, 25, 30, 35, 40 sec Apnea time **Capnostat Mainstream CO2** Measurement Range 0 to 150 mmHg Resolution 1 mmHg Accuracy 0 to 40 mmHg: ± 2mmHg 41 to 70 mmHg: ± 5% of reading 71 to 100 mmHg: ± 8% of reading 101 to 150 mmHg: ± 10% of reading **Rise time** < 60 msec awRR Range 0 to 150 rpm awRR Accuracy ±1 rpm Provide VCO₂, MVCO₂, FeCO₂, SlopeCO₂, Vtalv, MValv, Vdaw, Vdaw/Vt, Vdalv, Vdalv/Vt, Vdphy, Vd/Vt, when monitoring with RM module. **Anesthesia Gases** Meet standard of ISO 80601-2-55. **Sampling Rate** Adult/pediatric: 200 ml/min Neonate: 120 ml/min Sampling Rate Tolerance ± 10 ml/min or $\pm 10\%$, whichever is greater. **Sampling Delay Time** < 4 sec **Refresh Rate** 1 sec Warm-up Time 45 sec to warm-up status 10 min to ready-to-measure status **Measurement Range CO**₂: 0 to 30 % N₂O: 0 to 100 % Des/Sev/Enf/Iso/Hal: 0 to 30 % **O**₂: 0 to 100 % awRR: 2 to 100 rpm Resolution **CO**₂: 0.1 % N₂O: 1% Des/Sev/Enf/Iso/Hal: 0.1 % **O**₂: 1%

awRR: 1 rpm **Full Accuracy** Range (%REL) Accuracy (%ABS) Gases CO2: 0 to 1 % ±0.1% 1 to 5 % ± 0.2 % 5 to 7 % ± 0.3 % 7 to 10 % ± 0.5 % rSO₂ Not specified > 10 % 0 to 20 % N₂O: ±2% 20 to 100 % ±3% ± 0.15 % Des: 0 to 1 % 1 to 5 % ± 0.2 % NMT 5 to 10 % ± 0.4 % 10 to 15 % ± 0.6 % 15 to 18 % ±1% Not specified > 18 % 0 to 1 % Sev: ± 0.15 % 1 to 5 % ± 0.2 % 5 to 8 % ± 0.4 % >8% Not specified Enf/Iso/Hal: 0 to 1 % ± 0.15 % 1 to 5 % ± 0.2 % Not specified > 5 % O2: 0 to 25 % ±1% 25 to 80 % ±2% 80 to 100 % ± 3 % awRR: 2 to 60 rpm ± 1 rpm Not specified > 60 rpm **Rise Time** Sampling flow 120 ml/min, using the DRYLINE II [™] watertrap and a neonatal 2.5m sampling line, ≤ 250 ms CO₂/ N₂O: Iso/Hal/Sev/Des: ≤ 300 ms Enf: ≤ 350 ms **O**₂: ≤ 600 ms Sampling flow 200ml/min, using DRYLINE II [™] watertrap and an adult 2.5m sampling line: ≤ 250 ms CO₂/ N₂O: Iso/Hal/Sev/Des: ≤ 300 ms Enf: ≤ 350 ms O2: ≤ 500 ms **Sampling Delay Time** Sampling flow 120 ml/min, using the DRYLINE II [™] watertrap and a neonatal 2.5m sampling line, **CO**₂: ≤ 4 sec N₂O: ≤ 4.2 sec 02: $\leq 4 \sec \theta$ Enf /lso/Hal/Sev/Des: ≤ 4.4 sec Sampling flow 200ml/min, using DRYLINE II [™] watertrap and an adult 2.5m sampling line: **CO**₂: ≤ 4.2 sec N₂O: ≤ 4.3 sec ANI 02: $\leq 4 \sec \theta$ Enf/Iso/Hal/Sev/Des: ≤ 4.5 sec 10,15,20,25,30,35,40 sec Apnea time Provide MAC value (support calibrated by age). Support two mixed gas identify and monitoring. tcGas RM Method **Diff-Pressure flow Measurement Range** Flow Adult/Pediatric: ± (2 to 120) L/min Neonate: ± (0.5 to 30) L/min Paw -20 to 120 cmH₂O MVe/MVi Adult/Pediatric: 2 to 60 L/min Infant: 0.5 to 15 L/min TVe/TVi Adult/Pediatric: 100 to 1500 ml Infant: 20 to 500 ml awRR range 4 to 120 rpm Resolution Flow 0.1 L/min Paw 0.1 cmH₂O MVe/MVi 0.01 L/min (MVe/MVi < 10 L/min) 0.1 L/min (MVe/MVi ≥ 10 L/min) TVe/TVi 1 ml 1 rpm awRR: Accuracy Adult/Pediatric: ± 1.2 L/min or ± 10% of the Flow reading, whichever is greater. Neonate: ± 0.5 L/min or ± 10%, whichever is greater. iView Paw ± 3% of reading CPU MVe/MVi ± 10% of reading TVe/TVi Adult/Pediatric: ±10% or ±15 ml, whichever is Hard-disk greater. os

Infant: ±10% or ±6 ml, whichever is greater. awRR: ±1 rpm (4 to 99 rpm) ±2 rpm (100 to 120 rpm) Provide loops display. Monitoring parameters include PEEP, Pmean, PIP, Pplat, PEF, PIF, MVe, MVi, TVe, TVi, RR, I:E, FEV1.0, Compl, RSBI, NIF, WOB, RAW. Patient Adult/Pediatric/Neonate. Method INVOS, NIRS (Near Infrared Spectroscopy) Number Up to 4 channels 15 to 95 % **Measurement Range** Meet the standard of IEC 60601-2-10 Sensor Type Acceleromyography sensor **Stimulation Modes** ST, TOF, PTC, DBS3.2, DBS3.3 **Stimulation Current Range** 0 to 60 mA **Stimulation Current Accuracy** ± 5% or ±2 mA, whichever is greater. Stimulation Pulse Width 100,200 or 300µs, monophasic rectangle pulse **Stimulation Pulse Width Accuracy** ± 10 % 300 V Max. Output Voltage BISx/BISx4 Meet standard of IEC 60601-2-26. **Bispectral Index** Method Impedance Range 0 to 999 kΩ EEG Bandwidth 0.25 to 100 Hz **BIS Range** 0 to 100 (BIS, BIS L, BIS R) SQI Range 0 to 100 % (SQI, SQI L, SQI R) ASYM 0 to 100% **DSA Trend** Yes EEG/aEEG Meet standard of IEC 60601-2-26. **EEG Channels** Up to 4 channels Montage Mode **Biopolar mode, referential mode** Input Signal Range - 2 mVp-p to + 2mVp-p Max. Input DC Offset ± 500 mV CMRR $\geq 100~dB$ @51 k Ω imbalance and 60 Hz \leq 0.5 μV rms (0.5 Hz to 70 Hz) Noise Level **Differential Input Impedance** > 15 MΩ @10 Hz **Electrode Impedance** Range 1 to 90 kΩ \pm 1 k Ω or \pm 10%, whichever is greater Accurancy Sampling Frequency EBN EEG: 1024 Hz Mindray EEG: 256Hz EBN EEG: 0.5 to 110 Hz Analog bandwidth Mindray EEG/aEEG: 0.1 to 110 Hz SEF, MF, PPF, TP, SR, EMG, Delta, Theta, Alpha, Beda Spectrum analysis Trend DSA, CSA Adult, Pediatric (over 12 years old) Patient **Measurement Range** ANIi: 12 to100 ANIm: 12 to 100 Energy: 0.00 to 65.54 Interfaces with TCM CombiM, TCM TOSCA or SenTec SDM monitor. **Measurement Range** 5 to 200 mmHg tcpCO₂ tcpO₂ 0 to 800 mmHg SpO2 0 to 100 % PR 25 to 240 bpm 0 to 1000 mW Power Accuracy TOSCA Sensor 92, tc Sensor 54: tcpCO₂ Better than 1 mmHg (1 % or 10 % CO₂) Better than 3 mmHg (33 % CO₂) tc Sensor 84: Better than 1 mmHg (1 % or 10 % CO₂) Better than 5 mmHg (33 % CO₂) tcpO₂ tc Sensor 84: Better than 1 mmHg (0 % O₂) Better than 3 mmHg (21 % O₂) Better than 5 mmHg (50 % O₂) Better than 25 mmHg (90 % O₂) ±3 % (70 to 100 %) SpO₂ PR ±3 bpm Power ±20 % of reading Intel Pentium N4200 2.5GHz Memory 8 GB mSATA SSD 128GB

Windows 10

Type Thermal array Bandwidth 1: 3 dB: "defences frequency: 10 Hz; Speed 25 mm/sc. 50 mm/sc. Up 10 3 (paper 50 mm width, 20 m length) Support two-idde: code frequency: 10 Hz; Up 10 3 (paper 50 mm width, 20 m length) Support two-idde: code frequency: 10 Hz; Up 10 Ministry Mode: 0.05 to 10 Hz Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz; Support Main frequency: 10 Hz;	Recorder		ECC Analog Output	
Speed 25 mm/sec, 50 mm/sec		Thermal array	ECG Analog Output Bandwidth (- 3 dB: refe	rence frequency: 10 Hz)
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Support nView remote itsplay tool Network Printer Support Wi-Fi Communications Type Rechargeable lithium-ion Protocol IEEE 802.11a/b/g/n Number of Battery 1 Modulation Mode DSSS and OFDM Capacity 5600mAh Operating Frequency kmen powered by a new fully-charged battery when powered by a new fully-charged battery IEEE 802.11b/g/L/2.4(5): when powered by a new fully-charged battery at 25 °C± 5 °C with 12-lead ECG, Resp. 5p02, 4- MIC: 2.4 to 2.483 GHz measurements every 15 min, WiFi enabled, IEEE 802.11a/15/CT/KC: 2.4 to 2.495 GHz measurements every 15 min, WiFi enabled, MIC: 5.15 to 5.35 GHz, 5.47 to 5.725 GHz measurements every 15 min, WiFi enabled, MIC: 5.15 to 5.35 GHz, 5.47 to 5.725 GHz measurements every 15 min, WiFi enabled, MIC: 5.15 to 5.35 GHz, 5.47 to 5.725 GHz Power Requirements KC: 5.15 to 5.35 GHz, 5.47 to 5.725 GHz Power Requirements KC: 5.15 to 5.35 GHz, 5.47 to 5.725 GHz Power Requirements Wireless Baud Rate IEEE 802.11 is 6 to 5.4 Mbps Environmental IEEE 802.11 is 6 to 54 Mbps Temperature Operating: 0 to 40 °C (32 to 104 °F) Output Power < 20dBm (CE requirement, detection			•	•• ••
Battery Battery Wi-Fi Communications Type Protocol IEEE 802.11a/b/g/n Modulation Mode DSSS and OFDM Operating Frequency Capacity IEEE 802.11b/g/n (2.4G): Run Time ETSI/FCC/KC 2.4 to 2.435 GHz MIC: 2.4 to 2.495 GHz IEEE 802.11a/b/g/n (2.4G): at 25 °C±5 °C with 12-4aad EGG, Resp. 502, 4- Channel Spacing S.15 to 5.35 GHz, 5.47 to 5.725 GHz FCC: 5.15 to 5.35 GHz, 5.725 to 5.82 GHz KC: 5.15 to 5.35 GHz, 5.725 to 5.82 GHz KC: 5.15 to 5.35 GHz, 5.725 GHz KC: 5.15 to 5.36 GHz, 5.725 GHz KC: 5.725 to 5.82 GHz KC: 5.725 to 5.82 GHz Vireless Baud Rate IEEE 802.111 a/n) IEEE 802.112 for to 5.4 Mbps IEEE 802.112 for to				••
Wi-Fi CommunicationsTypeRechargeable lithium-ionProtocolIEEE 802.11a/b/g/nNumber of Battery1Modulation ModeDSSS and OFDMCapacity5600mAhOperating FrequencyRun Time> 1 hrsIEEE 802.11b/g/n (2.4G):at 25 °CL 5 °C with 12-lead ECG , Resp, Sp02, 4- ch IBP, 2-ch Temp, CO2, C.O. and NIBPMIC:2.4 to 2.495 GHzmeasurements every 15 min, WiFi enabled, and screen brightness set to default 5, 5.15 to 5.35 GHz, 5.72 to 5.22 GHzmeasurements every 15 min, WiFi enabled, and screen brightness set to default 5, 5.15 to 5.35 GHz, 5.72 to 5.22 GHzFCC:5.15 to 5.35 GHz, 5.74 to 5.725 GHzmeasurements every 15 min, WiFi enabled, and screen brightness set to default 5, 5.725 to 5.35 GHz, 5.74 to 5.725 GHzKC:5.15 to 5.35 GHz, 5.74 to 5.725 GHzPower Requirements 4.725 to 5.82 GHzKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower Requirements 4.725 to 5.82 GHzKC:5.15 to 5.35 GHz (802.11 a/n)FrequencyS.725 to 5.82 GHzAC Voltage100 to 240 VAC (±10 %)Channel Spacing5 MHz @ 2.4 GHz (802.11 a/n)FrequencyWireless Baud RateIEEE 802.111g: 6 to 54 MbpsTemperatureIEEE 802.111g: 6 to 54 MbpsTemperatureOperating: 15 to 55.% (non condensing)Output PowercodBm (FCC requirement, detection mode- peak power)BarometricOperating: 15 to 55.% (non condensing)Operating: ModeInfrastructure MPA-PSK, WPA-PSK, WPA-PSK, WPA-PSK, PAP-TLS, EAP- TLS, FAP-TLS, EAP- TLS, FAP-TAST, EAP-FAST, EAP-TLS, EAP- TLS, FAP-TAST, EAP-	Support inview remote	display tool		Support
ProtocolIEEE 802.111a/b/g/nNumber of Battery Capacity1Modulation Mode Operating FrequencyDSS and OFDMCapacity5600mAhIEEE 802.11b/g/n (2.4G):Run Time> 1 hrsETSI/IFCC/KC:2.4 to 2.483 GHzRun Time> 1 hrsMIC:2.4 to 2.483 GHzat 52 cS C with 12-lead ECG, Resp. Sp02, 4- ch IBP, 2-ch Temp, CO2, C.O. and NIBPIEEE 802.111a/n (SG):measurements every 15 min, WiFi enabled, and screen brightness set to default 5,ETSI/IFCC/KC:5.15 to 5.35 GHz, 5.47 to 5.725 GHzmeasurements severy 15 min, WiFi enabled, and screen brightness set to default 5,FCC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, KC:Fower Requirements ACVoltage100 to 240 VAC (±10 %)KC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, KC:Fower Requirements ACVoltage100 to 240 VAC (±10 %)Channel Spacing5 MHz @ 2.4 GHz (802.111 b/g/n) 20 MHz @ 5 GHz (802.111 b/g/n)Current 2.8 to1.6 A2.8 to1.6 AWireless Baud RateIEEE 802.119 ic 6 to 54 MbpsTemperature Storage: 20 to 60 °C (4 to 140 °F)Utput Power< 20dBm (FCC requirement; detection mode- RMS)Humidity Storage: 10 to 95 % (non condensing) Storage: 10 to 80.5.5 mmHg (5.0. to 107.4	Wi-Fi Communications			Rechargeable lithium-ion
Operating FrequencyRun Time> 1 hrsIEEE 802.11b/s/n (2.G):when powered by a new fully-charged batterywhen powered by a new fully-charged batteryETSI/FCC/KC:2.4 to 2.483 GHzat 25 °C±5 °C with 12-lead ECG, Resp, SpO2, 4-MIC:2.4 to 2.483 GHzch IBP, 2-ch Temp, CO2, C.O. and NIBPIEEE 802.111a/n (SG):measurements every 15 min, WiFi enabled,ETSI:5.15 to 5.35 GHz, 5.47 to 5.725 GHzand screen brightness set to default 5,FCC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz,Sh rs to 90% when the monitor is off.MIC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz,Power RequirementsKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz,AC Voltage5.725 to 5.82 GHzAC Voltage100 to 240 VAC (±10 %)Channel Spacing5 Mtz @ 2.4 GHz (802.11 b/g/n)Current2.8 to 1.6 A20 MHz @ 5 GHz (802.11 b/g/n)Current2.8 to 1.6 A20 MHz @ 5 GHz (802.11 b/g/n)EnvironmentalIEEE 802.119; to to 14 MbpsEnvironmentalIEEE 802.119; to 5 to MbpsTemperatureIEEE 802.119; to 5 to MbpsStorage: 20 to 60 °C (-4 to 140 °F)Output Power< 20dBm (FCC requirement; detection mode- peak power)HumidityOperating: 12 to 95% (non condensing) mode- peak power)Storage: 120 to 805.5 mmHg (16.0 to 107.4 kPa)Operating ModeInfrastructureSafetyData SecurityWPA-P5K, WPA-P5K, WPA-Entryrise, WPA-P5K, WPA-P5K, WPA-PTLS, EAP-TLS, EAP-TLS, LEAP)Protection Scro2/CO/AG/AC/(ICG/BIS/RM/rSO; module: CF Scr02/CO/AG/AC/(ICG/BIS/RM/rSO; module: CF Scr0	Protocol	IEEE 802.11a/b/g/n		-
IEEE 802.11b/g/n (2.4G): when powered by a new fully-charged battery ETSI/FCC/KC: 2.4 to 2.483 GHz at 25 °C.5 °C with 12-lead ECG , Resp, SpO2, 4- MIC: 2.4 to 2.495 GHz ch IBP, 2-ch Temp, CO2, C.O. and NIBP IEEE 802.11a/n (5G): measurements every 15 min, WiFi enabled, and screen brightness set to default 5, FCC: 5.15 to 5.35 GHz, 5.72 to 5.82 GHz Recharge Time 5 hrs to 90% when the monitor is off. MIC: 5.15 to 5.35 GHz, 5.47 to 5.725 GHz, Power Requirements AC Voltage 100 to 240 VAC (±10 %) Channel Spacing 5 MHz @ 2.4 GHz (802.11 b/g/n) Current 2.8 to 1.6 A AC Voltage Wireless Baud Rate IEEE 802.11a: 6 to 54 Mbps Frequency 50 Hz/60 Hz (±3 Hz) Wireless Baud Rate IEEE 802.11b: 1 to 11 Mbps Environmental IEEE 802.11b: 1 to 11 Mbps Temperature Operating: 0 to 40 °C (32 to 104 °F) IEEE 802.11b: 1 to 11 Mbps Storage: 10 to 59 % (non condensing) output Power < 20dBm (EC requirement: detection mode- peak power)	Modulation Mode	DSSS and OFDM	Capacity	5600mAh
ETSI/FCC/KC:2.4 to 2.483 GHzat 25 °C±5 °C with 12-lead ECG , Resp, SpO2, 4- ch IBP, 2-ch Temp, CO2, C.O. and NIBPNIE:2.4 to 2.495 GHzch IBP, 2-ch Temp, CO2, C.O. and NIBPIEEE 802.11a /r (SG):measurements every 15 min, WFI enabled, and screen brightness set to default 5, FCC:FCC:5.15 to 5.35 GHz, 5.47 to 5.725 GHzand screen brightness set to default 5, FCC:KC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower Requirements ACVoitageKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower Requirements ACVoitageChannel Spacing5 MHz @ 2.4 GHz (802.11 b/g/n) 20 MHz @ 5 GHz (802.11 a/n)CurrentVireless Baud RateIEEE 802.11a: 6 to 54 MbpsIEEE 802.11b: 1o to 11 MbpsEnvironmental EnvironmentalIEEE 802.11b: 1o to 11 MbpsEnvironmental Storage: 20 to 60 °C (.4 to 140 °F) Storage: 20 to 60 °C (.4 to 140 °F)Output Powerc 20dBm (FCC requirement, detection mode- RMS) < 30dBm (FCC requirement, detection mode- RMS)BarometricOperating: 427.5 to 805.5 mmHg (157.0 to 107.4 kPa) Storage: 10 to 95 % (non condensing) Storage: 10 to 95 % (non condensing)Operating Mode Data SecurityInfrastructure WPA2-Enterprise (EAP-RAST, EAP-TLS, EAP- TTLS, PEAP-RGT, FAPA-TLS, EAP- TTLS, PEAP-RGT, FAPA-TLS, EAP- TTLS, PEAP-RGT, FAPA-TLS, EAP- TTLS, PEAP-RGT, FAPA-TLS, EAP- TTLS, PEAP-RGT, FAPA-MSCHAPU2, PEAP-TLS, LEAPClas IOutputWPA2-Enterprise (EAP-RAST, EAP-TLS, EAP- TTLS, PEAP-RGT, FAPA-TLS, EAP- TTLS, PEAP-RGT, FAPA-MSCHAPU2, PEAP-TLS, LEAPProtection Against Ingress of Fluids			Run Time	
MIC:2.4 to 2.495 GHzch IBP, 2-ch Temp, CO2, C.O. and NIBPIEEE 802.11a/n (5G):measurements every 15 min, WiFi enabled, and screen brightness set to default 5,ETS1:5.15 to 5.35 GHz, 5.725 to 5.82 GHzmeasurements every 15 min, WiFi enabled, and screen brightness set to default 5,FCC:5.15 to 5.35 GHz, 5.725 to 5.82 GHzRecharge TimeMIC:5.15 to 5.35 GHz, 5.725 GHz, 5.725 to 5.82 GHzPower RequirementsKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower RequirementsKC:5.725 to 5.82 GHzAC Voltage100 to 240 VAC (±10 %)Channel Spacing5 MHz @ 2.4 GHz (802.11 b/g/n) 2 0 MHz @ 5 GHz (802.11 a/n)Current2.8 to 1.6 A2 0 MHz @ 5 GHz (802.11 a/n)Frequency50 Hz/60 Hz (±3 Hz)Wireless Baud RateIEEE 802.11 a: 6 to 54 Mbps IEEE 802.11 b: 1 to 11 MbpsTemperatureOperating: 0 to 40 °C (32 to 104 °F)IEEE 802.11 b: 6 to 54 MbpsTemperatureOperating: 0 to 40 °C (32 to 104 °F)Output Power< 200Bm (CF crequirement: detection mode- RMS) HumidityOperating: 427.5 to 805.5 mmHg (57.0 to 107.4 kPa) Storage: 10 to 95 % (non condensing)Operating Mode Data SecurityWPA-PSK, WPA-Enterprise, WPA2-Enterprise (EAP-FAST, EAP-TLS, EAP- TLS, FAP-GC, CPAP-MSCHAPv2, PEAP-TLS, EAP- ILEAPSafetyOutputWPA2-Enterprise, WPA2-Enterprise, LEAPSafetyOutputWPA2-Enterprise, CHAP-KSC, APA-YLS, EAP- UPA2-Enterprise, EAP-FAST, EAP-TLS, EAP- TLS, FAP-GC, CPAP-MSCHAPv2, PEAP-TLS, EAP-MCClass I Degree of Protection Scr02/CO/A/G/IG/G	-			
IEEE 802.11a/n (5G):measurements every 15 min, WiFi enabled, and screen brightness set to default 5, FCC:FCC:5.15 to 5.35 GHz, 5.72 to 5.82 GHzAckorge TimeShrs to 90% when the monitor is off.MIC:5.15 to 5.35 GHz, 5.72 to 5.82 GHzPower RequirementsKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower RequirementsKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower RequirementsKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower RequirementsKC:5.15 to 5.35 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHzPower RequirementsMilc:5.725 to 5.82 GHzAC Voltage100 to 240 VAC (±10 %)Channel Spacing5 MHz @ 2.4 GHz (802.11 b/n) 2.0 MHz @ 5 GHz (802.11 a/n)Current2.8 to 1.6 AWireless Baud RateIEEE 802.11s : 6 to 54 Mbps IEEE 802.11s : 1 to 11 MbpsEnvironmentalIEEE 802.11s : 6 to 54 Mbps IEEE 802.11s : 6 to 54 MbpsTemperatureOperating: 0 to 40 °C (32 to 104 °F)Output Power< 20dBm (FCC requirement: detection mode- peak power)HumidityOperating: 15 to 95 % (non condensing) Storage: 10 to 95 % (non condensing) Storage: 10 to 95 % (non condensing) Storage: 10 to 05.5 mmHg (16.0 to 107.4 kPa) Storage: 12 to 805.5 mmHg (16.0 to 107.4 kPa) Scorage: 12 to 805.5 mmHg (16.0 to 107.4 kPa) <br< td=""><td></td><td></td><td></td><td></td></br<>				
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Wireless Baud Rate IEEE 802.11a: 6 to 54 Mbps Environmental IEEE 802.11b: 1 to 11 Mbps Environmental IEEE 802.11g: 6 to 54 Mbps Temperature Operating: 0 to 40 °C (32 to 104 °F) Output Power < 20dBm (CE requirement: detection mode- RMS) Humidity Operating: 15 to 95 % (non condensing) < 30dBm (FCC requirement, detection mode- peak power) Barometric Operating: 427.5 to 805.5 mmHg (57.0 to 107.4 kPa) Operating Mode Infrastructure Safety Operating Mode WPA-PSK, WPA-PSK, WPA-Enterprise, WPA2-Enterprise (EAP-FAST, EAP-TLS, EAP- TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP) Type of Protection Encryption: TKIP and AES Class I Output Meets the requirements of ANSI/AAMI/IEC 60601-1 for short-circuit protection and Some of functions marked with an asterisk may not be available. Please contact your local Mindray sales representative for the most current information.	Channel Spacing			
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< 30dBm (FCC requirement, detection mode- peak power)	Output Power	< 20dBm (CE requirement: detection	Humidity	Operating: 15 to 95 % (non condensing)
mode- peak power) Storage: 120 to 805.5 mmHg (16.0 to 107.4 kPa) Operating Mode Infrastructure Safety Data Security WPA-PSK, WPA2-PSK, WPA2-Enterprise, WPA2-Enterprise (EAP-FAST, EAP-TLS, EAP- TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP) Type of Protection Class I Output Encryption: TKIP and AES Protection Against Ingress of Fluids IPX1 Output Some of functions marked with an asterisk may not be available. Please contact your local Mindray sales representative for the most current information. Some of functions.				Storage: 10 to 95 % (non condensing)
Operating Mode Data Security Infrastructure Safety WPA-PSK, WPA2-PSK, WPA2-PSK, WPA2-Enterprise, WPA2-Enterprise (EAP-FAST, EAP-TLS, EAP- TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP) Type of Protection Class I Output Encryption: TKIP and AES Degree of Protection Against Ingress of Fluids IPX1 Output Some of functions marked with an asterisk may not be available. Please contact your local Mindray sales representative for the most current information. Some of functions.		•	Barometric	
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TTLS, PEAP-GTC, PEAP-MSCHAPv2, PEAP-TLS, LEAP) ScvO2/CO2/AG/ICG/BIS/RM/rSO2 module: BF Protection Against Ingress of Fluids IPX1 Output Some of functions marked with an asterisk may not be available. Please Standard Meets the requirements of ANSI/AAMI/IEC 60601-1 for short-circuit protection and Some of functions marked with an asterisk may not be available. Please	Data Security			
LEAP) Protection Against Ingress of Fluids Encryption: TKIP and AES IPX1 Output Auxiliary Output Standard Meets the requirements of ANSI/AAMI/IEC 60601-1 for short-circuit protection and		• • • • • • • • • • • • • • • • • • • •	Degree of Froteetion	
Encryption: TKIP and AES IPX1 Output Auxiliary Output Some of functions marked with an asterisk may not be available. Please contact your local Mindray sales representative for the most current information.			Protection Against Ingr	
Auxiliary Output Some of functions marked with an asterisk may not be available. Please Standard Meets the requirements of ANSI/AAMI/IEC contact your local Mindray sales representative for the most current 60601-1 for short-circuit protection and information.		Encryption: TKIP and AES		
Standard Meets the requirements of ANSI/AAMI/IEC contact your local Mindray sales representative for the most current 60601-1 for short-circuit protection and information.				
60601-1 for short-circuit protection and information.	, ,			•
	standard	•	-	ray sales representative for the most current

www.mindray.com

P/N:ENG- BeneVision N22/N19 Datasheet-210285x4P-20211225

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mindray healthcare within reach

BeneVision seria N

Monitor de pacient

Manualul operatorului

Volum I

(BeneVision N22/BeneVision N19/BeneVision N17/ BeneVision N15/BeneVision N12/BeneVision N12C)

(E₀₁₂₃

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Data publicării: Martie 2022

Revizuire: 3.0

Acest manual conține două volume. Volumul I conține informații legate de siguranță și introducerea despre echipament. Vă informează despre cum să efectuați alte sarcini decât măsurarea parametrilor și cum să îngrijiți și să întrețineți echipamentul. Volumul II vă arată cum să efectuați măsurători asociate parametrilor. De asemenea, menționează specificațiile pentru măsurarea parametrilor, alarmele și setările implicite.

Problemă	Acțiuni corective
Traiectorii ECG cu perturbații	 1. Verificați dacă electrozii sunt detașați sau uscați. Înlocuiți cu alți electrozi umezi, dacă este necesar. 2. Verificați astfel încât conductoarele să nu fie defecte. Înlocuiți conductoarele, dacă este necesar. 3. Verificați astfel încât cablul pacientului sau conductoarele să nu fie direcționate prea aproape de alte dispozitive electrice. Mutați cablul pacientului sau conductoarele la distanță de dispozitivele electrice.
Interferență excesivă la nivelul cauterelor	Utilizați cablurile ECG rezistente la ESU. Pentru mai multe informații, consultați 42.1Accesorii pentru ECG.
Perturbație cauzată de mușchi	 Pregătire inadecvată a pielii, tremur, subiect încordat şi/sau poziționare precară a electrozilor. 1. Pregătiți pielea din nou și înlocuiți electrozii din nou. Pentru informații suplimentare, consultați 20.4.1Pregătirea pielii pacientului și 20.4.2Aplicarea electrozilor. 2. Aplicați alți electrozi umezi. Evitați zonele musculare.
Semnal intermitent	 Verificați astfel încât cablurile să fie conectate corespunzător. Verificați dacă electrozii sunt detașați sau uscați. Pregătiți pielea din nou conform descrierii din 20.4.1Pregătirea pielii pacientului și aplicați alți electrozi umezi. Verificați astfel încât cablul pacientului și conductoarele să nu fie deteriorate. Modificați-le, dacă este cazul.
Alarme excesive: ritm cardiac, defecțiune derivație	 Verificați dacă electrozii sunt uscați. Pregătiți pielea din nou și înlocuiți electrozii din nou. Pentru informații suplimentare, consultați 20.4.1Pregătirea pielii pacientului și 20.4.2Aplicarea electrozilor. Verificați în privința mișcării excesive a pacientului sau a tremurului muscular. Repozitionați electrozii. Înlocuiți cu alți electrozi umezi, dacă este necesar.
Semnal ECG cu amplitudine scăzută	 Verificați dacă amplificarea ECG nu este setată la un nivel prea scăzut. Reglați amplificarea, după caz. Pentru mai multe informații, consultați 20.6Modificarea setărilor ECG. Pregătiți pielea din nou și înlocuiți electrozii din nou. Pentru informații suplimentare, consultați 20.4.1Pregătirea pielii pacientului și 20.4.2Aplicarea electrozilor. Evitați locurile de aplicare a electrozilor. Evitați zona osoasă sau musculară. Verificați dacă electrozii sunt uscați sau dacă au fost utilizați pentru o perioadă îndelungată. Înlocuiți cu alți electrozi umezi, dacă este necesar.
Formă de undă ECG lipsă	 Verificați dacă amplificarea ECG nu este setată la un nivel prea scăzut. Reglați amplificarea, după caz. Pentru mai multe informații, consultați 20.6.3Setarea modului de analiză. Verificați astfel încât conductoarele și cablurile pacientului să nu fie conectate necorespunzător. Schimbați cablul și conductoarele. Verificați astfel încât cablul pacientului și conductoarele să nu fie deteriorate. Modificați-le, dacă este cazul.
Devierea liniei de bază	 Verificați în privința mișcării excesive a pacientului sau a tremurului muscular. Fixați conductoarele și cablul. Verificați dacă electrozii sunt detașați sau uscați și înlocuiți cu alți electrozi umezi, dacă este necesar. Pentru informații suplimentare, consultați 20.4.1Pregătirea pielii pacientului și 20.4.2Aplicarea electrozilor. Verificați setarea filtrului ECG. Setați modul Filtru ECG la Monitor pentru a reduce devierea liniei de bază pe afișaj.



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Accessories and Consumables

CATALOGUE

2022.07

Welcome to the Mindray Accessories Catalogue

This catalogue will provide you with the parts and accessories that connect to your Mindray Patient Monitor, Electrocardiograph, Defibrillator. Each Mindray product is the product of a special brand of patient focused, clinician-friendly design. For this reason, you can expect the same service, focus and quality with our parts and accessories.

Finding the Right Part

This catalog has been designed to make finding the right part easy. Chapters are organized by specific parameter categories. Simply locate the type of part you are looking for under the appropriate category.

Note:

This catalog is not an Operating Instructions Manual. This catalog will assist you in identifying the correct parts and accessories to connect to your Mindray product, please refer to the Operating Instructions Manual. Warnings, Precautions and Notes can also be found in the Operating Instructions.

Patient Monitor Accessories

ECG	

01

02

03

Defibrillator Accessories

Electrocardiograph Accessories

136

Integrated ECG Cables - AHA

For BeneVision, BeneView, ePM, iPM, uMEC, iMEC series monitors, BeneHeart defibrillator, uMED 20

Picture	Model	Part No.	No. Description	Purchasing Unit
	EA6251B	040-000961-00	ECG cable and wires (integrative): Adu/Ped, 12 Pin 5-Lead, Defib-Proof, AHA, Snap, 3.6 m	Each
	EA6231B	040-000965-00	ECG cable and wires (integrative): Adu/Ped, 12 Pin 3-Lead, Defib-Proof, AHA, Snap, 3.6 m	Each
	EA6251A	040-000960-00	ECG cable and wires (integrative): Adu/Ped, 12 Pin 5-Lead, Defib-Proof, AHA, Clip, 3.6 m	Each
	EA6231A	040-000964-00	ECG cable and wires (integrative): Adu/Ped, 12 Pin 3-Lead, Defib-Proof, AHA, Clip, 3.6 m	Each

Trunk Cables

- Easy to replace leadwires
- Meeting the requirements of EC53
- Outstanding shielding property and anti-interference performance, protecting ECG signal from being interfered
- Excellent defibrillation-proof performance, well protecting the equipment
- ESU-proof, ensuring ECG signals not interfered during operation Flexible and durable cables
- Outstanding cable material, enduring repeated cleaning and disinfection
- Latex free

For BeneVision, BeneView, ePM, iPM, uMEC, iMEC series monitors, BeneHeart defibrillator, uMED 20

			-	
Picture	Model	Part No.	No. Description	Purchasing Unit
	EV6201	0010-30-42719 (009-004728-00)	ECG trunk cable: 3/5-lead, Adu/Ped, 12 Pin, Defib-Proof, AHA/IEC, 3 m	Each



0010-30-42723



EV6202 0010-30-42720

ECG trunk cable: 3/5-lead, Adu/Ped, Each 12 Pin, ESU-Proof, AHA/IEC, 3 m

ECG trunk cable: 3-lead, Ped/Neo, Each 12 Pin, Defib-Proof, AHA/IEC, 3 m

ECG Leadwires – IEC

- Easy to replace trunk cables

- Meeting the requirements of EC53
- Outstanding shielding property and anti-interference performance, protecting ECG signal from being interfered
- Flexible and durable cables
- Outstanding cable material, enduring repeated cleaning and disinfection
- Latex free

Match with 3/5-lead cables (0010-30-42719, 0010-30-42723)

cture	Model	Part No.	No. Description	Purchasing Unit
	EL6502A	0010-30-42728	5-Lead ECG wires, Clip, Adu, TPU, IEC, 0.6 m/1m	Each

0010-30-42730





0010-30-42732

EL6504A

		IEC, long, 1m/1.4 m	
EL 65028	0010 20 42726	5 Load ECG wirds Spap Adu TDLLIEC	



EL6502B 0010-30-42736 (009-004730-00)

5-Lead ECG wires, Snap, Adu, TPU, IEC, Each 1m/1.4 m

5-Lead ECG wires, Clip, Adu/Ped, TPU, Each

PU, IEC, Each

Match with 3-lead cables (0010-30-42720, 0010-30-42724)

Picture	Model	Part No.
	EL6306A	0010-30-42897



No. Description	Purchasing Unit
3-Lead ECG wires, Snap, Adu/Ped, TPU, IEC, 1 m	Each

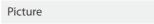
3-Lead ECG wires, Clip, Adu/Ped, TPU, Each IEC, 1m

No. Description	Purchasing Unit
3-Lead ECG wires, Clip, Neo, TPU, IEC,	Each

1m

Electrode

- Latex free
- DEHP free
- Good biocompatibility, avoiding allergic reactions to patient



Part No.

Part No.

040-003254-00

Model



040-002833-00

Picture	Model	Part No.	No. Description	Purchasing Unit		
	31499224	0010-10-12304	Adult ECG Electrode (Kendall, Medi Trace 210)	10 pcs/pouch	Match with 3-lead Neonatal cables (0	040-000754-0
					Picture	Model
And	H124SG	900E-10-04880	Neonatal ECG Electrode (Kendall, H124SG)	50pcs/pouch		0406062
		040-002711-00	Adult ECG electrode (INTCO)	5 pcs/pouch		



No. Description

Pediatric/Neonatal ECG electrode (INTCO)

Purchasing Unit

30 pcs/pouch

No. Description

Disposable neonatal 3-lead pre-wired electrode, radio translucent, AHA, 60 cm

Purchasing Unit

50 pouch/box (3 pcs/pouch)

SpO₂ Accessories

Mindray SpO₂ Accessories



Integrated SpO₂ Cable

For BeneVision, BeneView, ePM, iPM, uMEC, iMEC, VS series monitors, BeneHeart defibrillator

Picture	Model	Part No.	No. Description	Purchasing Unit
	512FLH	115-012807-00	Integrative reusable SpO ₂ sensor, Adult, Finger, >30 kg, 3 m	Each
	518BLH	115-020887-00	Integrative reusable SpO ₂ sensor, Neo, Foot (adult/pediatric, finger), <5 kg, 3 m	Each

Mindray SpO₂ **Cable** For BeneVision, BeneView, ePM, iPM, uMEC, iMEC, VS series monitors, BeneHeart defibrillator

- Ergonomic design, precise engineering and clinical testing guaranteeing reliable measurement
- Well anti-electromagnetic interference, suitable for complex electrical environment
- Flexible and durable cables
- Outstanding cable jacket, enduring repeated cleaning and disinfection
- Easy to change sensor, meeting clinical requirements for patient use - Latex free



For Telemetry

G

Picture	Model	Part No.	No. Description	Purchasing Unit
	SAT 10	115-029488-00	Mindray SpO ₂ module for BeneVision TM80, 6 Pin, 0.5 m	Each

	No. Description	Purchasing Unit
) 10)	Mindray SpO_2 extension cable, 7 Pin, 2.5 m	Each
)	Mindray SpO ₂ extension cable, 7 Pin, 1.2 m	Each

Mindray SpO, Sensor Finger-Clip Sensor (Reusable)

- Ergonomic design, precise engineering and clinical testing guaranteeing reliable measurement
- High quality photoelectric element, ensuring precise measurement
- Well anti-electromagnetic interference, suitable for complex electrical environment
- Perfect performance against light interference, can be used in environment of strong light
- ESU-proof, ensuring SpO₂ signals not interfered during operation
- Strict electric safety specification, guaranteeing safety for use
- Few pit structure, not easily staining, convenient for cleaning
- Outstanding cable jacket, enduring repeated cleaning and disinfection
- Latex free
- Good biocompatibility, avoiding allergic reactions to patient

Finger-Tip Sensor (Reusable)

- Ergonomic design, precise engineering and clinical testing guaranteeing reliable measurement
- High quality photoelectric element, ensuring precise measurement
- Well anti-electromagnetic interference, suitable for complex electrical environment
- Perfect performance against light interference, can be used in environment of strong light
- ESU-proof, ensuring SpO₂ signals not interfered during operation
- Strict electric safety specification, guaranteeing safety for use
- Silicone rubber sheath, not likely to break in case of drop, hardly sensor off
- Few pit structure, not likely staining, convenient for cleaning
- Outstanding cable jacket, enduring repeated cleaning and disinfection
- Latex free
- Good biocompatibility, avoiding allergic reactions to patient

For all Mindray SpO, Cables and PM-50/60 pulse oximeter

For all Mindray SpO, Cables and PM-50/60 pulse oximeter

	2					7 1 2	•	
Picture		Model	Part No.	No. Description	Purchasing Unit	Picture	Model	Part No.
		512F	512F-30-28263	Reusable sensor, adult, finger-clip, 1.1 m, >30 kg	Each	A CONTRACT OF A	512E	512E-30-90390
		512H	512H-30-79061	Reusable sensor, pediatric, finger-clip, 1.1 m, 10-30 kg	Each		512G	512G-30-90607

No	Descri	ntion
110.	Desch	puon

Reusable sensor, adult, finger-tip, 1.1 m, >30 kg

Reusable sensor, pediatric, finger-tip, 1.2 m, 10-30 kg

Purchasing Unit

Each

Each

Adapted with the tubing (6200-30-09688, 115-012522-00, 040-002712-00)

Picture	Model	Part No.	No. Description	Purchasing Unit	Picture	Model	Part No.
and the second s	CM1905	040-000688-00	NIBP Cuff Tubing Adapter (Adult tubing to Neonate cuff)	Each	The second se	CM1202	0010-30-12158

CM1200 Series

- Soft and comfortable. Low hazard to skin even if a long-term use
- Easy to clean. The cuff wrap can not be damped or stained by liquid if duly cleaned
- Pilling-proof. Not deform even if for long-term use
- TPU bladder ensures good air tightness and long life
- Latex free, PVC free
- Good biocompatibility, free from biological hazard to skin

Connected with the tubing 6200-30-09688, 115-012522-00 and 040-002712-00



CM1201 0010-30-12157 Reusable cuff, Inf, 10-19 cm, with connector

Each



CM1203 0010-30-12159



0010-30-12160



CM1204



CM1205 0010-30-12161

No. Description	Purchasing Unit
Reusable cuff, Child, 18-26 cm, with connector	Each

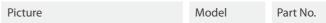
Reusable cuff, Adu, 25-35 cm, with connector

Each

Reusable cuff, Large Adu, 33-47 cm, Each with connector

Reusable cuff, Thigh, 46-66 cm,	Each
with connector	

For BeneVision, BeneView, ePM, iPM, uMEC, iMEC series monitors, BeneHeart defibrillator





MR401B 0011-30-37392



Temperature Accessories



Reusable Temperature Probes

- Available in Rectal/Esophageal and Skin Surface Styles
- Flexible and durable cables
- Outstanding cable material, enduring repeated cleaning and disinfection

- Latex free

- Good biocompatibility, avoiding allergic reactions to patient



MR402B 0011-30-37394



MR403B 0011-30-37393





MR404B 0011-30-37395

	No. Description	Purchasing Unit
2	Reusable Temp Probe, Adu, Esophageal/Rectal, 2 Pin, 3 m	Each

-	Reusable Temp Probe, Ped/Neo,	Each
	Esophageal/Rectal, 2 Pin, 3 m	

Reusable Temp Probe, Adu, Skin,	Each
2 Pin, 3.6 m	

Reusable Temp Probe, Ped/Neo, Skin,	Each
2 Pin, 3.6 m	

For BeneVision, BeneView, ePM, uMEC series monitors, BeneHeart defibrillator



Model	Part No.	No. Description	Purchasing Unit
EA6231B	115-043024-00 (100-000080-00)	M02C DRYLINE II water trap Adu/Ped for single-slot module	10 pcs/box



EA6232B 115-043025-00 (100-000081-00)

M02C DRYLINE II water trap Neo for single-slot module

10 pcs/box



Picture

60-15300-00 115-043018-00



60-14100-00 115-043020-00 (9000-10-07486)



60-14200-00 115-043021-00 (9000-10-07487



For BeneVision, BeneView, ePM, iPM, uMEC, iMEC series monitors, BeneHeart defibrillator

Model	Part No.	No. Description	Purchasing Unit
60-15200-00	115-043017-00 (9200-10-10533)	Sampling line, Adu/Ped, 2.5 m	25 pcs/box

25 pcs/box

0	Sampling line, Neo, 2.5 m
55)	

Dryline airway adapter, straight 10 pcs/box

0	Dryline airway adapter, elbow	10 pcs/box
37)		

Invasive Blood Pressure (IBP) Accessories

Invasive Blood Pressure Cables

- Compatible solution with major monitor IBP module interface and disposable pressure transducer brands in the market

- Flexible and durable cables
- Outstanding cable material, enduring repeated cleaning and disinfection
- Latex free

For BeneVision, BeneView, ePM, iPM, uMEC, iMEC series monitors, BeneHeart defibrillator

Picture	Model	Part No.	No. Description	Purchasing Unit
	IM2201	001C-30-70759	12 Pin IBP Cable (for ICU Medical), 4 m	Each









115-017849-00

Y-type IBP cable: For BeneView, iPM series patient monitor

Picture	Model	Part No.
	IM2204	040-001029-00

No. Description	Purchasing Unit
12 Pin IBP Cable (for Edwards), 4 m	Each

12 Pin IBP cable (for Utah), 4 m

Each

	No. Description	Purchasing Unit
0	Y-type IBP cable (switch one connector to two connectors)	Each

Rolling stands

Picture	Model	Part No.	No. Description	Purchasing Unit	Picture	Model	Part No.
		045-003133-00	Roll Stand A (≤ 23kg, fixed-angle) (for N22/N19)	Each			045-003053-00
		045-000915-00	Roll Stand B (≤15kg, fixed-angle, with two baskets) + Adapter (for N17/N15/ePM15/ePM15M)	Each			045-003052-00
		045-003255-00	Roll Stand C (≤6kg, fixed-angle, with two brakets and barrel fix mounting) + Quick lock (for N12, ePM under 12" inch screen)	Each			045-004267-00
5000		045-000924-00	Roll stand (for N12, ePM and uMEC under 12" inch screen)	Each			045-004268-00 045-004269-00

No. Description

Purchasing Unit

Basic rolling stand (for ePM under 12" inch screen and uMEC series in ROW market) Each

VS series basic rolling stand (ONLY for ROW market) Each

Each

Rolling Stand (Standard) + commen Quick lock (compact with all existing models under 12" inch screen and VS)

VS 8/9 Rolling Stand (Advanced) + Each commen Quick lock VS 8/9 Rolling Stand (Advanced, with Each extended battery capacity) + commen Quick lock (the extended battery 115-034132-00 need to be purchased separately)

Others



No. Description

Purchasing Unit

Analog output cable (for ePM, iPM, uMEC, iMEC series) Each

Defib Sync cable (for ePM, iPM, uMEC, iMEC series) Each

Thermal Paper (50 mmX20 m)

Each

REFERENCE: IBP-UT

compatible Disposible IBP transducer with Utah/Biosensors connector, to work with Utah/Biosensor compatible Manufacture date: 2022-10 expiry date: 2025-10 Lot number: 2210 Origin: China



Shunmei Medical Co. Ltd No. 8 Jinlong Street, Baolong Industrial Zone, Longgang District, Shenzhen, China Tel: 0086-18344359973

CE



NMT Accessory Kit

For BeneVision series monitors

Part No.	NO. Description	Purchasing Unit
115-040403-00	NMT accessory kit Including: 040-001462-00 NMT main cable 040-001463-00 NMT transducer cable 040-001464-00 NMT stimulation cable 040-002711-00 Adult ECG electrode (INTCO), 5 pcs 040-002258-00 Bandage for NMT transducer, disposable, 20 pcs	Set

115-057396-00	NMT accessory kit
	Including:
	040-001462-00 NMT main cable
	040-001463-00 NMT transducer cable
	040-001464-00 NMT stimulation cable
	040-002711-00 Adult ECG electrode (INTCO), 5 pcs
	115-058073-00 Reusable NMT handadapter for adult/pediatric
	A30-000010 Shipping label printing paper 100X150 mm

Set

INVOS rSO₂ Accessories For BeneVision series monitors

Picture

Part No. Description



115-033947-00 Including:



115-033948-00

Including:



115-033949-00

Including:

```
INVOS rSO, accessory kit, Adu
INVOS 5100C cable, channel 1&2, with Pre-ampliter A 1pcs
INVOS 5100C reusable sensor, channel 1 (blue) 1pcs
INVOS 5100C reusable sensor, channel 2 (brown) 1pcs
INVOS SomaSensor disposable sensor, Adu>40kg, 2 pcs
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INVOS rSO, accessory kit, Ped
```

INVOS 5100C cable, channel 1&2, with Pre-ampliter A 1pcs

INVOS 5100C reusable sensor, channel 1 (blue) 1pcs

INVOS 5100C reusable sensor, channel 2 (brown) 1pcs

INVOS SomaSensor disposable sensor, Ped<40kg, 2 pcs

```
INVOS rSO, accessory kit, Neo
```

INVOS 5100C cable, channel 1&2, with Pre-ampliter A 1pcs INVOS cable + disposable sensor, Neo<5kg, brain/body, 2 pcs