

Anyview P Series

Patient Monitor

P18



Guardians of your life

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reddot design award
winner 2021

Future Medical Technology

P Series

— P22/P18/P15/P12 —



| Powerful | Pioneer | Practical |

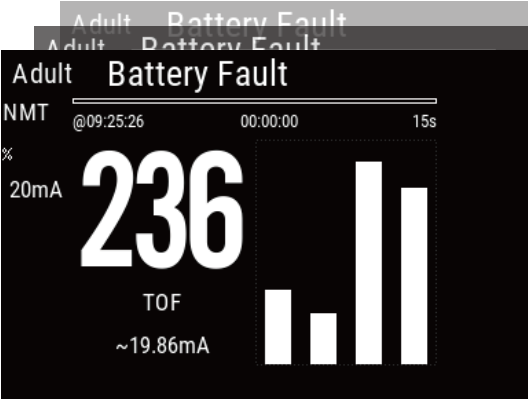


	P12	P15	P18	P22
Screen(inch)	12.1	15.6	18.5	22
Resolution	1280*800	1920*1080	1920*1080	1920*1080
Module slots	4	6	6	6
Weight	<5kg	<6kg	<7kg	<8kg

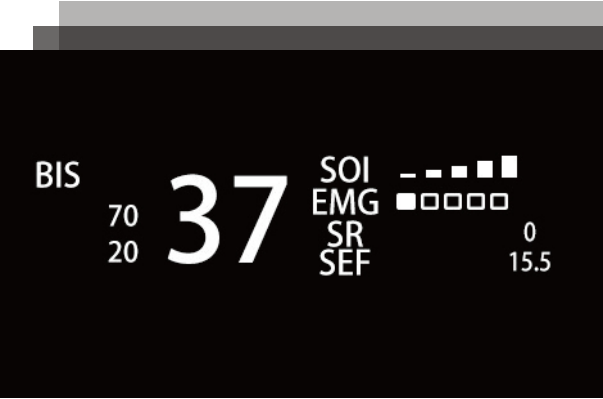
World Class Award Winning Product

With the hardwork and efforts of our engineering team that not only focused on making a medical device fully compliant with medical equipment and modern tech standards.

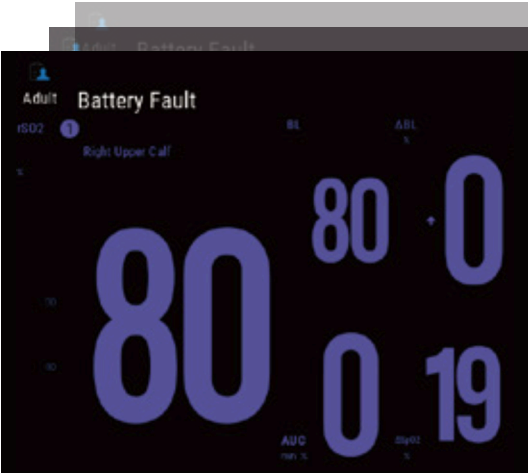




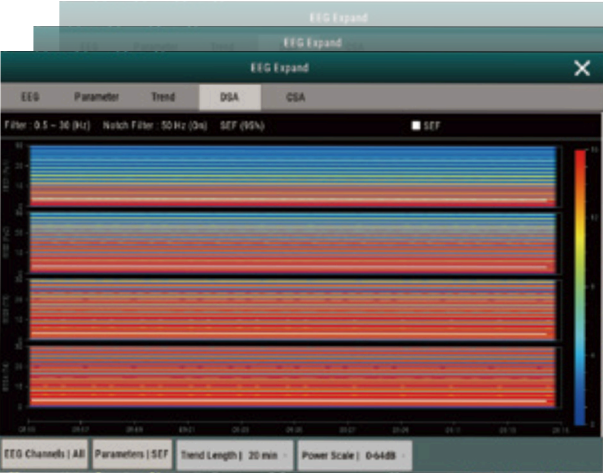
NMT (Neuromuscular Transmission)
NMT helps in determining the depth and neuro-muscular blockade.



BIS (Bispectral Index)
Used to determine the depth of sedation or hypnosis.



rSO2 (Regional Oxygen Saturation)
A non-invasive method of directly measuring cerebral perfusion.



EEG (Electroencephalography)
Used to determine changes in brain activity that assist in diagnosing brain disorders.

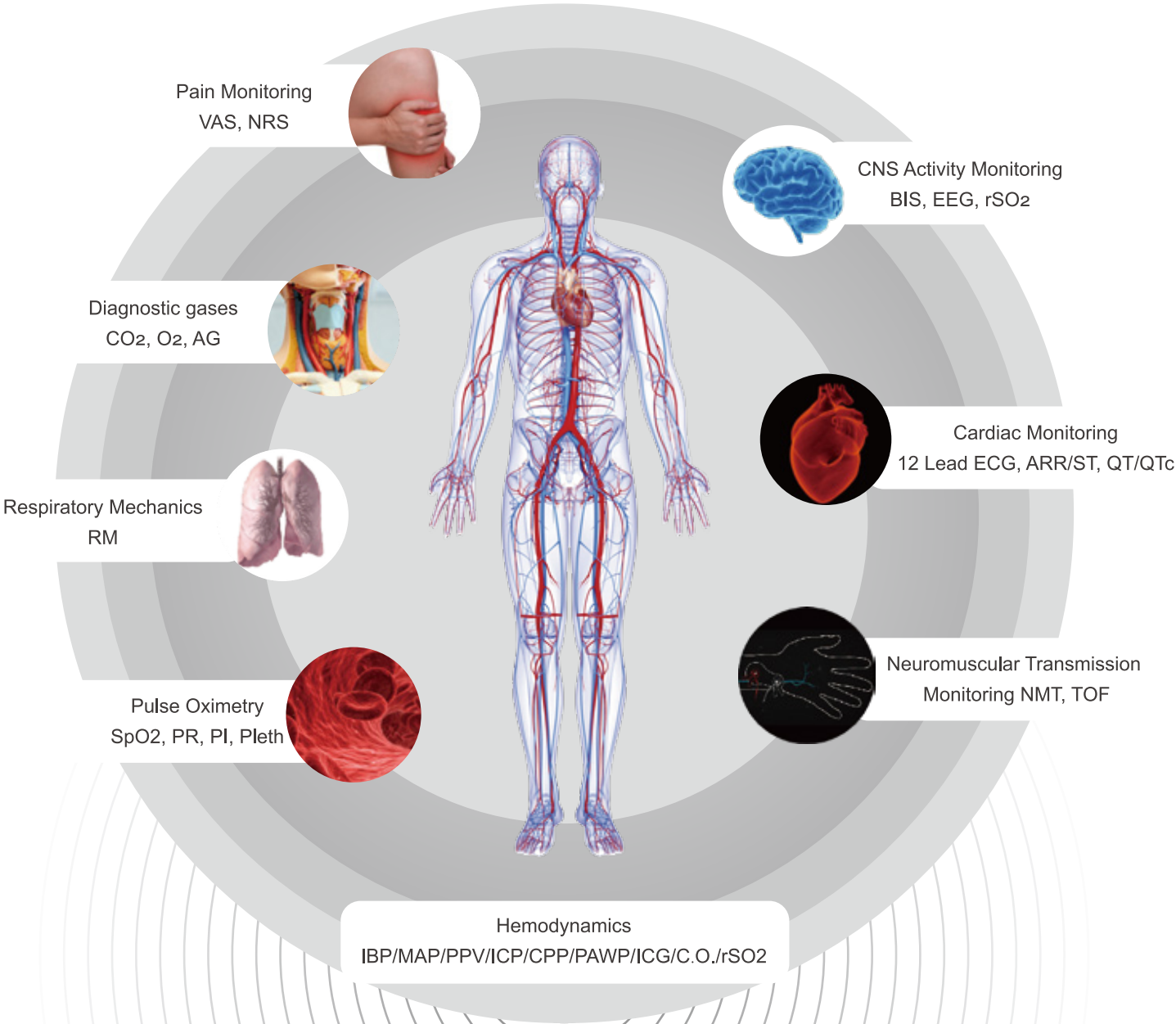


RM (Respiratory Mechanics)
Helps to understand the ventilator/anesthesia machine operation and patient's respiratory function.



C.O. (Cardiac Output)
A gold standard to monitor the critically ill patient to ensure tissue oxygenation.

Monitoring Parameters of All Vital Organs



P1 Patient-first

Urgent care Mobile care Continuous care



Outdoor
Emergency

Ambulance

Operating
Room

Seamless Transport

Monitoring the patient at every point of care

From outdoor to intra-hospital transport

Just slide the P1 transport monitor into the patient monitor, the P series can implement the seamless transport from the outdoor, ambulance, operating room, ICU, to the recovery room.



Recovery
Room

ICU

Screen	5.5 inch touch screen
Weight	<0.9kg
Battery	8 hours continuous operation
Resolution	1280*720
Build-in module	CO2
Expanded module	Masimo, Nellcor SpO2
	Masimo Rainbow SET
	Suntech NIBP
	Sidestream/Mainstream CO2



Transfer Handle



Docking Station (DS)



EWS (Early Warning Score)

Provides NEWS, NEWS2, MEWS and more to help identify early signs of deterioration and quickly determine the degree of illness.



GCS (Glasgow Coma Scale)

Provides a practical method to access and display consciousness level in response to defined stimuli.



VAS (Visual analog scale) & NRS (Numeric rating scale)

Indicates and assesses the patient's resting and moving pain intensity in two ways.

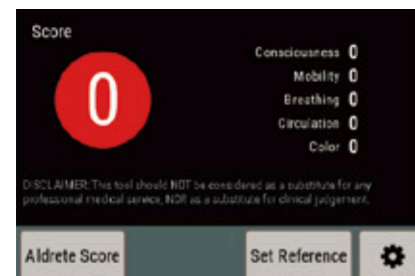
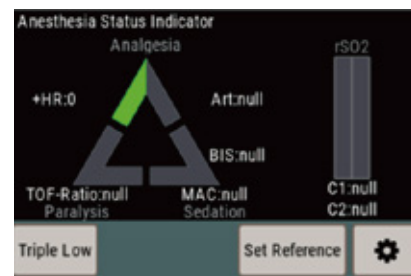
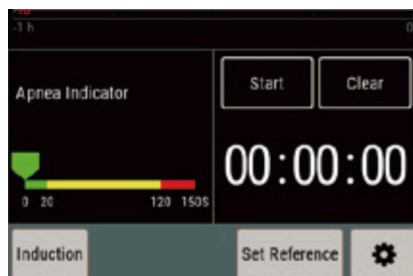


Sepsis View

Brand new sepsis view helps with screening and guiding the treatment of sepsis based on the latest SSC guidelines.

BoA (Balance of Anesthesia)

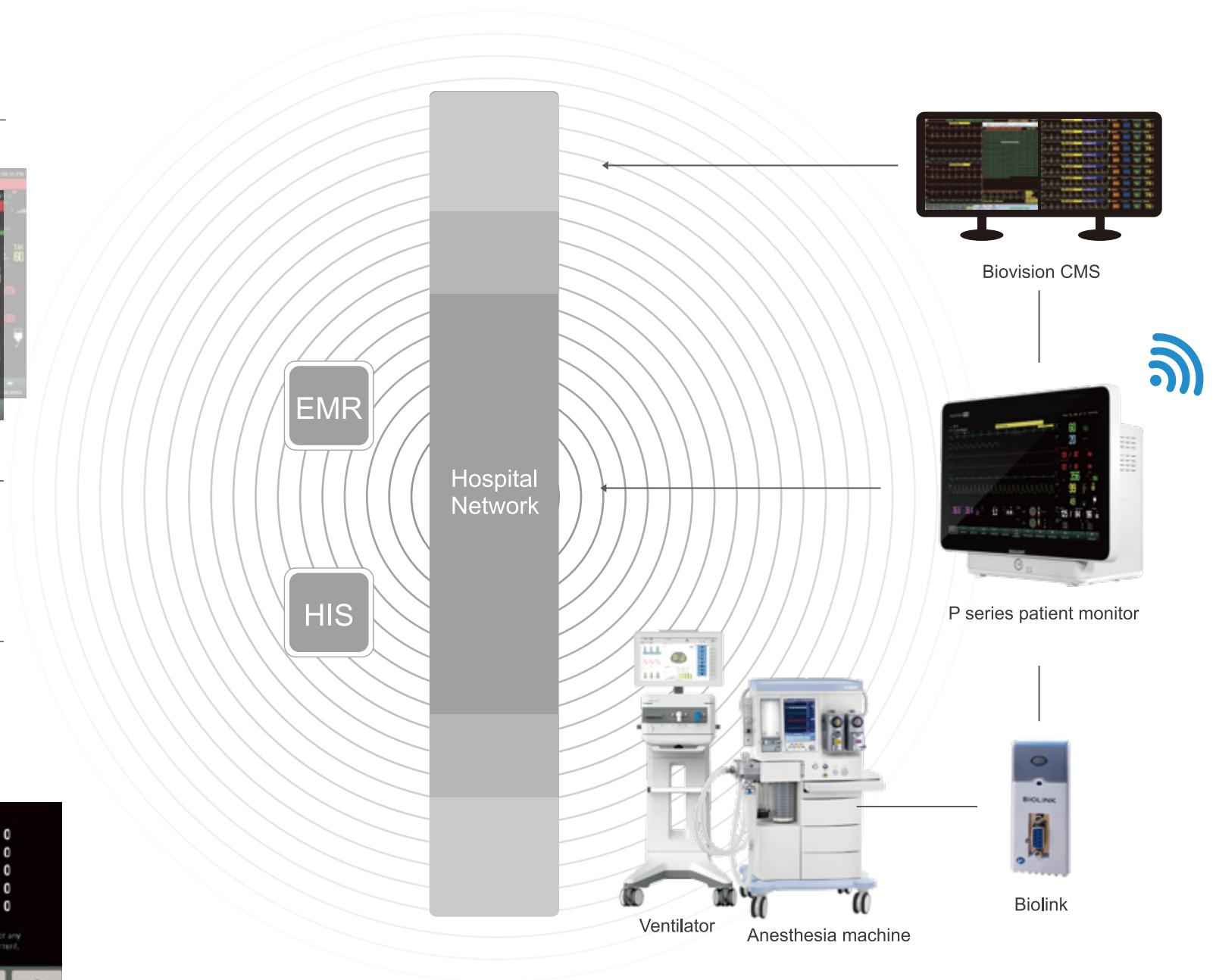
Focus on relevant parameters over the course of the surgery.



Advanced Seamless Network Connection

Anyview P series integrates the hospital network to achieve efficient management of patient data through high-end connection technology.

It connects with other bedside medical devices such as anesthesia machine through Biolink module. Along with the Biolight central station, the patient data and other bedside devices data are shared seamlessly to the hospital network, and support the clinician for the diagnosis.



Unique Drip Monitoring

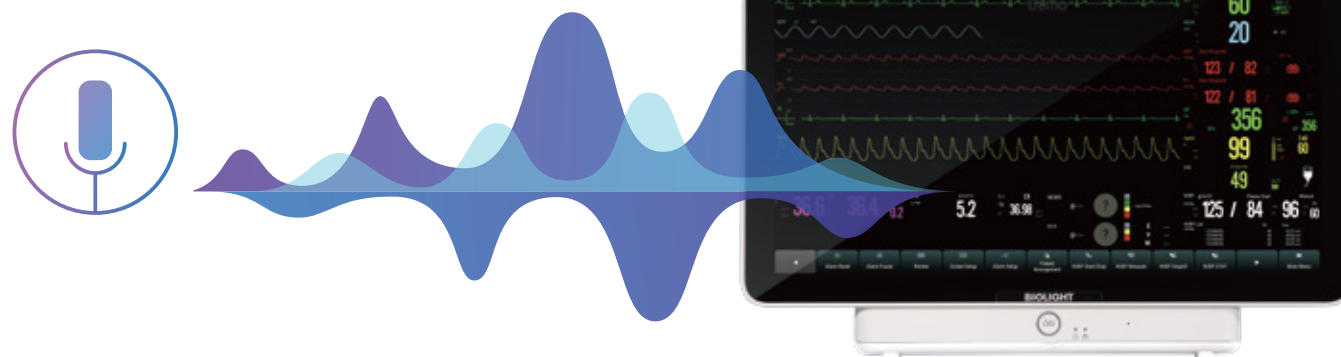
Make the intravenous infusion safer

The unique patient monitor with drip monitoring function, which can monitor the drip rate and clamp the infusion tube to stop infusion. It helps the healthcare workers to set the drip rate and gives a safer infusion to the patient.



Unique Voice Assistant

- It assists healthcare workers to command the device just with their voice.
- Reduces risk of cross contamination as it is easier to maintain aseptic technique.
- Reduces the time to operate the machine. Enabling quick diagnosis and quick treatment.



Overseas Sales Distribution



Since 2005, Biolight has built up a young and efficient international marketing team. With the long-term sales staff stationed across the world, visiting and serving customers, Biolight has formed a stable global distribution network. As a long-term partner of the world's leading medical institutions, Biolight's global sales have expanded to more than 150 countries and regions and have won wide recognition from medical institutions in the United States, the United Kingdom, France, Italy, and other countries and regions.

AnyView P18

Modular Patient Monitor



Size and Weight

Size	462×334×199mm
Weight	< 7kg
Modular slot	6

Power

According to IEC 60601-1 and IEC 60601-1-2

Input voltage	AC (100-240) V (±10%)
Frequency	50Hz/60Hz
Input power	2.0A-0.9A/200VA

Display

Type	Color TFT LCD
Size(diagonal)	18.5 inch
Resolution	1920×1080 pixels

External display

Type	DVI Display
Resolution	Above 1920×1080 pixels

Recorder

Type	BTR50S thermal dot array
Paper width	50 mm±1mm
Recording speed	12.5 mm/s, 25 mm/s, 50 mm/s
Recording waveform	Maximum 3 tracks

Connectors

Power	1 AC power inlet with cable retainer
Wired network (standard RJ45)	1
USB (standard USB 2.0 sockets)	4
DVI connector	1
Equipotential grounding point	1
Nurse call interface	1
Auxiliary Modules slots connector	1

Battery

Type	Rechargeable lithium ion battery, 11.1 VDC, 5000mAh
Charge time	≥3h
Operating time	less than 4 hours to 100% (Turn off) less than 6 hours to 100% (Turn on)

Environmental requirements

Operating temperature	0℃ to +40℃
Operating humidity	15% to 95%(non condensing)
Operating air pressure	54.0kPa to 107.4kPa
Storage temperature	-20℃ to +60℃
Storage humidity	10% to 95%(non condensing)
Storage air pressure	16.0kPa to 107.4kPa

ECG

Lead	3 lead: I, II, III 5 lead: I, II, III, aVR, aVL, aVF, Vx 6 lead: I, II, III, aVR, aVL, aVF, Va, Vb 12 lead: I, II, III, aVR, aVL, aVF, V1-V6 Auto: identify leads automatically
Indication of lead-off shall be provided	Every eletrodde
ECG abnormal work indications	Every amplification channel shall have an indication of abnormal ECG operation (polarization).
Bandwidth (-3dB)	Diagnostic mode: 0.05 Hz to 150 Hz Monitor mode: 0.5 Hz to 40 Hz Operation mode: 1 Hz to 25Hz ST mode: 0.05 Hz to 40Hz
Input impedance	≥5.0 MΩ
ECG signal range	± 10.0 mV
Electrode offset potential	± 500 Mv
System noise	≤ 30 μVpp (RTI)
Breakdown Voltage	4000V 50Hz/60Hz
Baseline recovery	baseline recovery time: 5s (after defibrillation).
Sweep speed	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s

ST segment

ST Display	12-lead ST segment values at the same time and support ST graphic display
Measurement range	-2.0 mV to +2.0 mV
Accuracy	-0.8 mV to +0.8 mV: ±0.02 mV or ±10%, (whichever is greater) Over ±0.8mV: unspecified
Resolution	0.01mV
ST update period	10s

Arrhythmia analysis

Kinds 27 Types (ASYSTOLE, BRADYCARDIA, TACHYCARDIA, EXTREME BRADYCARDIA, EXTREME TACHYCARDIA, VENTRICULAR BRADYCARDIA, VENTRICULAR TACHYCARDIA, NONSUSTAINED VENTRICULAR TACHYCARDIA, VENTRICULAR FIBRILLATION, ATRIAL FIBRILLATION, ATRIAL FIBRILLATION END, R ON T, VENTRICULAR RHYTHM, PNC, PNP, PAUSE, PVC, PAUSES/MIN HIGH, RUNNING PVCs, COUPLET, BIGEMINY, TRIGEMINY, FREQUENT PVCs, MISSED BEAT, ECG NOISE, IRREGULAR RHYTHM, IRREGULAR RHYTHM END)

Respiration

Source	RA-LA, RA-LL (default)
Measurement range	0 rpm to 150 rpm
Accuracy	±2 rpm or ±2% , whichever is the greater
Sweep speed	6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s
Delay of apnea alarm	10~60s, error ±3s or ±10%,
Bandwidth	0.2Hz ~ 2.5Hz (-3db ~ +0.4dB)
Baseline impedance	200 ~ 2500Ω
Measuring impedance	0.3Ω ~ 3Ω

HR

Measurement range	Heart: 10~300bpm Pediatric/Neonatal: 10~350bpm
Resolution	1 bpm
Accuracy	±1% or ±1 bpm, whichever is greater
Detection sensitivity	0.20mVp-p

QT analysis

Measurement range	QT: 200ms~700ms QTc: 200ms~700ms ΔQTc: -500ms~500ms QT-HR: Adult: 15bpm~150bpm Pediatric/neonatal:15bpm~180bpm
Resolution	QT, QTc, ΔQTc: 1ms QT-HR: 1bpm
Accuracy	QT: ±30ms

NIBP

Standard	IEC80601-2-30, ISO 81060-2		
Measurement parameters:	SYS, DIA, MAP, PR		
Measurement mode	Manual , Auto, STAT. Sequence		
STAT mode cycle time	5 min		
Systolic range	Adult	30 to 270 mmHg	
	Pediatric	30 to 235 mmHg	
	Neonatal	30 to 135 mmHg	
Diastolic range	Adult	10 to 220 mmHg	
	Pediatric	10 to 220 mmHg	
	Neonatal	10 to 100 mmHg	
Mean range	Adult	20 to 235 mmHg	
	Pediatric	20 to 235 mmHg	
	Neonatal	20 to 125 mmHg	
Cuff pressure range	0 to 300 mmHg		
Resolution	1 mmHg		
Pressure accuracy	Static: ±3 mmHg		
PR range	40 bpm to 240 bpm		
	Accuracy ±3bpm or ±3%		
Measurement time:	Neonatal: ≤90s (MAX)		
	Adult, Pediatric: ≤120s (MAX)		
First overpressure protection	Adult	(297±3) mmHg	
	Pediatric	(252±3) mmHg	
	Neonatal	(147±3) mmHg	

SunTech NIBP (option)

Way of measurement	Oscillometric.		
Measurement range	Adult	SYS	40~260 mmHg
		DIA	20~200 mmHg
		MAP	26~220 mmHg

Child	Pediatric	SYS	40~160 mmHg
		DIA	20~120 mmHg
		MAP	26~133 mmHg
Neonate	Neonatal	SYS	40~130 mmHg
		DIA	20~100 mmHg
		MAP	26~110mmHg
Pressure Accuracy	± 3 mmHg (± 0.4 kPa) or 2 % of the reading		
Pulse rate range	30 ~ 220 bpm		
Pulse Rate Accuracy	2% or 3 bpm, whichever is greater		
Overpressure Protect (Hardware & software)	Adult	<300 mmHg	
	Child	<300 mmHg	
	Neonatal	<150 mmHg	

BLT SpO2

Measurement range	0% ~ 100%
Resolution	1%
Accuracy	70% ~ 100% ≤3%
	0% ~ 69% unspecified

PR

Measurement range	25 bpm to 254 bpm
Resolution	1 bpm
Accuracy	±1% or ±1 bpm, whichever is the greater

PI

Measurement range	At least 0.05 ~ 20.00%
Resolution	0.01%
Accuracy	±0.1% or ±10% of reading, whichever is the greater

RESP (from pleth)

Measurement range	0 rpm ~ 90rpm
Resolution	1 rpm
Accuracy	±2 rpm

Nellcor SpO2 (option)

Measurement range	0% to 100%
Resolution	1%
Accuracy	70% to 100%: ±2%(adult/pediatric)
	70% to 100%: ±3%(neonate)
	0% to 69%, unspecified

PR

Measurement range	20 bpm to 300 bpm
Accuracy	20 bpm to 250 bpm: ±3 bpm
	251 bpm to 300 bpm: unspecified
Resolution	1 bpm

PI

Measurement range	At least 0.05 ~ 20.00%
Resolution	0.01%
Accuracy	±0.1% or ±10% of reading, whichever is the greater

Masimo SpO2 (option)

Measurement range	0% to 100%
Resolution	1%
Accuracy	70% to 100% ±2% (adult/pediatric, non-motion)
	70% to 100% ±3% (neonate, non-motion)
	70% to 100% ±3%(motion conditions)
	0% to 69% unspecified

PR

Measurement range	25 bpm to 240 bpm
Accuracy	±3 bpm(non-motion conditions)
	±5 bpm(motion conditions)
Resolution	1 bpm

SpCO		Warm up time	ġ 20s
Measurement range	0% to 100%	Total system response Time: Mainstream: ġ 1s, Sidestream: ġ 4s	
Accuracy	0% to 40%: ±3%(non-motion conditions) > 40%, unspecified	Sampling rate of sidestream anesthesia gas:	50mL/min±10mL/min
SpMet		Measurement range and accuracy of gas	
Measurement range	0% to 100%	Gas	Range (%) Accuracy
Accuracy	0% to 15% ±1%(non-motion conditions) > 15% unspecified	CO2	0 to 15% ± (0.2% + 2% of reading)
PI		N2O	0 to 100% ± (2% + 2% of reading)
Measurement range	0.05% to 20%	ISO, ENF, HAL	0 to 8% ± (0.15% + 5% of reading)
SpHb		SEV	0 to 10% ± (0.15% + 5% of reading)
Measurement range	0 g/dl to 25 g/dl	DES	0 to 22% ± (0.15% + 5% of reading)
Accuracy	8g/dl to 17g/dl: ±1g/dl (non-motion conditions) < 8 g/dl or > 17 g/dl, unspecified	awRR range	0 rpm to 150 rpm
IBP (option)		awRR accuracy	±1 rpm
Standard	EN 60601-2-34 / IEC 60601-2-34	ICG (option)	
Nominal sensitivity	5uV/V/ mmHg	Measurement way	Thoracic electrical bioimpedance
Output impedance	300Ω to 3000Ω	Parameters	C.O., C.I., SV, SI, SVR, SVRI, TFI, TFC, HR
Static measurement range	-50 mmHg to +360 mmHg	Measurement range	HR: 44 bpm to 185 bpm SV: 5.0 mL to 250.0 mL C.O. : 1.4 L/min to 15.0 L/min
Static measurement accuracy	±0.3kPa (±2mmHg) or ±2% whichever is the greater (without sensor)	Resolution	HR: ±10% SV: ±15% C.O. : ±15%
Dynamic measurement range	-50 mmHg to +360mmHg	Alarm range	C.I.:1.4 L/min/m2 to 15.0 L/min/m2, alarm error is±0.1L/min/m2 TFC: 19 /kΩ to 125 /kΩ, alarm error is ±1/kΩ.
Dynamic measurement accuracy	±0.3kPa (±2mmHg) or ±2% whichever is the greater (without sensor)	RM (option)	
Resolution	1 mmHg	Measure method	Flow sensor
Unit	mmHg, kPa, cmH2O	PAW	
Frequency Response	0 Hz to 10 Hz	Range	-20 to 100 cmH2O
PPV		Accuracy	±1 cmH2O or ±3% of reading, whichever is greater
Measurement range	0% ~ 50%	Resolution	0.1 cmH2O
Resolution	1%	TVe/TVi	
PR		Range	Adult/Pediatric: 150ml to 1600ml Neonate: 15 ml to 300 ml
Measurement range	30bpm ~ 300bpm	Accuracy	Adult/Pediatric: ±10% or ±30ml, whichever is greater Neonate: ±10% or ±6 ml, whichever is greater
Resolution	1bpm	Resolution	1 ml
Resolution	±1% or ±1bpm, whichever is greater	MVe/MVi	
CO2(Option)		Range	Adult/Pediatric: 2.00 L/min to 20.00 L/min Neonate: 0.50 L/min to 5.00 L/min
Standard	ISO 80601-2-55	Resolution	0.01 L/min
Measurement parameter:	EtCO2 FiCO2a CO2waveform and awRR	RR	
Measurement method	Mainstream, Sidestream/Microflow	Range	Adult/Pediatric: 4 bpm to 35 bpm Neonate: 4 bpm to 50 bpm
Unit	mmHg, Kpa and %	Resolution	1 bpm
EtCO2/FiCO2range	0% ~ 19.7% (0mmHg ~ 150mmHH	EEG (Option)	
Accuracy	±0.3% or ±8% of reading	Standard	IEC 60601-2-26
Resolution	0.1% or 1mmHg	Sampling frequency	250 dots/s/ channel
awRR range	0 ~ 150 bpm	Signal input Range	≥-2mV ~ +2mV
Accuracy	±1 bpm	Polarization resistance voltage	±320mV
Resolution	1 bpm	Input impedance	≥15MΩ@10Hz , can expand to0.25~110Hz
awRR alarm range	0 ~ 150 bpm, high/low limit can be adjusted continuously	Frequency range	0.5~30Hz(default)
Sampling frequency and accuracy of gas (only sidestream):		Noise level	≤3.0uVp-p(0.5~30Hz)
C1	50 ml/min ~ 200ml/min, ±10%, can be adjusted.	CMRR	>89dB (turn off the power frequency filter) >100dB (turn off the power frequency filter)
Other sidestream CO2	50 mL/min±10mL/min	Measurement range	SEF: 0.5 Hz -30.0 Hz, MDF: 0.5 Hz -30.0 Hz PPF: 0.5 Hz -30.0 Hz, TP: 0.0 Hz -100.0 dB Delta: 0.0%-100.0%, Theta: 0.0%-100.0% Alpha: 0.0%-100.0%, Beta: 0.0%-100.0%
Response time	SidestreamCO2 ġ 3s MainstreamCO2 ġ 1s		
AG (option)			
Standard	ISO 80601-2-55		
Measurement mode	Mainstream, Sidestream		
Parameters	Resoiratory end gas fraction (Et), inhaled gas fraction (Fi), airway respiration rate (awRR) of Halothane (Hal), Enflurane (Enf), Isoflurane (Iso), Sevoflurane (Sev), Desflurane (Des), CO2 N2O, O2(only be applicable for ISA OR+ module)		
Resolution	Hal, Enf, Iso, Sev, Des, CO2 0.1% N2O, O2 1%		

BIS (option)

Measurement Index	Bispectral index (BIS), myoelectric activity (EMG), signal quality index (SQI), suppression ratio (SR), break count (BC), total power (TP), spectral edge frequency (SEF)
Wave shape	Electroencephalo-graph waveform (EEG)

Parameter measurement range

BIS range	0~100
SQI / SR range	0%~100%
SEF range	0.5~30Hz
TP range	40~100dB

EEG measurement specifications

Duration	error $\leq \pm 5\%$
CMRR	> 100dB
Noise(RTI)	< 2 μ v (0.25~50Hz)

Amplitude frequency characteristics: 6Hz~30Hz (-3dBj +0.4dB) when turn on the filter; at least 0.5Hz~70Hz (-3dBj +0.4dB) when turn off the filter

Polarization resistance voltage: plus ± 300 mV d.c. bias voltage, EEG waveform amplitude deviation is within $\pm 5\%$.

NMT (option)

Stimulation Modes	TOFaDBaPTCaSMC, Auto, TWI and TET
Current Range	0mA~80mA, error: $\pm 5\%$ or ± 2 mA, whichever is greater
Maximum Stimulation Voltage	≤ 400 V
Stimulus	Monophasic square wave, pulse width was 0.2ms and error is $\pm 5\%$
Stimulating Frequency	1Hz, 2Hz, 5Hz, 50Hz, 100Hz, error $\pm 5\%$
Max Load Impedance	5 k Ω , max peak output stimulus current 70mA 4 k Ω , max peak output stimulus current 80mA

Masimo O3(option)

Measurement Range	0%-99%
Calibration Range	45%-85%
Calibration Standard	Invasive Co-oximeter
Accuracy	$\leq 3\%$ (RMS, trend) Adult: $\leq 4\%$; Pediatric: $\leq 5\%$
Stimulating Frequency	1Hz, 2Hz, 5Hz, 50Hz, 100Hz, error $\pm 5\%$
Max Load Impedance	5 k Ω , max peak output stimulus current 70mA 4 k Ω , max peak output stimulus current 80mA
Accuracy	1%

SpO2

Measurement range	0%-99%
Resolution	1%

Percentage of rSO2 deviation baseline (rIBL)

Measurement range	-100%-890%
Resolution	1%

Area under the curve (AUC)

Measurement range	0min~9999min·%
Resolution	1min·%

Option Module:

2-IBP module, 2-Temp module, Nellcor SpO2 module, **Masimo Rainbow Module**, Masimo SpO2 Module, RM module, Sidestream CO2 module, MicroFlow CO2 module, Mainstream CO2 module, Mainstream / Sidestream AG module, Suntech NIBP module, ICG module, EEG module, BIS module, NMT module, RsO2 module, DM module, Voice assistant module, BIOLINK module

Other option:

Thermal Printer, Rolling stand, Wall mount, External Display, Wireless Lan (Wifi), Analog Output (ECG or IBP), Auxiliary module slots, Dock station 1, Transport handle

Temperature

Standard	ISO 80601-2-56
Parameter	T1, T2, TD
Probe	YSI400 series probe
Measurement site	Surface and coelom
Measurement range	0.0°C to 50.0°C (32°F to 122°F)
Accuracy	$\pm 0.1^\circ\text{C}$ or $\pm 1^\circ\text{F}$ (exclusive of probe)
Resolution	0.1°C or 1°F
Unit	°C or °F
Minimum accurate measuring time	Surface <100s; Coelom <80s.

DM (option)

Liquid stop function:	Alarm and stop liquid when drip rate is abnormal Alarm and stop liquid when infusion is completed When the module is powered off, the liquid stop clip is opened without affecting the infusion. Drops/min, mL/h
Measurement range	5 Drops/min~200 Drops/min
Unit	(1mL of conventional tube =20 drops)
Drip accuracy	± 2 Drops/min and $\pm 2\%$, whichever is greater
Resolution	1 Drops/min

Data storage

Trend data	Long trend: 1800h minimum resolution is 10 min Medium trend: 180h, minimum resolution is 1 min Short trend: 6h, minimum resolution is 5 second
Parameter alarm event	At least 3000 parameter alarm events and associated parameter waveform at the moment
ARR events	3000 ARR events
NIBP result	At least 2400 groups.
Holographic waveform	At least 72 hours



*Specifications subject to change without prior notice.

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