

BeneView T1

Mobile monitoring solution

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BeneView T1

Patient Monitor



Mobile assistant between points of care

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Mobility on Your Terms



SMART

Patient-centric. BeneView T1 has been designed to follow the patient throughout the points of care. When at the bedside, it functions as a multi-parameter module inside the BeneView main unit. For patient transport, BeneView T1 can be quickly removed and is able to operate as an independent patient monitor.

Easy to use. The BeneView T1 transport module is based on the BeneView Patient Monitor platform. With its intuitive user interface and ergonomic design, T1 is simple to learn and easy to use.

Flexible. T1 is compatible with all BeneView Patient Monitors and operates through simple plug and play technology.

Its automatic brightness control function ensures optimum data visibility under a variety of lighting conditions.



POWERFUL

High performance monitoring. BeneView T1 is suitable for patients at all levels of acuity. T1 offers a wide range of monitoring parameters including ECG, NIBP, Temperature, SpO₂, IBP and EtCO₂. It can also support 12-lead ECG, C.O and PiCCO.

The fully configurable 5" screen can display up to 12 waveforms, allowing for comprehensive patient assessment during transport.

Powerful data management. T1 records up to 48 hours of Full Disclosure waveforms and data. Caregivers can retrieve and display up to 120 hours of graphic and tabular trends* in addition to 1,000 NIBP measurements.

Personalized user configurations can be conveniently saved on a USB memory device and uploaded to different BeneView T1 monitor.

* At 1 minute intervals

Powerful transport module and versatile monitor

COMPACT

Easy to carry. At less than 1Kg weight*, the compact T1 is exceptionally portable.

The built-in Li-ion battery supports up to 5 hours of continuous monitoring. The battery can be recharged through the BeneView main unit, an AC adapter or a battery charger. Patient monitoring will not be disrupted during battery change.

One hand operation. BeneView T1 fits perfectly into one hand, leaving the other hand to operate its functional touch screen.

Versatile mounting solutions. A variety of mounting solutions offer enhanced mobility. T1 features an ergonomic carrying handle and can easily be mounted on a bed-rail or a pole stand.

*including Li-ion battery.

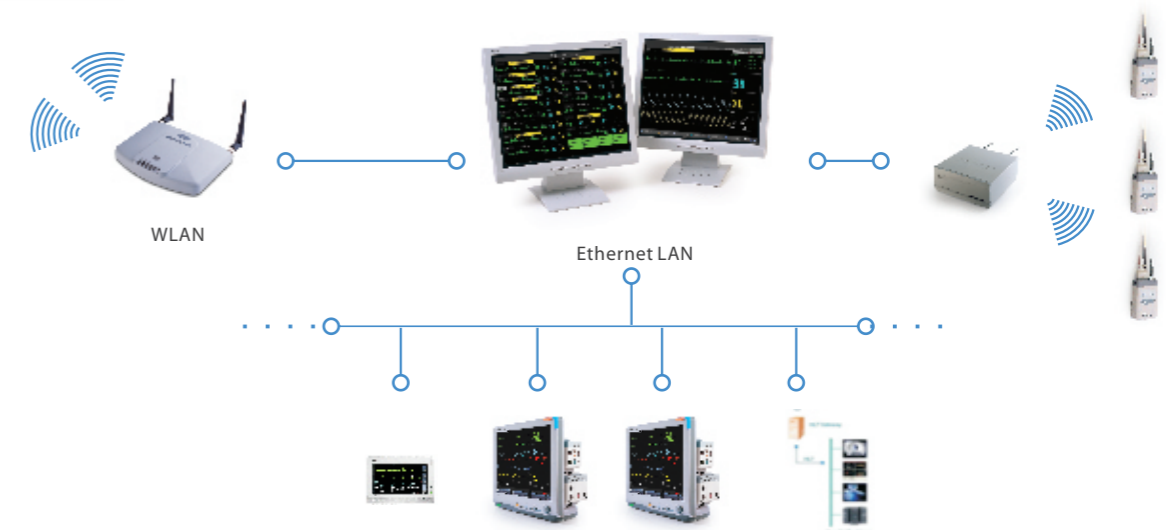


SEAMLESS DATA TRANSFER

Advanced networking. BeneView T1 guarantees continuity of patient data, even during transport. When removed from the BeneView monitor, the T1 automatically connects to the Hypervisor V1 central monitoring station via integrated WiFi.

BeneView's 'view other bed' function allows real-time patient information to be retrieved from the T1.

Intelligent data-synch. All data collected during patient transport will automatically be uploaded to the central monitoring system when the T1 is returned to the BeneView patient monitor.



	After 10 min, enter the full accuracy mode	
awRR range	0 to 120 rpm	
awRR precision	±2 rpm	
Response time		
When using neonatal water trap and 2.5m neonatal sampling line:	<4.3s@100 ml/min	
	<4.9 s @70 ml/min	
When using adult water trap and 2.5m adult sampling line:	<4.7 s @150 ml/min	
	<5.3 s @120 ml/min	
	<5.8 s @100 ml/min	
	<6.9 s @ 70 ml/min	
Apnea time	10s, 15s,20s,25s,30s,35s,40s	
Microstream CO₂		
EtCO ₂ Range	0 to 99 mmHg	
Accuracy	0 to 38 mmHg: ±2 mmHg	
	39 to 99 mmHg: ±5% of reading + 0.08% for every 1 mmHg(above 38 mmHg)	
Sample flowrate	50 +15 ml/min	
	-7.5 ml/min	
Initialization time	30 s (typical)	
awRR range:	0 to 150 rpm	
awRR precision	0 to 70 rpm: ±1 rpm	
	71 to 120 rpm: ±2rpm	
	121 to 150 rpm: ±3 rpm	
Response time	2.9 s(typical)	
Apnea time	10s,15s,20s, 25s, 30s, 35s, 40s	
Mainstream CO₂		
CO ₂ Range	0 to 150 mmHg	
Accuracy	0 to 40 mmHg: ±2 mmHg	
	41 to 70mmHg: ±5% of the reading	
	71 to 100mmHg: ±8% of the reading	
	101 to 150mmHg: ±10% of the reading	
awRR range	0 to150 rpm	
Accuracy	1 rpm	
Response time	<60 ms	
PICCO		
	Measurement range	Coefficient of variation
CCO	0.25 l/min to 25.0 l/min	≤2%
C.O.	0.25 l/min to 25.0 l/min	≤2%
GEDV	40 ml to 4800 ml	≤3%
SV	1 ml to 250 ml	≤2%
EVLW	10ml to 5000 ml	≤6%
ITBV	50ml to 6000 ml	≤3%

BeneView T1

Patient Monitor



Technical Specifications

Technical Specifications

Safety	IEC 60601-1 approved, CE marking according to MDD 93/42/EEC(amended by 2007/47/EC) Degree of protection against harmful ingress of water: IPX 1
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Physical specifications

Dimension:	142mmx102mmx81mm/ 5.6"x4.0"x3.2"inch
Weight:	≤1000 g (standard parameters, including battery)

Operation Environment

Ambient temperature	Operating: 0 °C to 40 °C/32 to 104 °F Storage: -30°C to 70°C /-74 to 158 °F
Relative Humidity	Operating:15% to 95% (non condensing) Storage: 10% to 95% (non condensing)
Power requirements	100 to 240 VAC, 0.6 to 0.4 A, 50/60Hz (adapter)12VDC 2A 100 to 240 VAC, 0.65 to 0.35 A, 50/60Hz (docking station)

Display

Size	5"(host display), 19"(external display)
Type	Color LCD touch screen
Resolution	480*272(host display), 800*600(external display)
Number of traces	4(host display), 8(external display), MAX13

Battery

Number of battery:	1
Battery type:	Exchangeable Li-ion battery 7.4VDC, 2500mAh
Run Time:	5 hours

Connectors

WLAN(main unit):	Yes(Optional)
DC-in(main unit):	Standard
Analog out(main unit):	Standard
USB(docking station):	2 USB 2.0connectors
LAN(docking station):	RJ45(Standard)
VGA(docking station):	Optional

Alarm

Categories:	3 levels high, medium, low
Alarm lamp:	1, yellow & red, compliance with ICE-60601-1-8
Alarm sound:	45 to 85db, compliance with IEC60601-1-8
Alarm Volume:	0 to 10
Pause:	1,2,3,5 10 or 15 minutes/permanent

Storage

Trend data:	120h @ 1min, 4h @ 5s, 1h @ 1s
Alarm events:	100
Arr events:	100
NIBP measurements:	1000
12-lead analysis results:	20 groups
Full disclosure wave:	Max: 48 hours

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mindray

ECG	
Standard	EC11, EC13, IEC 60601-2-27, IEC 60601-2-25
Algorithm	Mindray or Mortara optional
Lead type	3-lead, 5-lead, 12-lead
Gain	x0.125, x0.25, x0.5, x1, x2, x4, Auto
Sweep speed	6.25, 12.5, 25, 50 mm/s
Filter	Diagnostic mode: 0.05 to 150 Hz ST mode: 0.05 to 40 Hz Monitoring mode: 0.5 to 40 Hz Surgery mode: 1 to 20 Hz
Notch	50 Hz, 60 Hz
HR Range	Neonate: 15 to 350 bpm Pediatric: 15 to 350 bpm Adult: 15 to 300 bpm
Resolution	1 bpm
Accuracy	±1 bpm or ±1%, whichever is greater
ST segment range	-2.0 to 2.0 mV
Arrhythmia analysis	Yes (Mindray or Mortara algorithm)
Pace rejection	Amplitude: ±2mV to ±700mV Width: 0.1ms to 2ms Rise time: 10µs to 100µs
12-lead ECG analysis	Optional
Pace detection	Yes
RESP	
Method	Trans-thoracic impedance
RR Range	Adult: 0-120 rpm Ped/Neo: 0-150 rpm
Accuracy	7~150 rpm: ±2rpm or ±2% whichever is greater 0~6 rpm: Unspecified
Apnea alarm delay:	10s, 15s, 20s, 25s, 30 s, 35s, 40 s
Bandwidth	0.2 to 2.5 Hz (-3dB)
Sweep Speed	3mm/s, 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s
SpO₂	
SpO ₂ range	Mindray SpO ₂ : 0 to 100% Masimo SpO ₂ : 1 to 100% Nellcor SpO ₂ : 0 to 100%
Resolution	1%
Mindray accuracy	±2% (70-100%, Adu/Ped, non-motion) ±3% (70-100%, Neo, non-motion) ±3% (70-100%, motion) Unspecified (0-69%)
Masimo Accuracy	±2% (70-100%, Adu/Ped, non-motion) ±3% (70-100%, Neo, non-motion) ±3% (70-100%, motion) Unspecified (1-69%)
Nellcor Accuracy	±2% (70-100%, Adu/Ped) ±3% (70-100%, Neo) Unspecified (0-69%)
Refreshing rate:	1 s
Pulse rate	
Range	Mindray SpO ₂ : 20 to 254 bpm Masimo SpO ₂ : 25 to 240 bpm Nellcor SpO ₂ : 20 to 300 bpm

	IBP module: 25 to 350 bpm
	NIBP Module: 40-240 bpm
Accuracy	Mindray SpO₂: ±3 bpm (non-motion) ±5 bpm (motion) Masimo SpO₂: ±3 bpm (non-motion) ±5 bpm (motion) Nellcor SpO₂: ±3 bpm (20-250bpm) Unspecified (251-300 bpm)
	IBP Module: ±1bpm or ±1%, whichever is greater
	NIBP Module: ±3 bpm or ±3% whichever is greater
Resolution	1 bpm
Refreshing rate	1 s
NIBP	
Method	Automatic Oscillometric
Operation Mode	Manual, Auto, STAT
Parameters	Systolic, Diastolic, Mean
Systolic Range	Adu: 40-270mmHg Ped: 40-200mmHg Neo: 40-135mmHg
Diastolic Range	Adu: 10-210mmHg Ped: 10-150mmHg Neo: 10-100mmHg
Mean Range	Adu: 20-230mmHg Ped: 20-165mmHg Neo: 20-110mmHg
Accuracy	Max Mean error: ±5mmHg Max Standard deviation: 8mmHg Resolution: 1 mmHg
Temperature	
Range	0 to 50 °C (32 to 122 °F)
Resolution	0.1 °C
Accuracy	±0.1 °C or ±0.2 °F (without probe)
Parameters	T1, T2 and TD
IBP	
Channel	2-ch
Range	-50-300mmHg
Resolution	1mmHg
Accuracy	±2% or ±1mmHg, whichever is greater (Without sensor)
Sensitivity	5uV/mmHg/v
Impedance range	300 to 3000 Ω
Sidestream CO₂	
EtCO ₂ Range	0 to 99 mmHg
Accuracy	0 to 40 mmHg: ±2 mmHg 41 to 76 mmHg: ±5% of the reading 77 to 99 mmHg: ±10% of the reading
Sample flow rate	Adult: 70, 100, 120, 150ml/min; Pediatric/neonate: 70, 100ml/min
Accuracy	±15% or ±15ml/min, whichever is greater.
Warm-up time	<45 seconds, enter the iso accuracy mode