

# Beneview™ T5/T6/T8 Patient Monitor

## Physical Dimensions

### BeneView T8

Monitor size: 400mm x 370mm x 193mm  
14.6" x 15.7" x 7.6"  
Weight: Less than 14.5kg (31.9lbs) including 17" touchscreen, MPM, AG module, two lithium batteries, a recorder

BeneView T6  
Monitor size: 400mm x 370mm x 193mm  
14.6" x 15.7" x 7.6"

Weight: Less than 9.8kg (21.6lbs) including 15" touchscreen, MPM  
BeneView T5  
Monitor size: 297mm x 336mm x 186mm  
11.7" x 13.2" x 7.3"

Weight: Less than 6.6kg (15.8lbs) including 12.1" touchscreen

## Display

Type: BeneView T8: 17" color TFT  
BeneView T6: 15" color TFT  
BeneView T5: 12.1" color TFT  
Resolution: BeneView T8/T6: 1280 x 1024 pixels  
BeneView T5: 800 x 600 pixels  
Waveforms: BeneView T8/T6: up to 12  
BeneView T5: up to 8  
External display: 1 display through DVI\_D connector  
2 displays through RDD

## ECG

Leads: 3-lead: I, II, III  
5-lead: I, II, III, aVR, aVL, aVF, V  
12-lead: I, II, III, aVR, aVL, aVF, V1 to V6  
Gain: x0.125, x0.25, x0.5, x1, x2, x4, Auto  
Sweep speed: 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s  
Bandwidth: Diagnostic Mode: 0.05-150Hz  
Monitor Mode: 0.5-40Hz  
Surgical Mode: 1-20Hz  
Defib.protection: Withstand 5000V (360J) defibrillation  
Recovery time: ≤10 s  
CMRR: Diagnostic Mode: ≥90dB  
Monitor Mode: ≥105dB  
Surgical Mode: ≥105dB (Notch filter set to off)  
ST analysis: -2.0 to 2.0 mV  
Arr analysis: Yes

## Heart Rate

Range: Adu: 15 to 300 bpm  
Ped: 15 to 350 bpm  
Neo: 15 to 350 bpm  
Resolution: 1 bpm  
Accuracy: ±1 bpm or ±1%, whichever is greater

## Respiration

Range: Adu: 0 to 120 rpm  
Ped/Neo: 0 to 150 rpm  
Resolution: 1 rpm  
Accuracy: 7 to 150 rpm: ±2 rpm or ±2%, whichever is greater  
0 to 6 rpm: Not specified  
Lead: I or II (default: lead II)  
Sweep speed: 6.25 mm/s, 12.5 mm/s or 25 mm/s

## SpO<sub>2</sub>

Range: 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 (0-69%)  
Nellcor accuracy: Actual accuracy depends on probe.  
Refer to the operator's manual.  
Refreshing rate: 1 s

## Pulse rate

Range: Mindray SpO<sub>2</sub>: 20 to 254 bpm  
Masimo SpO<sub>2</sub>: 25 to 240 bpm  
Nellcor SpO<sub>2</sub>: 20 to 300 bpm  
IBP Module: 25 to 350 bpm  
NIBP Module: 40 to 240 bpm  
Accuracy: Mindray SpO<sub>2</sub>: ±3 bpm (non-motion)  
±5 bpm (motion)  
Masimo SpO<sub>2</sub>: ±3 bpm (non-motion)  
±5 bpm (motion)  
Nellcor SpO<sub>2</sub>: ±3 bpm (20-250 bpm)



Unspecified (251-300 bpm)  
IBP Module: ±1bpm or ±1%, whichever is greater  
NIBP Module: ±3bpm 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 to 270 mmHg  
Ped: 40 to 200 mmHg  
Neo: 40 to 135 mmHg  
Diastolic range: Adu: 10 to 210 mmHg  
Ped: 10 to 150 mmHg  
Neo: 10 to 100 mmHg  
Mean range: Adu: 20 to 230 mmHg  
Ped: 20 to 165 mmHg  
Neo: 20 to 110 mmHg  
Accuracy: Max mean error: ±5 mmHg  
Max standard deviation: 8 mmHg  
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 ΔT

## IBP

Channel: up to 8 channels  
Range: -50 to 300 mmHg  
Resolution: 1 mmHg  
Accuracy: ±2% or ±1 mmHg, whichever is greater (without sensor)  
Sensitivity: 5 uV/mmHg/V  
Impedance range: 300 to 3000 Ω

## C.O.

Method: Thermodilution  
Range: C.O.: 0 to 30 L/min  
TB: 23 to 43 °C  
TI: 0 to 27 °C  
Accuracy: C.O.: ±5% or ±0.1 L/min, whichever is greater  
TB, TI: ±0.1 °C (without sensor)  
Resolution: C.O.: 0.1 L/min  
TB, TI: 0.1 °C

## Sidestream CO<sub>2</sub>

CO<sub>2</sub> 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 flowrate: 70, 100 ml/min  
Accuracy: ±15% or ±15 ml/min, whichever is greater.  
Warm-up time: <1 min, enter the ISO accuracy mode  
After 1 min, enters the full accuracy mode  
awRR range: 0 to 120 rpm  
awRR precision: 0 to 70 rpm: ±2 rpm  
71 to 120 rpm: ±5 rpm  
Response time: When using neonatal watertrap and 2.5 m neonatal sampling line  
<3.5 s @ 100 ml/min  
<4 s @ 70 ml/min

When using adult watertrap and 2.5 m adult sampling line  
 <5.5 s @ 100 ml/min  
 <7 s @ 70 ml/min  
 Apnea time 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s

#### Microstream CO<sub>2</sub>

CO<sub>2</sub> Range 0 to 99 mmHg  
 Accuracy 0 to 38 mmHg: ±2 mmHg  
 39 to 99 mmHg: ±5% of the reading+0.08% of (the reading-38)  
 Sample flow rate 50<sup>+15</sup>/<sub>-7.5</sub> 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: ±2 rpm  
 121 to 150 rpm: ±3 rpm  
 Response time 2.9 s (typical)  
 Apnea time 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s

#### Mainstream CO<sub>2</sub>

CO<sub>2</sub> Range 0 to 150 mmHg  
 Accuracy 0 to 40 mmHg: ±2 mmHg  
 41 to 70 mmHg: ±5% of the reading  
 71 to 100 mmHg: ±8% of the reading  
 101 to 150 mmHg: ±10% of the reading  
 awRR range 0 to 150 rpm  
 Accuracy 1 rpm  
 Response time <60 ms

#### Multi-gas/O<sub>2</sub>

Method Infrared absorption  
 Gas: CO<sub>2</sub>, O<sub>2</sub>, N<sub>2</sub>O, Des, Iso, Enf, Hal, Sev  
 Warm-up time ISO accuracy mode: 45 s  
 Full accuracy mode: 10 min  
 Sample flow rate Adu/Ped: 120, 150, 200 ml/min  
 Neo: 70, 90, 120 ml/min  
 Accuracy ±10 ml/min or ±10%, whichever is greater  
 Range CO<sub>2</sub>: 0 to 30%  
 O<sub>2</sub>/N<sub>2</sub>O: 0 to 100%  
 Hal/Iso/Enf: 0 to 30%  
 Des: 0 to 30%  
 Sev: 0 to 30%  
 awRR range 2 to 100 rpm  
 awRR accuracy 2 to 60 rpm: ±1 rpm  
 >60 rpm: unspecified  
 Apnea time 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s

#### ICG

Technique Thoracic electrical bioimpedance (TEB)  
 Range SV: 5 to 250 ml/beat  
 HR: 44 to 185 bpm  
 C.O.: 1.4 to 15 L/min  
 Accuracy SV: Not specified  
 HR: ±2 bpm  
 C.O. : Not specified

#### BISx/BISx4

Technique: Bispectral index  
 BIS range 0 to 100  
 SQI range 0% to 100%  
 Impedance range 0 to 999 kΩ  
 EEG bandwidth 0.25 to 100 Hz

#### RM

Flow range Adu/Ped: ± (2 to 120) L/min  
 Inf: ± (0.5 to 30) L/min

Flow accuracy Adu/Ped: 1.2 L/min or ±10% of the reading, whichever is greater  
 Inf: 0.5 L/min or ±10% of the reading, whichever is greater  
 Resolution 0.1 L/min  
 Paw range -20 to 120 cmH<sub>2</sub>O  
 Paw accuracy ±3%  
 Resolution 0.1 cmH<sub>2</sub>O  
 MVe/MVi range: Adu/Ped: 2 to 60 L/min  
 Inf: 0.5 to 15 L/min  
 MVe/MVi accuracy ±10%×reading  
 TVe/TVi range: Adu/Ped: 100 to 1500 ml  
 Inf: 20 to 500 ml  
 TVe/TVi accuracy Adu/Ped: ±10% or 15 ml, whichever is greater  
 Inf: ±10% or 6 ml, whichever is greater  
 Resolution 1 ml  
 RR range 4 to 120 rpm  
 RR accuracy ±1 rpm (4 to 99 rpm)  
 ±2 rpm (100 to 120 rpm)  
 I:E 4:1 to 1:8  
 FEV1.0% 0 to 100%  
 Others: Pmean, TV, MV, PEEP, PEF, PIF, PIP, Pplat  
 Compl, Raw, RSBi, NIP, WOB

#### CCO/Sv O<sub>2</sub>

Mode Interfaces with Edwards Vigilance II monitor  
 Display CCO, EDV, SVR, SV, SvO<sub>2</sub>, SQI, DO<sub>2</sub>, etc.  
 \*: Specifications depend on Vigilance II monitor.

#### Data Storage

Trend data: 120 hrs @ 1 min, 4 hrs @ 5 sec  
 Alarm events: 100 events and associated waveforms  
 Arr. events: 100 Arr. events and associated waveforms  
 NIBP: 1000 measurements  
 Waveforms: Max. 48 hrs full disclosure waveforms  
 (specific storage time depends on the type and number of waveforms stored)

#### Battery

Type: Chargeable Lithium-Ion  
 Number: 2  
 Voltage: 11.1 VDC  
 Capacity: 4500 mAh  
 Run time: T6/T8: 2 hrs  
 T5: 5.5 hrs  
 Recharge time: 6 hrs maximum

#### Interfacing

Connectors: 1 AC power connector  
 1 RJ45 network connector (T5)  
 2 RJ45 network connectors (T8/T6)  
 1 USB SMR connector  
 USB 1.1 connectors  
 1 CF revision 2.0 connector  
 1 standard DVI\_D video interface connector  
 1 BNC connector  
 1 Micro-D connector (output ECG, IBP and Defib. Synch. Signals)

#### Recorder

Type: Thermal array  
 Speed: 25 mm/s, 50 mm/s  
 Trace: 3

#### Power Requirements

AC Voltage: 100 to 240 VAC, 50/60Hz  
 Current: T8/T6: 2.8 to 1.6 A  
 T5: 2.5 to 1.4 A

DISTRIBUTOR:



Masimo is the trademark owned by Masimo Corporation. Nellcor is the trademark owned by Nellcor Puritan Bennett LLC  
 MINDRAY is a trademark of Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Specifications subject to changes without prior notice.  
 © 2010 Shenzhen Mindray Bio-Medical Electronics Co., Ltd. All rights reserved.  
 P/N: ENG-BeneViewT5/T6/T8-210285-20100125

**mindray**

Mindray is listed on the NYSE under the symbol "MR"  
 Mindray Building, Keji 12th Road South, High-tech Industrial Park,  
 Nanshan, Shenzhen 518057, P.R. China  
 Tel: +86 755 26582888 Fax: +86 755 26582680  
 E-mail: intl-market@mindray.com Website: www.mindray.com