

# BM3

Clear display and versatile  
patient monitor



## SUPERIOR ADVANTAGES

- ▶ ECG, SpO<sub>2</sub>, NIBP, Respiration, Temperature
- ▶ EtCO<sub>2</sub> ready (can add plug and play side or mainstream EtCO<sub>2</sub> at any time)
- ▶ 7" color TFT LCD for a clear view
- ▶ Individual sweep speed setting for each parameter
- ▶ 128 full hours of trend data stored
- ▶ SpO<sub>2</sub> measurement with very low perfusion detection and pulse beep
- ▶ 2 trace ECG
- ▶ Screen freeze on/off
- ▶ External VGA output for large screen
- ▶ Li-ion battery (1.5 hours of continuous operation)
- ▶ Enhanced & extendible multi-parameter
  - Sidestream/Mainstream EtCO<sub>2</sub>
- ▶ High-performance ECG detection and analysis
  - Enhanced input impedance for dry skin or electrode patch
  - Pacemaker detection function
- ▶ Enhanced data management
  - Graphical and tabular trends
  - 20 cases - 10 sec. alarm waveform stored, reviewed and printed

# SPECIFICATIONS

## General

<b>Display, Resolution</b>	7" Wide color TFT LCD, 800 x 480 pixels
<b>Dimension, Weight</b>	238 (W) x 250 (H) x 163 (D) mm, approx. 3.1 kg
<b>Trace</b>	4 waveforms: 2*ECG, SpO <sub>2</sub> , respiration Sweep speed: 6.25, 12.5, 25, 50 mm/sec.
<b>Indicators</b>	Categorized alarms (3 priority levels) Visual alarm QRS beep & SpO <sub>2</sub> pulse beep Percent (%) SpO <sub>2</sub> pitch tone Battery status, external power LED
<b>Interfaces</b>	Power supply: AC 100 - 240 V (50/60 Hz) DC input connector: 18 VDC, 2.5 A Defibrillator sync. output: - Signal level: 0 to 5 V pulse - Pulse width: 100 ± 10 ms LAN digital output for transferring data Nurse call system connection: - 0.3 A at 125 VAC - 1 A at 24 VDC External VGA monitor connection Rotary knob DC output: 5 VDC, 1 A Max
<b>Battery</b>	Rechargeable Li-ion battery, 1.5 hours of continuous operation
<b>Thermal Printer</b>	Speed: 25, 50 mm/sec. Paper width: 58 mm
<b>Data Storage</b>	128 hours of trend data, 20 cases of 10 sec. alarm waveform
<b>Language</b>	English, French, Spanish, Italian, German, Chinese, Russian, Czech, Polish, Turkish, Romanian, Portuguese, Bulgarian, Hungarian, Korean

## Accessories

<b>Standard</b>	3-lead ECG cable with extension	1 ea.
	Electrodes	10 ea.
	NIBP extension hose (3 m)	1 ea.
	NIBP adult cuff (25-35 cm)	1 ea.
	SpO <sub>2</sub> extension cable (2 m)	1 ea.
	SpO <sub>2</sub> adult finger sensor	1 ea.
	Power adapter	1 ea.
	Thermal paper rolls	2 ea.
<b>Optional</b>	Temperature probe (skin/rectal)	
	5-lead ECG cable	
	NIBP cuffs (reusable/disposable)	
	Mainstream EtCO <sub>2</sub> airway adaptor set	
	Sidestream EtCO <sub>2</sub> sampling line set	

## Optional Module

Mainstream EtCO<sub>2</sub> module (sensor)  
Sidestream EtCO<sub>2</sub> module (sensor)



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## Performance

### ECG

<b>Lead Type</b>	3-lead, 5-lead (option)
<b>Lead Selection</b>	3-lead: I, II, III 5-lead: I, II, III, aVR, aVL, aVF, V (option)
<b>ECG Waveforms</b>	3-lead: 1 channel 5-lead: 1 channel (option)
<b>Heart Rate Range</b>	Adult: 30 to 300 bpm, Neonate/Pediatric: 30 to 350 bpm
<b>Heart Rate Accuracy</b>	± 1 bpm or ± 1%, whichever is greater
<b>Sweep Speed</b>	6.25, 12.5, 25, 50 mm/sec.
<b>Filter</b>	-Diagnosis: 0.05 to 150 Hz -Monitoring: 0.5 to 40 Hz -Moderate: 0.5 to 25 Hz -Maximum: 5 to 25 Hz
<b>Pacemaker Detection Mode</b>	Indicator on waveform display (user selectable)
<b>Protection</b>	Against electrosurgical interference and defibrillation

### Respiration

<b>Method</b>	Thoracic impedance
<b>Channel Selection</b>	RA-LA or RA-LL
<b>Measurement Range</b>	5 to 120 breaths per minute
<b>Accuracy</b>	± 1 breath per minute

### SpO<sub>2</sub>

<b>Saturation Range</b>	0 to 100%
<b>Saturation Accuracy</b>	70 to 100% ± 2 digits, 0 to 69% unspecified
<b>Pulse Rate Range</b>	30 to 254 bpm
<b>Pulse Rate Accuracy</b>	± 2 bpm

### NIBP

<b>Method</b>	Oscillometry
<b>Operation Mode</b>	Manual/Automatic/Continuous
<b>Pressure Range</b>	0 to 300 mmHg (accuracy ± 3 mmHg)
<b>Safety Pressure</b>	Adult: 300 mmHg Neonate: 150 mmHg
<b>Measurement Range</b>	Adult pressure: 20 to 260 mmHg Pulse rate: 30 to 220 BPM Pediatric pressure: 20 to 160 mmHg Pulse rate: 30 to 220 BPM Neonate pressure: 20 to 130 mmHg Pulse rate: 30 to 220 BPM
<b>Accuracy</b>	Meets accuracy requirements of ANSI/AAMI SP10: 1992 AND 2002

### Temperature

<b>Measurement Range</b>	0 to 50 °C (32 to 122 °F)
<b>Accuracy</b>	25 °C to 50 °C : ± 0.1 °C 0 °C to 24 °C : ± 0.2 °C
<b>Compatibility</b>	YSI series 400 temperature probes

### Sidestream EtCO<sub>2</sub> - Respironics

<b>Measurement Range</b>	0 to 150 mmHg, 0 to 19%
<b>Accuracy</b>	0 to 40 mmHg ± 2 mmHg, 41 to 70 mmHg ± 5% of reading, 71 to 100 mmHg ± 8% of reading, 101 to 150 mmHg ± 10% of reading
<b>Respiration Rate</b>	2 to 150 breaths per minute
<b>Respiration Accuracy</b>	± 1 breath per minute

### Mainstream EtCO<sub>2</sub> - Respironics

<b>Measurement Range</b>	0 to 150 mmHg, 0 to 19%
<b>Accuracy</b>	0 to 40 mmHg ± 2 mmHg, 41 to 70 mmHg ± 5% of reading, 71 to 100 mmHg ± 8% of reading, 101 to 150 mmHg ± 10% of reading
<b>Respiration Rate</b>	0 to 150 breaths per minute
<b>Respiration Accuracy</b>	± 1 breath per minute

Specifications can be changed without prior notification.

You may have distortion or signal noise when you use nonstandard or other brand's accessories.  
We strongly recommend you use only the authorized accessories which we supply.