

Technical Specifications

<b>iMEC12</b> Monitor size: Weight:	362 mm x 273 mm x 122 mm 3.2 kg, Standard parameters configuration, including a lithium battery and a recorder 3.6 kg, Standard and optional parameters configuration, including touchscreen, a lithium battery and a recorder
<b>Display</b> Type: Resolution: Waveforms: External display:	iMEC 12: 12.1" color LED backlight screen 800 x 600 pixels up to 8 1 display through VGA
<b>ECG</b> 3-lead: 5-lead: Gain: Sweep speed: Bandwidth:	I, II, III I, II, III, aVR, aVL, aVF, V x0.125, x0.25, x0.5, x1, x2, x4, Auto 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s Diagnostic Mode: 0.05-150Hz Monitor Mode: 0.5-40Hz Surgical Mode: 1-20Hz ST Mode: 0.05-40Hz Withstand 5000V (360J) defibrillation ≤10 s Diagnostic Mode: ≥90dB Monitor Mode: ≥105dB Surgical Mode: ≥105dB ST Mode: ≥105dB -2.0 to 2.0 mV Yes Yes Yes
Defib. protection: Recovery time: CMRR:	
ST analysis: Arr analysis: QT/QTc: ECG summary:	
<b>Heart Rate</b> Range:	Adu: 15 to 300 bpm Ped: 15 to 350 bpm Neo: 15 to 350 bpm 1 bpm ±1 bpm or ±1%, whichever is greater
Resolution: Accuracy:	
<b>Respiration</b> Range:	Adu: 0 to 200 rpm Ped/Neo: 0 to 200 rpm 1 rpm 7 to 150 rpm: ±2 rpm or ±2%, whichever is greater 0 to 6 rpm: Not specified I or II (default: lead II) 3 mm/s, 6.25 mm/s, 12.5 mm/s or 25 mm/s, or 50 mm/s
Resolution: Accuracy:	
Lead: Sweep speed:	
<b>SpO<sub>2</sub></b> Mindray/Nellcor range: Masimo range: Resolution: Mindray accuracy:	0 to 100% 1% to 100% 1% ±2% (70-100%, Adu/Ped) ±3% (70-100%, Neo) Unspecified (0-69%) ±2% (70-100%, Adu/Ped, non-motion) ±3% (70-100%, Neo, non-motion) ±3% (70-100%, motion) Unspecified (1-69%)
Masimo accuracy:	Actual accuracy depends on probe. Refer to the operator's manual
Nellcor accuracy: Refreshing rate:	1 s
<b>Pulse Rate</b> Range :	Mindray SpO <sub>2</sub> : 20 to 300 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: 30 to 300 bpm
Accuracy:	Mindray SpO <sub>2</sub> : ±3 bpm 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: ±1 bpm or ±1%, whichever is greater NIBP Module: ±3bpm or ±3%, whichever is greater
Resolution: Refreshing rate:	1 bpm 1 s
<b>NIBP</b> Method: Operation mode: Parameters: Systolic range:	Automatic Oscillometric Manual, Auto, STAT, Sequence Systolic, Diastolic, Mean Adu: 25 to 290 mmHg Ped: 25 to 240 mmHg Neo: 25 to 140 mmHg Adu: 10 to 250 mmHg Ped: 10 to 200 mmHg Neo: 10 to 115 mmHg Adu: 15 to 260 mmHg Ped: 15 to 215 mmHg Neo: 15 to 125 mmHg Max mean error: ±5 mmHg Max standard deviation: 8 mmHg 1 mmHg
Diastolic range:	
Mean range:	
Accuracy:	
Resolution:	
<b>Temperature</b> Range: Resolution: Accuracy: Parameters:	0 to 50°C (32 to 122°F) 0.1°C ±0.1°C or ±0.2 F (without probe) T1, T2 and TD
<b>IBP</b> Channel: Range: Resolution: Accuracy: Sensitivity:	up to 2 channels -50 to 360 mmHg 1 mmHg ±2% or ±1 mmHg, whichever is greater (without sensor) 5 μV/V/ mmHg

Impedance range:	300 to 3000Ω
<b>C.O.</b> Method: Range:	<b>(Not an option for iMEC8)</b> Thermomodulation C.O.: 0.1 to 20 L/min Tl: 0 to 27°C C.O.: ±5% or ±0.1 L/min, whichever is greater Tl: ±0.1°C (without sensor) C.O.: 0.1 L/min Tl: 0.1°C
Accuracy:	
Resolution:	
<b>Sidestream CO<sub>2</sub></b> CO <sub>2</sub> Range: Accuracy:	0 to 99 mmHg 0 to 40 mmHg: ±2 mmHg 41 to 76 mmHg: ±5% of the reading 77 to 99 mmHg: ±10% of the reading Adult: 70, 100, 120, 150 ml/min Ped/Neo: 70, 100 ml/min ±15% or ±15 ml/min, whichever is greater. Iso accuracy mode: 45 s Full accuracy mode: 10 min 0 to 120 rpm ±2 rpm When using neonatal water trap and 2.5 m neonatal sampling line <4 s @ 100 ml/min <4.5 s @ 70 ml/min When using adult water trap and 2.5 m adult sampling line <4.5 s @ 150 ml/min <5 s @ 120 ml/min <5 s @ 100 ml/min <6.5 s @ 70 ml/min
Sample flow rate:	
Accuracy:	
Warm-up time:	
awRR range:	
awRR precision:	
Response time:	
Apnea time:	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s
<b>Microstream CO<sub>2</sub></b> CO <sub>2</sub> Range: Accuracy:	0 to 99 mmHg 0 to 38 mmHg: ±2 mmHg 39 to 99 mmHg: ±5% of reading +0.08% for every 1mmHg (above 38mmHg) 50ml/min -7.5/+15ml/min 30 s (typical) 0 to 150 rpm 0 to 70 rpm : ±1 rpm 71 to 120 rpm: ±2 rpm 121 to 150 rpm: ±3 rpm Measured with a FilterLine of standard length 2.9 s (typical) 4.5 s (Maximum)
Sample flow rate:	
Accuracy:	
Initialization time:	
awRR range:	
awRR precision:	
Response time:	
Apnea time:	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s
<b>Mainstream CO<sub>2</sub></b> CO <sub>2</sub> Range: Accuracy:	0 to 150 mmHg 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 0 to 150 rpm ±1 rpm <60 ms 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s
awRR range:	
Accuracy:	
Response time:	
Apnea time:	
<b>Data Storage &amp; Software Functions</b> Trend data: Alarm events: Arr. events: NIBP: Waveforms: EWS: Calculations:	120 hrs (interval 1 min), 4 hrs (interval 5 sec), 1 hrs(interval 1 sec) 100 events and associated waveforms 100 Arr. events and associated waveforms 1000 measurements Max. 48 hrs full disclosure waveforms (specific storage time depends on the type and number of waveforms stored) MEWS, NEWS and User-defined Scoring Dose, Oxygenation, Ventilation, Hemodynamic and Renal calculations
<b>Battery</b> Type: Number: Voltage: Capacity: Run time:	Chargeable Lithium-Ion 1 pc 11.1 VDC 2600 mAh (4500 mAh optional) 2 hrs (2600 mAh) 4 hrs (4500 mAh) 4.5 hrs maximum (2600 mAh) 8 hrs maximum (4500 mAh)
Recharge time:	
<b>Interfacing</b> Connectors:	1 AC power connector 1 RJ45 network connector 1 USB 2.0 connector 1 VGA output connector 1 multifunctional output connector (output ECG, IBP, nurse call and Defib. Synch. Signals) 1 built-in dual-band WIFI module (2.4G/5G)
<b>Recorder</b> Type: Speed: Trace:	Thermal dot array 25 mm/s, 50 mm/s 3
<b>Power Requirements</b> AC Voltage: Current:	100 to 240 VAC, 50/60Hz 1.1 to 0.5 A

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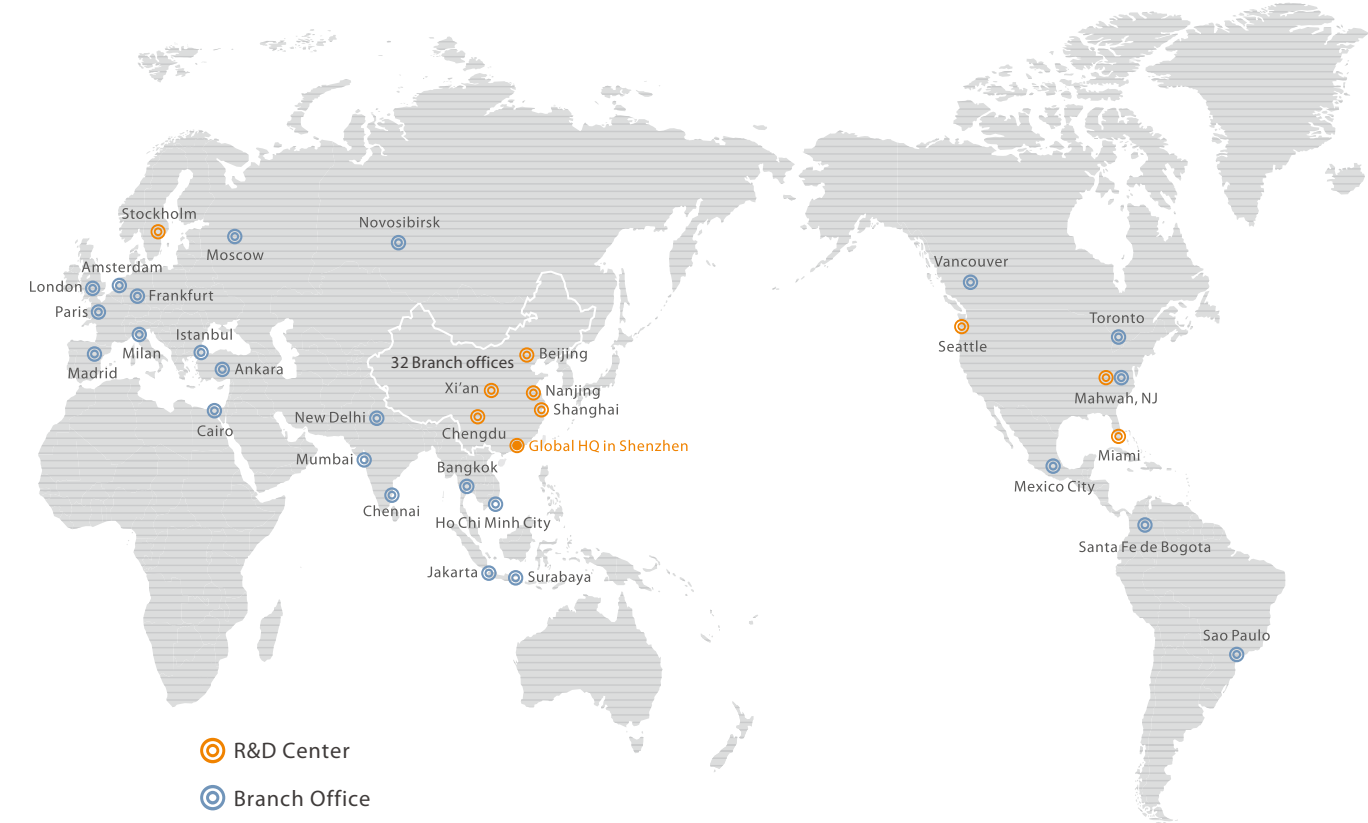
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iMEC12  
Patient Monitor



Green Patient Monitor for More Efficient Bedside Care

**mindray**  
healthcare within reach



# 100% Performance with 50% Energy

An innovative patient monitor with “green” credentials, Mindray’s iMEC helps you to reduce your hospital’s ecological footprint and to contribute to a sustainable care environment.

Based on its optimized hardware design, iMEC achieves a **50% lower power consumption** compared to conventional patient monitors. This allows for an improved battery life and a fan-less design, providing cleaner and quieter performance. It also offers a robust but thin and lightweight structure, making iMEC very easy to carry.

The touch screen allows you to operate iMEC in a quick and convenient way.

With Wi-Fi capability, iMEC integrates seamlessly with Mindray’s Hypervisor VI Central Monitoring System. This provides you with convenient access to real time patient information - even during transport.

Its preconfigured measurement parameters meet all standard clinical requirements and allow iMEC to operate in various hospital settings, including Emergency Rooms, Recovery Units, General Wards and Outpatient areas.



## Exceptional Design and Cost-Effective Monitoring

“No-fan design” allows for a quiet care environment. Preventing dust collection and reduces the risk of airborne contamination.

Weighing 3.2Kg with an integral **carry-handle**, the lightweight iMEC12 is ideal as a portable monitor.

**Alarm light** is visible from 360 degrees

The user-configurable **touch screen** is available in 12.1” size, with 800 x 600 high-resolution and up to 8 traces.

**Ergonomic buttons** enable quick access to commonly used functions, such as alarm silence, alarm pause and start NIBP.

**Optional measurement** capability of IBP, Cardiac Output and EtCO<sub>2</sub> to meet your advanced monitoring requirements

The integral 3-trace **thermal recorder** provides waveform and data reports for diagnostic support.

**Quick keys** help caregivers to rapidly access frequently used functions such as trend review, and alarm settings and useful display modes, including large fonts and mini-trends.

**Powerful data storage** for up to 48 hours full-disclosure, 120 hours of tabular and graphic trends, 1,000 NIBP measurements and 100 alarm events.

**Li-ion battery** allows for up to 4 hours of continuous monitoring.

## Reliable Technology for Improved Usability

**Patient Care in One Touch**  
Through its simple and intuitive touch screen display, iMEC offers instant access to all functions and allows you to monitor your patients in a quicker and more convenient way.

Customizable hot keys provide shortcuts to the most frequently used functions, saving you time for patient care.

**Quick and Easy Monitoring**  
A compact and light weight design make iMEC easy to carry while optional bedrail mounting allows for convenient in-hospital transport.

An optional rolling stand provides iMEC with maximum mobility. Both rolling stand and wall mount feature simple mounting and quick release.

iMEC’s user-friendly interface is intuitive and easy to use.

- Dynamic mini-trends provide up to 8 hours of useful information on your patient’s status.
- EWS assists with detection of physiological changes and helps identify patients at risk of further deterioration.
- ECG summary offers a quick view of abnormal ECG information in the previous 24 hours.

Auto detectable 3 or 5 lead ECG and self-adjusting ECG, SpO<sub>2</sub> and IBP waveforms allow you to spend more time on patient care and less time on operating the monitor.

The centralized alarm system enables you to quickly review and modify alarm settings.

The logical review of alarms, events, trends and full-disclosure data helps you to quickly and accurately assess a patient’s situation.

With LAN and Wi-Fi capability, your iMEC can communicate with the HyperVisor VI Central Monitoring System both from the bedside and during transport.

**Optimized Structural Design – Simplifying Upgrades and Maintenance**  
The iMEC is designed to simplify maintenance and make it easy to perform future upgrades.

Future software upgrades can be performed on one iMEC or multiple iMECs simultaneously through a standard RJ45 port.

The USB port allows you to transfer patient data to a PC and to copy your personalized user settings to different iMECs.

The maintenance-free Li-ion battery offers up to 4 hours continuous monitoring.

