

Technical Specifications

iMEC12/ iMEC10

Monitor size: 362 mm x 273 mm x 122 mm
 Weight: 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

iMEC8

Monitor size: 270 mm x 210 mm x 112 mm
 Weight: 2.6 kg, Standard parameters configuration, including a lithium battery and a recorder
 2.9 kg, Standard and optional parameters configuration, including touchscreen, a lithium battery and a recorder

Display

Type: iMEC 12: 12.1" color LED backlight screen
 iMEC 10: 10.4" color LED backlight screen
 iMEC 8: 8.4" color LED backlight screen
 Resolution: 800 x 600 pixels
 Waveforms: up to 11
 External display: 1 display through VGA

ECG

3-lead: I, II, III
 5-lead: I, II, III, aVR, aVL, aVF, V
 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
 ST Mode: 0.05-40Hz

Defib. protection: Withstand 5000V (360J) defibrillation
 Recovery time: ≤10 s
 CMRR: Diagnostic Mode: ≥90dB
 Monitor Mode: ≥105dB
 Surgical Mode: ≥105dB

ST Mode: ≥105dB
 ST analysis: -2.0 to 2.0 mV
 Arr analysis: Yes, 24 classifications, including AF
 QT/QTc: Yes, continuous
 ECG summary: 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 200 rpm
 Ped/Neo: 0 to 200 rpm
 Resolution: 1 rpm
 Accuracy: 0 to 120 rpm: ±1 rpm
 121 to 200 rpm: ±2 rpm
 Lead: I or II (default: lead II)
 Sweep speed: 3 mm/s, 6.25 mm/s, 12.5 mm/s or 25 mm/s, or 50 mm/s

SpO₂

Mindray/ Nellcor range: 0 to 100%
 Masimo range: 1% to 100%
 Resolution: 1%
 Mindray accuracy: ±2% (70-100%, Adu/Ped)
 ±3% (70-100%, Neo)
 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: Actual accuracy depends on probe. Refer to the operator's manual
 Refreshing rate: 1 s

Pulse Rate

Range: Mindray SpO₂: 20 to 300 bpm
 Masimo SpO₂: 25 to 240 bpm
 Nellcor SpO₂: 20 to 300 bpm
 IBP Module: 25 to 350 bpm
 NIBP Module: 30 to 300 bpm

Accuracy: Mindray SpO₂: ±3 bpm
 Masimo SpO₂: ±3 bpm (non-motion), ±5 bpm (motion)
 Nellcor SpO₂: ±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, Sequence
 Parameters: Systolic, Diastolic, Mean
 Systolic range: Adu: 25 to 290 mmHg
 Ped: 25 to 240 mmHg
 Neo: 25 to 140 mmHg

Diastolic range: Adu: 10 to 250 mmHg
 Ped: 10 to 200 mmHg
 Neo: 10 to 115 mmHg

Mean range: Adu: 15 to 260 mmHg
 Ped: 15 to 215 mmHg
 Neo: 15 to 125 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 TD

Data Storage & Software Functions

Trend data: 120 hrs (interval 1 min), 4 hrs (interval 5 sec), 1 hrs (interval 1 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)
 EWS: MEWS, NEWS and User-defined Scoring
 Calculations: Dose, Oxygenation, Ventilation, Hemodynamic and Renal calculations

Battery

Type: Chargeable Lithium-Ion
 Number: 1 pc
 Voltage: 11.1 VDC
 Capacity: 2600 mAh (4500 mAh optional)
 Run time: 2 hrs (2600 mAh)
 4 hrs (4500 mAh)
 Recharge time: 4.5 hrs maximum (2600 mAh)
 8 hrs maximum (4500 mAh)

Interfacing

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)

Recorder

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

Power Requirements

AC Voltage: 100 to 240 VAC, 50/60Hz
 Current: 1.1 to 0.5 A



iMEC Series

Patient Monitor

Green Patient Monitor for More Efficient Bedside Care

www.mindray.com

P/N:ENG-iMEC Series(EU)-210285X6P-20190530
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(European Version)

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 from 2.6Kg to 3.6Kg with an integral **carry-handle**, the lightweight iMEC is ideal as a portable monitor.

Alarm light is visible from 360 degrees

The user-configurable **touch screen** is available in 8.4”, 10.4” or 12.1” sizes, 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.

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, SpO₂* 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.

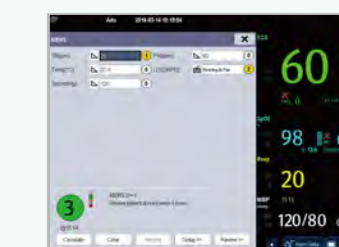
Optimized Structural Design – Simplifying Upgrades and Maintenance

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.



* Mindray provides 3 options of SpO₂ measurement, Mindray, Masimo and Nellcor. For further information about the availability of Masimo and Nellcor SpO₂, please contact with your local sales representatives.