Technical Specifications

uMEC10

Monitor size:	315mm x 155 mm x 220mm
Weight:	≤3.5kg, Standard parameters configuration, including a lithium battery and a recorder

uMEC12

Monitor size:	345mm x160mm x 255mm
Weight:	≤4kg, Standard parameters configuration, including a lithium batter and a recorder

Display

Type:	uMEC10: 10.4" color LED, or touchscreen uMEC12: 12.1" color LED, or touchscreen
Resolution:	800 x 600 pixels
Waveforms:	uMEC10: up to 7 uMEC12: up to 11
External display:	1 display through VGA

ECG

Lead set:	3-lead: I, II, III 5-lead: I, II, III, aVR, aVL, aVF, V Automatic 3/5 – lead recognition
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, Surgical, ST Mode: >105dB
ST analysis:	Range:-2.0 to 2.0 mV Accuracy: ±0.02 mV or ±10 %, whichever is greater (-0.8 to +0.8 mV) Resolution: 0.01mV
Arr analysis:	Yes, multi-lead, 24 classifications, including AF
QT analysis:	Yes

Heart Rate

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

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
Sweep speed:	3mm/s, 6.25 mm/s, 12.5 mm/s, 25 mm/s or 50mm/s

SpO_2

Range:	0 to 100%
Resolution:	1%
Accuracy:	±2% (70-100%, Adu/Ped) ±3% (70-100%, Neo) Unspecified (0-69%)
Refreshing rate:	≤2 s

Pulse Rate

Range:	20 to 300 bpm (from SpO_2) 30 to 300 bpm (from NIBP) 25 to 350 bpm (from IBP)
Accuracy:	±3 bpm (from SpO_2) ±3bpm or ±3%, whichever is greater (from NIBP) ±1bpm or ±1%, whichever is greater (from IBP)
Resolution:	1 bpm
Refreshing rate:	≤2 s

NIBP

Method:	Automatic Oscillometric
Operation mode:	Manual, Auto, STAT, Sequence
Parameters:	Systolic, Diastolic, Mean
Systolic range:	Adu: 25 to 300 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
NIBP analysis:	Yes

Temperature

Channel:	1-ch (uMEC10), 2-ch (uMEC12)
Parameters:	T1, T2 and TD
Range:	0 to 50℃ (32 to 122 ℉)
Resolution:	0.1℃
Accuracy:	±0.1℃ or ±0.2 ℉ (without probe)

IBP (for uMEC 12 only)

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

C.O. (for uMEC 12 only)

Method:	Thermodilution
Range:	C.O.: 0.1 to 20 L/min TB: 23 to 43℃ TI:0 to 27℃
Accuracy:	C.O.: ±5% or ±0.1 L /min, whichever is greater TB, TI: ±0.1℃ (without sensor)
Resolution:	C.O.: 0.1 L/min TB, TI: 0.1℃

CO_2 (for uMEC 12 only)

Mode:	Sidestream
Range:	0 to 20% (0-152mmHg under standard atmospheric pressure)
Accuracy:	±0.1% (<1%) ±0.2% (1 to 4.9%) ±0.3% (5 to 6.9%) ±0.4% (7 to 11.9%) ±0.5% (12 to 12.9%) ±(0.43%+8%rel) (13 to 20%) Unspecified (over 20%)
Sample flowrate:	90, 120 ml/min (Sidestream)
Sample flowrate Accuracy:	±15% or ±15 ml/min, whichever is greater.
Start-up time:	<90s
Response time:	When using adult water trap and 2.5 m adult sampling line <5.5 s @120 ml/min When using neonatal water trap and 2.5 m neonatal sampling line <4.5 s @ 90 ml/min
AWRR range:	0 to 150 rpm
AWRR precision:	＜60rpm: ±1 60-150 rpm: ±2
Apnea time:	10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s

Data Storage

Trend data:	1200hrs (interval 10min), 120 hrs (interval 1 min), 4 hrs (interval 5 sec)
Alarm events:	1800 events and associated waveforms
Arr. events:	128 Arr. events and associated waveforms
NIBP:	1600 measurements
Waveforms:	Max. 48 hrs full disclosure waveforms

Battery

Type:	1 Build-in chargeable Lithium-ion battery
Voltage:	11.1 VDC
Capacity:	2500 mAh (5000 mAh optional)
Run time:	4 hrs(2500 mAh), 8 hrs (5000 mAh)
Recharge time:	2500 mAh: 4 hrsmaximum (power off) 5000 mAh: 8 hrsmaximum (power off)

Interfacing

Connectors:	1 AC power connector 1 RJ45 network connector 2 USB 2.0 connector 1 VGA output connector 1 multifunctional output connector (output ECG,nurse call and Defib. Synch. Signals)
WiFi support:	Yes, 5G/2.4G dual band
Barcode Scanner:	Support
Network printer:	Support

Recorder

Type:	Thermal array
Speed:	12.5mm/s, 25 mm/s, 50 mm/s
Trace:	3

Power Requirements

AC Voltage:	100 to 240 VAC, 50/60Hz
Current:	1.5 A

Environmental Requirements

Temperature:	Operating: 0 to 40℃(32 to 104 ℉)
Storage:	-20 to 60℃ (-4 to 140 ℉)
Humidity: Operating:	15 to 95 % (non condensing)
Storage:	10 to 95 % (non condensing)
Barometric:	Operating: 427.5 to 805.5 mmHg (57.0 to 107.4 kPa) Storage: 120 to 805.5 mmHg (16.0 to 107.4 kPa)

*Not all of the functions are available in all geographies, please contact with local Mindray sales representative for more information.

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P/N:ENG-uMEC-210285X4P-20181128

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healthcare within reach

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uMEC

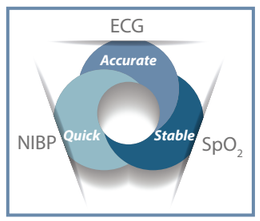
Patient Monitor

Taking high cost out of quality healthcare

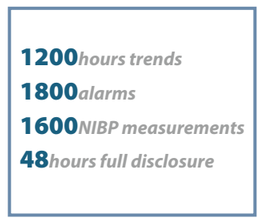
Advanced Performance

With Mindray's 25-year experience in patient monitoring, uMEC series patient monitors cater to clinical needs by offering precise and stable measurement of essential parameters. When monitoring is reliable, you can naturally be more confident with your clinical decisions.

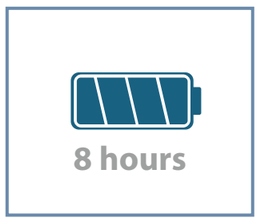
- Mindray's patented Multi-lead ECG Algorithm greatly improves the accuracy of measurement and reduces false alarms
- NIBP quick-measurement technique reduces the discomfort caused by cuff inflation, especially for patients suffering from hypertension or hypotension
- Anti-interference SpO_2 algorithm provides accurate measurement even when the patient is mobile
- Large capacity for data storage enables comprehensive review of patient's history data, and external USB storage devices are also supported
- 8-hour continuous runtime with one Lithium-ion battery



Essentially advanced measurements



Huge data capacity



Long battery working time

Easy to Use

As an user-friendly patient monitor, uMEC helps to simplify workflow and improve efficiency. The monitor provides very intuitive user interface to help faster and easier applications even for new users. Caregivers need less time for training, and get more time for patient care.

- 10.4 inch/12.1 inch high resolution LED screen with optional touch screen
- Supports various monitoring screen layouts for different clinical needs, including large font, full/half screen 7-lead monitoring, view other bed, etc.
- Default settings satisfy general clinical requirements, no need to adjust the settings before using and helps you get started quickly
- Statistics for heart rate changes and ambulatory blood pressure monitoring, making ups and downs visible
- Less than 3.5kg weight with battery makes it very portable
- Unique accessory cabinet makes accessories management effective
- One piece design makes cleaning easier

HR/BP Analysis

User-friendly Interfaces

Unique accessory cabinet

High Durability

To be effective in different environment, uMEC has passed strict electrical safety tests and reliability tests. It is extremely durable and has a long life span.

- Working temperature is 0~40℃, unaffected by extremes
- 0.75 m drop-protection and IPX1 water resistance
- Strong plastic housing resists aging and yellowing, with high corrosion resistance
- Low power consumption and fanless design makes it environmentally friendly and reduces the risk of cross contamination
- Mindray accessories are highly reliable with quality material and production technique

High-quality Accessories

Drop protection

Compatible with multiple cleaning agents