

PM-9000 Express Portable Patient Monitor



FEATURES

- 12.1" color TFT with maximum 8 waveforms
- Rich in ECG software
- OxyCRG software available
- 40 seconds full-disclosure waveforms review
- Drug dose calculation
- Bed to bed view
- Networking capacity
- Multi-Gas/O2 available
- Multilanguage available
- Masimo SET™ SpO₂ available



TECHNICAL SPECIFICATIONS

Safety

IEC60601-1 approved, CE marking according to MDD93/42/EEC

Dimension and Weight

Dimension: 318mm (W) x 264mm (H) x 152mm (D)

Weight: 5.4kg

Operation Environment

Power Requirements: AC100-250V, 50/60 Hz

Temperature: 0-40

Humidity: 30-85%

Application Scope

Adult, pediatric and neonatal

Performance Specifications

Display: 12.1" color TFT

Resolution: 800x600

Trace: 8 waveforms

Sweep Speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s

Indicator: Alarm indicator light

Power indicator light

QRS beep and alarm sound

Interface: Net Port

Battery: Rechargeable

Trend time: 1~72 hours

Alarm: 3-level audible and visual alarm

Networking: Only connected to Mindray Hypervisor central monitoring system

Recorder: Built-in, thermal array, 2 channels

Record width: 48mm, (record paper 50mm)

Record speed: 25mm/s, 50mm/s

ECG

5-lead and 3-lead selectable

Input: 5-lead: RA; LA; RL; LL; V or R; L; N; F; C

3-lead: RA; LA; LL or R; L; F

Lead selection: 5-lead: I; II; III; avR; avL; avF; V_x

3-lead: I; II; III

ECG waveform: 2 channels

Gain selection: x0.25; x0.5; x1; x2; auto

Sweep speed: 12.5mm/s, 25mm/s, 50mm/s

Heart Rate range: Adult: 15-300bpm;

	Pediatric/Neonatal: 15-350bpm
Accuracy:	± 1 bpm or $\pm 1\%$, whichever is greater
Resolution:	1bpm
Protection:	Withstand 4000VAC/50Hz voltage in isolation Against electrosurgical interference and defibrillation
CMRR:	Diagnostic mode: >90dB Monitoring mode: >105dB Operating mode: >105dB
Calibration signal:	1mV \pm 5%
Bandwidth:	0.05-100Hz
Alarm range:	Adult: 15-300bpm Pediatric/Neonatal: 15-350bpm
S-T detection:	YES Measurement range: -2.0mV~2.0mV Alarm range: -2.0mV~2.0mV
Arrhythmia analysis:	YES
Alarm:	YES, audible and visual alarm, alarm events recallable
<u>Respiration</u>	
Method:	RA-LL impedance
Measurement range:	Adult: 6~120rpm; Pediatric/Neonatal: 6~150rpm
Resolution:	1 rpm
Accuracy:	± 2 rpm
Alarm range:	Adult: 6~120rpm Pediatric/Neonatal: 6~150rpm
Apnea alarm:	YES
<u>NIBP</u>	
Method:	Oscillometric
Operation modes:	Manual/Automatic/Continuous
Measurement unit:	mmHg/Kpa selectable
Measurement types:	Systolic, Diastolic, Mean
Measurement range:	Adult: 10-270mmHg Pediatric: 10-200mmHg Neonatal: 10-135mmHg
Over-pressure protection:	YES
Resolution:	1mmHg
Accuracy:	Mean error and standard deviation per ANSI/AAMI SP-10
Alarm:	Systolic, Diastolic, Mean

SpO₂

Measurement range:	0~100%
Resolution:	1%
Accuracy:	±2digit (70-100%); 0-69% unspecified
Alarm range:	0~100%
Pulse rate:	Range: 25~250 bpm Resolution: 1 bpm Accuracy: ±2 bpm or ±2%, whichever is greater Alarm range: 25~250 bpm

Masimo SET™ SpO₂

Range	0-100%
Saturation (SpO ₂):	
Pulse Rate:	25-240 bpm
Signal Strength (SS):	Transmission (dB)
≥0.2%	≥ -50
0.02 - 0.2%	≥ -30 -100 x Signal Strength (%)

Accuracy**Adults**

SpO ₂ Range	70%-100%	0% to 69%
Accuracy (±1Std. Dev.)*	± 2 digits	Unspecified
Pulse Rate Range	25-240 BPM	
Accuracy (±1Std. Dev.)*	± 3 BPM	

Neonates

SpO ₂ Range	70%-95%	0% to 69%
Accuracy (±1Std. Dev.)*	± 3 Digits	Unspecified
Pulse Rate Range	25-240 BPM	
Accuracy (±1Std. Dev.)*	± 3 BPM	

Temperature

Measurement range:	0~50
Resolution:	0.1
Accuracy:	±0.2 (including probe)
Channel:	Dual-channel
Alarm range:	0-50

IBP

Measurement range:	-10~300mmHg
Channel:	2 channels
Pressure transducer:	Sensitivity: 5(μV/V/mmHg) Impedance range: 300-3000ohm
Transducer sites:	ART, PA, CVP, RAP, LAP, ICP
Measurement unit:	mmHg/Kpa selectable

Resolution:	1mmHg
Accuracy:	± 1 mmHg or $\pm 2\%$, whichever is greater
Alarm range:	-10~300mmHg

CO

Method:	Thermodilution
Measurement range:	CO: 0.1-20 lit./min. TB: 23-43 TI: 0-27
Resolution:	CO: 0.1 lit./min. Temperature: ± 0.1
Accuracy:	CO: ± 0.1 Lit/min or $\pm 5\%$, whichever is greater TB: ± 0.1 TI: ± 0.1

EtCO₂

Method:	Infrared Absorption
Measuring Mode:	Sidestream or Mainstream (optional)
Measurement range:	EtCO ₂ : 0-99mmHg InsCO ₂ : 0-99mmHg AwRR: 0-150rpm
Resolution:	EtCO ₂ : 1mmHg InsCO ₂ : 1mmHg AwRR: 1rpm
Accuracy:	CO ₂ concentration: ± 2 mmHg (0-40mmHg) $\pm 5\%$ of reading (41-76mmHg) $\pm 10\%$ of reading (77-99mmHg) AwRR: ± 2 rpm
Alarm range:	Same as Measurement range
Apnea alarm:	YES

Multi-Gas/O₂

Method:	Infrared Absorption
Gas sorts:	CO ₂ , N ₂ O, Des, Iso, Enf, Sev, Hal, O ₂ (optional paramagnetic sensor)
Measurement range:	CO ₂ : 0~10% (0~76mmHg) N ₂ O: 0~100% O ₂ : 0~100% Enf, Iso, Hal: 0~5% Sev: 0~8% Des: 0~18%
Data output:	Fi and Et values
Respiration rate:	4~60 ± 1 bpm

Other:	Up to 3 waveforms displayed
	Agent mixture detection
	MAC value displayed

*Testing is based on healthy adult volunteers in induced hypoxia studies with LNOP[®]•Adt sensors; during no motion. Testing to verify saturation specification is done against a CO-Oximeter. Testing to verify pulse rate specification is done against an ECG monitor.

Standard configuration:

ECG/RESP+NIBP+TEMP+SpO₂

Battery

Options:

Dual-IBP, CO, EtCO₂, Masimo SET[™] Spo₂, Multi-Gas/ O₂

Thermal Recorder

Specifications subject to change without prior notice