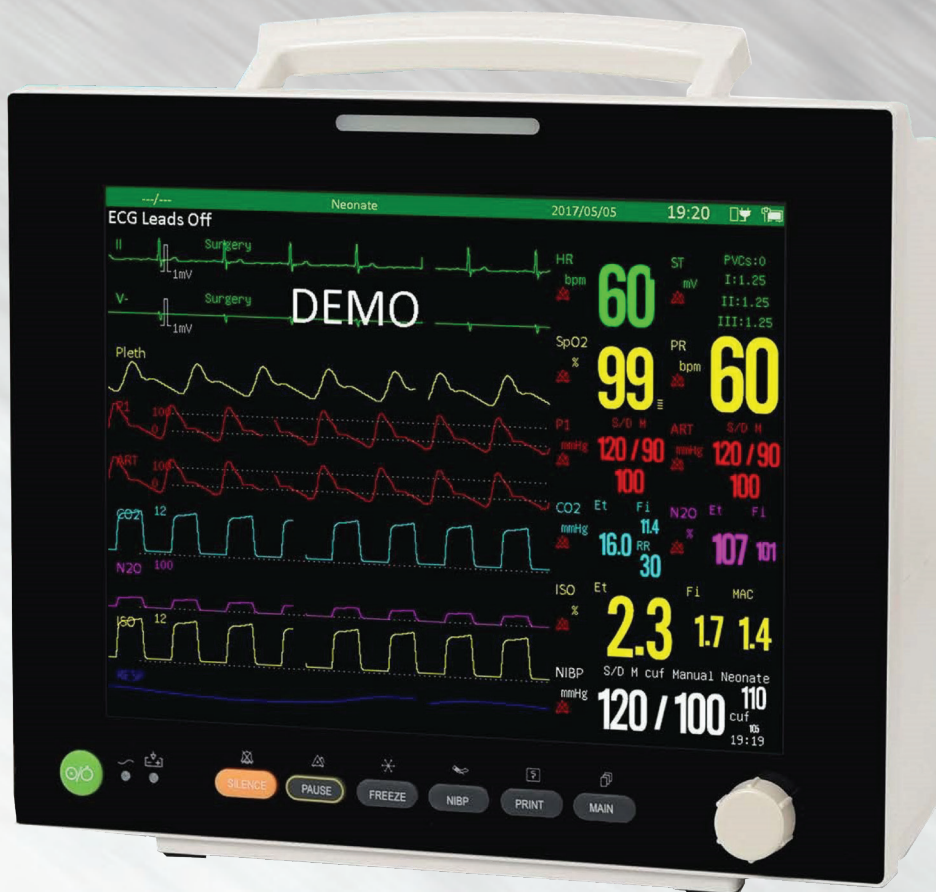




# ESM-9000P

Multi-parameter patient monitor



INTENSIVE CARES



# ESM-9000P

## Features

- 12.1" color TFT display, high resolution: 800x600dpi;
- Separated para module: ECG, NIBP, SpO2 module;
- Real time S-T segment analysis, and ARR analysis;
- SpO2 Pitch Tone Variation and Drug Dose Calculation;
- Parameter waveform and characters color selectable
- Multi-display: Standard, Large font, Trend Coaxis, OxyCRG dynamic 7-lead ECG waveforms
- Standby mode for Energy saving and suspend monitoring;
- Capture dynamic waveforms;
- Internal storage: 3600s full-disclosure waveform review;
- External storage: SD card slot enables memory extension;
- Built-in rechargeable lithium battery, and battery volume checking,
- VGA Output; AC power checking
- Efficient resistance to interference of defibrillator and HF knife;

- High accuracy SpO2 & NIBP, workable for neonate;
- Networking capacity and TCP/IP networking platform enable abundant future upgrade
- Time delay switch-off function keep the monitor data restart monitor;
- Complete and flexible mounting solution for transportation and in-patient monitoring

**Standard Parameters:** 5-lead ECG, SpO2(F-5),NIBP, TEMP,RESP,PR,HR.

**Optional Parameter:** Thermal Recorder, 3/12-lead ECG, 2/4-IBP,4-TEMP,2-SpO2, Nellcor/Masimo SpO2,BIS, Phaisein/ Respiration EtCO2, ICG/CO

## Specifications

Display: 12.1" color TFT  
Resolution: 800x600  
Trace: 4 waveforms  
Sweep speed: 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s  
Indicator: Power/battery indicator light  
QRS beep and alarm sound  
Battery: Rechargeable lead-acid cell, 12 V / 4 AH  
Max 24 h charging, 4 h continuous working  
Alarm: adjustable High, Medium, and Low  
Networking: Connected to CMS (TCP/IP networking platform)

Trend:  
Parameters graphic and tabular trends  
5 s/piece, 8 hours  
1 min/piece, 168 hours (24 h x 7 days)  
5 min/piece, 1000 hours  
Storage:  
NIBP: 1000 groups  
Alarm: 200 groups  
Full disclosure waveforms: 1 hour

Parameters  
ECG  
Lead mode: 5-lead (R, L, F, N, C)  
Lead selection: I, II, III, aVR, aVL, aVF, V  
Waveform: 3 and 7 channels selectable  
Gain selection: 0.5 mm/mV, 1 mm/mV, 2 mm/mV  
Sweep speed: 6.25, 12.5, 25, 50 mm/s  
Heart rate range:

Adult: 15 – 300 bpm  
Neonate/Pediatric: 15 – 350 bpm  
Accuracy:  $\pm 1$  bpm or  $\pm 1$  %, whichever is greater  
Resolution: 1 bpm  
Monitor mode: 0.5 – 40 Hz  
Diagnostic mode: 0.05 – 130 Hz  
Scaling signal: 1 mV  $\pm$  3 %  
Protection: withstand 4000 VAC/50 V isolation against electrosurgical interference and defibrillation  
Alarm range: 15 – 350 bpm

S-T segment detection:  
Measurement range:  $-2.0$  mV ~  $+2.0$  mV  
Alarm range:  $-2.0$  mV ~  $+2.0$  mV  
Accuracy:  $\pm 0.8$  mV  
Arrhythmia analysis: Yes

SpO<sub>2</sub>  
Measurement range: 0 – 100 %  
Resolution: 1 %  
Accuracy:  $\pm 2$  % (70 – 100 %), 0–69 % unspecified  
Alarm range: 0 – 100 %  
Pulse rate range: 20 – 300 bpm  
Resolution: 1 bpm  
Error:  $\pm 1$  bpm or  $\pm 2$  %, whichever is greater

### NIBP

Method: Digital automatic oscillometric  
Operation mode: Manual / Automatic / Continuous  
Auto measurement time: Adjustable (1 – 480 min)  
Measurement unit: mmHg / kPa selectable  
Measurement types: Systolic, Diastolic, Mean  
Measurement range:

Systolic:  
Adult 40 – 270 mmHg  
Pediatric 40 – 220 mmHg  
Neonate 40 – 135 mmHg

Mean:  
Adult 20 – 235 mmHg  
Pediatric 20 – 165 mmHg  
Neonate 20 – 110 mmHg

Diastolic:  
Adult 10 – 215 mmHg  
Pediatric 10 – 150 mmHg  
Neonate 10 – 100 mmHg  
Over-pressure protection: Double safety protection  
Resolution: 1 mmHg  
Alarm: Systolic, Diastolic, Mean

RESP  
Method: Thoracic impedance  
Measurement range: Adult 7 – 120 rpm; Neonate/Pediatric 7 – 150 rpm  
Apnea alarm: Yes (10 – 40 s)  
Resolution: 1 rpm  
Accuracy:  $\pm 2$  rpm

TEMP  
Compatible probe: YSI or CYF  
Measurement range: 5 – 50 °C  
Resolution: 0.1 °C  
Accuracy:  $\pm 0.1$  °C  
Refreshing time: ~1 s  
Average measuring time: < 10 s

Recorder  
Built-in thermal array  
Plethysmogram waveform: 3 channels  
Record mode: Manual, on alarm, time-defined  
Recording width: 50 mm  
Printing speed: 12.5, 25, 50 mm/s  
Recording type: Frozen waveform record, NIBP recall record, Trend table record, Alarm record, Fixed-time record



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