

OMNI

PATIENT MONITOR

ECG • Respiration • SpO2 • NIBP • Temperature



- Up to 8 waveforms displayed
- Simultaneous Multi-Lead ECG monitoring
- Large Font Settings
- OxyCRG
- Wireless Network Capability
- Upgradeable monitor with ECG, Respiration, ST and Arrhythmia monitoring, Non-Invasive Blood Pressure, SpO2, and dual temperature.
- Optional End-tidal CO2 or Dual Invasive Blood Pressures.
- 4 Hour Battery Backup
- Rigid High-Quality construction
- 48 hour Graphic and Tabular trending
- Compatible with 32 bed Central Station
- ISO & CE Certified
- Standard 3 Channel Printer (Option)



Advanced, Affordable Medical Technology For The World

OMNI TECHNICAL SPECIFICATIONS

Safety Approval & Quality System

Designed to meet IEC60601-1-1988, EN60601-1-1, EN60601-2
Class II Equipment, double insulated
Type BF applied parts
ISO9001 & EN46001 Certified

Power Requirements

Power Supply AC 90-264V/47-63Hz
Input Power $\leq 55VA$
Fuses Two fuse sockets in the rear panel indicated by "FUSE",
 $\Phi 5 \times 20, 2A/250V$
Battery 12V/4.0AH sealed lead-acid
Charge time ≥ 8 hours
Operating time ≥ 4 hours (full recharge)
Battery Charging Method Automatic charging after monitor is connected to AC power supply (with charge protection function)
Discharge Protection When powered by battery, the monitor will be automatically turned off when battery power is almost used up.

Performance Specifications

ECG

Patient Safety Standard IEC60601-1-1988
CMRR $\geq 60dB$ (Common Mode Rejection Ratio)
Heart Rate Range 20 ~ 254bpm ± 1 bpm
Heart Rate Averaging 8 second average
ST Segment Range -0.8 ~ + 0.8mV
Interface AAMI 6-pin
Lead Selection I, II, III (3 lead mode)
I, II, III, aVR, aVL, aVF, V (5 lead mode) (ST and Arrhythmia analysis)
Audible, Visual
Lead Fault Alarm Audible, Visual
Input 5-lead ECG patient cable
QRS Indicator Audible and Visual Alert
Waveform Storage 6 minutes
Sweep Speed 12.5/25/50 mm/sec
Gain Selection 4mV, 2mV, 1mV, 0.5mV, 0.25mV, Auto
Trends 2 hours \rightarrow 4 hours \rightarrow 8 hours \rightarrow 24 hours \rightarrow 48 hours
Patient Isolation Breakdown voltage: 4000VAC 50Hz 60 seconds
Leakage current: $< 10\mu A$
Frequency width Monitoring mode: 0.5 ~ 40Hz (+0.4dB, -3.0dB)
Surgery mode: 0.5 ~ 20Hz (+0.4dB, -3.0dB) (not calibration significant)
Patient Drive Current $< 10\mu A$
Enclosure Leakage Current $< 0.1mA$
Maximum T wave Rejection Capability 1.2mV
Heart Rate Alarm Response Time < 7 seconds
Aspect Ratio 0.24 ~ 0.6 sec/mV
Alarm Frequency Low alarm 2-2.4kHz
High alarm 3-3.4kHz
Defibrillator Protected & ESIS Protected Tested with 5kV
Recovery Time Following Defibrillation < 5 seconds

Respiration

Measurement Method Thoracic Impedance
Respiration Rate Range 0 ~ 100 \pm 1rpm
Accuracy ± 2 rpm

Pulse Oximetry (SpO₂)

SpO₂ Range 0-100% Adult/Pediatric/Neonate
SpO₂ Averaging 8 second average
SpO₂ Accuracy $\pm 2\%$ (70 ~ 100%), $\pm 3\%$ (40 ~ 70%)
Pulse Rate Range 30 ~ 250bpm
Pulse Rate Averaging 8 beat average

Pulse Rate Accuracy $\pm 1\%$ @ 30 ~ 100bpm
Sensor Types Finger, Universal "Y", wrap probes
Pulse Rate Display Digital

Non-Invasive Blood Pressure (NIBP)

Method Automatic oscillometric
Parameters Systolic, diastolic, mean arterial pressure, pulse
Scale mmHg or kPa
Operating Modes Manual, Automatic, Continuous
Repeat Cycles 1 ~ 10, 15, 30, 60, 90, 120 minutes
Determination - Systolic Adult/pediatric 40 ~ 250mmHg (5.3 ~ 33.3kPa)
Neonate 20 ~ 160mmHg (2.7 ~ 21.3kPa)
- Diastolic Adult/pediatric 10 ~ 180mmHg (1.3 ~ 24.0kPa)
Neonate 10 ~ 140mmHg (1.3 ~ 18.7kPa)
Cuff Pressure Range Adult/pediatric 0 ~ 300mmHg (0 ~ 40.0kPa)
Neonate 0 ~ 140mmHg (0 ~ 18.7kPa)
Initial Cuff Inflation Adult/pediatric 170 \pm 10mmHg (22.7 \pm 1.3kPa)
Neonate 100 \pm 10mmHg (16.0 \pm 1.3kPa)
Deflation Pressure 30mmHg(4.0kPa) higher than the last systolic pressure.
Cuff Inflation Rate No greater than 50mmHg/sec
Measurement Time Typical 25 seconds
Maximum 40 seconds
Typical Stat 20 seconds

Pressure Display Accuracy ± 3 mmHg
BP Pulse Rate Accuracy $\pm 2\%$ @ 40 ~ 240bpm.
Cuff Neonate, infant, pediatric, standard adult.

Invasive Blood Pressure (Dual Channel) (Option)

Range -30 ~ +300 mmHg (-4.0 ~ +40.0 kPa)
Scale mmHg or kPa
Accuracy 1mmHg
Waveform Span Adjustable to 40,60,80,330 mmHg
Transducer sensitivity 5uV / V / mmHg
Alarm Audio and Visual
User adjustable upper and lower alarm limits

Temperature (Dual Channel)

Range 0 ~ 50°C
Probe YSI @ 400 Skin surface or rectal /esophageal
Scale Celsius
Accuracy $\pm 0.1^\circ C$
Resolution 0.1°C

CO₂

Type Side stream, mom-dispersive IR
CO₂ Range 0-99mmHg
Scale mmHg/kPa
Accuracy ± 2 mmHg (0-40mmHg)
 ± 5 mmHg (41-76mmHg)
 ± 10 mmHg(77-99mmHg)
Calibration Automatic
Respiration Range 0-150rpm, ± 2 rpm

TFT Color Display

Size 10.4_
Matrix 640 (H) x 480 (V) pixels

Recorder (Optional)

Type Built-in 2-channel thermal array recorder
Print mode Text or waveform
Waveforms Real time or alarm-triggered
Resolution 400dpi vertical, 800dpi horizontal
Annotations Time, date, vital sign readings

Specifications subject to change without notice.



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