

# MEDSURGE AQUARIUS VITAL SIGN MONITOR

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## AQUARIUS

### A Compact and Convenient Patient Monitoring System

Aquarius Vital Sign Monitor is a compact, portable and simple to use vital signs monitor with an exciting array of accessories and options. For Out-Patient Department, Spot-check, Transport, Ward and other basic monitoring.



Portable Design



Touch Screen (Optional)

### Masimo SET® SpO2



Ear Infrared Thermometer



Bar/QR Code Scanner

### FEATURES

- Mobility
  - Product dimension:
  - Unit: 173mm Wide x 152 mm Deep
  - Without Trolley: 274mm High
  - With Trolley: High Adjustable
- Quality
  - 8.4" TFT color LCD
  - Optional Touch Screen
  - High resolution 600\*800.
  - Up to 6 parameter or 3 wave form display



## Performance Specifications

- Usability
  - Built-in rechargeable battery - Standard 5 hour uninterrupted working time, can be upgraded to last 15 hours!
  - Convenience
    - Multi-selectable user screen options
- Venipuncture mode, Spot check mode
- SpO2 support PVI & PI, low perfusion 0.2%
- SpO2 pulse-tone modulation (Pitch Tone)  
Making more accurate screening and precise diagnoses
- Wired/Wireless CMS, support HL7
- Graphical & tabular trend review (120 hrs)
- Full disclosure waveforms review & storage
- 8.4" color TFT LCD Screen (Touch screen optional)
- Portable, Lighter weight and sturdy design
- MEWS (Modified Early Warning Score)
- Calculations : Hemodynamics/Dose calculation
- Rechargeable Li-ion Battery(up to 15 hours uninterruptable work)
- Spot-check and continuous monitoring mode
- Suitable for Adult, Pediatric and Neonatal
- Wired/WIFI/3G/4G CMS, support HL7 protocol to HIS
- Barcode scanner, Infrared ear/Forehead thermometer
- Night mode selectable, reduce light stimulation and noise
- Graphical & tabular trend review (240 hours)
- 48H full disclosure wave review for each patient



Touch Screen  
(Optional)



Ear Infrared  
Thermometer



Portable  
Design



Bar/QR Code  
Scanner

### Optional Accessories

Touch screen, ECG, Quick Temp, Bar code scan, EtCO<sub>2</sub>, Nellcor/Masimo SpO<sub>2</sub>, Wired/Wireless CMS, Printer, Plus many more...

- Touch Screen Interface
- SpO<sub>2</sub> Sensors: Neonatal, Paediatric & Adult finger clip
- Hard reusable sensor, Soft reusable sensor & SpO<sub>2</sub> Extension Cable
- Infrared Tympanic Thermometer Set
- Reusable Cuffs: Neonatal - 7-13cm, Infant - 12-19cm, Regular - 20 - 26cm  
Adult - 25 - 35cm, Large Adult - 34 - 33cm
- Height Adjustable Trolley with Basket and Castors

### Clinical Applications:

Hemodynamic, Dose, Oxygenation, Ventilation, MEWS, Renal function

## Technical Specifications

### Physical Specification

Display: 8.4" TFT LCD screen  
Resolution: 600 x 800  
Number of traces: 3, up to 7 ECG waveforms  
Dimension: 175x275x175mm(WxHxD)  
Weight: < 2.5 kg under standard configuration  
LAN: 1 standard RJ45 port  
WLAN: IEEE 802.11b/g/n  
USB: 2 USB interface

### ECG

Lead type  
3-lead: I, II, III  
5-lead: I, II, III, aVR, aVL, aVF, V  
ECG waveform: 1 channel, 7 channels  
Display sensitivity:  
2.5mm/mV (40.25), 5mm/mV (40.5),  
10mm/mV (41.0), 20mm/mV (42.0)  
Wave sweep speed:  
3.125mm/s, 6.25mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s  
Bandwidth  
Diagnostic mode: 0.05Hz~100Hz  
Monitor mode: 0.5Hz~40Hz  
Surgery mode: 1Hz~20Hz  
Strong filter mode: 5Hz~20Hz  
CMRR>100dB  
Notch: 50/60Hz notch filter can be set to on or off  
Differential input impedance>5MΩ  
Electrode polarization voltage range: ±400mV  
HR range: 15 - 350 bpm  
Baseline recovery time<3s after defibrillation (in monitor and surgery mode)  
Calibration signal:1mV (peak - peak), accuracy ±3%

### RESP

Measurement method : Thoracic electrical bioimpedance  
Measuring lead: Lead I, II  
Wave gain: 40.25, 40.5, 41, 42  
Respiratory impedance range: 0.5-5Ω  
0 - 150bpm  
Baseline impedance: 500-4000Ω  
Gain: 10 grades  
Scan speed: 3.125mm/s, 6.25mm/s, 12.5 mm/s, 25mm/s

### TEMP

Measurement method: Thermistor  
Measuring range: 5~50°C (41~122°F)  
Resolution: 0.1°C  
Measurement accuracy: ±0.1°C

### Infrared Ear Thermometer(optional)

Displayed range: 34~42.2°C (93.2~108 F°)  
Operation ambient temperature range: 10~40°C (50~104°F)  
Accuracy for displayed temperature range:  
≥35°C (95.9°F) ~ ≤42.2°C (107.6°F) range ±0.2°C (0.4°F)  
<35°C (95.9°F) ~ ≥34°C (93.2°F) range ±0.3°C (0.5°F)

### Masimo IRMA™ Mainstream CO<sub>2</sub> (optional)

Measurement Range: 0 -25%  
Warm-up time: Full accuracy within 10 seconds  
Accuracy: 0~15% (±0.2% of the reading)  
15~25%, unspecified  
AWRR Range: 0-150bpm

### Operation Environment

Input Power: AC 100-250V, 50/60Hz  
Temperature: 5-40°C  
Humidity: < 85%  
Patient Range: Adult, Pediatric, Neonate

### NIBP

Measurement method : Automatic oscillometric method  
Operating mode:Manual, automatic, continuous  
Measurement unit: mmHg/kPa selectable  
Typical measurement time: 20~40s  
Measurement type: Systolic, Diastolic, Mean  
Measurement range (mmHg)  
Range of Systolic pressure: Adult 40-280  
Pediatric 40-200  
Neonatal 40-135  
Range of Diastolic pressure: Adult 10-210  
Pediatric 10-150  
Neonatal 10-95  
Range of Mean pressure: Adult 20-230  
Pediatric 20-165  
Neonatal 20-105  
Measurement accuracy  
Maximum average error: ±5mmHg  
Maximum standard deviation: 8mmHg  
Resolution: 1mmHg  
Interval:1,2,3,4,5,10,15,30,60,90,120,180,240,480minutes  
Overpressure protection: Software and hardware,  
double safety protection  
Cuff pressure range: 0-300mmHg

### Northern SpO<sub>2</sub>

Measurement range : 0-100%  
Parameter monitoring: Perfusion Index(PI) :1-10  
Optional Pleth Variability Index(PVI)  
Resolution: 1%  
Accuracy: ±2% or ±2bpm  
Refreshing Rate: 1s

### Masimo SET SpO<sub>2</sub> (optional)

Measurement range : 0-100%  
Resolution: 1%  
Accuracy: ±2% (70-100%, Adult/Pediatric, non-motion, low perfusion);  
±3% (70-100%, Neonate, non-motion);  
±3% (70-100%, motion);  
0-69%, unspecified  
Refreshing Rate: 1s

### Pulse Rate

Range: 30~300 bpm  
Resolution: 1bpm  
Accuracy: ±2bpm (non-motion)  
±5bpm (motion)  
Refreshing rate: 1s

### Masimo IRMA™ Sidestream CO<sub>2</sub> (optional)

Warm-up time: Full accuracy within 10 seconds  
Sampling flow rate: 50ml/min(+/-10/min)  
Accuracy: 0~15% (±0.2% of the reading)  
15~25%, unspecified  
Measurement Range: 0 -25%  
Rise time: 200ms, typical at 50ml/min flow rate  
Total response time:  
within 3 seconds(with 2m Moline sampling line)  
AWRR Range: 0~150bpm

### Recorder(optional)

Built-in, Thermal dot array  
Horizontal resolution :16 dots/mm (25 mm/s paper speed)  
Vertical resolution:8 dots/mm  
Paper speed:12.5mm/s, 25 mm/s, 50 mm/s  
Number of waveform channels:3





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