

Aquarius

Vital Sign Monitor



Committed to Excellence

For Out-Patient Department, Spot-check, Transport, Ward and other basic monitoring

Configuration

SpO2 + NIBP, Li-ion battery

SpO2+NIBP+ECG+TEMP, Li-ion battery

Optional

Masimo/Nellcor SpO2, Quick Temp, Bar code scanner, wired/wireless CMS

Masimo/Nellcor SpO2, EtCO2, Quick Temp, Bar code scanner, Thermal Recorder, wired/wireless CMS



Touch Screen
(Optional)



Quick Temp
(Infrared Ear Thermometer)



Portable Design



120

Hours long trend

60

Mins short trend

1000

NIBP measurements

200

Alarm events

Northern Meditec Limited

Aquarius

Vital Sign Monitor



- 8" color TFT LCD Screen (Touch screen is an optional)
- Portable, Lighter weight and sturdy design
- Flexible parameters configuration for different clinical environments
- Rechargeable Li-ion Battery (up to 12 hours uninterruptable work)
- Big font and color font display setting
- Spot-check and continuous monitoring mode
- Selectable for Adult, Pediatric and Neonatal patients
- Wired/Wireless CMS, support HL7 protocol to HIS
- Barcode scanner support
- Thermal recorder support
- Graphical & tabular trend review
- 48h full disclosure wave review for each patient (stored in SD card)

Specifications

Display

8" color TFT LCD Screen, resolution: 800 x 600

ECG

Lead type

3-lead: I, II, III

5-lead: I, II, III, aVR, aVL, aVF, V

Display sensitivity:

2.5mm/mV (×0.25), 5mm/mV (×0.5), 10mm/mV (×1.0),
20mm/mV (×2.0)

Wave sweep speed: 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

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: ×0.25, ×0.5, ×1, ×2

Respiratory impedance range: 0.5-5Ω

Baseline impedance: 500-4000Ω

Gain: 10 grades

Scan speed: 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

Recorder(optional)

Built-in, Thermal dot array

Horizontal resolution: 16 dots/mm (25 mm/s paper speed)

Vertical resolution: 8 dots/mm

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

Number of waveform channels: 3

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 40-270

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, 480 minutes

Overpressure protection: Software and hardware, double safety protection

Cuff pressure range: 0-280mmHg

Northern SpO₂

Measurement range: 0-100%

Resolution: 1%

Accuracy: ±2% (70-100%, Adult/Pediatric);

±3% (70-100%, Neonate);

0-69%, unspecified

Refreshing Rate: 1s

Masimo SpO₂ (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: 30~254 bpm

Resolution: 1bpm

Accuracy: ±2bpm (non-motion)

±5bpm (motion)

Refreshing rate: 1s

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)

Phasein IRMA™ Sidestream CO₂ (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

Phasein IRMA™ Mainstream CO₂ (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

Power: AC 100-250V, 50/60Hz

Temperature: 5-40°C

Humidity: < 85%

Patient Range: Adult, Pediatric, Neonate



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