

ONSEN8000B 8 inch patient monitor

Features

- 8" Color TFT LCD Screen, optional touch screen, Display Resolution: 800*600
- 2 hours wave storage, 720 hours Trend review, 200 alarm events, 1000 NIBP measurement data review
- Standard interface: Maximum 9-channel waveforms display, the waveform color can be defined by user (7 colors)
- Optional interface: Maximum 12-channel waveforms display, the waveform color can be defined by user (7 colors)
- ST and 13 kinds arrhythmia analysis, pacemaker analysis, drug dose calculation
- Respiration monitoring with apnea alarms, alarm review, arrhythmia review
- Unique human voice alarm, Three Level: Low, medium and high,
Indication: Auditory and visual, All alarms can be silenced, Alarm Volume: The scope is 1~10
- Rechargeable high energy built-in Li battery, AC/DC available, silent fanless design
- Anti-defibrillation design, NIBP over pressure protection
- Central station support Nurse Call by wire/wireless network
- Digital SpO2 with excellent performance
- Support multiple languages
- PVI (Pleth Variability Index)
- USB support PDF file export

Technical Specifications

Quality Standards and Classification: ISO13485

ISO9001 ,CFDA,FSC

MDD classification: Class II b

Anti-electroshock degree: Class I equipment

(internal power supply)

TEMP/SpO2 /NIBP: BF

ECG/Resp: CF

Application Range

Adult/Pediatric/Neonatal/Medicine/Surgery/Operating

Room/ICU/CCU/Clinic/Ambulance/

Emergency Centers/Bedside Care Ward/Family Care

Environment

Temperature

Working: 0 ~ 40℃

Storage: -20 ~ 50℃

Humidity

Working: 15% - 90%

Storage: 15% - 90% (no coagulation)

Atmospheric pressure

Working: 86.0kPa ~ 106.0kPa

Storage: 86.0kPa ~ 106.0kPa

Power Requirement

External power required

AC: 100V ~ 240V, 50Hz/60Hz

DC: Built-in rechargeable battery

Battery: 14.8V, 2200mAh rechargeable Li-ion battery

4h operating after full charge

5min operating after low battery alarm

Input power: $P_{max}=90VA$

FUSE: T1.5AL 250V

Dimension and Weight

Equipment: 310mm x 70mm x 160mm(about); 1.5kg(about)

Package: 265mm x 195mm x 225mm; 2.5kg(about)

Storage

Trend 720 hours

NIBP review 1000 NIBP events

Wave review 2 hours

Alarm review 200 alarm events

All storage data are non volatile

ECG

5Leads: RA, LA,LL, RL, V

lead mode:I, II, II,. AVR, AVL, AVF, V

3 Leads: R,L,F or RA,LA, LL

Lead mode: I, II, II

Gain: 2.5mm/mV, 5.0mm/mV, 10mm/mV,20mm/mV, auto

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

Bandwidth

Surgery: 1 ~ 20Hz

Monitor: 0.5 ~ 40Hz

Diagnostic: 0.05 ~ 130Hz

Calibration Signal: 1(mVp-p), Accuracy: 5%

CMRR

Diagnostic Mode: >90dB

Monitor Mode: >110dB

Surgery Mode: >110dB

Electrode offset potential:±300mV

Leakage Current: <10 uA

HR Measure Range

Adult: 15 ~ 300 bpm

Neonatal/Pediatric: 15 ~ 350 bpm

Accuracy: $\pm 1\%$

Resolution: 1bpm

Sensitivity: >200 ($\mu\text{Vp-p}$)

Differential Input Impedance: $>5\text{ M}\Omega$

ST Segment

ST Segment Monitoring Range

Measure and Alarm: $-2.0 \sim +2.0\text{mV}$

Accuracy: $-0.8\text{mV} \sim +0.8\text{mV}$

$\pm 0.02\text{mV}$ or $\pm 10\%$, which is greater

ARR Detecting

Type: ASYSTOLE, VFIB/NTAC, COUPLET, BIGEMINY,

TRIGEMINY, R ON T, VT >2 , BRADY, MISSED BEATS,

PNP, PNC, Alarm Available, Review Available

NIBP

Method: Oscillometry

Mode: Manual, Auto, STAT

Measuring Interval in AUTO Mode: 1,2, 3,4,5, 10, 15,
30, 60, 90,120, 180,
240, 480 (Min)

Measuring Period in STAT Mode: 5 Min

Pulse Rate Range: 40 ~ 240bpm

Alarm Type: SYS, DIA, MEAN

Measuring and alarm range:

Adult Mode: SYS 40 ~ 280mmHg

DIA 10 ~ 220mmHg

MEAN 20 ~ 240mmHg

Pediatric Mode: SYS 40 ~ 220mmHg

DIA 10 ~ 160mmHg

MEAN 20 ~ 170mmHg

Neonatal Mode: SYS 40 ~ 135mmHg

DIA 10 ~ 100mmHg

MEAN 20 ~ 110mmHg

Resolution: 1mmHg

Accuracy: Maximum Mean error ± 5 mmHg

Maximum Standard deviation 8mmHg

Overpressure Protection

Adult Mode: 300mmHg

Pediatric Mode: 240mmHg

Neonatal Mode: 150mmHg

Static pressure accuracy: 3mmHg

SpO2

Measuring Range: 0 ~ 100%

Resolution: 1%

Alarm Range: 0 ~ 100%

Accuracy: 70% ~ 100% $\pm 2\%$

<69% unspecified

Actualization interval about: 1 Sec.

Alarm Delay: 10 Sec

Pulse Rate

Measuring and Alarm Range: 20 ~ 250bpm

Resolution: 1bpm

Accuracy: ± 3 bpm

Perfusion Index

Measure and Alarm Range: 0.02 ~ 20%

Resolution: 0.01%

Respiration

Method: Impedance between R-F(RA-LL)

Measuring Impedance Range: $0.3 \sim 3\Omega$

Base line Impedance Range: $200 \sim 4000\Omega$

Bandwidth: $0.3 \sim 2.5\text{Hz}$

Resp rate: Measurement Range

Adult: $0 \sim 120$ BrPM

Neonatal / Pediatric: $0 \sim 150$ BrPM

Resolution: 1 BrPM

Accuracy: $0 \sim 6$ BrPM: unspecified

$7 \sim 150$ BrPM: ± 2 BrPM

Apnea Alarm: $10 \sim 40\text{S}$

Gain 0.25, 0.500, 1, 2, 4

Differential Input Impedance: $>2.5\text{M}\Omega$

Inspiriting current: $<300\text{ }\mu\text{A}$ RMS max

TEMP

Channel: 1

Measuring and Alarm Range: $0 \sim 50^\circ\text{C}$

Resolution: 0.1°C

Accuracy: $\pm 0.1^\circ\text{C}$ ($0 \sim 50^\circ\text{C}$)

Actualization interval about: 1 Sec

Average Time Constant: <10 Sec

Sensor Type: 10K series, 2.25K series

Standard Accessories Adult

NIBP cuff & Extension tube, ECG cable & electrodes,

SpO2 sensor, TEMP probe, Lithium-ion battery,

Power cable, User manual, Hand hook

Technical Specifications

CO2 (optional)

Measure Range: 0% ~ 13%

Resolution: 1mmHg

Accuracy: 2mmHg @ < 5.0% CO2(at ATPS)

Breath Rate: 3 ~ 150 bpm

IRMA Gas (optional)

Measuer Range

CO2:0- 15%

O2: 0- 10%

N2O: 0- 15%

HAL, ISO, ENF: 0- 100%

SEV: 0- 8%

DES: 0- 18%

Accuracy

CO2: $\pm (0.2\% \text{ ABS} + 2\% \text{ REL})$

O2: $\pm(1\%\text{ABS}+2\%\text{REL})$

N2O: $\pm(2\% \text{ ABS} + 2\% \text{ REL})$

HAL, ISO, ENF: $\pm(0.15\% \text{ ABS} + 2\% \text{ REL})$

SEV: $\pm(0.15\% \text{ ABS} + 2\% \text{ REL})$

DES: $\pm(0.15\% \text{ ABS} + 2\% \text{ REL})$

Breath Rate: 0 - 150 bpm, $\pm 1\text{bpm}$

Gas (optional)

Range

FiCO2,EtCO2: 0 ~ 15%

RR: 0 ~ 0-1 50BPM

N2O: 0~ 100

Sevoflurane: 0 ~ 10%

Isoflurane: 0 ~ 8%

Enflurane: 0 ~ 8% .

Desflurane: 0 ~ 22%

Accuracy

FiCO₂, EtCO₂: $\pm(0.2\% + 5\% \text{ of reading}) @ (0 \sim 10\%)$

$\pm(0.2\% + 8\% \text{ of reading}) @ (0 \sim 10\%)$

RR: $\pm 1\text{BPM}$

N₂O: $\pm(2\% + 3\% \text{ of reading})$

Sevoflurane : $\pm(0.15\% + 5\% \text{ of reading}) @ (5 \sim 10\%)$

$\pm(0.3\% + 10\% \text{ of reading}) @ (5 \sim 10\%)$

Isoflurane : $\pm(0.15\% + 5\% \text{ of reading}) @ (0 \sim 5\%)$

$\pm(0.15\% + 10\% \text{ of reading}) @ (5 \sim 8\%)$

Enflurane: $\pm(0.15\% + 5\% \text{ of reading}) @ (0 \sim 5\%)$

$\pm(0.3\% + 5\% \text{ of reading}) @ (5 \sim 8\%)$

Enflurane: $\pm(0.15\% + 5\% \text{ of reading}) @ (0 \sim 10\%)$

$\pm(0.3\% + 10\% \text{ of reading}) @ (5 \sim 22\%)$

Standard: 3/5-Leads ECG、SpO₂、NIBP、RESP、TEMP、PR/HR

Optional: Touch Screen、EtCO₂、Wall Mount、Rolling Stand、Disposable

Spo₂ Probe、CMS、WIFI、AG、Nurse Call、

Children Accessories、Newborn Accessories、Car power cord