



# CONTEC™

「CARE HEALTH CARE LIFE」

## LIGHT THE RHYTHM OF LIFE WITH TECHNOLOGY



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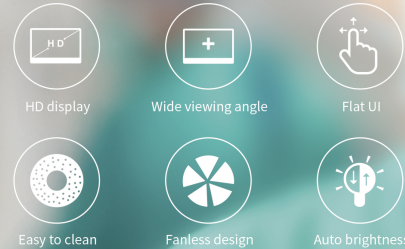
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## TS13 Patient Monitor



# TS13 Patient Monitor



The monitor is applicable for clinical monitoring in operating room, postoperative observation room, ICU/CCU ward, emergency room, etc. of adult, pediatric and neonate. The patient's vital parameters (ECG (including ST-segment measurement and arrhythmia analysis), RESP, SpO<sub>2</sub>, PR, NIBP, TEMP, IBP and CO<sub>2</sub>, etc.) can be monitored. Monitored information can be displayed, reviewed, printed and stored..

## Function

- ◆ 13.3" high-definition touch screen design, easy and convenient to operate, elegant and concise in appearance.
- ◆ Independent physiological and technical alarm function, convenient for medical staff to quickly know patient's condition.
- ◆ Luminous "ON / OFF" button design, convenient to operate at night.
- ◆ Modular design: the modules can be configured and combined flexibly and conveniently, expanded and upgraded at any time, meets the monitoring requirements of different departments on different parameters.
- ◆ Support dynamic hot-plugging parameter module: no need to restart the device, plug-and-play, change the monitoring parameters at any time as clinical requirements.
- ◆ Adopt high-performance processor, stable, reliable and fast to process information.
- ◆ Patient information can be rapidly entered, patient type (adult / neonate / pediatric) can be quickly switched, meets the requirements of different departments.
- ◆ Abundant analysis functions: 23 arrhythmia, full-lead ST-segment and pacing analysis; multiple calculation functions (such as calculation of drug concentration, titration table, hemodynamics, ventilation, oxygenation, renal function, etc.).
- ◆ With the functions of waveform freezing, holographic waveform storage and review.
- ◆ Automatic data storage in case of power failure; optional built-in memory card, achieves large-capacity data storage.
- ◆ With HDMI expansion interface, the display screen can be connected according to clinical requirements.
- ◆ Built-in large-capacity detachable lithium battery, ensures uninterrupted monitoring.
- ◆ Fanless design, ensures no noise and low power consumption during working.
- ◆ 3-channel built-in recorder used to print real-time waveform is optional.
- ◆ Connect to Central Monitoring System developed by our company by WiFi / Wired, convenient to transmit patient's real-time data.
- ◆ Standby mode, be applied to ICU, avoids affecting patient's rest, one-button switching, reduces the workload of medical staff.

## Performance

### ECG

- ◆ Lead type:
  - 3-lead: I, II, III
  - 5-lead: I, II, III, aVR, aVL, aVF, V
  - 12-lead: I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6
- ◆ Gain: 2.5 mm/mV, 5.0 mm/mV, 10 mm/mV, 20 mm/mV
- ◆ Scan speed: 12.5 mm/s, 25 mm/s, 50 mm/s
- ◆ HR
  - Measurement and alarm range:
    - Adult: 15 ~ 300 bpm
    - Pediatric/neonate: 15 ~ 350 bpm
  - Resolution: 1 bpm
  - Accuracy:  $\pm 1\%$  or  $\pm 1$  bpm, whichever is greater
- ◆ ST-segment detection
  - Measurement and alarm range: -2.0 mV ~ +2.0 mV
  - Accuracy: -0.8 mV ~ +0.8 mV:  $\pm 0.04$  mV or  $\pm 10\%$ , whichever is greater
  - Other range: unspecified
- ◆ Arrhythmia analysis: 23 kinds
- ◆ Pacemaker: yes

### RESP

- ◆ Measurement mode: R-F (RA-LL) impedance
- ◆ Respiration rate:
  - Measurement range:
    - Adult: 0 rpm ~ 120 rpm
    - Pediatric/neonate: 0 rpm ~ 150 rpm
  - Resolution: 1 rpm
  - Accuracy: 7 ~ 150 rpm,  $\pm 2$  rpm or  $\pm 2\%$ , whichever is greater; 0 ~ 6 rpm, unspecified
- ◆ Apnea alarm: 10 ~ 120 s, not alarm
- ◆ Scan speed: 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s

### NIBP

- ◆ Measurement mode: Oscillometry
- ◆ Working mode: Manual/AUTO/Continuous
- ◆ Measurement interval in AUTO mode: 1 min, 2 min, 2.5 min, 3 min, 5 min, 10 min, 15 min, 20 min, 30 min, 1 h, 1.5 h, 2 h, 3 h, 4 h, 8 h
- ◆ Measurement period in Continuous mode: 5 minutes
- ◆ Measurement and alarm range: 10 ~ 270 mmHg
- ◆ Resolution: 1 mmHg
- ◆ Cuff pressure accuracy:  $\pm 3$  mmHg
- ◆ Measurement accuracy:
  - Maximal mean deviation:  $\pm 5$  mmHg
  - Maximal standard deviation: 8 mmHg
- ◆ Over-pressure protection:
  - Adult mode:  $297 \pm 3$  mmHg
  - Pediatric mode:  $240 \pm 3$  mmHg
  - Neonatal mode:  $147 \pm 3$  mmHg

### CONTEC SpO<sub>2</sub>

- ◆ Measurement range: 0% ~ 100%
- ◆ Resolution: 1%
- ◆ Accuracy: 70% ~ 100%,  $\pm 2\%$ ; 0% ~ 69%, unspecified
- ◆ PR
  - Measurement and alarm range: 25 ~ 250 bpm
  - Accuracy:  $\pm 2$  bpm or  $\pm 2\%$ , whichever is greater

### Nellcor SpO<sub>2</sub>

- ◆ Measurement range: 1% ~ 100%
- ◆ Measurement accuracy: 70% ~ 100%:  $\pm 2\%$  (adult / pediatric)  
70% ~ 100%:  $\pm 3\%$  (neonate)  
0% ~ 69%: unspecified
- ◆ Nellcor PR
  - Measurement range: 20 ~ 300 bpm;
  - Measurement accuracy: 20 ~ 250 bpm,  $\pm 3$  bpm;  
251 ~ 300 bpm: unspecified;
  - Upper limit of alarm: upper limit - 2 ~ 300 bpm;
  - Lower limit of alarm: 20 bpm ~ lower limit + 2 bpm

### Masimo SpO<sub>2</sub>

- ◆ Measurement range: 1% ~ 100%
- ◆ Measurement accuracy:
  - 70% ~ 100%:  $\pm 2\%$  (adult / pediatric, under conditions of no motion),  $\pm 3\%$  (under conditions of motion)
  - 70% ~ 100%:  $\pm 3\%$  (neonate, under conditions of no motion)
  - 1% ~ 69%: unspecified
- ◆ Masimo PR
  - Measurement range: 25 ~ 240 bpm
  - Measurement accuracy:  $\pm 3$  bpm (under conditions of no motion),  $\pm 5$  bpm (under conditions of motion)
  - Upper limit of alarm: upper limit - 2 ~ 240 bpm
  - Lower limit of alarm: 25 bpm ~ lower limit + 2 bpm

### TEMP

- ◆ Channel: dual-channel
- ◆ Measurement range: 0 ~ 50 °C
- ◆ Resolution: 0.1 °C
- ◆ Accuracy:  $\pm 0.1$  °C

### CO<sub>2</sub>

- ◆ Measurement mode: mainstream or sidestream
- ◆ CO<sub>2</sub> measurement range: 0 ~ 150 mmHg
- ◆ CO<sub>2</sub> resolution: 0.1 mmHg: 0 ~ 69 mmHg  
0.25 mmHg: 70 ~ 150 mmHg
- ◆ Accuracy:
  - 0 ~ 40 mmHg:  $\pm 2$  mmHg
  - 41 ~ 70 mmHg:  $\pm 5\%$
  - 71 ~ 100 mmHg:  $\pm 8\%$
  - 101 ~ 150 mmHg:  $\pm 10\%$
- ◆ AwRR measurement range:
  - Sidestream: 2 ~ 120 rpm
  - Mainstream: 2 ~ 150 rpm
- ◆ AwRR accuracy:  $\pm 1$  rpm
- ◆ Apnea alarm: yes

### IBP

- ◆ Channel: 4-channel
- ◆ Label: ART, PA, CVP, RAP, LAP, ICP, P1, P2
- ◆ Measurement and alarm range: -50 ~ 300 mmHg
- ◆ Resolution: 1 mmHg
- ◆ Accuracy:  $\pm 2\%$  or 1 mmHg, whichever is greater

Power supply: 100 - 240 V ~ 50/60 Hz

Safety class: class I, defibrillation-proof type CF applied part

Waterproof degree: IPX2