

UX SERIES

UX10, UX12, & UX15 Patient Monitors



High-Resolution Gesture
Touch Screen



Bi-directional Communications
with Central Monitoring System



HDMI Output for Larger
Screen Viewing

Introducing The UX Series

The Edan UX Series Patient Monitor is a bedside and continuous monitoring solution with flexible mounting solutions for dental care, outpatient settings, and primary care facilities. This advanced patient monitor features a high resolution touchscreen, customizable shortcut keys and a sleek, ergonomic design.

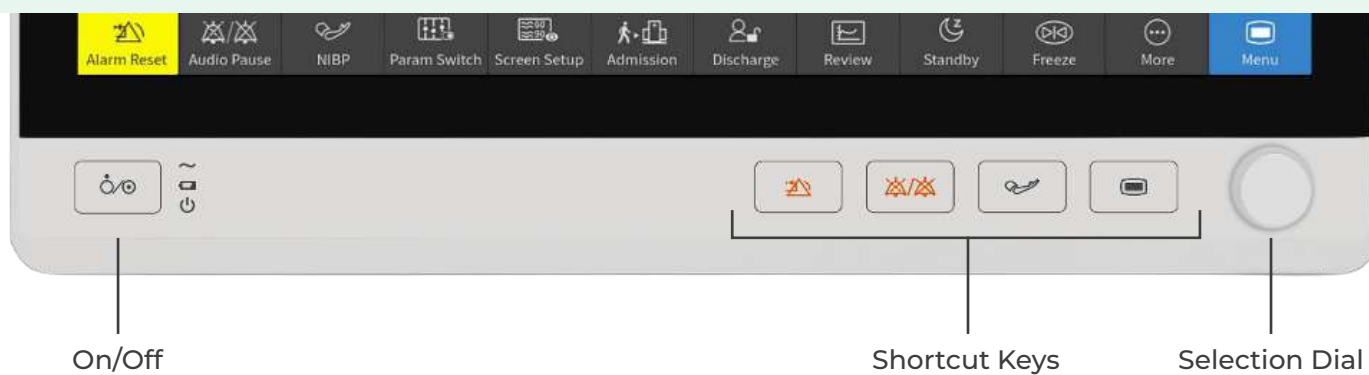
Additionally, the UX Series utilizes iSEAP algorithm for ECG monitoring, which detects up to 33 types of arrhythmias. Blood pressure measurement is quick and accurate with the iFAST algorithm, and the SpO₂ iMAT algorithm offers outstanding motion resistance. With advanced monitoring capabilities, high-capacity storage, and CMS integration, the Edan UX Series is ideal for any environment.

Features:

- High resolution display & touchscreen
- No-fan design
- 3 hours of battery life (6 hours with upgraded battery)
- 5G WiFi connectivity
- USB, HDMI ports
- Multi-lead analysis
- 3-level alarms with different colors
- Detects up to 33 types of arrhythmia
- Standard 3/5-Lead
- Ample internal storage for trends and event records
- Compatible with MT-207 trolley and wall mount
- iMAT algorithm
- Specialized SEIMP algorithm
- iCUFFS algorithm

Standard Parameters: 3/5-lead ECG, HR, RESP, SpO₂, NIBP, PR, 2-TEMP, IBP

Optional Features: Printer, CO₂, Cardiac Output, F300 Filac Module, Dual IBP



What's the Difference?

UX10 Patient Monitor

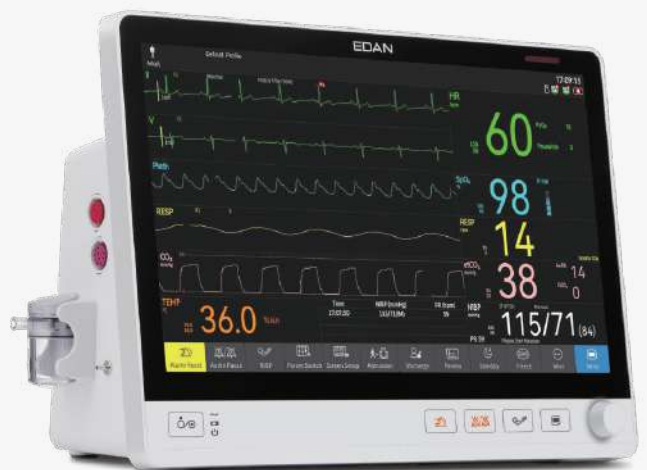
- ✓ WiFi
 - ✗ Optional CO₂
 - ✓ 10.1" Touch Screen
 - ✗ Optional Dual IBP Slots
 - ✓ Optional CMS Connectivity
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UX12 Patient Monitor

- ✓ WiFi
 - ✓ Optional CO₂
 - ✓ 13.3" Touch Screen
 - ✓ Optional Dual IBP Slots
 - ✓ Optional CMS Connectivity
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UX15 Patient Monitor

- ✓ WiFi
- ✓ Optional CO₂
- ✓ 15.6" Touch Screen
- ✓ Optional Dual IBP Slots
- ✓ Optional CMS Connectivity

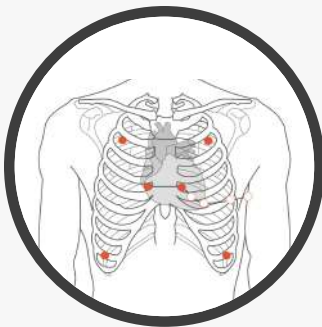


Proprietary Algorithms & Technologies



G2 CO₂ (Sidestream)

- Superior water trap design for accurate monitoring
- iCARB™ algorithm with intelligent CO₂ pseudo wave identification technology
- Sampling rate as low as 50ml/min



ECG

- Automatic lead type detection
- Industry leading iSEAP™ algorithm with auto-detection of 33 types of arrhythmias
- SEMIP® algorithm with 208 ECG findings over age/gender diversities



NIBP

- Dual dust filter design means no blockage inside and provides accurate NIBP readings
- Unique cleaning mode for routine maintenance
- iCUFS™ algorithm with smart deflation technology

SpO₂

- iMAT algorithm with motion resistance and low perfusion resistance performance
- Reference reading of Perfusion Index (PI) from 0 to 10 according to perfusion changes
- Simultaneous measurements of SpO₂ and NIBP of the same limb

Configurations

UX10

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 1-TEMP, PR, HR and internal memory for previous data review.

UX10.P

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 1-TEMP, PR, HR, internal memory for previous data review & printer installed.

UX12

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal memory for previous data review.

UX12.P

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR, internal memory for previous data review & printer installed.

UX12-G2

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal OEM Edan Sidestream G2 CO₂ module. G2 CO₂ uses traditional water traps and any male luer lock cannula with generic connection. Internal memory for previous data review.

UX12-G2.P

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal OEM Edan Sidestream G2 CO₂ module. Internal memory for previous data review and printer installed.

UX15

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal memory for previous data review.

UX15.P

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal memory for previous data review & printer installed.

UX15-G2

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal OEM Edan Sidestream G2 CO₂ module. G2 CO₂ uses traditional water traps and any male luer lock cannula with generic connection. Internal memory for previous data review.

UX15-G2.P

Standard Configuration with Touch Screen, WiFi, 3/5-lead ECG, RESP, NIBP, Edan SpO₂, 2-TEMP, PR, HR and internal OEM Edan Sidestream G2 CO₂ module. Internal memory for previous data review and printer installed.

Included Accessories

STANDARD ACCESSORIES

- ECG cable, 3-lead, snap, AHA, 3.4m — **01.57.471388**
- SpO₂ Finger Sensor, Adult, 2.5m, reusable - direct connect 7 pin — **02.57.225029**
- NIBP Cuff, Adult, 27cm-35cm, reusable — **Cuff.E9**
- NIBP Tube — **01.59.473007**
- Adult skin temperature probe — **01.15.040225**
- Rechargeable Lithium-Ion Battery (10.8V, 2550mAh) — **01.21.064380**

G2 ACCESSORIES

- Water Trap — **02.01.210520**
- Disposable CO₂ Sampling line with male luer lock — **4410-10-25**
- Adult Nasal CO₂ sampling cannula — **4000-7-25**

Optional Accessories

SPO2 SENSORS

- SpO₂ Finger Sensor, Adult, 2.5m, reusable — **SH1.DB9**
- SpO₂ Wrap Sensor, Neonate, 1m, reusable — **SH3.DB9**
- SpO₂ Silicone Soft-tip Sensor, Adult, 1m, reusable — **SH4.DB9**
- SpO₂ Silicone Soft-tip Sensor, Pediatric, 1m, reusable — **SH5.DB9**
- SpO₂ Ear Clip Sensor, Adult/Pediatric, 1m, reusable — **SH6.DB9**
- SpO₂ 7-pin Extension Cable, 2m — **01.57.471068**
- SpO₂ 7-pin Extension Cable, 4m — **01.57.471789**

CUFFS

- NIBP Cuff, Infant, 10-15cm, reusable — **Cuff.E5**
- NIBP Cuff, Small Child, 13-17cm, reusable — **Cuff.E6**
- NIBP Cuff, Child, 16-21cm, reusable — **Cuff.E7**
- NIBP Cuff, Small Adult, 20.5-28cm, reusable — **Cuff.E8**
- NIBP Cuff, Adult, 27cm-35cm, reusable — **Cuff.E9**
- NIBP Cuff, Large Adult, 34cm-43cm, reusable — **Cuff.E10**
- NIBP Thigh Cuff, Adult, 42cm-54cm, reusable — **Cuff.E11**

NIBP TUBING

- NIBP Tube (3m) with connector — **01.59.473007**

Specifications

CLASSIFICATION

Anti-electroshock type
Class I equipment and internal powered equipment
Anti-electroshock degree: CF
Ingress Protection: IPX1
Working system: Continuous operation equipment
Compliant with Standards: IEC 60601-1; IEC 60601-1-2; EN 60601-1; EN 60601-1-2; IEC 80601-2-49

PHYSICAL SPECIFICATION

UX10
Dimensions
268.5mm(W)×209.7mm(H)×170.5mm(D)
Weight: 3.5 kg

UX12
Dimensions
330.1mm(W)×244.2mm(H)×176.2mm(D)
Weight: 4.0 kg

UX15
Dimensions
383.3mm(W)×268.7mm(H)×182.4 mm(D)
Weight: 5.0 kg

ENVIRONMENT SPECIFICATION

Temperature
Working: 0°C to 40°C (32°F to 104°F)
Transport and Storage: -20°C to 60°C (-4°F to 140°F)
Relative Humidity
Working: 15%RH to 95%RH (non-condensing)
Transport and Storage: 10%RH to 95%RH (non-condensing)
Barometric Pressure
Working: 57 kPa to 107.4 kPa
Transport and Storage: 16 kPa to 107.4 kPa

POWER SUPPLY

AC Voltage: 100 V to 240 V
Input Current: 0.6 A to 0.3 A
Frequency: 50 Hz/60 Hz
Over Current Fuse Protection: Support

BATTERY

Operating Time
UX10: One battery (2550 mAh) ≥ 4 h
UX12: One battery (5100 mAh) ≥ 8 h
UX15: One battery (2550 mAh) ≥ 3 h
One battery (5100 mAh) ≥ 6 h
Condition
At 25±5 °C, with new fully charged battery/batteries, 3-lead ECG cable and SpO₂ sensor connected, NIBP module set at an interval of 15 minutes, and screen brightness set to "1".
Charge Time
UX10/UX12: One battery (2550 mAh)
≤ 3.5 h (monitor is off)
One battery (5100 mAh)
≤ 6.5 h (monitor is off)
UX15: One battery (2550 mAh)
≤ 5.5 h (monitor is on or standby)
One battery (5100 mAh)
≤ 11 h (monitor is on or standby)
Condition
Environment temperature: 20°C to 30°C ≥ 90% charged
Charge/Discharge Cycle: 300 times

DISPLAY

UX10
Screen: 10.1" color TFT (optional touchscreen)
Resolution: 1024×600
Waveforms: 8
One power LED
One AC power LED
One alarm LED
One battery LED

UX12
Screen: 13.3" color TFT (optional touchscreen)
Resolution: 1920×1080

UX15
Waveforms: 10
One power LED
One AC power LED
One alarm LED
One battery LED

Screen: 15.6" color TFT (optional touchscreen)
Resolution: 1920×1080
Waveforms: 12
One power LED
One AC power LED
One alarm LED
One battery LED

RECORDER

Record Width: 48 mm
Record Paper Width: 50 mm
Paper Speed: 12.5 mm/s, 25 mm/s, 50 mm/s
Number of waveform channels: A maximum of 3

DATA STORAGE

Trend Data
48 hours @ 1 s
240 hours @ 1 min
NIBP Measurement: At least 1600 sets
Alarm Events: Up to 1800 sets
Full Disclosure Waveform: 48 hours @ 1 s

WIFI

IEEE: 802.11a/b/g/n
Bandwidth: 20 M/40 M
Frequency Band: 2.4 G/5 G
Modulation Mode
802.11a/g/n: OFDM
802.11b: CCK and DSSS

Antenna
Single antenna, 2.4 GHz gain ≤ 3.0
5 GHz gain ≤ 3.5
Power voltage: 3.3 V
Bluetooth: Dual mode BLE4.0+EDR/BR
Connector: SDIO2.0 for Wi-Fi, UART for BT

ECG

Lead Mode
3 Electrodes: I, II, III
5 Electrodes: I, II, III, aVR, aVL, aVF, V
6 Electrodes: I, II, III, aVR, aVL, aVF, and leads corresponding to Va Vb.
10 Electrodes: I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6
Electrode Standard: AHA, IEC
Display Sensitivity (Gain Selection)
1.25 mm/mV (×0.125), 2.5 mm/mV (×0.25), 5 mm/mV (×0.5), 10 mm/mV (×1), 20 mm/mV (×2), 40 mm/mV (×4), AUTO gain

Sweep: 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
Bandwidth (-3dB) (Output amplitude relative to that for a 5 Hz sinusoidal input signal)
Diagnosis: 0.05 Hz to 150 Hz
ST: 0.05 Hz to 40 Hz
Monitor and Monitor (Hi-Fi): 0.5 Hz to 40 Hz
Enhanced: 2 Hz ~18 Hz
Customized: High-pass Filter and Low-pass Filter

CMRR (Common Mode Rejection Ratio)
Diagnosis: > 95 dB
ST: > 105 dB
Monitor and Monitor (Hi-Fi): > 105 dB
Surgery: > 105 dB
Enhanced: > 105 dB
Customized: > 105 dB (Low-pass Filter < 40 Hz) > 95 dB (Low-pass Filter > 40 Hz)

Hum Filter
In diagnosis, ST, monitor, surgery, enhanced and customized modes: 50 Hz/60 Hz (Hum Filter can be turned on or off manually)

Differential Input Impedance: > 5 MΩ
Input Signal Range: ±10 mV PP
Accuracy of Signal Reproduction
An error of ≤ ±20 % of the nominal value of the output or ±100 μV, whichever is greater.
The total error and frequency response comply with IEC 60601-2-27: 2011, Sect. 201.12.1.101.1.

Electrode Offset Potential Tolerance: ±800 mV
Auxiliary Current (Leads off detection)
Active electrode: < 100 nA
Reference electrode: < 900 nA
Recovery Time After Defibrillation
< 5 s (measured without electrodes as IEC60601-2-27:2011, Sect. 201.8.5.5.1 requires.)
Leakage Current of Patient: < 10 μA
Scale Signal: 1 mV PP, accuracy is ±5%
System Noise: < 30 μVPP
Multichannel Crosstalk
≤ 5% of the input signal
Complied with IEC 60601-2-27: 2011, Sect. 201.12.1.101.5.
Frequency and Impulse Response
Frequency response: Input a 5 Hz, 1 mV sine wave signal, and the output signal amplitude remains within the range of 71 % to 110 % at 0.67 Hz and 40 Hz. Input a 1 Hz, 1.5 mV 200 ms triangular wave input signal, and the output shall be within 11.25 mm~15 mm.
Impulse response:
Displacement value: ≤ 0.1 mV
Slope: ≤ 0.3 mV/s following the end of the pulse.
Complied with IEC 60601-2-27: 2011, Sect. 201.12.1.101.8.

ESU Protection
Cut mode: 300 W
Coagulation mode: 100 W
Restore time: ≤ 10 s

Electrosurgical Interference Suppression
Test according to ANSI/AAMI EC13:2002, Sect. 5.2.9.14. Complied with ANSI/AAMI EC13:2002, Sect. 4.2.9.14.

Sampling Frequency: 1000 Hz
Sampling Channel Switch Time: < 80 μs
A/D Precision: 24 Bits (Minimum resolution: 0.077μV/LSB)
Baseline Reset Time: < 3 s
Pace Pulse without overshoot
Pulse Indicator

Pulse is marked if the requirements of IEC 60601-2-27: 2011, Sect. 201.12.1.101.12 are met:
Amplitude: ±2 mV to ±700 mV
Width: 0.1 ms to 2.0 ms
Ascending time: 10 μs to 100 μs

Pulse Rejection
Pulse is rejected if the requirements of IEC 60601-2-27: 2011, Sect. 201.12.1.101.13 are met:
Amplitude: ±2 mV to ±700 mV
Width: 0.1 ms to 2.0 ms
Ascending time: 10 μs to 100 μs

Pace Pulse Detecting Lead: one among I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6

Heart Rate
HR Calculation
Range

ADU: 15 bpm to 300 bpm
PED/NEO: 15 bpm to 350 bpm
Accuracy: ±1% or 1 bpm, whichever is greater
Resolution: 1 bpm (For display and alarm limit)
Sensitivity: ≥ 300 μVPP
QRS Detection Range

The detection range has exceeded the requirement described in the standard:
Width: 70 ms~120 ms for adult, 40 ms~120 ms for Pediatric/neonate.
Amplitude: 0.5 mv~5 mv
In adult mode, these two signals are not responded: 1. when QRS amplitude of 0.15 mV or less is applied; 2. when QRS duration of 10 ms and QRS amplitude of 1 mV or less is applied.
Complied with IEC 60601-2-27: 2011, Sect. 201.12.1.101.15.

PVCs
Range

ADU: (0 to 300) PVCs/ min
PED/NEO: (0 to 350) PVCs/ min
Resolution: 1 PVCs/min (For display and alarm limit)
Pause/min
Range: ADU/PED/NEO: (0 to 30) pauses/min
Resolution: 1 pause/min (For display and alarm limit)
ST value

Range: -2.0 mV to +2.0 mV
Accuracy: -0.8 mV to +0.8 mV: ±0.02 mV or 10%, whichever is greater. Beyond this range: not specified.
Resolution: 0.01 mV (For display and alarm limit)

Specifications

QT measurement Range: 200 ms ~ 800 ms Resolution: 4 ms (For display) Accuracy: ± 30 ms QTc measurement Range: 200ms ~ 800 ms Resolution: 1 ms (For display and alarm limit) QTc measurement Range: 200ms ~ 800 ms Resolution: 1 ms (For display and alarm limit) ΔQTc measurement Range: -600 ms ~ 600 ms Resolution: 1 ms (For display and alarm limit) HR Averaging Method Method 1: Heart rate is computed by excluding the minimum and maximum values from the 12 most recent RR intervals and averaging the residual 10 RR intervals. Method 2: If each of three consecutive RR intervals is greater than 1200 ms, then the four most recent RR intervals are averaged to compute the HR. Range of Sinus and SV Rhythm Tachy Adult: RR interval for 5 consecutive QRS complex ≤ 0.5 s. Pediatric/neonatal: RR interval for 5 consecutive QRS complex ≤ 0.375 s. Normal Adult: $0.5 \leq$ RR interval for 5 consecutive QRS complex < 1.5 s. Pediatric/neonatal: $0.375 \leq$ RR interval for 5 consecutive QRS complex < 1 s. Brady Adult: RR interval for 5 consecutive QRS complex ≥ 1.5 s. Pediatric/neonatal: RR interval for 5 consecutive QRS complex ≥ 1 s. Range of Ventricular Rhythm V-Tach 5 consecutive ventricular beats and ventricular HR ≥ 100 bpm. Vent Rhythm 5 consecutive ventricular beats, and 20 bpm $\leq$ ventricular HR < 40 bpm. Vent Brady 5 consecutive ventricular beats, and ventricular HR < 20 bpm. Acc. Vent Rhythm 5 consecutive ventricular beats, and 40 bpm $\leq$ ventricular HR < 100 bpm. Maximum Start-up Alarm Time for Tachycardia V-Tach (Ventricular Tachycardia) 1 mV 206 bpm Gain 0.5: 10 s Gain 1.0: 10 s Gain 2.0: 10 s V-Tach (Ventricular Tachycardia) 2 mV 195 bpm Gain 0.5: 10 s Gain 1.0: 10 s Gain 2.0: 10 s Response Time of Heart Rate Meter to Change in HR HR range: 80 bpm to 120 bpm Range : Within 11 s HR range: 80 bpm to 40 bpm Range : Within 11 s Tall T-wave Rejection Complied with IEC 60601-2-27: 2011, Sect. 201.12.1.101.17 minimum recommended 1.2 mV T-Wave amplitude Accuracy of Heart Rate Meter and Response to Irregular Rhythm Complied with IEC 60601-2-27: 2011, Sect. 201.7.9.2.9.101 b) 4), the HR value after 20 seconds of stabilization is displayed as follows: Ventricular bigeminy: 80 bpm ± 1 bpm Slow alternating ventricular bigeminy: 60 bpm ± 1 bpm Rapid alternating ventricular bigeminy: 120 bpm ± 1 bpm Bidirectional systoles: 91 bpm ± 1 bpm Time to Alarm for Heart Rate alarm conditions Asystole alarm: ≤ 10 s HR low alarm: ≤ 10 s HR high alarm: ≤ 10 s	Arrhythmia analysis Asystole V-Fib/V-Tach Couplet Vent Rhythm PVC Bigeminy PVC Trigeminy Tachy R on T PVC Irr Rhythm Brady Missed Beat Pacer not Pacing Vent Brady Pacer not Capture VEB Run PVCs Acc. Vent Rhythm IPVC Non-Sustain VT Multifiform PVCs Pause/min High Pause Afib PAC Bigeminy PVCs High Low Voltage(Limb) ExtremeBrady PAC Trigeminy Wide QRS Tachy Sustain VT ExtremeTachy V-Tach RESP Method: Impedance between RA-LL, RA-LA Measurement lead Options are lead I and II. The default is lead II. Calculation Type: Manual, Automatic Baseline Impedance Range 200 Ω to 2500 Ω (with ECG cables of 1 KΩ resistance) Measuring Sensitivity Within the baseline impedance range: 0.3 Ω Waveform Bandwidth: 0.2 Hz to 3.3 Hz (-3 dB) Respiration Excitation Waveform Sinusoid, 45.6 kHz ($\pm 10\%$), < 350 μA Gain Selection: $\times 0.25$, $\times 0.5$, $\times 1$, $\times 2$, $\times 3$, $\times 4$, $\times 5$ Sweep: 6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s No Breath Detected AlarmTime Setup 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s; default value is 20 s. Measuring Range: 0 rpm ~ 200 rpm Resolution: 1 rpm (For display and alarm limit) Accuracy ± 1 rpm (0 rpm~120 rpm) ± 2 rpm (121 rpm~200 rpm) Update time: 1s NIBP Technique: Oscillometry Mode: Manual, Auto, Continuous, Sequence Measuring Interval in AUTO Mode (unit: minute) 1/ 2/ 2.5/ 3/ 4/ 5/ 10/ 15/ 30/ 60/ 90/ 120/ 180/ 240/ 360/ 480 and User Define Continuous: 5 min, interval is 5 s Measuring Parameter: SYS, DIA, MAP, PR Pressure Unit: kPa, mmHg, cmH₂O Measuring Range Adult Mode SYS: 25 mmHg to 290 mmHg DIA: 10 mmHg to 250 mmHg MAP: 15 mmHg to 260 mmHg Pediatric Mode SYS: 25 mmHg to 240 mmHg DIA: 10 mmHg to 200 mmHg MAP: 15 mmHg to 215 mmHg Neonatal Mode SYS: 25 mmHg to 140 mmHg DIA: 10 mmHg to 115 mmHg MAP: 15 mmHg to 125 mmHg Alarm Type: SYS, DIA, MAP Cuff Pressure Measuring Range 0 mmHg to 300 mmHg Pressure Resolution 1 mmHg (For display and alarm limit) Maximum Mean Error: ± 5 mmHg Maximum Standard Deviation: 8 mmHg Maximum Measuring Period Adult/Pediatric: 120 s Neonate: 90 s Typical Measuring Period iCUFFs measurement 20 s to 35 s (depend on HR/motion disturbance) (measured with E9 cuff, default inflation value, PR is set as 80 bpm and systolic pressure within 100~120mmHg) iFAST measurement 15 s (depend on SYS, arm circumference and HR/motion disturbance)(measured with E8 cuff, PR is set as 80 bpm and systolic pressure within 100~120 mmHg)	Dual Independent Channel Overpressure Protection Adult: (297± 3) mmHg Pediatric: (245± 3) mmHg Neonatal: (147± 3) mmHg Pre-inflation Pressure Adult: 80/100/120/140/150/160/180/200/220/240 mmHg Pediatric: 80/100/120/140/150/160/180/200 mmHg Neonatal: 60/70/80/100/120 mmHg Venipuncture pressure Adult Default: 80 mmHg Options 20 mmHg, 30 mmHg, 40 mmHg, 50 mmHg, 60 mmHg, 70 mmHg, 80 mmHg, 90 mmHg, 100 mmHg, 110mmHg, 120 mmHg Pediatric Default: 40 mmHg Options 20 mmHg, 30 mmHg, 40 mmHg, 50 mmHg, 60 mmHg, 70 mmHg, 80 mmHg Neonatal Default: 40 mmHg Options: 20 mmHg, 30 mmHg, 40 mmHg, 50 mmHg SPO2 Measuring Range: 0% to 100% Resolution: 1% (For display and alarm limit) Data Update Period: 1 s Accuracy Adult /Pediatric $\pm 2\%$ (70% to 100% SpO₂) Undefined (0% to 69% SpO₂) Neonate $\pm 3\%$ (70% to 100% SpO₂) Undefined (0% to 69% SpO₂) Sensor Red Light: (660± 3) nm Infrared Light (905± 10) nm Emitted Light Energy: < 15 mW PI Measuring Range 0.05% to 20%, invalid PI value is -?-, measurement error is not defined. Resolution 0.01% (0.05%-9.99%) 0.1% (10.0%-20.0%) PR Parameter PR (SpO₂) Measuring range: 20 bpm to 300 bpm Accuracy: ± 2 bpm Resolution: 1 bpm (For display and alarm limit) PR (NIBP) Measuring range: 40 bpm to 240 bpm Accuracy: ± 3 bpm or 3.5%, whichever is greater Resolution: 1 bpm (For display) PR (IBP) Measuring range: 20 bpm to 300 bpm Accuracy: ± 2 bpm or $\pm 2\%$, whichever is greater (30 bpm to 300 bpm); Undefined (20 bpm to 29 bpm) Resolution: 1 bpm (For display and alarm limit) TEMP Technique: Thermal resistance Position: Skin, cavity Measure Parameter T1, T2, TD (the absolute value of T2 minus T1) Channel: 2 Sensor Type: YSI-10K and YSI-2.252K Unit: $^{\circ}$C, $^{\circ}$F Measuring Range: 0 $^{\circ}$C to 50 $^{\circ}$C (32 $^{\circ}$F to 122 $^{\circ}$F) Resolution (For display and alarm limit): 0.1 $^{\circ}$C (0.1 $^{\circ}$F) Accuracy¹ (1) Sensor accuracy: 25 $^{\circ}$C~45 $^{\circ}$C: ± 0.1; Others: ± 0.2 $^{\circ}$C (2) Without sensor accuracy: ± 0.1 $^{\circ}$C Refresh Time: Every 1 s to 2 s Temperature Calibration: At an interval of 5 to 10 minutes Measuring Mode: Direct Mode Transient Response Time: ≤ 30 s IBP Technique: Direct invasive measurement Channe: 2 channels IBP Measure Measuring Range: (-50 to +360) mmHg Resolution (For display and alarm limit): 1 mmHg (For display and alarm limit) Accuracy (not including sensor): $\pm 2\%$ or ± 1 mmHg, whichever is greater
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Specifications

PPV
 Measuring Range: 0%~50%
 Pressure Unit: kPa, mmHg, cmH₂O
 Pressure sensor
 Sensitivity: 5 μ V/V/mmHg
 Impedance Range: 300 Ω to 3000 Ω
 Filter: DC~12.5 Hz; DC~40 Hz
 Zero Range: $\pm$ 200 mmHg
 Pressure Calibration Range
 IBP (excluding ICP): 80 mmHg to 300 mmHg
 ICP: 80 mmHg to 300 mmHg
 Volume Displacement: 7.4 x 10⁴ mm³/100mmHg

CO
 Technique: Thermodilution Technique
 Measure Parameters: C.O., TB, TI
 Measuring Range
 C.O.: 0.1 L/min to 20 L/min
 TB: 23 °C to 43 °C (73.4 °F to 109.4 °F)
 TI: -1 °C to 27 °C (30.2 °F to 80.6 °F)
 Resolution (For display and alarm limit)
 C.O.: 0.1 L/min
 TB, TI: $\pm$ 0.1 °C ($\pm$ 0.1 °F)
 Accuracy
 C.O.: $\pm$ 5% or $\pm$ 0.2 L/min
 TB: $\pm$ 0.1 °C ($\pm$ 0.18 °F) (not including sensor)
 TI: $\pm$ 0.1 °C ($\pm$ 0.18 °F) (not including sensor)

CO₂
 Intended Patient: Adult, pediatric, neonatal
 Measure Parameters: etCO₂, FICO₂, AwRR
 Unit: mmHg, %, kPa
 Measuring Range
 etCO₂: 0 mmHg to 152 mmHg
 FICO₂: 0 mmHg to 50 mmHg
 AwRR: 0 rpm to 150 rpm
 Resolution (For display and alarm limit)
 etCO₂: 1 mmHg (For display and alarm limit)
 FICO₂: 1 mmHg (For display and alarm limit)
 AwRR: 1 rpm (For display and alarm limit)
 Accuracy
 etCO₂
 Measurement conditions: Ambient temperature: (25 $\pm$ 3) °C
 Barometric pressure: (760 $\pm$ 10) mmHg
 Balance gas: N₂
 Sample gas flowrate: 100 ml/min
 I/E ratio: 1:2
 AwRR $\leq$ 80 rpm
 0 mmHg to 40 mmHg
 $\pm$ 2 mmHg
 41 mmHg to 70 mmHg
 $\pm$ 5% of reading
 71 mmHg to 100 mmHg
 $\pm$ 8% of reading
 101 mmHg to 150 mmHg
 $\pm$ 10% of reading
 AwRR: $\pm$ 1 rpm
 Drift of Measure Accuracy
 Meets the requirements of the measure accuracy
 Sample Gas Flowrate
 50 ml/min, 70 ml/min or 100 ml/min (optional), accuracy: $\pm$ 15 ml/min
 Warm-up Time
 Display reading within 20 s; reach to the designed accuracy within 2 minutes.
 Rise Time
 < 400 ms (with 2 m gas sampling tube, sample gas flowrate: 100 ml/min)
 < 500 ms (with 2 m gas sampling tube, sample gas flowrate: 70 ml/min)
 < 1000 ms (with 2 m gas sampling tube, sample gas flowrate: 50 ml/min)
 Response Time
 < 4 s (with 2 m gas sampling tube, sample gas flowrate: 100 ml/min & 70 ml/min)
 < 5.5 s (with 2 m gas sampling tube, sample gas flowrate: 50 ml/min)
 Work Mode: Standby (default), measure
 O₂ Compensation
 Range: 0% to 100%
 Resolution: 1%
 Default: 16%

N₂O Compensation
 Range: 0% to 100%
 Resolution: 1%
 Default: 0%

AG Compensation
 Range: 0% to 20%
 Resolution: 0.1%
 Default: 0%

Humidity Compensation Method
 ATPD (default), BTPS

Barometric Pressure Compensation
 Automatic (The change of barometric pressure will not add additional errors to the measurement values.)

Zero Calibration: Support
 Calibration
 Support (It is recommend to be operated by trained personal.)

Alarm: etCO₂, FICO₂, AwRR
 No Breath Detected Alarm Delay
 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s;
 default value is 20 s.

Data Sample Rate: 100 Hz
 etCO₂ Change¹
 With 2 m gas sampling tube, sample gas flowrate: 100 ml/min)
 AwRR $\leq$ 80 rpm, meet the accuracy mentioned above;
 AwRR >80 rpm, etCO₂ descends 8%;
 AwRR >120 rpm, etCO₂ descends 10%
 With 2 m gas sampling tube, sample gas flowrate: 70 ml/min)
 AwRR $\leq$ 60 rpm, meet the accuracy mentioned above;
 AwRR >60 rpm, etCO₂ descends 8%;
 AwRR >90 rpm, etCO₂ descends 10%;
 AwRR >120 rpm, etCO₂ descends 15%;
 With 2 m gas sampling tube, sample gas flowrate: 50 ml/min)
 AwRR $\leq$ 20 rpm, meet the accuracy mentioned above;
 AwRR > 20 rpm, etCO₂ descends 8%;
 AwRR > 40 rpm, not applicable;



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