

Patient Monitor

C80 and C86



Standard Configuration:

12-lead ECG,RESP,Dual-Temp,SPO2,NIBP,Reserved EtCO2 interface

Optional Configuration:

Dual-IBP, EtCO2 module,AG,ICG,C.O., qCON, Nellcor SPO2, Comen SPO2, Thermal Recorder

Safety Standards

FDA / ISO 13485:2003 approved, CE marking according to MDD93/42/EEC

Physical Characteristics

ProductSize: 344.5mm×291 mm×165mm

Net Weight: 4.8kg

Operation Environment

working 0-40

Temperature:

Humidity: 15-85%

Power Supply: AC100-240V, 50/60Hz±1Hz

Battery Type: Rechargeable plug & play
batteryLithium-ion

Battery Capacity: 4000mA

Battery Recharging Maximum 6.5 hours for charging;

Time:

Battery backup: 4 hours for continuous working

Display (C80) : 12.1" color TFT touch screen

Display (C86) : 15" color TFT touch screen

Resolution (C80) : 800*600

Resolution (C86) : 1024*768

Trace: 12 waveforms

Indicator

Dual alarm indicator lights

Power indicator light

Battery indicator light

QRS beep and alarm sound

Operating key sound

Interface

Parameter cable interface

AC power input socket

Software upgrade through networking
port or USB port

USB/SD port

RJ45 port

Nurse call port

Data storage

Alarm Event Recall:	500 groups (120hours)
Wave Recall:	30 mins
NIBP Recall:	2000 groups
Trend Graph:	120 hours
Trend Table:	120 hours
Power-off storage	Yes
Alarm:	User-adjustable High and Low 3-levelLimits ; Prioritized audible and visual alarm
Network:	Connected to Central Monitoring System by hardwire/wireless

Recorder

Type:	Built-in; thermal array
Channel:	2 waveforms
Speed:	Speed:25mm/s,50mm/s
Record width:	Record width:50mm

Respiration

Method:	Thoracic impedance
RR measurement range:	Adult: 0-120bpm Pediatric/Neonate:0-150bpm
Resolution:	±1 rpm
RESP Apnea Alarm:	10s-60s, 10s-20s
Alarm:	Audible and visual alarm; alarm events recallable
Sweep Speed:	6.25,12.5,25mm/s
Gain Selection:	X0.25, X0.5, X1, X2, X4

ECG

Lead Type:	CardioTec™ 12-leads ECG Analysis, 5 Lead and 3 leadselectable
12-lead cable:	I; II; III; aVR; aVL;aVF; V1-V6.
5-lead cable:	RA; LA; RL; LL; V or R; L; N; F; C
3-lead cable:	RA; LA; LL or R; L; F
Lead selection:	12-Lead I; II; III; aVR; aVL;aVF; V1-V6. 5-lead: I; II; III; aVR; aVL;aVF; V 3-lead: I; II; III
Gain Selection:	X0.25,X0.25, X0.5, X1, X2,X4, auto
Sweep Speed:	6.25,12.5, 25, 50mm/s
Heart Rate Range:	Adult: 15-300bpm Pediatric/Neonate:15-350bpm
Resolution:	1 bpm
Protection:	Withstand 4000VAC/50Hz voltage in isolation; Against electrosurgical interference and defibrillation;
Accuracy:	±1% or ±2bpm (whichever is greater)

Bandwidth :	MON Mode:0.5 Hz~40 Hz DIA Mode: 0.05Hz~130 Hz OPE Mode:1 Hz~20 Hz ST Mode:0.2Hz~40Hz
STSEGMENT detection:	-2.0mV - +2.0Mv (Automatic)

Arrhythmia analysis : pacemaker detection:	Yes detectable
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NIBP

Method	Automatic oscillometric
Work mode:	Manual / Automatic/Continuous
Auto measure time:	Adjustable(1-480min)
Measurement Unit:	mmHg / Kpa selectable
Measurement types:	Systolic, Diastolic, Mean
Range of systolic pressure:	Adult Mode:40-270mmHg

	Pediatric Mode:40-200mmHg Neonate Mode 40-135mmHg
Range of diastolic pressure:	Adult Mode:10-215mmHg

	Pediatric Mode:10-150mmHg Neonate Mode 10-100mmHg
Range of mean pressure:	Adult Mode:20-235mmHg

	Pediatric Mode:20-165mmHg Neonate Mode 20-110mmHg
Over-pressure protection:	both Hardware and software over pressure protection

Accuracy:	Less than ±5mmHg
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Resolution:	1mmHg
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Alarm:	Systolic, Diastolic, Mean
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PR from NIBP:	40-240bpm
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Nellcor SPO2

Measurement & alarm range:	0~100%
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Resolution:	1%
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Accuracy:	±2% (70-100%, MAX-A, MAX-AL, MAX-N, MAX-P, MAX-I and MAX-FAST sensors); ±3% (70-100%, D-YS, DS-100A, OXI-A/N and OXI-P/I sensors); 0-69% unspecified
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Alarm range	0~100%
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PR Measurement	20~300bpm
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Range:	
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Resolution:	1bpm
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Accuracy:	±3bpm
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Alarm range:	20-250bpm	Accuracy:	± 2 mm Hg (0 – 40 mm Hg)
Masimo SPO2			± 5% of reading (41 – 70 mm Hg)
Measurement & alarm range	1~100%		± 8% of reading (71 –100 mm Hg)
Resolution:	1%	Respiration rate:	0-120bpm
Accuracy:	±2% (70~100%,Ped, non-motion+ ±3% (70-100%, Neo, non-motion); 0-69% unspecified	Respiration rate accuracy:	±2rpm (0-70rpm)
Alarm range	1~100%	Delay time:	<2s
Pulse rate:	Range: 25~240bpm Resolution:1bpm Accuracy: ±3bpm(non-motion) ±5bpm(motion) Alarm range:25~240bpm	IBP	
Comen SPO2		Measured Pressure Measurement	ART,PA,CVP,RAP,LAP,ICP,P1, P2 -10mmHg~300mmHg
Measurement & alarm range	0~100%	Range:	
Resolution:	1%	IBP Accuracy:	0~100mmHg ±4mmHg 100mmHg~300mmHg ±2%
Accuracy:	±2% (70~100%,Ped, non-motion+ ±3% (70-100%, Neo, non-motion); 0-69% unspecified	Pulse Accuracy:	±1% or ±1bpm, whichever is greater
Alarm range	0~100%	Alarm Range:	-50mmHg~300mmHg
	Range: 20~300bpm Resolution:1bpm Accuracy: ±3bpm(non-motion) ±5bpm(motion)	Multi-Gas/O2	
Temperature (Dual Channel)		Method:	Infrared Absorption
Measurement range:	0-50°C	Gas sorts:	CO2,N2O,Des,Iso,Enf,Sev,Hal,O2 (optional paramagnetic sensor)
TEMP sensor:	Standard configuration- skin TEMP sensor,	Measurement range:	CO2 : 0-15 vol% ±(0.2 vol% + 2 % of the reading) N2O: 0-100 vol% ±(2 vol% + 2 % of the reading) HAL, ISO, ENF: 0-8 vol% ±(0.15 vol% + 1 % of the reading) SEV : 0-10 vol% ±(0.15 vol% + 5 % of the reading) DES: 0-22 vol% ±(0.15 vol% + 5 % of the reading) O2: 0-100vol% ±(1 vol% + 2 % of the reading)
Resolution:	0.1°C	Data output:	Fi and Et values
Accuracy:	±0.1°C (exclusive of error of sensor)	Respiratory rate:	0-150 bpm
Channel:	T1, T2, TD (Temperature Difference)	Preheating time:	ISA CO2: < 10s, ISA OR+/AX+: < 20s
EtCO2(Sidestream)		Alarm:	User selectable alarm limits for all measurement
CO2 Measurement Range:	0 -150 mm Hg, 0 to 79%, 0 to 20kPa (at 760mmHg)	others:	Up to 4 waveforms displayed Agent mixture detection MAC value displayed
Accuracy:	± 2 mm Hg (0 – 40 mm Hg) ± 5% of reading (41 – 70 mm Hg) ± 8% of reading (71 –100 mm Hg) ± 10% of reading (101 –150 mm Hg)	Cardiac Output(C.O.)	
Respiration rate:	2-120bpm	Method:	Thermodilution
Respiration rate accuracy:	±2rpm (0-70rpm)	Measurement range:	C.O.: 0.1~20L/min BT: 25~43 IT: 0~27
Response time:	<240msec (10% to 90%)	Resolution:	C.O.: 0.1L/min BT、IT:0.1
Delay time:	<2s		
EtCO2(mainstream)			
CO2 Measurement Range:	0 -150 mm Hg, 0 to 79%, 0 to 20kPa (at 760mmHg)		

Accuracy: C.O.: $\pm 5\%$ or ± 0.1 L/min, whichever is greater
 BT、IT: ± 0.1 (no sensor)
 Alarm Range: BT Hi limit: (LO limit + 0.1) ~ 43
 BT Lo limit: $23.0 \sim$ (Hi limit - 0.1)
 Step: 0.1

Impedance Cardiography(ICG)

Method: Thoracic Bio-impedance measurement
 Measurement range: SV: 5 \sim 250 ml/b
 HR: 40 \sim 250 bpm
 C.O.: 1.4 \sim 15L/min
 Accuracy: SV: unspecified
 HR: ± 2 bpm
 C.O: unspecified
 Alarm range: CI: HI (LO + 0.1) ~ 15.0 L/min/m²
 LO 0 \sim (HI - 0.1)L/min/m²
 TFC: HI (LO + 1) $\sim 150/K\Omega$
 LO 10 \sim (HI - 1) K Ω
 Alarm Deviation CI: ± 0.1 . L/min/m²
 TFC: ± 1 K Ω

Index of consciousness (IOC) / Index of consciousness(qCON)

Index and display update qCON 0-99, 1s.

Total index update time 10s
 EEG $\pm 475 \mu V$
 BSR (Burst Suppression) Curve, index of 0-100%
 EMG Curve, index of 0-100
 Index tend 15 minuts
 SQI (Signal Quality Index) Curve, index of 0-100
 Visual and audio alarms Yes
 Test system of impedance at the electrodes Yes
 Data logging qCON, EMG, EEG, BSR, SQI, impedances and comments posted by the user
 EEG Sampling frequency 1024 Hz, 16 bits
 CMRR > 100 dB

***Notice: Specifications subject to changes without prior notice.
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