Specification: C70

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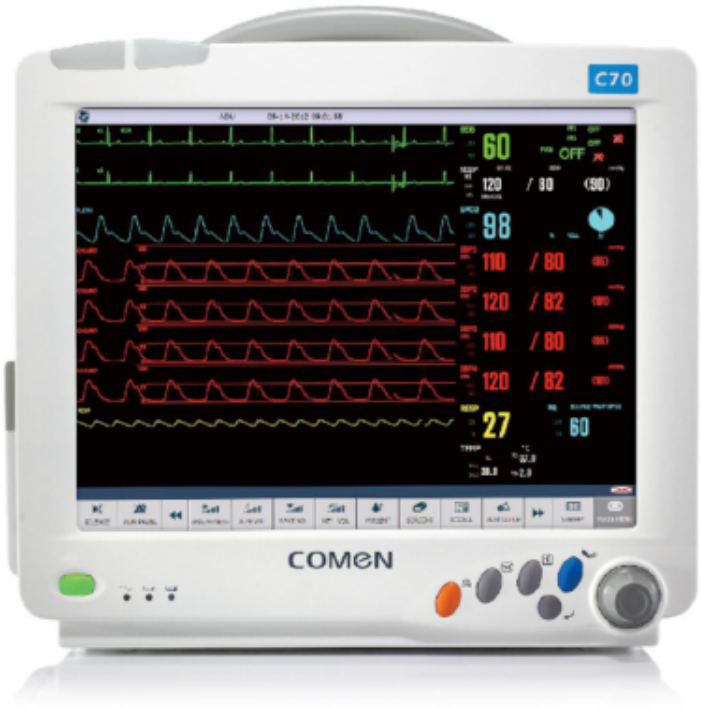
Modular Monitor
C70



Standard Configuration

C31 module):5-lead ECG，NIBP，TEMP，RESP，Comen SPO2, EtCO2 interface, Dual-IBP interface

Optional Configuration

C30-Basic module (it is an Emergency Transportation Moniter when using apart from C70 modular monitor) : 4.3inch led screen,3-lead ECG, NIBP, TEMP, RESP, Comen-SPO2, EtCO2 interface

C30-High module (it is an Emergency Transportation Moniter when using apart from C70 modular monitor) : 4.3inch led screen,3-lead ECG,NIBP,TEMP,RESP,Masimo SPO2, EtCO2 interface 12-lead ECG,NellcorSPO2, EtCO2 ,C30 packet, 4-IBP, ICG,AG,C.O., IOC,Thermalarray 3 waveforms recorder，WiFi module.

Safety Standards

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

Physical Characteristics

Product Size:	400*400*180 mm
Net Weight:	4kg（standard configuration）
Display:	12.1” color TFT touch screen
Resolution:	1024x768
Trace	8 waveforms
Sweep Speed:	6.25mm/s12.5mm/s, 25mm/s, 50mm/s

Operation Environment

working Temperature:	0-40
Humidity:	15-85%
Power Supply	AC100-250V, 50/60Hz

Battery

Battery Type:	Rechargeable plug & play battery Lithium-ion
Battery Capacity:	4000mA
Battery Recharging Time:	Maximum 6.5hours for charging;

Date storage

Alarm Event Recall:	200hours
Wave Recall:	2 hours
NIBP Recall:	2000 groups
Trend Graph:	120 hours
Trend Table:	120hours
Battery backup:	4 hours for continuous working

Interface

A. 3*USB interface, mouse, keyboard and PCL printer can be connected
B. RJ45 Ethernet interface
C. SD card interface
D. Nurse Call interface
E. AC interface
F. Grounding pole
G. synchronization defibrillation interface。
H. DVI-D interface
I. Multi-function interface to connect with sub-monitor and plugin slot
J. Wifi module (built-in)
K. IR module interface, it supports the following modules: CO2, dual IBP, AG, ICG

Recorder

Type:	Built-in; thermal array
Channel:	3 waveforms
Speed:	Speed:25mm/s,50mm/s
Record width:	Record width:50mm
External printer :	External printer supported

Respiration

Method:	impedance method
RR measurement range:	Adult: 0-120bpm Pediatric/Neonate: 0 -150bpm
Resolution:	±1 rpm
Accuracy:	±1rpm
RESP Apnea Alarm:	10s-40s
Alarm:	Audible and visual alarm; alarm events recallable
Sweep Speed:	6.25,12.5,25 mm/s
Gain Selection:	X0.25, X0.5, X1, X2,x4

ECG

Lead Type	Cardio TecTM 12-leads ECG Analysis 5 Lead and 3 lead selectable
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	X0.125, 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 ,Again electrosurgical interference and defibrillation
Accuracy:	±1% or ±1bpm (whichever is greater)
Bandwidth :	ECG enlarge width: MON: 0.5-40Hz DIA: 0.05-130Hz OPE:1-20Hz
ST SEGMENT detection:	0.2Hz～40Hz(Automatic)
Arrhythmia Analysis :	Yes
pacemaker detection:	detectable
Alarm:	Yes, audible and visual alarm, alarm events recallable
12 lead ECG Analysis:	yes

NIBP

Method	Automatic oscillometric
Work mode:	Manual / Automatic/Continuous
Measurement 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
Resolution	1mmHg
Alarm	Systolic, Diastolic, Mean
PR from NIBP:	20-300bpm

Nellcor SPO2

Measurement & alarm range:	0~100%
Resolution:	1%
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
Alarm range	0~100%
PR Measurement Range:	20~300bpm
Resolution:	1bpm
Accuracy:	±3bpm
Alarm range:	20-250bpm

Masimo SPO2

Measurement & alarm range	1~100%
Resolution:	1%
Accuracy:	±2% (70~100%,Ped, non-motion+ ±3% (70-100%, Neo, non-motion); 0-69% unspecified
Alarm range	1~100%
Pulse rate:	Range: 25~240bpm
	Resolution:1bpm
	Accuracy: ±3bpm(non-motion) ±5bpm(motion)
	Alarm range:25~240bpm

Comen SPO2

Measurement & alarm range	0~100%
Resolution:	1%
Accuracy:	±2% (70~100%,Ped, non-motion+ ±3% (70-100%, Neo, non-motion); 0-69% unspecified
Alarm range	0~100%
	Range: 20~300bpm
	Resolution:1bpm
	Accuracy: ±3bpm(non-motion) ±5bpm(motion)

EtCO2(Sidestream)

CO2 Measurement Range:	0 -150 mm Hg, 0 to 79%, 0 to 20kP (at 760mmHg)
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)
Respiration rate:	2-120bpm
RR accuracy:	±2rpm (0-70rpm
	±5rpm (＞70rpm)
Response time:	＜240msec (10% to 90%)
Delay time:	＜2s

EtCO2(mainstream)

CO2 Measurement Range:	0 -150 mm Hg, 0 to 79%, 0 to 20kPa (at 760mmHg)
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)
Respiration rate:	0-120rpm
Respiration rate accuracy:	±2rpm (0-70rpm) ±5rpm (＞70rpm)
Delay time:	＜2s

Temperature (Dual Channel)

Measurement range:	0-50°C
TEMP sensor:	Standard configuration- skin TEMP sensor,
Resolution:	0.1°C
Accuracy:	±0.1°C (exclusive of error of sensor)
Channel:	T1, T2, TD (Temperature Difference)
Type:	YSI or CY-F

IBP

Measured Pressure	ART,PA,CVP,RAP,LAP,ICP,P1，P2
Measurement Range:	-10mmHg～300mmHg
Alarm Range:	-50mmHg～300mmHg
Accuracy:	±2% or ±1mmHg, whichever is greater
Channel	4 channels

Multi-Gas/O2

Method:	Infrared Absorption
Gas sorts:	CO2,N2O,Des,Iso,Enf,Sev,Hal,O2 (optional paramagnetic 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% + 5 % 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)
Data output:	Fi and Et values
Respiratory rate:	0-150 bpm
Preheating time:	ISA CO2：< 10s，ISA OR+/AX+：< 20s
Alarm:	User selectable alarm limits for all measurement
others:	Up to 4 waveforms displayed Agent mixture detection MAC value displayed

Cardiac Output(C.O.)

Method:	Thermodilution
Measurement range:	C.O.：0.1～20L/min BT: 25～43 IT: 0～25
Resolution:	C.O.：0.1L/min BT、IT:0.1
Accuracy:	C.O.：±5% or ±0.1 L/min，whichever i greater BT、IT:±0.1 （no sensor）
Alarm Range:	BT Hi limit: (LO limit +0.1）～43 BT Lo limit:23.0～(Hi limit-0.1） Step: 0.1

Impedance Cardiography (ICG)

Method:	Thoracic Bio-impedance measurement
Measurement range:	SV：5～250 ml/b HR：40～250 bpm C.O.：1.4～15L/min
Accuracy:	SV：unspecified HR： ±2bpm C.O：unspecified
Alarm range:	CI: HI (LO＋0.1）～15.0 L/min/m2 LO 0～(HI－0.1)L/min/m2 TFC: HI (LO＋1）～150/KΩ LO 10～(HI－1) KΩ
Alarm Deviation：	CI:±01. L/min/m2 TFC:±1 KΩ

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

Index and display update	qCON 0-99, 1s.
Total index update time	10s
EEG	± 475 μV
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
BIS	
BIS range of measurement	BIS：0-100 SQI：0-100% EMG：0-100db BSR：0-100%
Impedance range	0 to 999 kΩ
EEG bandwidth	0.25 to 100 Hz
BIS upper and lower limit of alarm	Upper limit: (lower limit +2) ～100 Lower limit: 0～(upper limit -2)

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