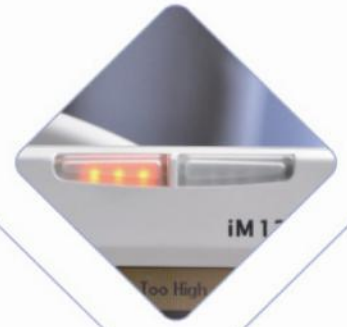
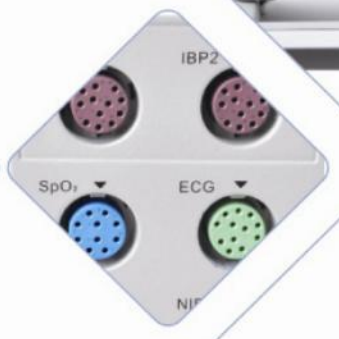
iM 12 Multi-Parameter Patient Monitor

Stable handle

Dual alarm lights



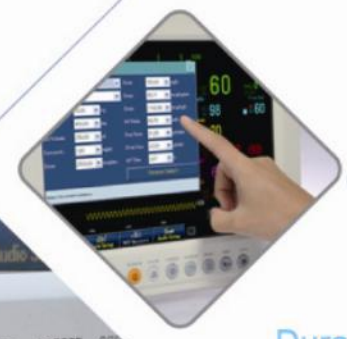
Superior & intelligent coded socket



Wireless connection with CMS

Dual Li-ion Battery, up to 10 hours continuous working

Touch screen and handwriting

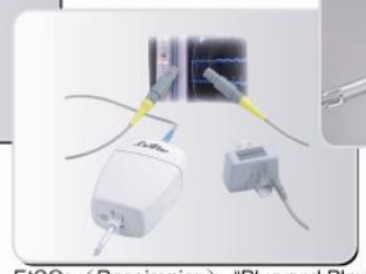


Abundant extension interface

Durable silicon button with backlight

Mounting Solution
Trolley and wall hanger meet clinical requirements of different medical environment

CAPNOSTAT5
mainstream module



$EtCO_2$（Respironics） “Plug and Play”

LoFlo sidestream module

Wire / wireless network solution
Bi-directional communications with central monitor station by wire / wireless network Nurse Call

Feature

- 12.1 inches high resolution color TFT display;
- Optional full touch-screen and handwriting for easy operation;
- Attractive and durable silicon button with backlight;
- 20 types of ventricular arrhythmia and S-T segment analysis;
- Optional 12-lead ECG for easy diagnosis and analysis;
- Maximum 480-hour graphic and tabular trends, 700 pieces NIBP record storage, 2-hour ECG waveform review;
- Selectable color configuration for all parameters (32 colors);
- SpO_2 pulse-tone modulation;
- Self checking when power on;
- Anti high-frequency electrotome and defibrillation protection to meet different working environments;
- USB and serial ports enable abundant future upgrades, which also support keyboard and mouse device.

Standard configuration: ECG, HR, RESP, NIBP, SpO_2, TEMP

Options: 12-lead ECG, $EtCO_2$, 2-IBP, anesthetic depth, touch screen, trolley, wall mounting, recorder, VGA, nurse call, central monitoring system, accessories for pediatrics and neonates

Alarm limit display

Trend graph monitoring co-display

Hand writing

7-lead full screen display

7-lead half screen display

12-lead full screen display

OxyCRG monitoring display

Large font intensive care display

Bed to bed view display

Drug dose calculation

Specifications:

Dimension and Weight
Dimension: 310 mm(L) × 163 mm(W) × 285 mm(H)
Weight: 4.8 kg

Operation Environment
Power requirement: AC: 100V—240V 50 Hz / 60 Hz
Internal battery power supply: Rechargeable Li-ion battery 14.8 V 4400mAh
Battery working period: up to 10 hours
Temperature: 0℃— 40℃
Humidity: ≤85%

Patient Range
Adult, pediatric and neonate

Configuration
Display: 12.1" high resolution color TFT
Resolution: 800 × 600
Brightness of LCD display: 10 levels adjustable
Waveforms: up to 13
Various working interface selectable:
standard monitoring display
large font intensive care display
trend graph / monitoring co-display
bed to bed view display
7-lead half screen display
7-lead full screen display
12-lead full screen display
OxyCRG monitoring display
drug dose calculation
user-defined interface

Thermal Recorder
Built-in, direct thermal pixel array recorder
Up to 3 channels printing, 1, 2, 3 channels selectable
Print speed: 12.5 mm/s； 25 mm/s； 50 mm/s
Paper size: 50 mm×20 mm

Function
Type of alarm: auditory, visual and character alarm, low, medium and high 3 levels
ST segment analysis: yes
Arrhythmia analysis: 20 types
Pacer pulse analysis: yes
Type of filter: monitor, diagnostic, surgical
Trend graph: 72-hour (short trend), 480-hour (long trend), storage when power off
Event recall: 700 pcs event recall
NIBP data storage: more than 1000 pcs
Holographic waveform: 2 min
Nurse call function: support
Network: wire and wireless

Standard Configuration
ECG
Lead type: 3-lead and 5-lead selectable, 12-lead optional
Lead selection: 3-lead: I, II, III, 5-lead: I, II, III, aVR, aVF, aVL
12-lead: I, II, III, aVR, aVF, aVL, V1-V6
Gain selection: ×1/8, ×1/4, ×1/2, ×1, ×2, ×4, auto
Sweep speed: 6.25 mm/s； 12.5 mm/s； 25.0 mm/s； 50.0 mm/s

HR
Adult: 15 bpm — 300 bpm
Pediatric / Neonate: 15 bpm — 350 bpm
Resolution & accuracy: ±1 bpm
Filter: diagnostic mode: 0.05 Hz-100 Hz
monitoring mode: 0.5 Hz-25 Hz
surgical mode: 1 Hz-15 Hz
Type of arrhythmia analysis: 20 types
Measurement range: (-2.0 mV) — (+2.0 mV)
Accuracy: (-0.8mV) — (+0.8mV): ± 0.02mV or ±10% whichever is greater

RESP
Method: trans-thoracic impedance
RR measurement rage: adult: 0 rpm — 120 rpm
neonate / Pediatric: 0 rpm — 150 rpm
Resolution: 1 rpm
Apnea alarm threshold: 0s, 15s, 20s, 25s, 30s, 35s, 40s
Band width: 0.2 Hz—2 Hz（-3 dB）
Sweep speed: 6.25 mm/s； 12.5 mm/s； 25.0 mm/s
Sensitivity: ×1 /4, ×1/2, ×1, ×2, ×4, auto
Accuracy: ±2 rpm

NIBP
Method: automatic oscillometric
Operation modes: manual / automatic / continuous
Resolution: 1 mmHg
Auto measurement time interval: adjustable1 min, 3 min, 5 min, 10 min, 15 min, 30 min, 45 min, 1 h, 2 h, 3 h, 5 h, 8h
Measurement types: systolic, diastolic, mean
Pressure range for adults: systolic: 40-270 mmHg
diastolic: 10-210 mmHg
mean: 20-230 mmHg

Pressure range for pediatrics: systolic: 40-200 mmHg
diastolic: 10-150 mmHg
mean: 20-165 mmHg
Pressure range for neonates: systolic: 40-135 mmHg
diastolic: 10-100 mmHg
mean: 20-110 mmHg
Leak test and pressure auto calibration: yes
Over-pressure protection: dual safety protection

SpO2
Measurement & alarm range: 0%—100%
Resolution: 1%
Accuracy: ±2% (70%—100%)
PR measurement and alarm range: 25 bpm—250 bpm
Resolution: 1 bpm
Accuracy: ±3 bpm

Temperature (2 channels)
Measurement / Alarm range: 0℃—50℃ (32℉—122℉)
Resolution: 0.1℃
Accuracy: ±0.1℃
Channel: 2-channel

Optional Configuration:
IBP
Measured parameters: systolic pressure, diastolic pressure, mean pressure, pulse rate
Measurement pressure: ART, PA, P1, P2, LAP, RAP, ICP, CVP
Measurement range: -10—300mmHg
Accuracy: ±2% or 1mmHg whichever is greater
Resolution: 1mmHg
Calibration accuracy range: ±150 mmHg
Calibration accuracy: ±1 mmHg
Refresh rate: 1s

ETCO2 (mainstream, sidestream, microstream)
By RESPIRONICS, PHASEIN, CPT technology

Respironics Sidestream LoFlo Module (can support microstream):
Measurement mode: sidestream
Measurement range: 0 %—19.7 %（0 mmHg —150 mmHg）
Resolution: 1 mmHg
Measurement accuracy: 0 mmHg—40 mmHg, ±2 mmHg
41 mmHg—70 mmHg , ±5%
71 mmHg—100 mmHg , ±8%
101 mmHg—150 mmHg , ±10%
Respiration rate measurement range: 2 rpm—150 rpm
Respiration rate measurement accuracy: ±1 rpm
Apnea alarm delay: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s
Sampling flow rate: 50ml/min ± 10ml/min

Respironics Mainstream CAPNOSTAT5 Module
Measurement mode: mainstream, sidestream, microstream
Measurement range: 0%—19.7 %（0 mmHg —150 mmHg）
Resolution: 1mmHg
Measurement accuracy: 0 mmHg—40 mmHg , ±2 mmHg
41 mmHg—70 mmHg , ±5%
71 mmHg—100 mmHg , ±8%
101 mmHg—150 mmHg, ±10%
Respiration rate measurement range: 0 rpm—150 rpm
Respiration rate measurement accuracy: ±1 rpm
Apnea alarm delay: 20s, 25s, 30s, 35s, 40s, 45s, 50s, 55s, 60s

Phasein Mainstream IRMA Module
Measurement range: 0%—15%
Resolution: 1mmHg
Accuracy: 0—15vol%
Respiration rate measurement range: 0 rpm—150 rpm
Respiration rate measurement accuracy: ±1 rpm
Apnea alarm delay: 20s, 25s, 30s, 35s, 40s, 45s, 50 s, 55s, 60s

CPT Sidestream Module
Measurement range: 0%—13%
Respiration rate measurement range: 3 rpm—60 rpm
Apnea alarm delay: 30s, 35s, 40s, 45s, 50 s, 55s, 60s
Accuracy: ＜5.0% CO2(ATPS)：±3mmHg

CSI / IOC Anesthetic Depth Index Monitoring
CSI
Anesthetic depth index: 0—100, filter: 6Hz—42Hz
Wireless transmission range: more than 8m between main unit andsubmachine
CMRR: >140dB
Input impedance: >50Mohm
EEG sensitivity: ±400μV
EMG: 0-100 (filter: 75Hz—85Hz)

IOC
Anesthetic depth index: 0—100
Wireless transmission range: more than 8m between main unit and submachine

CMRR: >100dB
Input impedance: >50Mohm
EEG sensitivity: ±475μV
EMG: 0-100
Alarm spec: CSI/IoC max: 2-100
CSI/IoC min: 0-98
Accuracy: ±2

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