

# PHOEBE<sup>Pro</sup> / DIONA<sup>Pro</sup>

## Modular Patient Monitor

*BETTER LIFE's patient monitors, PHOEBE/DIONA, have been designed to meet various clinical environments including ICU, OR, ER, PACU, patient ward, etc. And its light weight design made it ideal for patient transportation monitoring as well.*

*Based on its hot-swap modular design, PHOEBE/DIONA can be easily and quickly expanded to meet the different clinical requirements. And the adoption of the world class monitoring technologies ensures the measurement results accurate and reliable.*

*Thanks to the compatibility with 3G mobile telephone network, the data communication between the bedside monitor and central monitoring station is not limited within the hospital as long as there is the telephone signal, the patient monitoring data can be transferred to the hospital from anywhere and at anytime.*



### Features:

- A large number of expandable parameters. Suntech NIBP/ Nellcor SpO2/ Masimo SpO2 ...
- High capacity lithium rechargeable batteries, operation time up to 10 hours.
- Central monitoring station supports the connection with up to 64 bedside.
- High capacity internal storage for 1500 hours trends or 4000 groups of data.
- Ethernet, WiFi and 3G connection for transfer data from anywhere and anytime.
- Plug & Play type thermal printer.

# PHOEBE/DIONA Specifications

## Physical Specification

Dimensions:  
 PMS8300-S/PMS8310-S  
 335(W)x270(H)x200(D)mm  
 PMS8500-S  
 378(W)x332(H)x243(D)mm  
 Net weight:  
 PMS8300-S/PMS8310-S 3.5KG  
 (without battery and accessories)  
 PMS8500-S 5KG  
 (without battery and accessories)  
 Display:  
 PMS8300-S 10.4 inch LCD  
 PMS8310-S 12.1 inch LCD  
 PMS8500-S 15inch LCD  
 (Touch screen optional)

## Power Supply

External power: 100-240V 50/60Hz  
 Internal battery: Rechargeable Li-ion  
 2200mAh 11.1V DC  
 Battery working period:  
 ≥2hours(2200mAh)

## Recorder\*

Plug & Play type  
 Print out parameters and 3  
 selectable waveforms  
 Paper width: 50mm  
 Print Mode:  
 Real-time, alarm, scheduled,  
 freeze, review  
 Print Speed:  
 12.5mm/s, 25mm/s, 50mm/s  
 Wave amplitude:  
 5mm/mv, 10mm/mv, 20mm/mv

## Data Storage

Graphic and Tabular Storage and  
 Review: 168hours  
 NIBP Record Storage and Review:  
 4000sets

## NIBP

Method: Oscillometric  
 Mode: Manual, Auto  
 Measuring interval in auto mode:  
 1-480 minutes  
 Pulse Rate Range:  
 30-240bpm  
 Measuring range:  
 Adult Mode  
 SYS 40-255mmHg  
 DIA 10-195mmHg  
 MEAN 20-215mmHg

## Pediatric Mode

SYS 40-200mmHg  
 DIA 10-150mmHg  
 MEAN 20-165mmHg

## Neonatal Mode

SYS 40-135mmHg  
 DIA 10-110mmHg  
 MEAN

20-125mmHg Resolution: 1mmHg

## Precision:

Max average error: ±5mmHg  
 Max standard error: 8mmHg

## Overpressure Protection:

Adult 290mmHg  
 Child 290mmHg  
 Newborn 150mmHg

## ECG

Leads: 3/5/12\* leads, AHA/IEC  
 Channels: 7 synchronization  
 channels

(I II III aVR, aVL, aVF, V)

Plus: 5mm/mV±5%,  
 10mm/mV±5%

Sweep rate: 12.5mm/s, 25mm/s,  
 50mm/s

Range of heart rate monitoring:

Adult: 20-300bpm  
 Neonate/Pediatric: 20-350bpm

## NIBP(Suntech)\*

Method: Oscillometric  
 Mode: Manual, Auto, Continuous  
 Measuring interval in auto mode:  
 5-480mins 15 options

Pulse Rate Range: 40-220bpm

Measuring range:

Adult Mode:  
 SYS 40-260mmHg  
 DIA 20-200mmHg

Pediatric Mode:

SYS 40-160mmHg  
 DIA 20-120mmHg

Resolution: 1mmHg

Precision:

Pulse Rate Accuracy:  
 ±2% or ±3BPM, whichever is  
 greater

Transducer Accuracy:  
 ±3mmHg over full range in  
 operating conditions

Overpressure Protection: Yes

## SpO2

Measuring range: 0-100%

Resolution: 1%

Precision:

Adult/Pediatric: 70%-100% ±2%  
 Neonatal: 70%-100% ±3%

Pulse Rate:

Measuring Range: 30-240bpm  
 Resolution: 1bpm

Accuracy: the bigger one between  
 ±3% or ±3bpm

## SpO2(Masimo)\*

Measuring range: 0-100%

Resolution: 1%

Precision:

Adult/Pediatric: 70%-100% ±2%  
 Neonatal: 70%-100% ±3%

Pulse Rate:

Measuring Range: 30-240bpm  
 Resolution: 1bpm

Accuracy: the bigger one between  
 ±3% or ±3bpm

## IBP\*

Channel: 2 or 4 Channels

Measuring range:

ART 0~300mmHg  
 PA -6~120 mmHg  
 CVP -10~40 mmHg  
 RAP -10~40 mmHg  
 LAP -10~40 mmHg  
 ICP -10~40 mmHg

Pressure resolution: 1 mmHg

Pressure precision: ±2% or ±2mmHg

## Anesthesia Gas /O2\*

Technology:

Infra-red absorption characteristic  
 Paramagnetic Oxygen: Optional

Gas: CO, O2, NO, Des,  
 Iso, Enf, Hal, Sev

Warm-up time accuracy mode: 45s

Full accuracy mode: 60s

Sample flow rate: 50±10ml/min

Measuring range:

CO2: 0~15%  
 N2O: 1~100%

Hal/Iso/Enf: 0~8%

Sev: 0~10%

Des: 0~22%

O2: 0~100%

Respiratory Rate: 0~150 bpm 1bpm

MAC Value displayed

## RESP

Method: The thorax  
 impedance method(used with  
 ECG leads)

PR Measurement Range: 15-120rpm

Resolution: 1rpm

Precision: The bigger one between  
 ±2rpm or ±2%

Alarm:

Audio and visual  
 Alarm event re-callable

## Temperature

Channel 2

Method: Thermal

Measuring and Alarm Range:  
 0-50 °C

Resolution: 0.1°C

Accuracy: ±0.2°C(25-45°C)

±0.3°C(0~25°C 45~50°C)

Average Time Constant: < 10second

## EtCO2

(BLMED Mainstream or Sidestream)

Sample Rate:

50±10ml/min (Sidestream)

Measuring Range:

CO2: 0-99 mmHg  
 AwRR: 0-150brpm

Resolution:

CO2: 1mmHg  
 AwRR: 1brpm

Accuracy

CO2: ±(2mmHg +2% of  
 readings)

AwRR: ±1brpm(0-70brpm)  
 ±2brpm(71-120brpm)

±3brpm(121-150brpm)

## EtCO2

(Masimo Mainstream or Sidestream)

CO2 Range (IRMA): 0-99 mmHg

Accuracy:

±(0.2 vol% + 2% of reading)

Rise Time: RMA CO2 < 90 ms

System Response Time:

IRMA CO2 < 1 sec  
 ISA CO2 < 3sec

Breath Detect:

Adaptive threshold minimum  
 1vol% CO2 change

Respiratory Rate: 0-150 bpm 1bpm

## Network Connection

LAN Ethernet / WLAN / WIFI\* /  
 Telephony CDMA / GPRS\*

I/O interface SD card socket

Product	Model	Configuration
PHOEBE Pro	PMS8300-S	10.4 inch LCD with modular
	PMS8310-S	12.1 inch LCD with modular
DIONA Pro	PMS8500-S	15 inch LCD with modular

Remark: The items marked by "\*" are optional.

# PHOEBE/DIONA

Modular Patient Monitor

**Durable, reliable and affordable.**



**Better Life Medical Technology Co., Ltd.**

*Making Life Better*

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