



- ECG (3CH)
- SpO<sub>2</sub>
- NIBP
- RESP
- 2TEMP
- 2IBP
- HR/PR
- APG
- HRV
- EKG (12CH)
- 4TEMP
- 4IBP
- ICO
- EtCO<sub>2</sub>
- Touch Screen
- Multi-gas  
PhaseIn AB; AX+, OR+



# VP-1000

*Multi Parameter Patient Monitor for high-end specialist.*

- 10.4" high resolution(800x600) with maximum 10 waveforms
- Standard Configuration : ECG, SpO<sub>2</sub>, NIBP, Resp, 2Temp, 2IBP
- 6 kinds of Virtual Screen
- 3CH ECG : Full 7 ECG & ST Segment analysis
- 12CH ECG : Full 12 ECG & ST segment analysis
- 13 Arrhythmia analysis & Pacemaker detection
- 7days tabular and graphic trend data save
- Drug Dose Calculation, ECG Recall, MiniTrend, ICO, Color change, NIBP STAT, NIBP VENOUS STAT, OXY-CRG, Patient information, TempTD
- Easy S/W upgrade using SD Card(Max 2Gbyte)
- Durable, and light Long Li-ion battery operation (Std 1Pack : 2hr, 2Pack : 4hr)
- LAN and Wireless LAN
- PhaseIn's Multi-gas Mainstream(IRMA AX+), Sidestream(ISA AX+, OR+)
- Respronics's EtCO<sub>2</sub> Mainstream (C5), Sidestream (LiFlo)
- HRV, APG Detection, Touch Screen(Optional)



## General

### Display

- 10.4 inch (800 X 600)
- Up to 10 wave trace On/Off  
(3ch ECG, SpO2, 4 IBP, Resp, EtCO2)
- Full ECG 7 wave Display. (I, II, III, aVR, aVL, aVF, V)

### Parameters

- ECG, SpO2, NIBP, 4 IBP, Resp, 4 Temp, EtCO2, ICO
- HRV, APG detect analysis.



### Interface

- RS-232 port, VGA Port, LAN, ECG output(opt.) Port.
- SD Memory Card Port.

### Power

- AC 100~240V, 50/60Hz, 80VA (MAX)
- BATTERY : Li-ion (2 hours) (opt : 2 Pack [4hours] )

### Thermal Printer (Option)

- 3 channel
- Speed : 12.5, 25, 50 mm/sec
- Paper size : 58 mm

### Trend

- Memory Storage : 7 days (Standard)
- Tabular and Graphic Data Interval :  
1, 5, 15, 30 min...and 1 hours
- Save up to 20 Event data

### Language

ENGLISH, FRENCH, SPANISH, GERMAN, ITALIAN, RUSSIAN,  
TURKISH, CZECH, RUMANIA, PORTUGAL(BRA), POLISH

### Physical Dimension

280mm X 290mm X 175mm  
Weight : 7.0Kg (include battery)

### ICO (Option)

- CI, SV, SI, LVSW, LVSWI, RVSW, RVSWI, SVR, SVRI, PVR, PVRI
- Catheter : Swan-Ganz standard Thrombolition pulmonary Artery Catheter (131HF7, 744HF75)
- Edward Lifesciences

### Multi-gas (Option)

- Phaseln's Mainstream (IRMA AX+)
- Phaseln's Sidestream (ISA AX+, OR+)

## Performance

### ECG

- LEAD  
3 leads (Standard), 5 leads (Option)
- Channel  
3 Channel : 3 leads / 7 leads (Full Display)  
12 Channel : 12 leads (Option)
- HR Range  
0 ~ 300 bpm ( $\pm 2$  bpm)
- GAIN  
2.5, 5, 10, 20, 30, 40, Auto mm/mV
- Sweep Speed  
6.25, 12.5, 25, 50 mm/sec
- Pacemaker Mode  
Pacemaker Arrhythmia Detection (PNF, PNC)  
TAC, BRD, PVC, VTAC, ASY, BGM, TGM,  
VENT, VFIB, CPT, TPT, MIB, RonT
- Arrhythmia Detect  
Range : -9.9mm ~ +9.9mm
- ST Analysis  
Resolution : 0.1 mm
- HR Calculation  
4~16 wave

### SpO2

- Range  
0 ~ 100 %
- Accuracy  
100 ~ 70%  $\pm 2\%$   
69 ~ 50%  $\pm 3\%$   
49 ~ 0% unspecified
- Pulse range  
0 ~ 300 bpm
- Accuracy  
0 ~ 240 bpm  $\pm 2$  bpm,  
241 ~ 300 bpm  $\pm 3$  bpm
- Low Perfusion  
0.1% up to
- Setting Time  
Wave out Time : Max 2 sec.,  
SpO2 Percentage Display : Max 10 sec.
- GAIN  
0.25, 0.5, 1, 2, 3, 4, Auto mm/mV
- Sweep Speed  
6.25, 12.5, 25, 50 mm/sec

### Respiration

- Range  
0 ~ 200 rpm ( $\pm 2\%$  or  $\pm 2$ bpm)
- Apnea  
OFF, 10 ~ 40 sec
- Waveform  
0.25, 0.5, 1, 2, 3, 4, Auto ohm display

### NIBP

- Technique  
Oscillometric
- Measurement  
Adult : 0 ~ 300 mmHg  
Neonate : 0 ~ 150 mmHg
- Range  
5~15 min
- NIBP STAT  
50~200mmHg

### IBP

- Channel  
2 (Standard), 4(Option)
- Range  
-50 ~ 350 mmHg
- Accuracy  
 $\pm 1\%$
- Catheter  
Yuta, Biosensors International

### TEMP

- Channel  
2 (Standard), 4(Option)
- Range  
0 ~ 50.0  $^{\circ}$ C
- Accuracy  
25.0 ~ 50.0 $^{\circ}$ C  $\pm 0.1^{\circ}$ C,  
0 ~ 24.9  $^{\circ}$ C  $\pm 0.2^{\circ}$ C

### EtCO2 (Option)

- Measurement Mode  
Oridion's Microstream<sup>®</sup>  
Respiration Mainstream/Sidestream
- Range  
0 ~ 99 mmHg ( 0 ~ 9.9kPa / 0 ~ 9.9%)
- Resp Rate  
0 ~ 150 bpm

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**VO+EM**  
Network Patient Monitor System



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