

Sazgan Gostar Co.
Vectra Patient Care Monitor Specification

Display

LCD	17-inch, TFT color LCD with LED Back light, 1280x 1024 pixel
Wave Forms	ECG PLETH IBP 1, 2 (2Traces) Respiration EtCo2 (OPTIONAL)
Sweep Speed	6.25, 12.5, 25 mm/sec (Respiration) 12.5, 25, 50 mm/sec (for ECG), 12.5, 25(for others)
Trace Length	9 sec@ 25 mm/sec
Wave form Freeze	All Waveforms
User Interface	Keys & KNOB
Numeric Parameters	Heart Rate, ST level , % SpO2, Pulse Rate, IBP1, IBP2, NIBP (Systolic, diastolic, mean), Body Temperature T1, T2, ΔT & EtCO2, INS CO2, Respiration Rate, Apnea

ECG (Adult, Pediatric , Neonate)

Lead	I, II, III, aVR, aVL, aVF, V(5-Lead)
Rate	15-300 Adult, 15-350 Ped / Neo
Averaging	8 Second
Maximum Input	± 8 mv
DC Offset	up to ± 300 mv
Leakage current	$< 10 \mu A$
Filters	"MONITOR" (0.5-40 Hz) "SURGERY" (1-20Hz) "DIAGNOSTIC" (0.05 -100 Hz)
CMRR	≥ 90 dB (Diag), ≥ 105 (Mon,Sur)
Gain	1/4, 1/2, 1, 2, 4
Pacer Rejection	Duration: 0.1-2 msec Amplitude: ± 2 to ± 700 mv Type: Sync. With any distance from QRS or Async. Heart Rate Counter is not affected by pacemaker signals which have no overshoot
Alarm Limits:	Lower 15 to 298 bpm & off (no greater than Upper limit) Upper : 17 to 300 bpm & off (no less than Lower limit)
Protection	Defibrillator & Electrocuttery protected

ST segment measurement

Measurement Range	-2.0 to +2.0 mv
Precision	± 0.02 mv or $\pm 10\%$ Whichever is greater

Update period 10 s

Arrhythmia analysis

Type ASYSTOL , VFIB/VTAC, PVC, COUPLET, VT>2, BIGEMINY, TRIGEMINY, R on T, MISSED BEATS, TACHY, BRADY, PNC & PNP

Respiration:

Respiration Method Thoracic impedance
Lead Optional : Lead I & Lead II
Range 0.3-3 ohm (base impedance=200-2500 ohm)
Gain 1/4, 1/2, 1, 2, 3, 4, 5
Apnea Alarm 10-40 sec
Respiration Rate 0 to 120 Br PM Adult,
0 to 150 Br PM Ped /Neo

Pulse Oximeter(Adult , Pediatric , Neonate)

Range 0- 100 %
Accuracy $\pm 2\%$ (70-100%)
Unspecified (0-69%)
Resolution 1 %
Puls Range 25-240 bpm
Sensor Type Dual wavelength LED (finger & Y-sensor)

Invasive blood pressure (IBP)

Range -50 To 300 mm Hg
Accuracy $\pm 2\%$ or $\pm 1\text{mmHg}$, whichever is greater
Numeric Parameters Systolic, Diastolic , Mean
Transducer Sensitivity $5\mu\text{v/V/mmHg}$

Non - Invasive Blood Pressure(NIBP) (Adult, Pediatric, Neonate)

Measuring Method Oscillometric
Pressure Range
Systolic, Adult :25-265 mmHg
Diastolic, Adult :15-220 mmHg
MAP, Adult :20-245 mmHg
Systolic, Pediatric :25-265 mmHg
Diastolic, Pediatric :15-220 mmHg
MAP, Pediatric :20-245 mmHg
Systolic, Neonate :25-135 mmHg
Diastolic ,Neonate :15-110 mmHg
MAP, Neonate :20-120mmHg
Accuracy $\pm 5\text{ mmHg}$
Resolution 1 mmHg
Safety Features Automatic over pressure limit Redandant

over pressure switch operating limit

Temperature 1,2(Adult, Pediatric, Neonate)

Measure Range	0-50°C
Accuracy	±0.1°C
Probe Type	YSI 400 Series Compatible

Memory

Trendgraphs	HR, RR, SpO2, T1, T2, IBP1, 2, ST, PVCs, PR, Co2, Ins, AwRR
Trend time	long trend:96 hours, resolution:1, 5, 10 min short trend :1 hours, resolution:1, 5 sec
Trend Resolution	1 seconds with cursor
Recall Store Type	Alarm, Arrhythmia, NIBP
Alarm & Arrhythmia Recall	64 events
Recall Stored Data	to see all waveforms all parameters, Alarm ID save Time & Data
NIBP Recall	1024 Records

Alarm

Limits	Tunable for HR, RR, SpO2, IBP, NIBP, Resp, TEMP, Apnea
Alarm on/ off	Selectable for each
Alert	Blinking on display , volume selectable audio alarms

General

Safety Standard & Class	IEC 60601-1, Class I, Type CF & BF
Protection	Against Electrosurgery & Defibrillation
Power Requirements	100-240 VAC ,50/60Hz , 140VA
Dimension	515(W) X 460 (D)X 315(H) mm
Weight	Approx. 7.2kg

Environmental

Temperature	Operation: 0 to 40°C (32 to 104° F) Storage: -20 to 60°C
Humidity	Operating 15-95% (non condensing), Storage 10 to 95% (non condensing)

OPTIONS

Cardiac Output
Capnograph
Multi GAS Analyzer
Recorder
Rechargeable Battery(Internal)
Touch screen