



M32

Multi-parameter Patient Monitor

V20

Vital Signs Monitor



V20 Vital Signs Monitor

Flexibility and Performance in Vital signs monitoring

- Easy to learn, easy to use
- High-resolution 8" Touch screen with easy-to-read display
- Motion-tolerant NIBP Technology by AND Medical
- Seamless EMR connectivity with HL7, ASCII, XML data output with wireless option
- Early Warning Score to quickly identify deteriorating patients
- 2hr, 4hr and 6hr battery option



User friendly touch screen works with medical gloves



Early Warning Score

- Choose auto calculation of NEWS protocol
- Or Customize your facility's own configurable score

M32 / V20 Configuration



(Note: Wi-Fi output, LAN port, Mini HDMI, USB port are planned to be options with additional cost and subject to change)

M32 Patient monitor

Compact and functional continuous patient monitor

- High-resolution 8" touch screen with easy-to-read display
- Full complement of continuous monitoring parameters: 3/5/12 lead ECG, SpO₂, NIBP, Temp, IBP(option), etCO₂(option)
- Glasgow Interpretative 12-lead monitoring
- Microstream™ capnography from Medtronic: Plug & play, no calibration needed, fast & accurate reading
- Motion-tolerant NIBP technology by AND Medical
- Seamless EMR connectivity with HL7 data output and wireless option



User friendly touch screen works with medical gloves

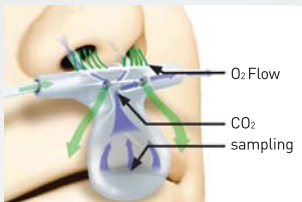


Glasgow 12-Lead interpretive algorithms



1CH IBP port (option)

Enjoy advantage of Uni-junction sampling line



- Uni-junction™ technology is designed for effective sampling from both nares and the mouth, even at low tidal volumes.
- Delivers oxygen to both nares and orally by producing an "oxygen cloud" in front of the nose and mouth through small holes at the base of the nasal prongs and oral scoop.



Microstream™ capnography from Medtronic:

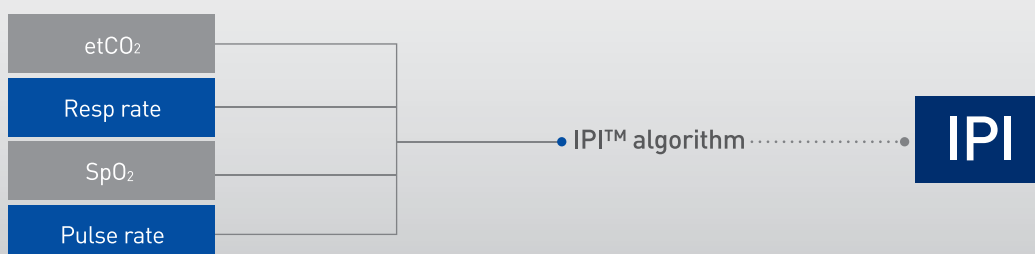
Plug & play, no calibration needed, fast & accurate reading

Provides reliable & useful algorithm

- Smart Breath Detection™ (SBD) algorithm
Proprietary filter and pattern recognition algorithm screens out low-amplitude "non-breath" etCO₂ excursions like snoring, talking, or crying, to offer a more reliable respiratory rate.
- Smart Alarm for Respiratory Analysis™ (SARA) algorithm
Functioning in combination with the SBD™ algorithm, SARA™ manages breath-to-breath variability. It is engineered to reduce the number of nuisance respiratory alarms while providing a comprehensive picture of respiratory status.

Integrated Pulmonary Index (IPI)

* 4 combined parameter for assessment of respiratory status in single number 1~10.



Specifications of M32/V20

General

AC Power : 100V ~ 240V, 50Hz/60Hz
Battery : Max. 9cell Lithium-ion battery packs. 10.8V, 6600mA. 8 hours operation.
Operation temperature : 5°C ~ 40°C
Storage Temperature : -20°C ~ 60°C
Humidity : 15 to 95% relative humidity, non-condensing

Display

Screen : 8" Color TFT LCD (LED Backlight)
Resolution : 800 x 480 pixel
Number of traces 1 waveform (V20) / 3 wave forms (M32)

Recorder

Paper : 50mm Thermal paper
Speed : 25mm/s or 50mm/s
Number of traces 1 waveform (V20) / 3 wave forms (M32)
Printing format : Real time, Trend data printing
Automatic : Auto printing and 20sec recording by alarm or NIBP measurement

ECG (M32 only)

Patient connection : 3/5/12lead (only 12lead optional)
Input defibrillator-protected
Pacemaker pulse display on ECG trace
Bandwidth : Monitor (0.5Hz to 40Hz), Filter (0.5Hz to 30Hz),
Low extension(0.05Hz to 40Hz),
Interpretation (0.05Hz to 150Hz)
Heart Rate: 20bpm ~ 300bpm
Accuracy : +/-3BPM or +/- 5% whichever is greater
ST level measurement range : -5.00mV to 5.00mV
ST level measurement position : J + 60msec or J + 80msec
Tall T-wave rejection : Max. T-wave amplitude 1.8mV
Average response time : 5 seconds (From 80 to 120bpm),
9 seconds (From 80 to 40bpm)

Respiration

Technique: Impedance
Range : 0, 3 ~ 150bpm / Accuracy : ±3bpm
Lead : RA to LA / Defibrillator protection
Technique : etCO₂ (Airway1)
Range : 0 ~ 150bpm / Accuracy : ±1bpm
Technique : etCO₂ (Airway2)
Range : 0 ~ 150bpm / Accuracy : ±1bpm
Technique : SpO₂
Range : 4 ~ 40bpm
Accuracy : ±1bpm

NIBP - AND

Technique : Oscillometric Measurement
Measurement Modes : MANUAL, AUTO and CONT
NIBP AUTO Mode Intervals - Off, 1, 2, 3, 4, 5, 10, 15, 30, 45, 60, 90, 120, 240 minutes
Measurement Range - Adult/Pediatric SYS 40 to 270 mmHg
DIA 20 to 200 mmHg
Neonatal SYS 40 to 120 mmHg
DIA 20 to 90 mmHg
Pulse Rate Range: 30 to 240 BPM
Pulse Rate Accuracy : ±2 BPM or ±5%, whichever is greater

SpO₂ - Nellcor (Connerly1)

Pulse rate range : 20 ~ 300 BPM
Pulse rate accuracy : ±3 BPM (20bpm ~ 250bpm)
SpO₂ range : 1 ~ 100 %
Low Perfusion : 0.03 to 20 %
Accuracy : Without Interference - Adult 70 to 100 % ±2 digits, 1 to 69 % unspecified
With Interference - Adult 70 to 100% ±3 digits, 1 to 69% unspecified
Low Perfusion - 70 to 100 % ±2 digits, 1 to 69 % unspecified

SpO₂ - Mediana (MD1)

Pulse rate range : 20 ~ 300 BPM
Pulse rate accuracy : ±2% or 2BPM, whichever is greater
SpO₂ range : 1 ~ 100 %
Accuracy : Without Interference - Adult 70 to 100 % ±2 digits, 1 to 69 % unspecified

Temperature

Cardinal Genius 2 Thermometry (option for V20 only)
Measurement Type : Ear, Oral, Core, Rectal
Accuracy :
±0.1°C(±0.2°F) ; 36.7 ~38.9°C(98.1F~ 102F) - Ambient Temperature: 25°C (77F)
±0.2°C(±0.4F) ; 33 ~42°C(91.4F~ 107.6F) - Ambient Temperature 16~33°C (60.8F~91.4°F)
Measurement Response Time : 2 seconds
Measurement Range: 33°C ~ 42°C (91.4°F ~ 107.6°F)

Temperature

Probe Type : Thermistor probe YSI 400 series and 700 series (M32only)
Measurement Method : Thermistor
Range : 0 to 50°C
Display Accuracy : ±0.1°C
Probe Accuracy : ±0.1°C
Cardinal Filac 3000 (option for V20 only)
Accuracy : Quick Mode(Oral) - ±0.3°C(±0.6°F)
Standard Mode(Axillary/Rectal) - ±0.1°C(±0.2°F)
Direct Mode - ±0.1°C(±0.2°F)
Measurement Response Time : Quick Mode - 3 ~ 5 seconds (Oral)
Standard Mode - 6 ~ 10 seconds (Oral)
Auxillary - 8 ~ 12 seconds
Rectal - 10 ~ 14 seconds
Direct Mode - 60 ~ 120 seconds
Ambient Operating Range : 10°C ~ 14°C(50°F ~ 104°F) at 10% ~ 95% RH
Temperature Range : 30°C ~ 43.0°C(86.0°F ~ 109°F)
Storage Temperature Range : -25°C ~ 55°C(-13°F ~ 131°F) at 95% RH (non-condensing)
Voltage Requirements : 5 ~ 6 volts

Invasive Blood Pressure (Option for M32 only)

Number of channel : 1CH only
Pulse rate : 20 ~ 250bpm
Pulse rate accuracy : ±1% or ±1bpm, whichever is greater
Pressure range : -50 to 300mmHg
Input sensitivity : 5uV/V/mmHg
Zero calibration range : ±100mmHg
Frequency response : 25Hz
Accuracy : ±3mmHg
Selectable label : ABP, ART, AO, UAP, P, PAP, ICP, RAP, LAP, UVP

Microstream™ capnography from Medtronic (Option for M32 only)

Measuring parameters : Integrated Pulmonary Index™ Algorithm CO₂ waveform, etCO₂,
FiCO₂, respiration rate
Apnea-Sat Alert™ Algorithm : Apneas per hour and Oxygen Desaturation Index values
Accuracy : CO₂ partial pressure (at sea level) / Accuracy
0~38mmHg / ± 2 mmHg
39-99 mmHg / ± [5% of reading + 0.08 x [reading - 39 mmHg]]
100-150 mmHg / ± [5% of reading + 0.08 x [reading - 39 mmHg]]
Performance : CO₂ range - 0 to 150 mmHg, 0 to 20 Vol%, 0 to 20 kPa
CO₂ sampling flow rate - 50 ml/min (+ 15 ml/min, -7.5 ml/min) flow measured
by volume
Initialization time - Typically 30 seconds to obtain both reading and waveform.
Atfull accuracy when value first appears.
Respiration rate - 0-150 breaths/min
Mode - Adult, pediatric, neonata

12 Lead ECG (Option for M32 only)

Interpretive 12 lead ECG monitoring
Filter : 0.05 ~ 150Hz, 0.05 ~ 40Hz, selectable
Detection : Hear rate, PR interval, QRS duration, QT/ QTc duration, P-axis, QRS axis, T-axis,
PA/PPA(P wave minimum and maximum value), QA/RA/SA (QRS absolute amplitude),
STJ (ST level at J point), STM/STE (ST level middle and end point),
TA/TPA (T wave minimum and maximum value), QD/RD/SD (QRS duration),
RPA/RPD/SPA
Waveform Display : 2x6 format LCD display, 4x3 recorder print out
Data transmission : 12 lead ECG data transmission to Central system with
wireless network or WCDMA

Internal Data storage

V20 : 2,000 patient data (with NIBP measurement)
M32 : 10,000 patient data
Data management SW for any window based PC available for trend review

Others

Data storage : USB memory Trend data Serial Transmit
Display Output : HDMI Clon display support
External communication : Nurse call, Barcode reader
Network : Wi-fi or WCDMA wireless and TCP/IP wired connection.
Central monitoring system : Receiving program -vital sign and 12 lead ECG data(M32 only),
Barcode Reader / USB Mouse