



B105M/B125M/B155M Patient Monitors

Powering your performance.



B105M/B125M/B155M patient monitors deliver premium clinical performance across care areas. These scalable, precise, dependable monitors with intuitive design are available in choice of 10, 12 or 15 inch touch screen displays.

Advanced capabilities

B1x5M range of monitors can be deployed seamlessly across a variety of care settings:

- EK-Pro v14 ECG 4-lead simultaneous arrhythmia analysis
- DINAMAP™ SuperSTAT non-invasive blood pressure measurement
- Choice of SpO₂ technologies: GE TruSignal™, Masimo SET® or Nellcor™ OxiMax
- GE EtCO₂ sidestream measurement, anesthetic agents and cardiac output
- Entropy™ monitoring* for monitoring the state of the brain
- NMT for neuromuscular transmission blockade and reversal monitoring
- Connectivity to GE CARESCAPE™ networks
- Flexibility to share parameter modules and accessories with CARESCAPE monitors

*For patients older than 2 years.

Intuitive design. Uninterrupted workflow.

- 12 waveforms to view all required parameter waveforms simultaneously
- Bed to Bed communication and Automatic view on alarm (AVOA) to review remote patient monitoring data
- Roving functionality for seamless transition of the monitor from one bedside to another within the CARESCAPE Network
- InSite™ Remote Service platform for remote troubleshooting
- National Early Warning Score (NEWS) for timely intervention

Tough for demanding duty. Secure for a cyber world.

- Follows FDA draft guidance for cyber security in medical devices
- An ECG filter delivers enhanced signal performance in noisy areas
- With High Capacity battery: >4 hrs¹
- Tested with the EMC 4th Edition standard
- Water resistant with IP22 standards

¹ Depending on the configuration, with typical configuration ECG, NIBP cycle time 15 min, SpO₂, display brightness 70%.

Technical specifications

Display

Size	B155M: 15.6 in (diagonal) B125M: 12.1 in (diagonal) B105M: 10.1 in (diagonal)
Resolution	B155M: 1366x768 (HD) B125M / B105M: 1280x800 (WXGA)
Number of waveforms	Up to 12
Display layout and colors	User-configurable
Controls	Capacitive touch screen and Trim Knob™

Parameters and modules

Parameters	Modules ²
ECG	Integrated hemodynamic module
Resp	
SpO ₂	
NIBP	
Temp	
2 channel InvBP	
Sidestream CO ₂	E-miniC ³
Entropy	E-Entropy ⁴
Sidestream CO ₂ , O ₂ and N ₂ O	E-sCO
Sidestream CO ₂ , O ₂ , agents and N ₂ O	E-sCAiO, N-CAiO
Cardiac Output + 1 Channel InvBP	E-COP ⁵
Neuromuscular Transmission	E-NMT

ECG

Leads available	3-lead configuration: I, II, III 5-lead configuration: I, II, III, aVR, aVL, aVF and V 10-lead configuration: I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5 and V6
Sweep speed	12.5, 25 or 50 mm/s
Gain range	0.5x, 1x, 2x and 4x
Heart rate accuracy	20 to 300 bpm, ±5% or ±5 bpm, whichever is greater

Bandwidth

ECG filter	Monitor: 0.5 to 40 Hz ST: 0.05 to 40 Hz Diagnostic: 0.05 to 145 Hz Moderate: 0.5-20 Hz
Pacemaker detection	Voltage range: 2 to 700 mV Pulse width: 0.5 to 2 ms

Arrhythmia Alarms

Lethal Alarms	Asystole, V Fib/V Tach, V Tach
HR Alarms	Brady, Tachy

Ventricular Alarms	VT>2, R on T, V Brady, Couplet, Bigeminy, Accelerated Ventricular, Trigeminy, Multifocal PVCs
Atrial Alarms	A Fib, Missing beat, Pause, Irregular, SV Tachy
PVC Alarm	Frequent PVCs, Frequent SVCs

ST segment analysis

Numeric range	-9 to +9 mm (-0.9 to +0.9 mV)
Accuracy	±0.2 mm or ±10%, whichever is greater, within the measurement range of -8 to 8 mm
Numeric resolution	0.1 mm (0.01 mV)

Impedance respiration

Range	Adult/pediatric: 4 to 120 breaths/min Neonate: 4 to 180 breaths/min
Accuracy	±5% or ±5 breaths/min, whichever is greater
Gain range	0.1 to 5 cm/Ohm

SpO₂

TruSignal SpO₂

Measurement range

Pulse oximetry	1 to 100%
Pulse rate	30 to 250 bpm
PI (Perfusion Index)	0 to 32

Measurement accuracy

Saturation	Without motion-adult/pediatric Finger sensor: 70 to 100% ±2% Without motion-neonate: 70 to 100% ±3% With motion-adult/pediatric/ neonate: 70 to 100% ±3% Low perfusion-adult/pediatric: 70 to 100% ±3% (<70% unspecified)
Pulse Rate	Without motion: ±2 bpm (Adult/Pediatric/Neonatal)

Nellcor OxiMax

Measurement range

Pulse oximetry	1 to 100%
Pulse rate	20 to 250 bpm

Measurement accuracy

Saturation	Adult: 70 to 100% ±2% Neonate: 70 to 100% ±3% Low perfusion: 70 to 100% ±2% <70% unspecified
Pulse Rate	±3 bpm

² Refer to B105M/B125M/B155M User's Manual for more information.

³ CO₂ measurement through E-miniC Module is intended for use with patients weighing over 5kg (11 lb) only.

⁴ E-Entropy module shall only be used in the patient older than 2 years old.

⁵ E-COP is not intended for use on neonatal patients.

Masimo SET

Measurement range

Pulse oximetry	1 to 100%
Pulse rate	25 to 240 bpm

Measurement accuracy

Saturation	Without motion-adult/pediatric: 70 to 100% $\pm 2\%$ Without motion-neonate: 70 to 100% $\pm 3\%$ With motion-adult/pediatric/ neonate: 70 to 100% $\pm 3\%$ Low perfusion: 70 to 100% $\pm 2\%$ ($< 70\%$ unspecified)
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Pulse rate	Without motion: ± 3 bpm With motion: ± 5 bpm
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PI (Perfusion Index)	Yes
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APOD (Adaptive Probe Off Detection)	Yes
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NIBP

Measurement technique	Oscillometric with step deflation
Measurement Modes	Manual, Automatic (with customseries cycle time), and STAT
Automatic Cycle Times	Custom, 1, 2, 3, 4, 5, 10, 15, 20, 30 min, 1 h, 1.5 h, and 2 h

NIBP Measurement ranges

Systolic	Adult/Pediatric: 30 to 290 mmHg Neonate: 30 to 140 mmHg
MAP	Adult/Pediatric: 20 to 260 mmHg Neonate: 20 to 125 mmHg
Diastolic	Adult/Pediatric: 10 to 220 mmHg Neonate: 10 to 110 mmHg

Clinical Accuracy

Mean Difference	± 5 mmHg
Standard Deviation	≤ 8 mmHg
Reporting Standard	ANSI/AAMI ISO81060-2 and IEC 80601-2-30

Safety features

Default initial inflation pressure	Adult/Pediatric: 135 ± 15 mmHg Neonate: 100 ± 15 mmHg
Maximum determination time	Adult/Pediatric: 2 min Neonate: 85 s
Over pressure monitor	Adult/Pediatric: 300 ± 6 to 330 mmHg Neonate: 150 ± 3 to 165 mmHg

Pulse Rate from NIBP

Measurement Range	30 bpm to 250 bpm
Accuracy	$\pm 5\%$ or ± 5 bpm (whichever is greater)

Invasive blood pressure

From integrated hemodynamic measurement

Measurement range	-40 to 320 mmHg (-5.3 to 42.7 kPa)
Measurement accuracy	$\pm 4\%$ or ± 2 mmHg, whichever is greater
Frequency response	4 to 22 Hz
Transducer sensitivity	$5\mu\text{V/V/mmHg}$
Pulse Rate (PR) range	30 to 250

From E-COP module

Measurement range	-30 to 320 mmHg (-4.0 to 42.7 kPa)
Measurement accuracy	$\pm 4\%$ or ± 4 mmHg, whichever is greater
Frequency response	4 to 22 Hz
Transducer sensitivity	$5\mu\text{V/V/mmHg}$
Pulse Rate (PR) range	30 to 250

Calculations

SPV (Systolic Pressure Variance)	SBPmax – SBPmin (where SBP is systolic blood pressure)
PPV (Pulse Pressure Variance)	$(\text{PPmax} - \text{PPmin}) / ((\text{PPmax} + \text{PPmin}) / 2) \times 100$ (where PP is pulse pressure)

Temperature

Numerical display	T1, T2, Tblood
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From integrated hemodynamic measurement (T1, T2)

Measurement range	10 to 45°C (50 to 113°F)
Measurement accuracy	$\pm 0.1^\circ\text{C}$ without probe $\pm 0.2^\circ\text{C}$ with probe from 25 to 45 °C $\pm 0.3^\circ\text{C}$ with probe from 10 to 25 °C (not include 25 °C)
Display resolution	0.1°C

From E-COP module (Tblood)

Measurement range	17.5 to 43°C (63.5 to 109.4°F)
Measurement accuracy	$\pm 0.5^\circ\text{C}$ (17.5°C to 30.9°C) $\pm 0.3^\circ\text{C}$ (31°C to 43.0°C)
Display resolution	0.1°C

Network architecture

Physical N/W	1000BaseT network
Wireless	Wi-Fi IEEE 802.11a/b/g/n, fast roaming

Networking services

Outbound HL7®	Direct Connectivity to EMR or 3rd party systems for numeric trend
CARESCAPE (Unity)	Connectivity to CIS / HIS through CARESCAPE Gateway Other Networking applications
Remote Service	Remote Diagnosis of device via InSite™ RSvP server

CARESCAPE (Unity) networking applications

Bed to Bed window*

Data displayed	Six parameters' waveforms and numeric values, one remote alarm, and remote bed information
Remote beds	Monitor alarms for up to 40 beds
Monitored	View one bed from up to 1023 beds

AVOA (Auto View of Remote beds in alarm)*

Remote alarm message information	Unit and bed name, alarm message, more than 1 beds alarming
Configurable alarm notification	Message, Auto View, Auto View Always

Roving

Functionality	Roving between units and beds; Adding new units and beds; Selecting the printer
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I/O Peripherals

Standard Connectors

Ethernet port / WIFI	Supports HL7 and CARESCAPE Unity N/W
USB 2.0 Port	Download service logs Import / Export settings Export numerical trends Installing software, firmware and e-manuals
HDMI Port	Supports secondary clone display B155M: 1366 x 768 pixels B125M/B105M: 1280 x 800 pixels
RS232 Serial Port	Export trend data o/p and alarms to iCollect only through DRI protocol

Non-standard Connectors

Nurse Call connector	connects to nurse calling system of hospital
Defib sync connector	Defibrillator synchronization output
Recorder Connector	Standalone thermal printer B1X5-REC Recorder
B1X5-F2 frame	2nd Frame for additional modules connector

Network and data security

Wi-Fi certificate	CE, FCC
Wi-Fi Authentication	Support WPA-Personal; WPA2-Personal; WPA- Enterprise; WPA2-Enterprise
WIFI Data Encryption	Support WPA/WPA2 with TKIP and AES CCMP
LAN / WLAN Connection	Supports IEEE 802.1X port-based Network Access Control (NAC)
USB file exchange	All USB functions are password protected Encrypted export of numerical trends, user settings, and service logs to USB

Mounting

GCX compatible
Integrated carrying handle

Local thermal printer

Method	Thermal dot array
Horizontal resolutions	24 dots/mm (600 dpi)
Vertical resolution	8 dots/mm (200 dpi)
Waveforms	Selectable 1, 2, or 3 waveforms
Numerics trend printout	HR, Pleth, NIBP, IBP1, IBP2, T1, T2, Et/FiCO ₂ , RR, Pleth, C.O., C.I., REF, SPV, PPV, IBP4, Tblood, RE, SE, BSR, NMT Count, O ₂ , N ₂ O, AA, BAL, MAC
Paper width	50 mm, printing width 48 mm
Paper speed	5, 10, 12.5 and 25mm/s, user configurable
Remote printer	Supports both Laser and thermal printer (with CARESCAPE Central Station)

Module Rack (integrated)

Slot for a single module



B1X5-F2 Second Frame (optional)

Additional second frame for up to two modules



* Compatible only with B155M / B125(M/P) / B105(M/P) VSP3.0 patient monitors

Performance specifications

Alarms

Priority	Adjustable priority: High, Medium, Low and Information Local and remote control from central station
Alarm breakthrough	Asystole, V Fib/V Tach, V Tach, Brady, FiO ₂ Low, EtO ₂ Low and FiN ₂ O high
Alarm configurability	Define VTach rate range and duration criteria for a sustainable VTach alarm
Notification	Audible and visual
Alarm tone	IEC, General, ISO, ISO2
Setting	Default and individual
Visual alarm notification	Red, yellow, cyan Audio silence message General alarm message
Alarm limit adjustment	Local and remote control from central station
Audio pause	2 min
Alarm auto printing	Up to 23 alarms

Trends

Graphical	All parameters, selectable time scales from 20 min to 168h (7 days)
Numerical	All parameters, with 168 hours (7 days) of trend data sampling according to time setting or after NIBP, CO and PCWP determination
Snapshot	Up to 200 snapshots Manual or alarm triggered Event snapshots with waveform (on CARESCAPE Central Station)
OxyCRG trend	Neonate mode only Real time or snapshot view Stores up to 70 OxyCRG snapshots Snapshot duration 6 min before and 2 min after the OxyCRG event
Trend cursor	In graphical trend

Full disclosure

Tab/page: all ECG, Hemo

All ECG view	ECG I, II, III, aVL, aVR, aVF, V1, V2, V3, V4, V5, and V6 waveforms
Hemo view	ECG II, IBP1, IBP2, IBP4, SpO ₂ and Resp waveforms
Parameters supported	ECG, SpO ₂ , IBP and RESP
Configurable waveform review sweep speed	
Storage	72 hours with all waveform data
Integrated link with alarm history	
Full Disclosure review on specific alarm	
Full Disclosure review on specific time	

EWS (Early Warning Score)

Protocol	National Early Warning Score (NEWS) 2
Parameters	Pulse HR/PR, Systolic Blood Pressure, LOC (level of consciousness), TEMP, SpO ₂ , Resp Rate, and Air or Oxygen
History with detailed parameters values and sub-scores	
Total EWS score on the main screen with color coding and time stamps	
Clinical response and individual parameter scores with colors on a dedicated window	
Review EWS Clinical Risk and EWS Guidance	

Environmental specifications

Operating conditions

Temperature	5 to 40°C (41 to 104°F)
Relative humidity	15 to 90% non-condensing
Atmospheric pressure	700 to 1060 hPa (525 to 795 mmHg)

Storage and transport conditions

Temperature	-20 to 60°C (-4 to 140°F)
Relative humidity	10 to 90% non-condensing
Atmospheric pressure	700 to 1060 hPa (525 to 795 mmHg)

Power specifications

AC input	100 to 240V ±10%, 50/60 Hz
Power consumption	Monitor ≤150 VA B1x5-F2 Second frame ≤50 VA
Protection	Class I
Battery	1 Lithium Ion High Capacity
Charging time	< 4 h to 90% capacity
Run time	>4.0 hrs for B155M / B125M >4.5 hrs for B105M with typical configuration: ECG, NIBP cycle time 15 min, SpO ₂ , display brightness 70%



Physical specifications

Monitor

Dimensions (H x W x D)	B155M: 305 x 405 x 175 mm B125M: 280 x 312 x 175 mm B105M: 275 x 265 x 175 mm
Weight (with battery and w/o modules)	B155M: ≤ 5.2 kg (11.5 lb) B125M: ≤ 4.2 kg (9.3 lb) B105M: ≤ 3.8 kg (8.4 lb)
Ingress protection	IP22

B1X5-F2 Second Frame

Dimensions (H x W x D)	160 x 132 X 266 mm with mounting plate
Weight	1.4 kg (30.9 lb) with mounting plate

Certifications

IEC 60601-1 passed
CE marking according to EU Medical Device Regulation (EU) 2017/745
UL mark
CB certificate

System

Operation system	Linux®
Cooling system	Natural convection, no fan inside for cooling

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit www.gehealthcare.com/promotional-locations.

Data subject to change.

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B125M, B105M, B155M

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B105M/B125M/B155M patient monitor software version VSP3.0 are not available in all markets and are not 510k cleared.