



B40i Patient Monitor

Affordable clinical excellence

Patients with acute, life-threatening conditions need the best possible care. The B40i Monitor from GE Healthcare provides a continuous flow of quality information to enhance clinical decision-making for adult, pediatric and neonatal¹ patients in various care areas.

Advanced clinical parameters

The B40i Monitor is designed with advanced measurement technologies for accurate and reliable patient monitoring:

- EK-Pro arrhythmia analysis
- DINAMAP* SuperSTAT non-invasive blood pressure
- TruSignal* enhanced SpO₂ saturation monitoring other options available: Nellcor® OxiMax® SpO₂ and Masimo® SET® SpO₂ algorithms
- Datex-Ohmeda* gas technology to support non-invasive monitoring in anesthesia and critical care areas
- Entropy* monitoring that provides information on the patient's central nervous system during general anesthesia
- Comprehensive package of neonatal¹ measurements

Ease of use for fast decision-making

The B40i Monitor makes it easy to acquire accurate patient data to support timely decision-making:

- 12.1" crystal-clear monitor displays up to six waveforms simultaneously
- Intuitive menus and one-button access to commonly used functions
- 72-hour trend display with graphical and numerical data to review patient progress
- HL7 direct output and connectivity with the CARESCAPE* Gateway enables communications to EMR systems
- Capability to work in CARESCAPE Network and S/5 Network environments

Performance and reliability

With its streamlined design, the portable B40i Monitor fits into crowded spaces and is easily moved to different care areas as needed. The system's rugged design stands up to harsh environments and the everyday wear-and-tear of busy care areas. It will provide the performance and accuracy that you expect of GE equipment—so you can provide the care that your patients expect.



B40i Patient Monitor is not cleared, approved or authorized by the US FDA or other US national regulatory authorities for commercial availability.

¹Impedance respiration is intended for use with only adult and pediatric patients in United States, Guam, Puerto Rico, Saint Croix, Saint Thomas and Canada. CO₂ measurement through E-miniC Module is intended for use with patients weighing over 5kg (11 lb) only. Entropy is intended for use with adult and pediatric patients older than 2 years.

Technical specifications

Display

Size	12.1 in (diagonal)
Resolution	800 x 600 pixels (SVGA)
Number of traces	Up to 6
Display layout and colors	User-configurable
Controls	Trim Knob* control and hard keys (standard)

Parameters and modules

Parameters	Modules ²
ECG	Configured hemodynamic module
Resp	
SpO ₂	
NIBP	
Temp	
2 channel InvBP	
Entropy	E-Entropy ²
Sidestream CO ₂	E-miniC ²
Sidestream CO ₂ , O ₂ and N ₂ O	E-sCO ²
Sidestream CO ₂ , O ₂ agents and N ₂ O	E-sCAiO ² N-CAiO ²

NOTE: The monitor also is compatible with the E-sCOV and E-sCAiOV modules without Spirometry function.

NOTE: When monitoring neonatal¹ or other patients that have high respiration rate or low tidal volume, the E-sCO or E-sCAiO Modules shall be used within the limits of respiration rates and tidal volumes to ensure specified measurement accuracy.

ECG

Leads available	3-lead configuration: I, II, III 5-lead configuration: I, II, III, aVR, aVL, aVF and V
Sweep speed	12.5, 25 or 50mm/s
Gain range	0.2 to 5.0 cm/mV
Heart rate accuracy	30 to 300 bpm, ±5% or ±5 bpm, whichever is greater

Bandwidth

50/60 Hz power supply	Monitor: 0.5 to 40 Hz ST: 0.05 to 40 Hz Diagnostic: 0.05 to 150 Hz
Pacemaker detection	Range: 2 to 700 mV Pulse width: 0.5 to 2 ms

Arrhythmia analysis

ST segment analysis

Asystole, bradycardia, tachycardia, ventricular fibrillation, ventricular tachycardia

Numeric range: -9 to +9 mm (-0.9 to +0.9 mV)

Accuracy: -8 mm to +8 mm; ±0.2 mm or ±10%, whichever is greater

Numeric resolution: 0.1 mm (0.01 mV)

ST Trends: Up to 72 h

Impedance respiration

Range	Adult/pediatric: 4 to 120 resp/min Neonate ¹ : 4 to 180 resp/min
Accuracy	±5% or ±5 resp/min, whichever is greater
Gain range	0.1 to 5 cm/Ohm
SpO₂	
<i>GE TruSignal SpO₂</i>	
<i>Measurement range</i>	
Pulse oximetry	1 to 100%
Pulse rate	30 to 250 bpm
<i>Measurement accuracy</i>	
Saturation	Without motion-adult/pediatric Finger sensor: 70 to 100% ±2% Ear sensor: 70 to 100% ±3% Without motion-neonate ¹ : 70 to 100% ±3% With motion-adult/pediatric/ neonate ¹ : 70 to 100% ±3% Low perfusion-adult/pediatric: 70 to 100% ±3% (1~69% unspecified)

Pulse Rate	Without motion: ±2 bpm (Adult/Pediatric/Neonatal ¹) With motion: ±3 bpm (Adult/Pediatric/Neonatal ¹) Low Perfusion: ±5 bpm (Adult/Pediatric)
------------	---

Nellcor OxiMax

Measurement range

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

¹Impedance respiration is intended for use with only adult and pediatric patients in United States, Guam, Puerto Rico, Saint Croix, Saint Thomas and Canada. CO₂ measurement through E-miniC Module is intended for use with patients weighing over 5kg (11 lb) only. Entropy is intended for use with adult and pediatric patients older than 2 years.

²Refer to B40i User's Guide for more information.

Measurement accuracy

Saturation	Adult: 70 to 100% $\pm 2\%$ Neo: 70 to 100% $\pm 3\%$ Low perfusion: 70 to 100% $\pm 2\%$
Pulse Rate	± 3 bpm

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 ¹ : 70 to 100% $\pm 3\%$ With motion-adult/pediatric/ neonate ¹ : 70 to 100% $\pm 3\%$ Low perfusion: 70 to 100% $\pm 2\%$ (0~69% unspecified)
Pulse rate	Without motion: ± 3 bpm With motion: ± 5 bpm

NIBP

Measurement technique	Oscillometric with step deflation
Modes	Manual, automatic and stat

NIBP Measurement ranges

Systolic	Adult/Pediatric: 30 to 290 mmHg Neonate ¹ : 30 to 140 mmHg
MAP	Adult/Pediatric: 20 to 260 mmHg Neonate ¹ : 20 to 125 mmHg
Diastolic	Adult/Pediatric: 10 to 220 mmHg Neonate ¹ : 10 to 110 mmHg
Accuracy	Meets AAMI SP10
Default initial inflation pressure	Adult/Pediatric: 135 ± 15 mmHg Neonate ¹ : 100 ± 15 mmHg
Maximum determination time	Adult/Pediatric: 2 min Neonate ¹ : 85 s
Over pressure monitor	Adult/Pediatric: 300 ± 6 to 330 mmHg Neonate ¹ : 150 ± 3 to 165 mmHg

Invasive blood pressure

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

Temperature

Numerical display	T1, T2, T2-T1
Measurement range	10 to 45°C (50 to 113°F)
Measurement accuracy	$\pm 0.1^\circ\text{C}$ without probe
Display resolution	$\pm 0.1^\circ\text{C}$ at 25 to 45°C with reusable probes
Probe	YSI probes recommended by GE Healthcare

Networking

Compatibility	CARESCAPE Network and S/5 Network
---------------	-----------------------------------

Software version

VSP-B_1.20

I/O connectors

RS-232 computer serial output, Defibrillation synch, Nurse call

Mounting

GCX compatible
Integrated carrying handle

Paper Recorder

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	HR, SpO ₂ , NIBP, IBP1, IBP2, ETCO ₂ , T1, T2, Resp, O ₂ , AA
Tabular trend printout	HR, NIBP, IBP1, IBP2, T1, T2, Et/FiCO ₂ , RR, Et/Fi O ₂ , Et/Fi AA
Graphical trend printout	HR, ST, IBP1, IBP2, NIBP, SpO ₂ , Pleth, CO ₂ , N ₂ O, O ₂ , AA, Resp, T1+T2, Entropy
Paper width	50 mm, printing width 48 mm
Paper speed	1, 6.25, 12.5, 25 mm/s

Printing

Network laser printer supported in S/5 network.

¹Impedance respiration is intended for use with only adult and pediatric patients in United States, Guam, Puerto Rico, Saint Croix, Saint Thomas and Canada. CO₂ measurement through E-miniC Module is intended for use with patients weighing over 5kg (11 lb) only. Entropy is intended for use with adult and pediatric patients older than 2 years.

Performance specifications

Alarms

Priority	High, Medium, Low and Message
Notification	Audible and visual
Setting	Default and individual
Visual alarm notification	Red, yellow, cyan Audio silence message General alarm message
Audio pause	2 min
Adjustment	Central alarm display and adjustment page
Trending	10 min graphical trends referenced to set alarm limits

Trends

Graphical	All parameters, selectable time scales from 20 min to 72 h
Numerical	All parameters, every 5 min sampling or after NIBP determination
Snapshot	Up to 10 snapshots Manual or alarm triggered
OCRG trend	Real time or snapshot Neonate mode only
Trend cursor	In both graphical and numerical trends
Minitrends	5 or 30 min minitrends can be displayed for a continuous historical view

Environmental specifications

Operating conditions

Temperature	5 to 40°C (41 to 104°F)
Relative humidity	20 to 90% noncondensing
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% noncondensing
Atmospheric pressure	700 to 1060 hPa (525 to 795 mmHg)

Power specifications

AC input	100 to 240V ±10%, 50/60 Hz, 150VA
Protection	Class I
Battery	Exchangeable lithium-ion, 2 pcs max
Charging time	2 h per battery pack
Run time	Up to 4.5 h

Physical specifications

Dimensions (H x W x D)	Without extension rack: 31 x 31 x 16 cm (12.2 x 12.2 x 6.3 in) With extension rack: 31 x 35 x 18 cm (12.2 x 13.8 x 7 in)
Weight	≤7kg (15 lb)
Ingress protection	IP21

Warranty

One year.

Certifications

IEC 60601-1 passed

CE marking according to Directive 93/42/ EEC

¹Impedance respiration is intended for use with only adult and pediatric patients in United States, Guam, Puerto Rico, Saint Croix, Saint Thomas and Canada. CO₂ measurement through E-miniC Module is intended for use with patients weighing over 5kg (11 lb) only. Entropy is intended for use with adult and pediatric patients older than 2 years.

About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at www.gehealthcare.com.

GE Healthcare Finland Oy
Kuortaneenkatu 2
00510 Helsinki, Finland
Europe

© 2014 General Electric Company – All rights reserved.

General Electric Company reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your GE representative for the most current information.

Trademark of General Electric Company is the preferred form of trademark notice. This form of notice can be used with registered and unregistered marks, and marks that are the subject of a pending application.

GE and the GE Monogram are trademarks of the General Electric Company.

* Trademarks of General Electric Company.

Masimo and SET are trademarks of Masimo Corporation. Nellcor and OxiMax are trademarks of Nellcor Puritan Bennett, Inc.

General Electric Company, by and through its GE Healthcare division.



GE imagination at work