# B40 Monitor

## Simple. Compact. Reliable.

The B40 monitor from GE Healthcare provides a continuous flow of quality information to enhance clinical decision-making for adult and pediatric patients in various care settings, from physician offices to surgery centers. It's intuitive and simple features help deliver excellent care with ease.

### Advanced clinical parameters

The B40 monitor is designed with advanced measurement technologies for accurate and reliable patient monitoring.

- GE EK-Pro arrhythmia analysis
- GE DINAMAP® SuperSTAT non-invasive blood pressure
- GE SpO$_2$ oxygen saturation monitoring (Nellcor™ OxiMax™ SpO$_2$ and Masimo SET® SpO$_2$ optional)
- GE Datex-Ohmeda compact CO$_2$ sidestream measurement

### Ease of use for fast decision-making

The B40 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
- Modular design of CO$_2$ function enables shared-use applications
- Capability to work in CARESCAPE™ Network and S/5 Network environments

### Performance and reliability

With its streamlined design, the compact B40 monitor fits into crowded spaces. The monitor's rugged design stands up to the every-day wear-and-tear of busy care areas and harsh environments. It will provide the performance and accuracy that you expect of GE equipment-so you can provide the care that your patients expect.

# Technical specifications

## Display

| | |
|---|---|
| Display size | 12.1 inch |
| Resolution | 800 × 600 |
| Number of traces | Up to 6 |
| Display layout and colors | User-configurable |

## Controls

| | |
|---|---|
| Trim Knob® control and hard keys | Standard |

## 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 minutes |
| Adjustment | Central alarm display and adjustment page |
| Trending | 10 minutes graphical trends referenced to set alarm limits |

## Trends

| | |
|---|---|
| Graphical | All parameters, selectable time scales from 20 minutes to 72 hours |
| Numerical | All parameters, every 5 minutes sampling or after NIBP determination |
| Trend cursor | In both graphical and numerical trends |
| Minitrends | 5 or 30 minute minitrends can be displayed for a continuous historical view |

## Parameters and modules

### ECG

| | |
|---|---|
| Leads available | 3-lead configuration: I, II, III |
| | 5-lead configuration: I, II, III, aVR, aVL, aVF and VA |
| 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 Hz power supply | Monitor: 0.5 to 35 Hz<br>ST: 0.05 to 35 Hz<br>Diagnostic: 0.05 to 150 Hz |
| 60 Hz power supply | Monitor: 0.5 to 40 Hz<br>ST: 0.05 to 40 Hz<br>Diagnostic: 0.05 to 150 Hz |
| Pacemaker detection | Range 2 to 700 mV<br>Pulse width 0.5 to 2 ms |
| Arrhythmia analysis | Asystole, Bradycardia, Tachycardia, Ventricular fibrillation, Ventricular tachycardia |
| ST segment analysis | ST numeric range -9 to +9 mm (-0.9 to +0.9 mV) |
| | ST accuracy -8 mm to +8 mm ±0.2 mm or ±10%, whichever is greater |
| | ST numeric resolution 0.1 mm (0.01 mV) |
| | ST Trends Up to 72 hours |

### Impedance respiration

| | |
|---|---|
| Range | 4 to 120 resp/min |
| Accuracy | ±5% or ±5 resp/min, whichever is greater |
| Gain range | 0.1 to 5 cm/Ohm |

**Note**: Impedance respiration is intended for patients over three years old.

### GE SpO$_2$

*Measurement range*

| | |
|---|---|
| Pulse oximetry | 1 to 100% |
| Pulse rate | 30 to 250 bpm |

*Measurement accuracy*

| | |
|---|---|
| Saturation | Adult/Pediatric:<br>Without motion: 70 to 100% ±2 digits (±3 digits with ear sensor)<br>With motion: 70 to 100% ±3 digits<br>Low perfusion: 70 to 100% ±3 digits<br>1 to 69%: unspecified |
| Pulse rate | Without motion: 30–250 bpm ±2 bpm<br>With motion: 30–250 bpm ±3 bpm<br>Low perfusion: 30–250 bpm ±5 bpm |

### Nellcor OxiMax SpO$_2$

*Measurement range*

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

*Measurement accuracy*

| | |
|---|---|
| Saturation | Adult 70 to 100% ±2% |
| | Neo 70 to 100% ±3% |
| | Low perfusion 70 to 100% ±2% |
| Pulse rate | ±3 bpm |

## Masimo SET SpO$_2$

### Measurement range

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

### Measurement accuracy

| | |
|---|---|
| Saturation | Without motion-adult/pediatric 70 to 100% ±2% |
| | Without motion-neonate 70 to 100% ±3% |
| | With motion-adult/pediatric/ neonate 70 to 100% ±3% |
| | Low perfusion 70 to 100% ±2% (0~69% unspecified) |
| Pulse rate | Without motion ±3 bpm |
| | With motion normal physiologic range ±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: 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 |
| Accuracy | Meets AAMI SP10 |
| Default initial inflation pressure | Adult/Pediatric: 135 ±15 mmHg |
| | Neonate: 100 ±15 mmHg |
| Maximum determination time | Adult/Pediatric 2 minutes |
| | Neonate: 85 s |
| Over pressure monitor | Adult/Pediatric: 300 to 330 mmHg |
| | Neonate: 150 to 165 mmHg |

## Invasive blood pressure

| | |
|---|---|
| Measurement range | -40 to 320 mmHg (-5.3 to 42.7 kPa) |
| Measurement accuracy | ±5% or ±2 mmHg, whichever is greater |
| Frequency response | 4 to 22 Hz |
| Transducer sensitivity | 5 µV/V/mmHg |

## Temperature

| | |
|---|---|
| Numerical display | T1, T2, T2-T1 |
| Scale | ° Fahrenheit (F) |
| | ° Celsius (C) |
| Measurement range | 50 to 113°F (10 to 45°C) |
| Measurement accuracy | ±0.1°C without probe |
| Display resolution | 0.1°C at 25 to 45°C with reusable probes |
| Probe | GE approved probes or defibrillator-proof YSI 400 series probes |

## Airway Gas (CO$_2$)

| | |
|---|---|
| Measurement range | 0 to 20 vol% |
| Accuracy | 0 to 15 vol%: ± (0.2 vol% +2% of reading) |
| | 15 to 20 vol%: ± (0.7 vol% +2% of reading) |
| Resolution | 0.1% |
| Rise time | < 300 ms with nominal flow |
| Maximum sampling line length | 19.7 ft. (6 m) |
| Warm-up time | 1 minute for operation |
| | 30 minutes for full specification |

### Respiration Rate

| | |
|---|---|
| Breath detection | 1% variation in CO$_2$ level |
| Measurement range | 4 to 80 bpm |
| Accuracy | ±1 bpm in the range 4 to 20 bpm |
| | ±5% in the range 20 to 80 bpm |
| Resolution | 1 bpm |

**Note**: CO$_2$ measurement is intended for use with patients weighing over 5 kg (11 lb) only.

## Thermal Recorder

| | |
|---|---|
| Operating principle | Thermal array |
| Waveforms | Selectable 1, 2, or 3 waveforms |
| Numerics | HR, SpO$_2$, NIBP, IBP1, IBP2, ETCO$_2$, T1, T2, Resp |
| Tabular trend printout | HR, NIBP, IBP1, IBP2, T1, T2, Et/FiCO$_2$, RR |
| Graphical trend printout | HR, ST, IBP1, IBP2, NIBP, SpO$_2$, Pleth, CO$_2$, Resp, T1+T2 |

### Resolution

| | |
|---|---|
| Vertical | 200 dots/inch (8 dots/mm) |
| Horizontal | 600 dots/inch (24 dots/mm) |
| Paper width | 50 mm, printing width 48 mm |
| Paper speed | 1, 6.25, 12.5, 25 mm/s |

## I/O connectors

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

## Networking

Work in CARESCAPE Network and S/5 Network environments

## Printing

Network laser printer supported in S/5 network

## Mounting

GCX compatible

Integrated transport handle

## Electrical specifications

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

## Physical specifications

*Dimensions (H x W x D)*

| | |
|---|---|
| Without extension rack | 12.3 x 12.3 x 6.2 in (±0.2 in) (312 x 312 x 158 mm (±5 mm)) |
| With extension rack | 12.3 x 13.9 x 7.0 in (±0.2 in) (312 x 352 x 178 mm (±5 mm)) |
| Weight | 13.2 lbs (6 kg) |
| Ingress protection | IP21 |

## Warranty

One year

## Certifications

IEC 60601-1 passed

CE marking according to Directive 93/42/ EEC

GE Healthcare
8200 West Tower Avenue
Milwaukee, WI 53223
U.S.A.

www.gehealthcare.com

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