

PHILIPS

Patient monitors

Philips G30E and G40E patient monitors



- 10.4-inch/12.1-inch color TFT LED display
- Maximum display of 11 waveforms; auto channel height adjustment function
- Philips FAST SpO₂ technology with anti-motion and low perfusion performance
- 23 calls arrhythmia and ST segment analysis from market-proven Philips ST/AR algorithm
- Optional dual-channel IBP and etCO₂ monitoring
- Optional thermal dilution cardiac output monitoring (G40E only)
- Optional touchscreen
- OxyCRG/dynamic trend display
- Bed-to-bed overview function without central monitoring system
- Bi-directional communication via LAN networking to Efficia CMS200 central monitoring system
- Standard HL7 output
- Compatible with Philips supplies
- Li-ion battery
- Applications from neonate to adult
- 4 user-defined profiles and timer to help improve clinicians' efficiency

Philips G30E and G40E patient monitors

ECG

Lead type:	3-lead or 5-lead selectable
Lead selection:	3-lead: I, II, III 5-lead: I, II, III, aVR, aVL, aVF, V
HR measurement range:	Adult:/ped.: 15 – 300 bpm
	Neonatal: 15 – 350 bpm
Accuracy:	± 5 bpm or ± 1%, whichever is greater
Arrhythmia:	23 calls
ST measurement range:	-2.5 – +2.5 mV in diagnosis mode
ST accuracy:	undefined
Waveform speed:	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
Gain selection:	x 1/4, x 1/2, x 1, x 2, x 4, Auto
Pacemaker detection:	yes
Protection:	against electrosurgical interference and defibrillation

Non-invasive blood pressure (NBP)

Method:	oscillometric mode
Parameters:	SYS/DIA/MAP/Pulse Rate
Operating mode:	manual/Auto/STAT
Auto measure intervals:	3, 5, 10, 15, 30, 60, 90, 120, 240, 480 minutes
Units:	mmHg/kPa
Cuff pressure range:	Adult/pediatric: 0 – 300 mmHg (0 – 40.0 kPa) Neonate: 0 – 150 mmHg (0 – 20.0 kPa)
Measurement NBP range:	
SYS:	Adult/pediatric: 30 – 254 mmHg (4.0 – 33.9 kPa) Neonate: 30 – 135 mmHg (4.0 – 18.0 kPa)
DIA:	Adult/pediatric: 10 – 220 mmHg (1.3 – 29.3 kPa) Neonate: 10 – 110 mmHg (1.3 – 14.7 kPa)
Accuracy:	Max. std. deviation: 8 mmHg (1.1 kPa) Max mean error: ± 5 mmHg (± 0.7 kPa)
PR range:	40 – 240 bpm
PR accuracy:	± 5 bpm or ± 5%, whichever is greater

SpO₂ (Philips SpO₂ technology)

Measurement range:	0 – 100%
Accuracy:	70 – 100%, depends on sensor; 0 – 69%, unspecified
Waveform speed:	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
PR range:	30 – 300 bpm
PR accuracy:	± 2 bpm or ± 2%, whichever is greater
Perfusion index:	yes

Respiration (RESP)

Measurement method:	thoracic impedance
Measurement range:	0 – 150 rpm
Accuracy:	0 – 120 rpm: ± 1 rpm; 121 – 150 rpm: ± 2 rpm
Waveform speed:	6.25 mm/s, 12.5 mm/s, 25 mm/s, 60 mm/s
Apnea alarm:	yes, 10 – 60 s
Work mode:	Auto or manual (threshold)
RESP lead:	RA-LL

Temperature (TEMP, 2-channel)

Measurement range:	0 – 50 °C (32 – 122 °F)
Resolution:	0.1 °C (0.2 °F)
Accuracy:	± 0.1 °C (± 0.2 °F)
Units:	°C / °F
Minimum measuring time:	Attachable skin surface probe: < 10 minutes Esophageal/rectal probe: < 2 minutes

etCO₂ (optional)

Method:	Microstream, infrared absorption
Parameters:	awRR, etCO ₂ , inCO ₂
Measurement range:	0 – 99 mmHg (0 – 13.2 kPa)
Accuracy:	0 – 38 mmHg (0 – 5.1 kPa): ± 2 mmHg (± 0.28 kPa) 39 – 99 mmHg (5.2 – 13.2 kPa): ± (5% of reading + 0.08% for every 1 mmHg (0.13 kPa) above 38 mmHg (5.1 kPa))
awRR range:	0 – 150 rpm
awRR accuracy:	3 – 70 rpm: ± 1 rpm 71 – 120 rpm: ± 2 rpm 121 – 150 rpm: ± 3 rpm

IBP (2-channel, optional)

Parameters:	SYS/DIA/MAP/pulse rate
Measurement range:	-50 – 400 mmHg (-6.6 – 53.2 kPa)
Accuracy:	± 4 mmHg (0.53 kPa) or ± 4% of reading, whichever is greater
Waveform speed:	6.25 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s
Resolution:	1 mmHg (0.13 kPa)
Units:	mmHg/kPa/cmH ₂ O
Transducer sensitivity:	5 uV/V/mmHg
PR range:	30 – 254 bpm
PR accuracy:	± 2 bpm or ± 2%, whichever is greater
Sampling rate:	62.5 samples per second

Cardiac output (optional for G40E only)

Measurement method:	right heart thermodilution
Measurement range:	0.1 – 20.0 l/min
Accuracy:	± 0.2 l/min or ± 10%, whichever is greater
Blood temperature range:	27 – 43 °C (80.6 – 109.4 °F)
Accuracy:	± 0.1 °C
Injection temperature:	0 – 27 °C (32 – 80.6 °F)
Units:	°C / °F

Recorder (optional)

Type:	built-in thermal recorder, 3 channels
Print mode:	real-time recording, timed recording, alarm-activated recording
Print speed:	12.5 mm/s, 25 mm/s, 50 mm/s

Display

Type:	Color TFT LCD, 4:3
Size:	10.4 inch (G30E) / 12.1 inch (G40E)
Resolution:	800 x 600 pixels
Channels:	max. 11 channels

Power supply

AC power input:	100 – 240 VAC, 50/60 Hz
Battery:	rechargeable li-ion battery maximum 2.5 hours of continuous monitoring (1 battery)

Weight and dimensions

Net weight:	approx. 4.0 kg (G30E) approx. 4.2 kg (G40E)
Dimensions:	316 x 265 x 131 mm (w x d x h)

Safety approval and quality system

Safety standard:	IEC60601-1:2012
Electromagnetic environment:	IEC60601-1-2:2014
Quality system:	ISO9001 & ISO13485 certified CE-marking
Waterproof:	IEC60529 IPX2

Parameters

Standard:	ECG, HR, RESP, NBP, SpO ₂ , PR, dual TEMP
Optional:	dual IBP, etCO ₂ , cardiac output (G40E only), recorder, touch screen, advanced ARR and ST

Data review and storage

1,600 sets NBP table
1,200-hour trend graph of all parameters (with data manager function)
120-minute full disclosure ECG 1 waveform review (with data manager function)
200 sets alarm events
200 sets arrhythmia events

External interface (standard)

ECG analog output, VGA output, nurse call, LAN, USB

Power specifications

Main power input:	110-240V, 50/60Hz
Li-ion battery:	4800mAh

Environmental specifications

Temperature-working	5° – 40 °C (41 – 104 °F)
Relative humidity-operating	15%-85%, condensation free
Barometric pressure-working	70kPa-106kPa