

nGenuity CO₂ Patient Monitor

Improve patient outcomes with a comprehensive, user-configurable patient monitoring system covering the needs of multiple departments within hospitals and outpatient facilities.



Custom Configurations

- STANDARD: ETCO₂, INCO₂, ECG, ComfortCuff™ NIBP, DOX™ SpO₂, HR, Temperature, Respiration, and Nurse Call interface connection.
- OPTIONAL: Arrhythmia and ST analysis, printer.

Features

- Monitors End-tidal CO₂ and Inspired CO₂ accurately at high respiration rates.
- Gas monitoring with full occlusion clearing and high capacity water trap.
- Mini-Trends can display condensed tabular vital signs data to show recent monitoring activity.
- Compatible with popular Electronic Medical Records (EMR) systems for both large facilities and small offices.
- Easy-to-read 10.4" active color TFT display.
- Easy to learn, easy to use – simplified menus and dedicated function keys.

Focus on your patients, not your monitor. The nGenuity™ 8100E1 series patient monitors are the perfect choice for busy departments demanding accurate, reliable performance.

The 8100E1 series monitor can monitor adult and pediatric patients in virtually every department. The innovative user interface features simplified menus and dedicated function keys for timely set-ups. The big, bright display with large numerics can easily be seen, even from across the room.

The nGenuity 8100E1 series patient monitor mounts quickly and easily to walls and rollstands.

Technical Specifications

ECG

Number of Leads:	3- or 5-Lead
Lead View:	User-selectable; I, II, III, aVR, aVL, aVF, V (5-Lead); I, II, or III (3-Lead)
Gain Selection:	x0.5, x1, x2, and x4
Frequency Response:	Diagnostic: 0.05 to 100 Hz (-3dB); Monitor: 0.5 to 40 Hz (-3dB); ST: 0.05 to 40 Hz (-3dB)
Electrosurgery Protection:	Yes
Defibrillator Protection:	Yes
Pacer Detection/Rejection:	Yes
ST Accuracy:	±0.2 mm or ±5% of reading, whichever is greater, over heart range of 30 to 120 bpm
ST Range:	-6.0 to 6.0 mm

Pulse Oximetry

Range:	1% to 99%
Resolution:	1%
Accuracy:	70% to 99% range: ±2%; 50% to 69% range: ±3%; <50%: unspecified; Complies with ISO 9919
Method:	Dual wavelength LED

Non-Invasive Blood Pressure

Technique:	Oscillometric during Inflation
Inflation Pressure Range:	Adult/Pediatric: 30 to 300 mmHg Neonate: 20 to 150 mmHg
Measurement Cycle:	<40 sec. average
Automatic Measurement Cycles (Selectable):	2, 3, 5, 10, 15, 30 minutes; 1, 2, 4 hour
Stat Mode:	5 minutes of continuous readings
Resolution:	1 mmHg
Transducer Accuracy:	±2 mmHg or ±2%, whichever is greater
Clinical Accuracy:	Complies with AAMI SP-10:2002

Heart (Pulse) Rate

Source:	User selectable: Smart, ECG, Pleth, NIBP
Range:	20 to 300 bpm (30-240 bpm, NIBP)
Accuracy:	±1 bpm or ±1% (ECG), whichever is greater ±2 bpm or ±2% (NIBP), whichever is greater

Capnography (CO₂)

Units:	mmHg; %; kPa; Torr
Method:	Non-dispersive infrared; autocalibrating
N ₂ O Compensation:	Manual; On/Off, user selectable
Range:	0 to 99 mmHg; 0 to 12.5%
Flow, Sample Rate:	Sidestream; 200 ml/min
Accuracy:	±2 mmHg, ±0.3 volume %, ±0.3 kPa, or ±2 Torr at 200 ml/min & respiratory rate ≤ 120 bpm
Rise Time:	170 ms (10-90%) at 200 ml/min

Respiration

Rate:	6 to 150 breaths/min
Resolution:	1 breath/min
Accuracy:	±1% or ±1 breath/min, whichever is greater
Source:	User selectable: Smart, CO ₂ , ECG-TTI

Temperature

Channels:	1
Range, Accuracy:	68° to 113° F (20° to 45° C): ±0.1° C
Display Resolution:	±0.1° C
Probe:	YSI-400 and YSI-700 Series

Alarms

Indication:	Audible, visual
Silence:	Yes; 2 minutes or permanent

Trends

Memory:	24 hr at 30 second intervals with an NIBP reading every 3 minutes
Display:	Tabular, Graphical

Interface & Display

Keys:	9; membrane-activated
Rotary Knob:	Push and rotate; 24 steps/turn
Screen:	10.4" active color TFT
Resolution:	640 x 480 pixels
Waveforms:	6, maximum
Waveform Types:	ECG Leads I, II, III, aVR, aVL, aVF, V; Respiration; CO ₂ ; Pleth; ST Histograms
Sweep Speeds:	6.25, 12.5, 25, 50 mm/sec
Languages:	English, French, German, Italian, Portuguese, Spanish, Russian, Chinese

System Outputs

Com Ports:	RS 232-compatible; DB9 (Com 1); Mini-DIN 8 (Com 2)
Nurse Call:	Contact switch; 3.5 mm jack, 14 mm length
Defib/Sync:	BNC connector
Video Port:	High density D-sub 15-pin

Printer

Type:	Thermal line printer
Paper Speed:	12.5, 25, 50 mm/sec

Physical Properties

Weight:	14 lb; 6.4 kg
Size:	11" (H) x 13" (W) x 10.3" (D); 28 cm (H) x 33 cm (W) x 26.2 cm (D)

Power Requirements

Voltage:	100, 120, 220, 240 VAC; 50/60 Hz
Power Consumption:	35 W, typical
Battery:	1 sealed lead acid battery; life: 3 hrs, typical; recharge time: 4.5 hr

Environmental

Operating Temperature:	59° to 95° F; 15° to 35° C
Storage Temperature:	23° to 122° F; -5° to 50° C
Operating Humidity:	15% to 90%, noncondensing

Classification

Medical Device:	Class II Equipment (IIb EU)
Electrical Protection:	Class I Equipment
Degree of Protection:	Type CF, Defibrillator-proof
Protection Against Ingress:	IPX1



Quality systems registered to ISO 13485 and CE marking per Annex II, Clause 3 of Council Directive No. 93/42/EEC concerning medical devices.

Configurations Available

8100E1	no printer
8100EP1	printer
8100E1-ST	no printer, with ST
8100EP1-ST	printer and ST