



The **Medtronic Puritan Bennett 980** ventilator system helps patients breathe more naturally through innovative breath delivery technology. The Puritan Bennett 980 has an intuitive and highly configurable touch screen display that gives clinicians the options to see as little or as much information as needed including five graph and loop layout options. On the digital communication board the PB 980 offers multiple USB ports for connections to external drives and an HDMI output port to project the touchscreen externally.

Features

- Simple, easy-to-use, and highly customizable touchscreen user-interface.
- Expiratory filtration system.
- Unique ventilator assurance feature which, in the event of certain system failures, will continue to deliver ventilatory support as close to the preset settings as feasible.
- Proximal flow sensor that measures flow, pressure, and tidal volume.



Specifications

Dimensions

Height: 58" (148 cm)
Width: 12.5" (32 cm)
Depth: 11.5" (30 cm)
Weight: 113 lbs. (51.26 kg)

Display

Size: 15" (38.1 cm)
Rotation: 170°
Tilt: Up to 45° from vertical

Pneumatics

Oxygen and Air Inlet Supplies: Pressure: 241 to 600 kPa (35 psi to 87 psi); Flow: Maximum of 200 L/min

Gas Mixing System: Up to 80 L/min for pediatric circuit type; Up to 150 L/min for adult patients.; Additional flow is available (peak flow to 200 L/min) for compliance compensation.

Maximum Limited Pressure (PLIM max): Limits circuit pressure to < 125 cmH₂O (123 hPa) at the patient wye

Maximum Working Pressure (PW max): PW max is ensured by the high pressure limit when PI is 90 cmH₂O (88.26 hPa)

Measuring Devices

Pressure Measurements: Type: Solid-state differential pressure transducer; Sensing position: Inspiratory module, expiratory module

Flow and Volume Measurements: Type: Hot film anemometer; Sensing position: Inspiratory module, expiratory module; Type: Proximal flow sensor option utilizes differential pressure; Sensing position: Patient wye

Oxygen Measurement: Type: Galvanic cell; Sensing position: Inspiratory module

Oxygen Sensor Life: Up to one year; operating life varies depending on oxygen usage and ambient temperature

Filtration Capabilities

Internal Inspiratory Filter Bacterial/Viral Filtration Efficiency: > 99.999%

Internal Inspiratory Filter Particle Filtration Efficiency: >99.97% retention of particles 0.3 µm nominal at 100 L/min flow

Exhalation Filter Resistance (Adult/Pediatric, Disposable): <0.7 cmH₂O at 30 L/min (new); <0.35 cmH₂O at 15 L/min

Expiratory Filter Bacterial/Viral Filtration Efficiency: > 99.999%

Exhalation Filter Particle Filtration Efficiency, Pediatric/Adult, Disposable: Maximum of 0.03% penetration of particles 0.3 µm nominal at 30 L/min flow



Specifications Continued

Parameters

Predicted Body Weight (PBW): 3.5 kg (7.7 lb) to 150 kg (330 lb)

Modes: Assist Control (A/C), Synchronized Intermittent Mandatory Ventilation (SIMV), Spontaneous (SPONT), BiLevel, Continuous Positive Airway Pressure (CPAP)

Mandatory Breath Types: Volume Control (VC), Pressure Control (PC), and Volume Control Plus (VC+)

Spontaneous Breath Types: Pressure Support (PS), Volume Support (VS), Tube Compensation (TC), and Proportional Assist Ventilation PAV+ software

Ventilation Type: Invasive and Noninvasive (NIV)

Pressure Support (PSUPP): 0 cmH₂O to 70 cmH₂O

Rise Time %: 1% to 100%

Expiratory Sensitivity (ESENS): 1% to 80%; 1 L/min to 10 L/min with PAV+

Tidal Volume (VT): 25 mL to 2,500 mL; Resolution: 0.1 mL for values <5 mL; 1 mL for values 5 mL to 100 mL; 5 mL for values 100 mL to 395 mL; 10 mL for values ≥400 mL

Respiratory Rate (f): 1.0 1/min to 100 1/min; 1.0 1/min to 150 1/min with Puritan Bennett 980 Universal ventilator

Peak Inspiratory Flow (VMAX): 3 L/min to 150 L/min

Plateau Time (TPL): 0.0 to 2.0 seconds

Inspiratory Pressure (PI): 5 to 90 cmH₂O

Inspiratory Time (TI): 0.2 to 8.0 seconds

I:E Ratio: 1:299 to 149:1

Expiratory time (TE): ≥ 0.20 seconds; Resolution: 0.01 s

Trigger Type: Pressure-triggering (P-TRIG) or flow-triggering (V-TRIG)

Pressure sensitivity (PSENS): 0.1 cmH₂O to 20 cmH₂O

Flow sensitivity (VSENS): 0.2 L/min to 20 L/min

O₂%: 21% to 100%

Positive end expiratory pressure (PEEP): 0 cmH₂O to 45 cmH₂O

Apnea Ventilation Mandatory Type: PC, VC

Apnea Peak Inspiratory Flow (VMAX): 3.0 L/min to 150 L/min

Apnea Tidal Volume (VT): 25 mL to 2,500 mL

Apnea Inspiratory Pressure (PI): 5 cmH₂O to 90-PEEP cmH₂O

Apnea Interval (TA): Apnea interval (TA) 10 to 60 seconds or Off in CPAP

Apnea Respiratory Rate (fA): 2.0 1/min to 40 1/min and ≥60/TA

Apnea O₂%: 21% to 100% O₂

Apnea I:E Ratio: ≤ 1.00:1

Apnea inspiratory time (TI): 0.20 to 8 seconds

Apnea expiratory time (TE): 0.20 to 59.8 seconds



Specifications Continued

Parameters Continued

Disconnect Sensitivity (DSENS): 20% to 95% or Off (when Puritan Bennett™ ventilator with Leak Sync software is disabled); 1 L/min to 65 L/min (when Puritan Bennett ventilator with Leak Sync software is enabled)

Humidification Type: Heat-moisture exchanged (HME), non-heated expiratory tube, heated expiratory tube

Humidifier Volume: 100 mL to 1,000 mL

Patient Circuit Type: Pediatric and adult

Respiratory Maneuvers

Negative Inspiratory Force (NIF): ≤ 0 cmH₂O to ≥ -50 cmH₂O

P0.1: ≥ -20 cmH₂O to 0 cmH₂O

Vital capacity (VC): 0 mL to 6,000 mL

Advanced Displayed Patient Data

% Leak: 0% to 100%

Inspiratory Leak Volume (VLeak): 0 mL to 9,000 mL

Leak: 0 L/min to 200 L/min

Spontaneous Rapid Shallow Breathing Index (f/VT): 0.1 1/min-L to 600 1/min-L

Dynamic Resistance (RDYN): 0 cmH₂O/L/s to 100 cmH₂O/L/s

Dynamic Compliance (CDYN): 0 mL/cmH₂O to 200 mL/cmH₂O

Inspiratory Compliance (C20/C): 0 to 1.00

