

HAMILTON-H900

Technical specifications

Operating mode

Manual and auto mode For invasive and noninvasive ventilation

Control settings

	Invasive	Noninvasive	Resolution
Chamber exit	35°C to 41°C	30°C to 35°C	0.5°C
Temperature gradient	-2°C to 3°C	-2°C to 3°C	0.5°C
Resulting airway temperature (Y-piece)	33°C to 42°C ¹	28°C to 38°C	--

Monitoring

	Temperature	Accuracy
Chamber exit	10°C to 60°C / 30°C to 41°C	± 1°C / ±0.5°C
Y-piece	28°C to 43°C	±0.5°C

Alarms

High-priority	Temperature too high, water level too high, humidifier dangerously inclined
Medium-priority	No humidifier chamber inserted, no or defective (circuit and/or probe defective) tube connected, invalid chamber, low humidity (temperature), low water level
Additional	Visual alarm light, on-screen alarms
Audio pause	120 s
Alarm loudness	For medium- and high-priority alarms at 1 m distance from humidifier: A setting of 1 = 50 db(A), 5 = 60 db(A), and 8 = 65 db(A), with an accuracy of ±6 db(A).

¹ Airway temperature is limited by the humidifier software to 42°C



Performance

Factory default settings	Chamber exit temperature 37°C (invasive), 31°C (noninvasive) Temperature gradient 2°C (adult/ped), 3°C (neo/ped)
Flow rates	Up to 60 l/min for invasive mode, up to 120 l/min for noninvasive mode. For minimal flow rates refer to the breathing circuit specification
Warm-up time	Less than 30 min
Invasive mode	At a temperature setting of 37°C to 41°C and a maximum humidification level, a minimum humidity of 33 mg H ₂ O/l is reached with a gas flow of up to 60 l/min and an ambient temperature of 26°C
Noninvasive	At a temperature setting of 31°C to 35°C and a maximum humidification level, the humidifier maintains a minimum humidity of 10 mg H ₂ O/l with a gas flow of up to 120 l/min and an ambient temperature of 26°C
Standby	Heated breathing circuits: 25% of maximum tube heating power, limited to 30°C on Y-piece; heater plate: plate temperature controlled to set chamber exit temperature +3°C, limited to 15% of maximum heater plate power

Electrical characteristics

Input voltage	220 - 240 V / 110 - 127 V / 100 V
Frequency	50 / 60 Hz
Maximum power	283 VA (230 V version) / 293 VA (115 V version) / 268 VA (100 V version)
Potential equalization	Terminal for the connection of a potential equalization conductor according to DIN 42801
Connectors ²	Interface RS-232 connection only with a Hamilton Medical ventilator

Standards and approvals

Classification	Class I (in accordance to IEC 60601-1), Class IIb (in accordance with MDD)
Certification	IEC 60601-1:2012, IEC 60601-2007, ISO 8185:2007
Applied parts	Heated breathing circuit tubes (Type BF)

Environments

Temperature	10°C to 40°C (operating), -20°C to 60°C (storage) Recommended ambient temperature: 18°C to 26°C
Relative humidity	30 to 95% noncondensing (operating) / 10 to 95% noncondensing (storage)
Altitude	Up to 4,000 m (13,123 ft) / 61 kPa to 106 kPa atmospheric pressure
Gas input temperature	18°C to 31°C (recommended)

² Not available in all markets

Physical dimensions

Dimensions (WxDxH)	18 cm (7.1 in) x 16 cm (6.3 in) x 19 cm (7.5 in)
Weight	2.5 kg (5.5 lb)
Display	3 in / 64 x 128 pixels, inverted dot matrix display (backlit)
Ingress Protection (IP)	IP 21



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Specifications are subject to change without notice. Some features are options. Not all features are available in all markets.
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