

HAMILTON-H900

Technical specifications for software v1.10x

Operating modes

Manual and auto mode For invasive and noninvasive ventilation, and high flow oxygen therapy (HiFlow).

Control settings

Parameter	Mode	Range	Default	Resolution
Chamber exit temperature	Invasive	35°C to 41°C	37°C	0.5°C
	Noninvasive	30°C to 35°C	31°C	0.5°C
	HiFlow	33°C to 37°C	35°C	1°C
Temperature gradient	Invasive	-2°C to 3°C	Adult/Ped: 2°C Neo: 3°C	0.5°C
	Noninvasive	-2°C to 3°C	Adult/Ped: 2°C Neo: 3°C	0.5°C
	HiFlow	--	2°C	--
Resulting airway temperature (Y-piece) ¹	Invasive	33°C to 42°C	--	--
	Noninvasive	28°C to 38°C	--	--
	HiFlow	35°C to 39°C	--	--

Monitoring

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

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

Alarms

High priority	Temperature too high, water level too high, humidifier dangerously inclined
Medium priority	No humidifier chamber inserted or defective chamber, no limb or defective limb connected, a limb is not properly connected, low 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).

Performance

Description	Specifications		
Flow rates	Invasive	Up to 60 l/min	
	Noninvasive	Up to 120 l/min	
	HiFlow	Up to 100 l/min	
Warm-up time	Less than 30 minutes		
Humidity	At an ambient temperature of 18°C to 26°C:		
	Invasive	Temperature setting of 37°C to 41°C	Minimum humidity 33 mg H ₂ O/l
	Noninvasive	Temperature setting of 31°C to 35°C	Minimum humidity 12 mg H ₂ O/l
	HiFlow	Flow rate \leq 60 l/min	Minimum humidity 33 mg H ₂ O/l
Flow rate $>$ 60 l/min		Minimum humidity 12 mg H ₂ O/l	
Standby	Limited to 30°C on Y-piece		

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

² Not available in all markets

Standards and approvals

Classification	Class I (in accordance to IEC 60601-1), Class IIb (in accordance with MDD/MDR)
Certification	IEC 60601-1:2012, IEC 60601:2007, ISO 8185:2007, ISO 5356-1:2015, ISO 80601-2-74:2017
Applied parts	Heated breathing circuit tubes (Type BF)

Environments

Temperature	10°C to 40°C (operation), -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)
Ingress Protection (IP)	IP 21

Physical dimensions

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

