



MEDRAG BabyLite Neonatal & Pediatric Ventilator

Technical Specification

Usage Areas

The Device can be suitable for hospitals, ambulances, neonatal and pediatric patients.

Ventilation Modes

Type	Mode	Description	Neonatal	Pediatric
Pressure	IMV	Pressure-controlled ventilation.	✓	
	PCV+	Pressure-controlled ventilation	✓	✓
	P-SIMV	Pressure-controlled synchronized intermittent mandatory ventilation	✓	✓
	CPAP/PSV	Continuous positive airway pressure / Pressure support ventilation	✓	✓
	APRV	Airway pressure release ventilation	✓	✓
	Bilevel	Duo positive airway pressure		✓
Pressure Regulated	PRVC	Pressure Regulated Volume Control		Optional
	PRVC-SIMV	Pressure Regulated Volume Control with Synchronized intermittent mandatory ventilation		Optional
Volume	(S)CMV	(Synchronized) controlled mandatory ventilation		✓
	V-SIMV	Synchronized intermittent mandatory ventilation		✓
	V-A/C	Volume - Assist Control		✓
Noninvasive	PSV-S/T	Pressure supported ventilation	✓	✓
	P-A/C	Pressure - Assist Control	✓	✓
	nCPAP	Nasal pressure support ventilation	✓	
	HFNC	High flow nasal cannula	Optional	Optional

Controls

Type	Neonatal / Pediatric	Neonatal	Pediatric
Ventilation modes	See in the table above		
Patient groups	Pediatric / Neonatal	✓	✓
PCV+	1 to 150 b/min		✓
IMV	1 to 150 b/min	✓	
P-A/C	1 to 120 b/min	✓	✓
P-SIMV	1 to 150 b/min	✓	✓
CPAP/PSV	1 to 80 b/min	✓	✓
APRV	1 to 150 b/min	✓	✓
Bilevel	5 to 80 b/min		✓
PRVC	5 to 80 b/min		✓
PRVC-SIMV	5 to 80 b/min		✓
(S)CMV	1 to 80 b/min		✓
V-SIMV	1 to 80 b/min		✓
V-A/C	1 to 80 b/min		✓
PSV-S/T	1 to 80 b/min	✓	✓
nCPAP	0 to 45 cmH ₂ O	✓	
Tidal Volume	Neonatal: 0-60 cmH ₂ O Pediatric : 10 to 700 ml	✓	✓
Oxygen	% 21 to %100	✓	✓
Inspiration Time (Ti) (Neonatal)	Ti 0.10 to 3 s	✓	
Expiration Time (Te) (Neonatal)	Te 0.20 to 3 s	✓	
Inspiration Time (Ti) (Pediatric)	Ti 0.10 to 12 s		✓
Expiration Time (Te) (Pediatric)	Te 0.20 to 12 s		✓
Flow trigger	off, 1 to 20 l/min	✓	✓
Pressure trigger	-0.5 to -20 cm H ₂ O	✓	✓
Pressure control	5 to 60 cmH ₂ O	✓	✓
Pressure support	0 to 35 cmH ₂ O	✓	✓
Peep	0 to 25 cmH ₂ O	✓	✓
Inspiration Hold	0 to 6 s		✓
Expiration Hold	0 to 6 s		✓
O ₂ Flush	0 to 3/min		✓
Manual Ventilation	0.1 to 12 s	✓	✓

Monitoring Parameters

Type	Parameter	Unit	Description	Numeric monitoring	Wave-forms	Vent Status	Dynamic Lung
Pressure	Paw	cmH ₂ O;mbar;hPa	Real-time airway pressure	✓	✓		
	Ppeak	cmH ₂ O;mbar;hPa	Peak airway pressure	✓			
	Pmean	cmH ₂ O;mbar;hPa	Mean airway pressure	✓			
	Pinsp	cmH ₂ O;mbar;hPa	Inspiratory pressure	✓		✓	
	PEEP/CPAP	cmH ₂ O;mbar;hPa	Positive end expiratory pressure/ Continuous positive airway pressure	✓		✓	
	Pplateau	cmH ₂ O;mbar;hPa	Plateau or end inspiratory pressure	✓			
Flow	Flow	l/min	Real-time inspiratory flow	✓	✓		
	Insp Flow	l/min	Peak inspiratory flow	✓			
	Exp Flow	l/min	Peak expiratory flow	✓			
Volume	Volume	ml	Real-time tidal volume	✓			
	VTE/VTE NIV	ml	Expiratory tidal volume	✓			
	VTI/VTI NIV	ml	Inspiratory tidal volume	✓			
	ExpMinVol/MinVol NIV	l/min	Expiratory minute volume	✓			
	MVSpont/MVSpont NIV	l/min	Spontaneous expiratory minute volume	✓			
	Leak/MV Leak	%;l/min	Leakage minute volume Leakage percentage at the airway	✓			
Time	I:E		Inspiratory-expiratory ratio	✓			
	fTotal	b/min	Total breathing frequency	✓			
	fSpont	b/min	Spontaneous breathing frequency	✓			
	TI	s	Inspiratory time	✓			
	TE	s	Expiratory time	✓			
Lung mechanics	Cstat	ml/cmH ₂ O	Static compliance	✓			
	AutoPEEP	cmH ₂ O;mbar;hPa	AutoPEEP or intrinsic PEEP	✓			
	P0.1	cmH ₂ O;mbar;hPa	Expiratory time constant	✓			
Oxygen	O ₂	%	Inspiratory flow resistance	✓			
Battery	Battery level	%	Rapid shallow breathing index	✓			
EtCO ₂		mmHg	Carbon dioxide level indicator	✓			
SpO ₂		bpm	O ₂ level indicator	✓			

Main View

Graphics	Graphic image of target and valid parameters for tidal volume, pressure, patient activity and minute ventilation
Monitoring	Display of more than 50 monitoring parameters
Real-time automatic waveforms	Paw, Flow, Volume, Plethysmogram, and Capnograph
Others	P-V, V-Flow, P-Flow, Trends: 1, 6, 12, 24, and 72 hours

Alarms

Operator adjustable	Low/high minute volume, low/high pressure, low/high tidal volume, low/high rate/frequency, apnea time, low/high oxygen, low/high FiO ₂ , low/high SpO ₂ , low/high pulse, low/high perfusion index, flow, low/high PVI, low/high SpCO, low/high SpMet, low/high SpHb, low battery, Alarm reset
Alarm Limits	Alarm limits can be set at intervals determined by the operator
Special alarms	O ₂ cell, disconnection, exhalation obstructed, loss of PEEP, pressure not released, flow sensor, expiratory valve, pressure limitation, performance limited, CO ₂ and SpO ₂ , battery, power supply, gas supply, oxygen concentration, check patient interface (HiFlowO ₂ , SpeakValve)
Loudness	Adjustable (1 – 6), configurable minimum loudness

Maintenance

Blower lifetime	Dynamic lifetime surveillance, typically 6 years
Standards	ISO 9001, ISO 13485, ISO 14001, ISO 45001, IEC 60601-1, IEC 60601-1-2, TS EN 794-3+A2, TS EN 155223-1, TS EN ISO 20417, TS EN ISO 14155, TS EN 62304, TS EN 1789 for ambulances.

Physical Dimensions

Size	241(W) x 160(H) x 116(D) (without handle)
Weight	3 kg (basic weight)
Display	7.1 inch, LCD color, touch screen
Main patient outlet	ISO 5356-1; 22OD/15ID
Oxygen inlet	DISS or NIST, with the option of using O ₂ cylinder or hospital center system
Low pressure oxygen inlet	CPC quick coupling

Electrical and Pneumatic Specification

Input voltage	12V DC 5A
Power consumption	100-240 V 50-60 Hz - 60 Watt
Backup battery time	Typical 4 hours with one internal battery. Maximum 12 hours with extra battery.
Oxygen supply	2.7 to 6 bar (internal/external cylinder or hospital central system)
Air supply	Integrated turbine (dry air)
Peak flow	40 l/min (neonatal / pediatric)

Environment

Temperature	Operating: -15°C to 50°C (adult / pediatric) Storage: -18°C to 60°C
Humidity	5% to 95% noncondensing (operating), 10% to 95% noncondensing (storage)
Altitude	Up to approx 70 to 200 Kpa
Degree of protection	IP24
Interface Connectors	USB, COM1 (RS-232), nurse call, CO ₂ , SpO ₂ or optional bluetooth
Event log	Storage and display up to 2,000 events with date and time stamp

Configuration

Software Options	Optional SpO ₂ , EtCO ₂ module with software
Standard Accessories	Charge adaptor and power cord, oxygen regulator, reusable flow sensor (neonatal),disposable breath circuit (neonatal), exhalation valve, carrying bag
Optional Accessories	Trolley, Ambulance charge cable, O ₂ cylinder, Reusable flow sensor (pediatric), Sensor data cable for pediatric sensor, Disposable breath circuit (pediatric), bacteria filter, transport unit for bed or stretcher with ambulance mounting kit, mask, O ₂ regulator, test lung, hospital type stretcher, ambulance type stretcher, transport incubator, humidifier



Ventilator Cart w/Tube Holder



Optional Accessory

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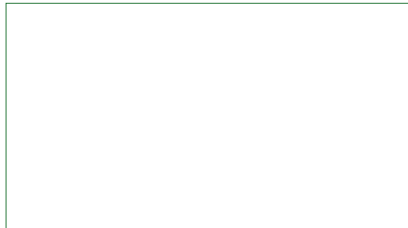
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ISO 13485



ISO 9001



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