

Controls	
Ventilation modes	(S)CMV (A/C), SIMV, SPONT, ASV, P-CMV, (P-A/C) P-SIMV, APVcmv, APVsimv, DuoPAP, APRV, NIV
Special functions	Manual breath, 100% O ₂ , standby, sigh, apnea backup, tube resistance compensation (TRC)
Patient types	Adult, pediatric, infant, neonate
Rate	
Mandatory modes	5 to 120 b/min
SIMV, P-SIMV, DuoPAP	1 to 60 b/min
Tidal volume/target tidal volume*	2 to 2000 ml (10 to 2000 ml in APV modes)
PEEP/CPAP and P low (DuoPAP and APRV)	0 to 50 cmH ₂ O
Oxygen	21 to 100%
I:E ratio	1:9 to 4:1 (set range) 1:25 to 4:1 (actual working range)
Inspiratory time	0.1 to 10 s (10 to 80% of cycle time)
Pause time	0 to 8 s (0 to 70% of cycle time)
Peak flow	1 to 180 l/min
T low (APRV)	0.2 to 30 s
T high (DuoPAP and APRV)	0.1 to 30 s
Pressure trigger	0.5 to 10 cmH ₂ O below PEEP/CPAP
Flow trigger	0.5 to 15 l/min
Automatic base flow	4 to 30 l/min, depending on flow trigger setting
Pressure control	5 to 100 cmH ₂ O, added to PEEP/CPAP
Pressure support	0 to 100 cmH ₂ O, added to PEEP/CPAP
P high (DuoPAP and APRV)	0 to 50 cmH ₂ O
Pressure ramp	25 to 200 ms
Expiratory trigger sensitivity (ETS)	5 to 70% of inspiratory peak flow
% minute volume (ASV)	25 to 350%
Flow patterns	Sine, square, 100% decelerating, 50% decelerating
Monitoring	
Pressure	Peak, mean, minimum, plateau, PEEP/CPAP, AutoPEEP
Flow	Inspiratory peak, expiratory peak
Volume	Expiratory tidal volume, expiratory minute volume, leakage volume
Time	Inspiratory, expiratory, I:E ratio, total frequency, spontaneous breath frequency
Oxygen	Airway oxygen concentration
Lung function parameters	Inspiratory resistance, expiratory resistance, static compliance, inspiratory time constant, expiratory time constant, imposed work of breathing, pressure time product, rapid shallow breathing index, P _{0.1}
Real-time waveforms/loops	Simultaneous display of up to three waveforms or one loop based on: volume, flow, airway pressure, or auxiliary pressure
Trending	Simultaneous display of up to three parameter trends, selected from 26 possible monitoring parameters, for 1, 12, or 24 hours
Others	Waveform freeze and cursor function

Flow Sensor dead space	1.3 ml (infant), 9 ml (pediatric/adult)
Pulmonary function assessment	
	P/V Tool and P/V Tool 2 maneuvers to assess static compliance, inspiratory and expiratory hold maneuvers
Alarms	
Operator-adjustable	Low/high minute volume, low/high pressure, low/high tidal volume, low/high rate, apnea time, air trapping
Special alarms	Oxygen concentration, disconnection, loss of PEEP, exhalation obstruction, check settings, Flow Sensor alarms, ASV/APV alarms, power supply, batteries, oxygen/air supplies
Loudness	50 dB(A) to 85 dB(A)
Event log	Storage and display of up to 1000 events with time stamp
Others	
	Leakage compensation
Electrical and gas supplies	
Input voltage	100 to 240 V ~ ±10%, 50/60 Hz
Power consumption	210 VA maximum
Backup battery time	1 hour typical with fully charged battery
Oxygen and air supplies	200 to 600 kPa (29 to 86 psi)
Environment	
Temperature	10 to 40 °C (50 to 104 °F) (operating) -10 to 60 °C (140 to 140 °F) (storage)
Humidity	30 to 75% noncondensing (operating) 5 to 85% noncondensing (storage)
Altitude	Up to 3000 m (9843 ft)
Physical dimensions	
W x D x H	440 x 620 x 1540 mm (17.3 x 24.4 x 60.6 in.) with standard trolley 440 x 620 x 1415 mm (17.3 x 24.4 x 55.7 in.) with short trolley 382 x 433 x 719 mm (15.0 x 17.0 x 28.3 in.) with shelf mount
Weight	48 kg (105 lb) with standard trolley 35 kg (77 lb) with shelf mount
Display	10.7 in., TFT color, backlit
Main patient outlet	ISO 22M/15F
Air and oxygen inlets	DISS male, NIST (option)
Hardware options	
	Nebulizer; communications interface including RS-232C port, remote nurse call, and I:E ratio
Standards	
	IEC 60601-1, IEC 60601-1-2, IEC 60601-2-12, EN 794-1, C22.2 No. 601.1, UL 60601-1

Note: 1 hPa = 1 mbar ≈ 1 cmH₂O

* Tidal volume delivered in pressure-based ventilation modes depends on both the applied inspiratory pressure and lung mechanics. In the GALILEO infant application, this volume may be as low as 2 ml. This is different from GALILEO APV modes, where the smallest tidal volume setting is 10 ml.

GALILEO ventilation modes

Mode	Description	Type	Patient age group		
			Adult	Pediatric	Infant
(S)CMV (A/C)	(Synchronized) controlled mandatory ventilation	Volume	✓	✓	
SIMV	Synchronized intermittent mandatory ventilation	Volume	✓	✓	
P-CMV (P-A/C)	Pressure-controlled mandatory ventilation	Pressure	✓	✓	✓
P-SIMV	Pressure-controlled synchronized intermittent mandatory ventilation	Pressure	✓	✓	✓
SPONT	Pressure support ventilation	Pressure	✓	✓	✓
DuoPAP	Dual positive airway pressure	Pressure	✓	✓	✓
APRV	Airway pressure release ventilation	Pressure	✓	✓	✓
NIV	Noninvasive ventilation	Pressure	✓	✓	
APVcmv	Adaptive pressure ventilation + controlled mandatory ventilation	Adaptive	✓	✓	✓
APVsimv	Adaptive pressure ventilation + synchronized intermittent mandatory ventilation	Adaptive	✓	✓	✓
ASV	Adaptive support ventilation	Adaptive	✓	✓	

GALILEO monitoring parameters

Parameter	Type	Unit	Description
Ppeak	Pressure	cmH ₂ O	Peak airway pressure
Pmean	Pressure	cmH ₂ O	Mean airway pressure
Pminimum	Pressure	cmH ₂ O	Minimum airway pressure
Pplateau	Pressure	cmH ₂ O	Plateau airway pressure
PEEP/CPAP	Pressure	cmH ₂ O	Positive-end expiratory pressure / continuous positive airway pressure
Insp Flow	Flow	l/min	Peak inspiratory flow
Exp Flow	Flow	l/min	Peak expiratory flow
VTE	Volume	ml	Expiratory tidal volume
ExpMinVol	Volume	ml	Expiratory minute volume
VLeak	Volume	ml	Leakage volume at the airway
I:E	Time		Inspiratory : expiratory ratio
fTotal	Time	b/min	Total breathing frequency
FSpont	Time	b/min	Spontaneous breathing frequency
TI	Time	s	Inspiratory time
TE	Time	s	Expiratory time
Oxygen	Oxygen	%	Airway oxygen concentration (FiO ₂)
Cstat	Lung mechanics	ml/cmH ₂ O	Static compliance
P01	Lung mechanics	cmH ₂ O	Airway occlusion pressure
AutoPEEP	Lung mechanics	cmH ₂ O	AutoPEEP or intrinsic PEEP
PTP	Lung mechanics	cmH ₂ O*s	Pressure time product
RCexp	Lung mechanics	s	Expiratory time constant
RCinsp	Lung mechanics	s	Inspiratory time constant
Rexp	Lung mechanics	cmH ₂ O/l/s	Expiratory flow resistance
Rinsp	Lung mechanics	cmH ₂ O/l/s	Inspiratory flow resistance
RSB	Lung mechanics	1/l*min	Rapid shallow breathing index
WOBimp	Lung mechanics	J/l	Imposed work of breathing

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