Dräger Evita® Infinity® V500 ventilator
ICU Ventilation and Respiratory Monitoring

Combine fully-featured, high-performance ventilation with
Infinity® Acute Care System™ integration to meet the challenges of
today's health care environment.

Benefits

Tools for your ventilation therapy I

– Lung diagnostic tools like the Low Flow maneuver (inflection points)
– Breath by breath recruitment trends (e.g. PEEP, EIP, VT, Cdyn)
– Recruitment tools (e.g. Inspiration Hold, QuickSet, PressureLink)
– PC-APRV with AutoRelease
– Volumetric CO_2-Monitoring (VCO_2, $VTCO_2$, Slope Phase 3, Vds/VTe)
– Weaning parameter (e.g. RSBi, P0.1, NIF)
– Automatic weaning with SmartCare/PS®

Tools for your ventilation therapy II

– Variable Pressure Support, Proportional Pressure Support, Automatic Tube Compensation
– Graphical representation of airway resistance and lung compliance with Smart Pulmonary View
– "Room-to-breathe" concept (AutoFlow®, BIPAP, VG)
– Applicable for neonatal ventilation (smallest tidal volume: 2 ml)

Functions to support your workflow

– Non-invasive ventilation in all modes and all patient categories
– O_2-Therapy allows flow constant oxygen application
– Flexible screen configuration: 6 different views for each patient related to the individual therapy
– Full record of all patient data, alarms and trends
– Data export via USB interface
– Context-sensitive help function and online Instruction For Use for ventilation modes, alarms and device functions
– RFID functionality e.g. to monitor exchange intervals and to transport ventilation settings

Accessories
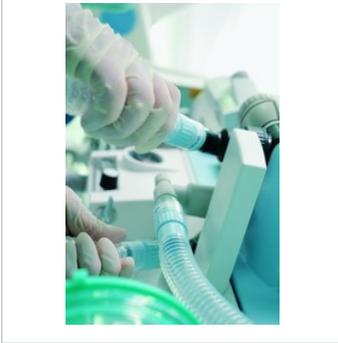
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Infinity® ID-Accessories

Each and every Infinity® ID-accessory has been designed to offer additional functionality, which can help you simplify routine tasks, streamline workflow and increase safety levels.

Technical Data

Patient type	Adults, pediatric patients, neonates
Ventilation settings	
Ventilation mode	Volume controlled ventilation: – VC-CMV – VC-SIMV – VC-AC – VC-MMV Pressure controlled ventilation: – PC-CMV – PC-BIPAP[1] / SIMV+ – PC-SIMV – PC-AC – PC-APRV – PC-PSV Support of spontaneous breathing: – SPN-CPAP/PS – SPN-CPAP/VS – SPN-CPAP – SPN-PPS
Enhancements	– AutoFlow™ / Volume Guarantee (VC-AC) – Variable Pressure Support – Smart Pulmonary View – Automatic Tube Compensation® (ATC) – Mask Ventilation (NIV) – SmartCare®/PS 2.0 – Automated clinical protocol in SPN-CPAP/PS – Low Flow PV Loop – O_2-therapy
Special procedures	– Suction maneuver – Manual inspiration/hold – Medication nebulization – P0.1 – PEEPi – NIF
Therapy types	– Invasive ventilation (Tube) – Non-invasive ventilation (NIV) – O_2-therapy
Ventilation frequency (RR)	Adult 0.5 to 98/min Pediatric patients, Neonates 0.5 to 150/min
Inspiration time (Ti)	Adults 0.11 to 10 s Pediatric patients, Neonates 0.1 to 10 s
Tidal volume (VT)	Adults 0.1 to 3.0 L Pediatric patients 0.02 to 0.3 L Neonates 0.002 to 0.1 L
Inspiratory flow (Flow)	Adults 2 to 120 L/min Pediatric patients, Neonates 2 to 30 L/min
Inspiratory pressure (Pinsp)	1 to 95 mbar (or hPa or cmH_2O)
Inspiratory pressure limit (Pmax)	2 to 100 mbar (or hPa or cmH_2O)
PEEP / intermittent PEEP (ΔintPEEP)	0 to 50 mbar (or hPa or cmH_2O)
Pressure assist (Psupp)	0 to 95 mbar (or hPa or cmH_2O)

Technical Data

Rise time for pressure assist (Slope)	Adults, Pediatric patients 0 to 2 s
	Neonates 0 to 1.5 s
O_2 concentration (FiO_2)	21 to 100 Vol.%
Trigger sensitivity (Flow trigger)	0.2 to 15 L/min
Automatic Tube Compensation® (ATC)	Inside tube diameter tube Ø
	– Endotracheal tube ET
	Adults 5 to 12 mm (0.2 to 0.47 inch)
	Pediatric patients 2 to 8 mm (0.08 to 0.31 inch)
	Neonates 2 to 5 mm (0.08 to 0.2 inch)
	– Tracheostoma tube (Trach.)
	Adults 5 to 12 mm (0.2 to 0.47 inch)
	Pediatric patients 2.5 to 8 mm (0.1 to 0.31 inch)
	– Degree of compensation 0 to 100 %

Airway Pressure Release Ventilation (PS-APRV)	
Inspiratory time (Thigh)	0.1 to 30 s
Expiratory time (Tlow)	0.05 to 30 s
Maximum time of low pressure level in APRV/PEF (Tlow max)	0.05 to 30 s
Inspiratory pressure (Phigh)	1 to 95 mbar (or hPa or cmH_2O)
Expiratory pressure (Plow)	0 to 50 mbar (or hPa or cmH_2O)
Termination criterion	1 to 80 % (PEF)
(peak expiratory flow) (Exp. term.)	

Proportional Pressure Support (SPN-PPS)	
Flow Assist (Flow Assist)	Adults 0 to 30 mbar/L/s (or hPa/L/s or cmH_2O/L/s)
	Pediatric patients 0 to 100 mbar/L/s (or hPa/L/s or cmH_2O/L/s)
	Neonates 0 to 300 mbar/L/s (or hPa/L/s or cmH_2O/L/s)
Volume Assist (Vol. Assist)	Adults 0 to 100 mbar/L (or hPa/L or cmH_2O/L)
corresponds to compliance compensation	10,000 to 10 mL/mbar (or mL/hPa or mL/cmH_2O)
	Pediatric patients 0 to 1,000 mbar/L (or hPa/L or cmH_2O/L)
corresponds to compliance compensation	10,000 to 1 mL/mbar (or mL/hPa or mL/cmH_2O)
	Neonates 0 to 4,000 mbar/L (or hPa/L or cmH_2O/L)
corresponds to compliance compensation	1,000 to 0.3 mL/mbar (or mL/hPa or mL/cmH_2O)
O$_2$-therapy	Continuous Flow 2 to 50 L/min
	O_2 concentration FiO_2 21 to 100 Vol%
Leakage compensation	On/Off
	On: full compensation active
	Off: only trigger compensation active

Displayed measured values	
Airway pressure measurement	Plateau pressure (Pplat)
	Positive end-expiratory pressure (PEEP)
	Positive end-expiratory pressure (PIP)
	Mean airway pressure (Pmean)
	Minimum airway pressure (Pmin)
	Range -60 to 120 mbar (or hPa or cmH_2O)

Flow Measurement	
Minute volume measurement	Expiratory minute volume (MVe)
	Inspiratory minute volume (MVi)
	Total minute volume (MV)
	Mandatory minute volume (MVmand)

Technical Data

	Spontaneous expiratory minute volume (MVspon)
	Range 0 to 99 L/min BTPS
Tidal volume measurement	Tidal Volume (VT)
	Inspiratory tidal volume (not leakagecompensated) of mandatory breaths (VTimand)
	Expiratory tidal volume (not leakagecompensated) of mandatory breaths (VTemand)
	Inspiratory tidal volume (not leakagecompensated) of spontaneous breaths (VTispon)
	Range 0 to 5,500 mL BTPS
Respiratory rate measurement	Breathing frequency (RR)
	Mandatory respiratory rate (RRmand)
	Spontaneous breathing frequency (RRspon)
	Range 0/min to 300/min
O_2 measurement (inspiratory side)	Inspiratory O_2 concentration (FiO$_2$)
	Range 18 to 100 Vol%
CO_2 measurement in main flow	End-expiratory CO_2 concentration (etCO$_2$)
(adults and pediatric patients only)	Range 0 to 100 mmHg

Displayed calculated values

Compliance (C)	Range 0 to 650 mL/mbar (or mL/cmH$_2$O)
Resistance (R)	Range 0 to 1,000 mbar / (L/s) (or cmH$_2$O / (L/s))
Leakage minute volume (MVleak)	Range 0 to 99 L/min
Rapid Shallow Breathing (RSB)	Range 0 to 9999 (/min/L)
Negative Inspiratory Force (NIF)	Range -80 mbar to 0 mbar (or hPa or cmH$_2$O)
Occlusion pressure P0.1	Range -60 to 130 mbar (or hPa or cmH$_2$O)
Curve displays	Airway pressure Paw (t) -30 to 100 mbar (or hPa or cmH$_2$O)
	Flow (t) -180 to 180 L/min
	Volume V (t) 2 to 3,000 mL
	Exp. CO_2 concentration (etCO$_2$) 0 to 100 mmHg

Alarms / Monitoring

Expiratory minute volume (MVe)	High / Low
Airway pressure (Paw)	High / Low
Inspiratory O_2 concentration (FiO$_2$)	High / Low
End-expiratory CO_2 concentration (etCO$_2$)	High / Low
Tachypnoea monitoring (RR)	High
Volume monitoring (VT)	High / Low
Apnea alarm time (Tapn)	5 to 60 seconds
Disconnect alarm delay time (Tdisconnect)	0 to 60 seconds

Performance data

Control principle	time-cycled, volume-constant, pressure-controlled
Intermittent PEEP duration	1 to 20 expiratory cycles
Medicament nebulisation	for 5, 10, 15, 30 minutes
Inspiratory flow	max. 180 L/min
Base flow, adults	2 L/min
Base flow, pediatric patients	3 L/min
Base flow, neonates	6 L/min
Safety valve	Opens if medical compressed air supply fails(supply gas flow is not sufficient to provide the inspiratory flow required), enables spontaneous breathing with ambient air.

Technical Data

Endotracheal suction

Disconnection detection	automatic
Reconnection detection	automatic
Initial Oxygen enrichment	max. 3 minutes
Active suction phase	max. 2 minutes
Final oxygen enrichment	max. 2 minutes
Factor for pediatric patients and neonates	1 to 2
Supply system for spontaneous breathing and Psupp	adaptive CPAP system with high initial flow

Operating data

Mains power supply

Mains power connection	100 V to 240 V, 50/60 Hz

Current consumption

at 230 V	max. 1.4 A
at 100 V	max. 3.0 A
Inrush current	approx. 8 to 24 A peak
	approx. 6 to 17 A quasi RMS

Power consumption

maximum	300 W
during ventilation, without charging the battery	approx. 100 W ventilation unit with Medical Cockpit
	approx. 180 W with GS500
Digital machine output	Digital output and input via an RS232 C interface
	Dräger MEDIBUS and MEDIBUS.X

Gas supply

O_2 gauge pressure	2.7 to 6.0 bar (or 270 to 600 kPa or 39 to 87 psi)
Air gauge pressure	2.7 to 6.0 bar (or 270 to 600 kPa or 39 to 87 psi)

Physical Specifications	**Dimensions (W x H x D)**
Ventilation unit with lateral standard rail	361 mm x 320 mm x 410 mm
(without Infinity® C500)	(14.3 in x 12.6 in x 16.1 in)
Ventilation unit and Infinity® C500 on the trolley,	577 mm x 1,420 mm x 687 mm
carrier frame without bar	(22.7 in x 55.3 in x 27.1 in)
Ventilation unit and Infinity® C500 on the trolley,	577 mm x 1,405 mm x 700 mm
carrier frame with bar	(22.7 in x 55.3 in x 27.6 in)

Weight

Evita® Infinity® V500 and Infinity® C500	approx. 25 kg (55.1 lbs)
Evita® Infinity® V500 and Infinity® C500 on trolley	approx. 59 kg (130 lbs)
PS500 approx.	approx. 27 kg (59.5 lbs)
GS500 approx.	approx. 10.5 kg (23 lbs)
Mounting: Supporting frame	1.65 kg (3.64 lbs)
Adapter for 38 mm pole	2.35 kg (5.18 lbs)

Infinity® C500

Diagonal screen size Infinity® C500	17" TFT color touch screen
Input / Output ports (at Infinity® C500)	– 3 external RS232 (9-pin) connectors
	– 6 USB ports for data collection
	– 3 DVI for digital video output
	– 1 LAN port
	– 2 RJ 45 Ethernet connectors

Technical Data

[1] BIPAP, trademark used under license. ATC®, trademarked by Dräger. AutoFlow®, trademarked by Dräger.

BTPS – Body Temperature Pressure Saturated. Measured values relating to the conditions of the patient lung (98.6 °F), steam-saturated gas, ambient pressure.

1 mbar = 100 Pa

Some functionalities are available as an option.

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