Dräger Babylog® VN500
Neonatal Open Care

For generations to come. The Babylog® VN500 combines Dräger's years of experience with the latest technology. The result is a complete, integrated ventilation solution for the tiniest of patients. Move on toward new frontiers today and be prepared for the developments of tomorrow.

Dräger. Technology for Life®

Benefits

Configurable user interface and monitoring tools

- Individual monitoring views that can be determined by the user
- Standardised, intuitive and user-friendly graphical user interface
- Online help including context-sensitive help functions
- Extended monitoring functions and smart data visualizations

Decision-making tools that decrease cognitive workload

- Smart Pulmonary View provides a graphical display of the compliance and resistance, including spontaneous breathing
- Trending, measured parameters, waveforms and loops

Workstation functions

- Configuration to suit your needs
- Downloadable screenshots for training, research and knowledge transfer
- Fast, standard configuration of all Babylog VN500 devices via USB
- Ability to connect the C500 Cockpit display to an overhead projector
- Several log export options to support learning and research

Advanced respiratory care

- HFOV including ‘sigh’ breaths for lung recruitment and Volume Guarantee
- Original Dräger leak adaptation and leak compensation technology to maintain sensitive triggering and volume targets
- PC-MMV can be used for weaning and promotes spontaneous breathing and automatically adapts support in line with patient needs
- Integrated non-invasive ventilation and high-flow oxygen therapy

Accessories

MT-706-2001

Nasal prongs

Nasal prong XS, Order-no. 8418415 (set of 10)
Nasal prong S, Order-no. 8418605 (set of 10)
Nasal prong M, Order-no. 8418416 (set of 10)
Nasal prong L, Order-no. 8418531 (set of 10)
Nasal prong XL, Ordern-no. 8418417 (set of 10)

D-7384-2009

Neonatal Care Accessories

Dräger accessories for neonatal ventilation and thermotherapy ventilate gently and effectively, reduce stress and help promote the development of the newborn with a wide range of accessories designed specifically for use with the smallest of patients.

MT-6197-2006

BabyFlow disposable

Order-no. 8418583 (set of 20)

Related Products

MT-1213-2004

Caleo®

The Caleo® provides an ideal microenvironment for neonates by delivering advanced thermoregulation parameters. The Caleo® was designed to offer intelligent accessibility and the nurturing power of developmental care. It brings ease of use and practical benefits to infants, caregivers and parents.

Technical Data

Patient type	Neonatal and pediatric patients
Ventilation settings	
Ventilation modes	Pressure-controlled ventilation: – PC-CMV – PC-AC – PC-SIMV – PC-PSV – PC-MMV – PC-HFO – PC-APRV
	Support of spontaneous breathing: – SPN-CPAP/PS – SPN-CPAP/VS – SPN-PPS – SPN-CPAP
Enhancements	– Apnea ventilation – Flow trigger – Sigh – Volume Guarantee (VG) – Smart Pulmonary View – Automatic Tube Compensation® (ATC) – AutoRelease (in PC-APRV) – HFO-Sigh – Volume Guarantee for HFO (HFO-VG) – Leak Compensation – O_2-therapy
Special procedures	– Suction maneuver – Manual inspiration/hold – Medication nebulization
Therapy types	– Invasive ventilation (Tube) – Non-invasive ventilation (NIV) – O_2-therapy
Respiratory rate (RR)	0.5 to 150/min
Inspiratory time (Ti)	0.1 to 3 s
Maximum inspiratory time for flow cycled breaths (Timax)	Neonates 0.1 to 1.5 s Pediatric patients 0.1 to 4 s
Tidal volume (VT)	Neonates 2 to 100 mL Pediatric patients 20 to 300 mL
Inspiratory flow (Flow)	Neonates 2 to 30 L/min Pediatric patients 2 to 30 L/min
Tidal volume during Apnea Ventilation (VTapn)	Neonates 2 to 100 mL Pediatric patients 20 to 300 mL
Respiratory rate during Apnea Ventilation (RRapn)	2 to 150/min
Inspiratory pressure (Pinsp)	1 to 80 mbar (or hPa or cmH_2O)
Inspiratory pressure limit (Pmax)	2 to 100 mbar (or hPa or cmH_2O)
Positive end-expiratory pressure (PEEP)	0 to 35 mbar (or hPa or cmH_2O)
Rise time for pressure support (Slope)	Neonates 0 to 1.5 s Pediatric patients 0 to 2 s
O_2 concentration (FiO_2)	21 to 100 Vol%
Trigger sensitivity (Flow trigger)	0.2 to 5 L/min

Technical Data

Automatic Tube Compensation® (ATC)	Inner diameter of the tube (Tube Ø) – Endotracheal tube (ET) Pediatric patients 2 to 8 mm (0.08 to 0.31 in) Neonates 2 to 5 mm (0.08 to 0.2 in) – Tracheostomy tube (Trach.) Pediatric patients 2.5 to 8 mm (0.1 to 0.31 in) – Degree of compensation 0 to 100%
High Frequency Oscillation (PC-HFO)	– Mean airway pressure (MAPhf) 5 to 50 mbar (or hPa or cmH_2O) – Frequency of oscillation (fhf) 5 to 20 Hz – I to E (I:Ehf) 1:1 to 1:3 – Pressure amplitude (Ampl hf) 5 to 90 mbar (or hPa or cmH_2O) – Maximum pressure amplitude (Ampl hf max) in HFO (VG) 5 to 90 mbar (or hPa or cmH_2O) – Tidal volume (VThf) 0.2 to 40 mL – Sigh pressure (Psigh) 6 to 80 mbar (or hPa or cmH_2O) – Respiratory rate of sigh (RRsigh) 0 to 30 /min – Sigh pressure rise time (Slope sigh) Pediatric patients 0 to 2 s, Neonates 0 to 1.5 s – Sigh inspiratory time (Tisigh) 0.1 to 3 s
Leakage compensation	– On / Off – On: full compensation active – Off: trigger compensation active
O_2-therapy	Continuous Flow 2 to 50 L/min O_2 concentration FiO_2 21 to 100 Vol%

Displayed measured values	
Airway pressure measurement	Positive end-expiratory pressure (PEEP) Peak inspiratory pressure (PIP) Mean airway pressure (Pmean) Minimum airway pressure (Pmin) Lower pressure level in APRV (Plow) End-inspiratory pressure for mandatory breaths (EIP) Upper pressure level in APRV (Phigh) Range -60 to 120 mbar (or hPa or cmH_2O)

Flow measurement (proximal)	
Minute volume measurement	Expiratory minute volume (MVe) Inspiratory minute volume (MVi) Mandatory expiratory minute volume (MVemand) Spontaneous expiratory minute volume (MVspon) Spontaneous expiratory minute volume (MV) Range 0 to 30 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 1,000 mL BTPS

Technical Data

Respiratory rate measurement	Respiratory rate (RR) Mandatory respiratory rate (RRmand) Spontaneous respiratory rate (RRspon) Range 0 to 300/min
O_2 measurement (inspiratory side)	Inspiratory O_2 concentration (in dry air) (FiO_2) Range 18 to 100 Vol%
CO_2 measurement in mainstream (pediatric patients only)	End-expiratory CO_2 concentration ($etCO_2$) Range 0 to 100 mmHg

Displayed calculated values	
Compliance (C)	Range 0 to 650 mL/mbar
Resistance (R)	Range 0 to 1,000 mbar/(L/s)
Leakage minute volume (MVleak)	Range 0 to 30 L/min BTPS
Rapid Shallow Breathing (RSB)	Range Neonates 0 to 300 (/min/mL) Range Pediatric patients 0 to 9999 (/min/L)
Curve displays	Airway pressure Paw (t) -30 to 100 mbar Flow (t) -40 to 40 L/min Volume V (t) 2 to 300 mL CO_2 (t) 0 to 100 mmHg

Alarms/Monitoring	
Expiratory minute volume (MVe)	High/Low
Airway pressure (Paw)	High/Low
Insp. O_2 concentration (FiO_2)	High/Low (automatic)
End-expiratory CO_2 concentration ($etCO_2$)	High/Low
Respiratory rate (RR)	High
Volume monitoring (VT)	Low (automatic)
Apnea alarm time (Tapn)	5 to 60 seconds, Off
Disconnect alarm delay time (Tdisconnect)	0 to 60 seconds

Performance characteristics	
Control principle	time-cycled, pressure-controlled, volume-constant
Inspiratory flow (BTPS)	max. 60 L/min
Base flow, neonates	6 L/min
Base flow, pediatric patients	3 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.

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
Oxygen enrichment for suction maneuver	Factor for neonates 1 to 2 Factor for pediatric patients 1 to 2

Maneuver settings	
Sigh pressure (ΔintPEEP)	0 to 20 mbar (or hPa or cmH_2O)
Time interval between sighs (Interval sigh):	20 s to 180 min
Number of cycles for a sigh (Cycles sigh):	1 to 20 exhalations
Medication nebulization	for 5,10,15,30 minutes
Control principle	time-cycled, pressure-controlled, volume-constant

Technical Data

Inspiratory flow (BTPS)	Pediatric patients 2 to 30 L/min Neonates 2 to 30 L/min
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 230 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)	
Babylog® VN500 and Infinity® C500	420 mm x 685 mm x 410 mm (16.5 in x 27.0 in x 16.1 in)
Babylog® VN500 and Infinity® C500 on trolley	577 mm x 1,420 mm x 687 mm (22.7 in x 55.1 in x 26.7 in)
Weight	
Babylog® VN500 and Infinity® C500	approx. 25 kg (55.1 lbs)
Babylog® VN500 and Infinity® C500 on trolley	approx. 59 kg (130 lbs)
GS500	approx. 10.5 kg (23 lbs)
PS500	approx. 27 kg (59.5 lbs)
Adapter for 38 mm pole	approx. 2.35 kg (5.18 lbs)
Infinity® C500	
Diagonal screen size	17" TFT color touch screen
Input / Output ports	– RS232 (9-pin) connectors – USB ports for data collection – 1 DVI for digital video output – RJ 45 Ethernet connectors (service purposes only)

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), steamsaturated gas, ambient pressure.

1 mbar = 100 Pa

Some functionalities are available as an option.

Notes

Notes

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