Dräger Babylog® VN500
Neonatal Open Care

For generations to come. The Babylog® VN500 combines our 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.
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

**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, Order-no. 8418417 (set of 10)

**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.

**BabyFlow disposable**
Order-no. 8418583 (set of 20)
Related Products

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 Ventilation Option (VG)
- Automatic Tube Compensation® (ATC)
- AutoRelease
- HFO-Sigh
- Volume Guarantee for HFO (HFO-VG)
- Leak Compensation
- Apnea ventilation
- Flow trigger
- Sigh
- Volume Ventilation Option (VG)
- Automatic Tube Compensation® (ATC)
- AutoRelease
- HFO-Sigh
- Volume Guarantee for HFO (HFO-VG)
- Leak Compensation

#### Special maneuvers
- Suction maneuver
- Manual inspiration/hold
- Medication nebulization

#### Therapy types
- Invasive ventilation (Tube)
- Non-invasive ventilation (NIV)
- O₂ Therapy

### Therapy types

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Setting/Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory rate (RR)</td>
<td>0.5 to 150/min</td>
</tr>
<tr>
<td>Inspiratory time (T₁)</td>
<td>0.1 to 3 s</td>
</tr>
</tbody>
</table>
| Maximum inspiratory time for flow cycled breaths (Tₘₐₓ) | 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 |
| Tidal volume for pressure support (VT) | Neonates 2 to 100 mL  
 Pediatric patients 20 to 300 mL |
| Activation of Apnea Ventilation       | On, Off                     |
| Tidal volume during Apnea Ventilation (VTₚₐₚₙ) | Neonates 2 to 100 mL  
 Pediatric patients 20 to 300 |
| Respiratory rate during Apnea Ventilation (RRₚₐₚₙ) | 2 to 150/min               |
| Inspiratory pressure (Pₖₚₙ)            | 1 to 80 mbar (or hPa or cmH₂O) |
| Inspiratory pressure limit (Pₘₐₓ)     | 2 to 100 mbar (or hPa or cmH₂O) |
| Positive end-expiratory pressure (PEEP) | 0 to 35 mbar (or hPa or cmH₂O) |
| Rise time for pressure support (Slope) | Neonates 0 to 1.5 s  
 Pediatric patients 0 to 2 s |
| O₂ concentration FIO₂                 | 21 to 100 Vol%             |
| Trigger sensitivity (Flow trigger)     | 0.2 to 5 L/min             |
| Airway Pressure Release Ventilation (PC-APRV) | Inspiratory time Thigh 0.1 to 30 s  
 Expiratory time Tlow 0.05 to 30 s |
## Technical Data

<table>
<thead>
<tr>
<th>Proportional Pressure Support (SPN-PPS)</th>
<th>Flow Assist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspiratory pressure Phigh 1 to 80 mbar (or hPa or cmH(_2)O)</td>
<td>Neonates 0 to 300 mbar/L/s (or hPa/L/s or cmH(_2)O/L/s)</td>
</tr>
<tr>
<td>Expiratory pressure Plow 0 to 35 mbar (or hPa or cmH(_2)O)</td>
<td>Pediatric patients 0 to 100 mbar/L/s (or hPa/L/s or cmH(_2)O/L/s)</td>
</tr>
<tr>
<td>Termination criterion (peak expiratory flow) 1 to 80% PEF</td>
<td>Volume Assist (Vol. Assist)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automatic Tube Compensation (ATC)</th>
<th>Inner diameter of the tube (Tube Ø)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endotracheal tube (ET)</td>
<td>Neutonates 2 to 8 mm (0.08 to 0.31 in) Neonates 2 to 5 mm (0.08 to 0.2 in)</td>
</tr>
<tr>
<td>Tracheostomy tube (Trach.)</td>
<td>Pediatric patients 2.5 to 8 mm (0.1 to 0.31 in)</td>
</tr>
<tr>
<td>Degree of compensation 0 to 100%</td>
<td>Degree of compensation 0 to 100%</td>
</tr>
<tr>
<td>Activation of ATC during mandatory inspirations (Inspiratory compensation) on / off</td>
<td>Activation of ATC during expiratory phases (Expiratory compensation) on / off</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Frequency Oscillation (PC-HFO)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean airway pressure (MAPhf) 5 to 50 mbar (or hPa or cmH(_2)O)</td>
<td>- Frequency of oscillation (fHF) 5 to 20 Hz</td>
</tr>
<tr>
<td>I to E (I:EHF) 1:1 to 1:3</td>
<td>- Pressure amplitude (Ampl hf) 5 to 90 mbar (or hPa or cmH(_2)O)</td>
</tr>
<tr>
<td>Maximum pressure amplitude in HFO (VG) 5 to 90 mbar (or hPa or cmH(_2)O) Ampl hf max</td>
<td>- Tidal volume (VT) 0.2 to 40 mL</td>
</tr>
<tr>
<td>Sigh pressure (PaSigh) 6 to 80 mbar (or hPa or cmH(_2)O)</td>
<td>- Respiratory rate of sigh (RRSigh) 0 to 30 /min</td>
</tr>
<tr>
<td>Sigh pressure rise time (Slope sigh)</td>
<td>Pediatric patients 0 to 2 s</td>
</tr>
<tr>
<td>Sigh inspiratory time (Tisigh)</td>
<td>Neonates 0 to 1.5 s</td>
</tr>
<tr>
<td>Sigh inspiratory time (Tisigh) 0.1 to 3 s</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leakage compensation</th>
<th>On / Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>- On: full compensation active</td>
<td>- Off: trigger compensation active</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>O(_2) Therapy</th>
<th>Continuous Flow (BTPS) 2 to 50 L/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>O(_2) concentration FiO(_2) 21 to 100 Vol%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maneuver settings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sigh pressure (ΔinhPEEP)</td>
<td>0 to 20 mbar (or hPa or cmH(_2)O)</td>
</tr>
<tr>
<td>Time interval between sighs (Interval sigh):</td>
<td>20 s to 180 min</td>
</tr>
<tr>
<td>Number of cycles for a sigh (Cycles sigh):</td>
<td>1 to 20 exhalations</td>
</tr>
<tr>
<td>Medication nebulization</td>
<td>for 5, 10, 15, 30 minutes</td>
</tr>
<tr>
<td>Endotracheal suction</td>
<td></td>
</tr>
<tr>
<td>Oxygen enrichment for suction maneuver</td>
<td>Factor for neonates 1 to 2</td>
</tr>
<tr>
<td>Factor for pediatric patients 1 to 2</td>
<td></td>
</tr>
</tbody>
</table>
## Technical Data

<table>
<thead>
<tr>
<th>Disconnection detection</th>
<th>automatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconnection detection</td>
<td>automatic</td>
</tr>
<tr>
<td>Initial oxygen enrichment</td>
<td>max. 3 minutes</td>
</tr>
<tr>
<td>Active suction phase</td>
<td>max. 2 minutes</td>
</tr>
<tr>
<td>Final oxygen enrichment</td>
<td>max. 2 minutes</td>
</tr>
</tbody>
</table>

### 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 cmH₂O)

- **Flow measurement (proximal)**
  - Minute volume measurement
  - Expiratory minute volume (MVe)
  - Inspiratory minute volume (MVi)
  - Mandatory expiratory minute volume (MVeemand)
  - Spontaneous minute volume (MVspon)
  - Minute volume (MV)
  - Range 0 to 30 L/min BTPS

- **Tidal volume measurement**
  - Tidal volume (VT)
  - Inspiratory tidal volume of mandatory breaths (VTimand)
  - Expiratory tidal volume of mandatory breaths (VTemand)
  - Inspiratory tidal volume of spontaneous breaths (VTispon)
  - Range 0 to 1000 mL BTPS

- **Respiratory rate measurement**
  - Respiratory rate (RR)
  - Mandatory respiratory rate (RRmand)
  - Spontaneous respiratory rate (RRspon)
  - Range 0 to 300/min

- **O₂ measurement (inspiratory side)**
  - Inspiratory O₂ concentration (in dry air) (FiO₂)
  - Range 18 to 100 Vol%

- **CO₂ measurement in mainstream**
  - End-expiratory CO₂ concentration (εtCO₂)
  - Range 0 to 100 mmHg or 0 to 13.2 Vol% (at 1013 mbar (1013 cmH₂O)) or 0 to 13.3 kPa

### Displayed calculated values

- **Leakage minute volume (MVleak)**
  - Range 0 to 30 L/min BTPS

- **Spontaneous portion of minute volume in percent % (MVspon)**
  - 0 to 100%

- **Compliance (C)**
  - Range 0 to 650 mL/mbar (or mL/hPa or mL/cmH₂O)

- **Resistance (R)**
  - Range 0 to 1000 mbar/(L/s) (or hPa/(L/s) or cmH₂O/(L/s))

- **Curve displays**
  - Airway pressure Paw (t) -40 to 40 L/min
  - Volume V (t) 2 to 300 mL
  - CO₂ (t) 0 to 100 mmHg or 0 to 13.2 Vol% (at 1013 mbar (1013 cmH₂O)) or 0 to 13.3 kPa

### Alarms/Monitoring

- **Expiratory minute volume (Mve)**
  - High/Low

- **Airway pressure (Paw)**
  - High/Low
## Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insp. O₂ concentration (FiO₂)</td>
<td>High/Low (automatic)</td>
</tr>
<tr>
<td>End-expiratory CO₂ concentration (etCO₂)</td>
<td>High/Low</td>
</tr>
<tr>
<td>Respiratory rate (RR)</td>
<td>High</td>
</tr>
<tr>
<td>Volume monitoring (VT)</td>
<td>Low (automatic)</td>
</tr>
<tr>
<td>Apnea alarm time (Tapn)</td>
<td>5 to 60 seconds, Off</td>
</tr>
<tr>
<td>Disconnect alarm delay time (Tdisconnect)</td>
<td>0 to 60 seconds</td>
</tr>
</tbody>
</table>

### Performance data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control principle</td>
<td>time-cycled, pressure-controlled, volume-constant</td>
</tr>
<tr>
<td>Inspiratory flow (BTPS)</td>
<td>max. 60 L/min</td>
</tr>
<tr>
<td>Base flow, neonates</td>
<td>6 L/min</td>
</tr>
<tr>
<td>Base flow, pediatric patients</td>
<td>3 L/min</td>
</tr>
</tbody>
</table>

### Operating data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains power supply</td>
<td>100 V to 240 V, 50/60 Hz</td>
</tr>
<tr>
<td>Current consumption</td>
<td>at 230 V max. 0.8 A with C500</td>
</tr>
<tr>
<td></td>
<td>at 230 V max. 1.4 A with GS500</td>
</tr>
<tr>
<td></td>
<td>at 230 V max. 0.8 A with GS500 and PS500</td>
</tr>
<tr>
<td></td>
<td>at 230 V max. 1.4 A with GS500 and PS500</td>
</tr>
<tr>
<td></td>
<td>at 100 V max. 1.8 A with C500</td>
</tr>
<tr>
<td></td>
<td>at 100 V max. 3.0 A with GS500</td>
</tr>
<tr>
<td></td>
<td>at 100 V max. 1.8 A with PS500</td>
</tr>
<tr>
<td></td>
<td>at 100 V max. 3.0 A with GS500 and PS500</td>
</tr>
<tr>
<td>Gas supply</td>
<td>O₂ pressure 2.7 to 6.0 bar (or 270 to 600 kPa or 39 to 87 psi)</td>
</tr>
<tr>
<td></td>
<td>Air pressure 2.7 to 6.0 bar (or 270 to 600 kPa or 39 to 87 psi)</td>
</tr>
</tbody>
</table>

### Physical Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (W x H x D)</td>
<td>Babylog VN500 and Infinity® C500 420 mm x 685 mm x 410 mm (16.5 in x 27.0 in x 16.1 in)</td>
</tr>
<tr>
<td></td>
<td>Babylog VN500 and Infinity® C500 on trolley 577 mm x 1400 mm x 677 mm (22.7 in x 55.1 in x 26.7 in)</td>
</tr>
<tr>
<td>Weight</td>
<td>Babylog VN500 and Infinity® C500 approx. 25 kg (55.1 lbs)</td>
</tr>
<tr>
<td></td>
<td>Babylog VN500 and Infinity® C500 on trolley approx. 59 kg (130 lbs)</td>
</tr>
<tr>
<td></td>
<td>GS500 approx. 10.5 kg (23 lbs)</td>
</tr>
<tr>
<td></td>
<td>PS500 approx. 27 kg (59.5 lbs)</td>
</tr>
<tr>
<td></td>
<td>Mounting Adapter for 38 mm pole approx. 2.35 kg (5.18 lbs)</td>
</tr>
<tr>
<td></td>
<td>Infinity® C500 approx. 2.35 kg (5.18 lbs)</td>
</tr>
<tr>
<td>Diagonal screen size</td>
<td>17&quot;</td>
</tr>
<tr>
<td>TFT color touch screen</td>
<td>RS232 (9-pin) connectors</td>
</tr>
<tr>
<td>Input / Output ports</td>
<td>USB ports for data collection</td>
</tr>
<tr>
<td></td>
<td>1 DVI for digital video output</td>
</tr>
<tr>
<td></td>
<td>RJ 45 Ethernet connectors</td>
</tr>
</tbody>
</table>

Some functionalities are available as an option.
Notes

As of August 2015

Dräger Medical GmbH changes to Drägerwerk AG & Co. KGaA

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