



Clinical Experience  
Technical Competence

## Technical Specifications

| General specifications  |  |
|---|--|
| Patient range   | Neonates and pediatric patients up to 25 kg bodyweight                       |
| Class according to 93/42 ECC  | II b   |
| Dimensions  | 455 x 360 x 420 mm (WxHxD)   |
| Weight  | 33 / 53 kg (w/o with trolley)  |
| Function principle  | Time cycled, pressure controlled, flow controlled                            |
| Operational specifications  |  |
| Power supply  | 100 - 240 V AC, 50 - 60 Hz, 200 VA   |
| Battery backup  | min. 5 min. (with internal, rechargeable battery)                            |
| Gas supply  |  |
| AIR   | 3 - 6 (+0.5) Bar   |
| O <sub>2</sub>  | 3 - 6 (+0.5) Bar   |
| Ventilation parameters  |  |
| Ventilation modes<br>PC-IMV, PC-Ass./Cont., PC-S-IMV, PC-HFO, PC-IMV-HFO, PC-Ass./Con.-PSV, PC-S-IMV-PSV, VC-IMV, VC-Ass./Cont., VC-S-IMV, CPAP-PAV, S-IMV-PAV, CPAP-MVG, nCPAP, NIPPV, SNIPPV (opt.) |  |
| Modifications   | Volume guarantee (VtLim/VtTar)<br>Leakage compensation, PSV                  |
| Maneuver functions  | Inspiration Hold / Manual<br>Medication nebulization<br>Insp./Exp. Occlusion |
| Ventilation settings  |  |
| Inspiration time  | 0.1 - 2 s  |
| Expiration time   | 0.1 - 60 s   |
| Tidal volume  | 0.2 - 15/2 - 150 ml  |
| Pmax  | 5 - 60 mbar  |
| PEEP  | 0 - 30 mbar  |
| Inspiration pattern   |  |
| Pressure controlled   | Square wave, half sinus, linear  |
| Flow controlled   | Square wave, sinus, secularating   |
| Trigger sensitivity   |  |
| Flow  | 0.1 - 2.9 l/min  |
| Pressure  | 0.1 - 2.9 cmH <sub>2</sub> O   |
| Abdominal movem.  | 0.1 - 2.9 Arbs   |
| Breathing gas temp.   | 30 - 39 °C   |
| FiO <sub>2</sub>  | 21 - 100%  |
| PSV   |  |
| Exp.-Trigger KV%  | 5 - 40% V' Peak  |
| PPSV%   | 0 - 100% V' Pmax   |
| Vmin  | 1 - 40 ml  |
| High Frequency Oscillation HFO  |  |
| Frequency   | 5 - 15 Hz  |
| Inspiration I   | 33 / 40 / 50% / Sinus  |
| MAP   | 0 - 30 mbar  |
| Amplitude Vosc  | max. 24 ml @ 10 Hz   |
| Inspiration Hold  | 1 - 7 s  |

| Ventilation settings                 |  |
|--------------------------------------|--|
| PAV                                  |  |
| Elastic                              | 0 - 4 cmH <sub>2</sub> O/ml                      |
| Resistive                            | 0 - 200 cmH <sub>2</sub> O/l/s                   |
| PAV-Volume limit                     | 1 - 150 ml                                       |
| Measured values                      |  |
| Pressure measurement                 |  |
| Insp. pressure                       | -20 - 99 mbar (Pmax)                             |
| End-exp. pressure                    | -20 - 99 mbar (PEEP)                             |
| Mean airway press.                   | -20 - 99 mbar (Pmean)                            |
| Osc.-amplitude                       | 0 - 180 mbar (Posc)                              |
| Volume measurement                   |  |
| Insp. tidal volume                   | 0 - 999 l (VTins)                                |
| Exsp. tidal volume                   | 0 - 999 l (VTexp)                                |
| Leak volume                          | 0 - 999 l (VTleak)                               |
| Exp. minute volume                   | 0 - 999 l/min (MV)                               |
| Osc. minute volume                   | 0 - 999 l/min                                    |
| Ventilation time parameters          |  |
| Breathing frequency                  | 0 - 999/min (F)                                  |
| Inspiration                          | 0.1 - 100% (Insp %)                              |
| O <sub>2</sub> measurement           |  |
| FiO <sub>2</sub>                     | 0 - 100%   |
| Breathing gas temperature            |  |
| Proximal measur.                     | 12 - 60 °C                                       |
| Lung mechanics                       |  |
| Resistance                           | 0 - 999 mbar/l/s (R)                             |
| Compliance                           | 0 - 999 ml/mbar (C)                              |
| Curve display                        | Paw(t), V'(t), V(t), P(V), P(V'), V(V'), Arbs(t) |
| Trend display                        | P(t), V(t), V'(t)                                |
| Trend duration                       | 0.5, 1, 2, 4, 12, 24 (h)                         |
| Alarms/Monitoring                    |  |
| Airway pressure                      | high/low (Pmax)                                  |
| Exsp. Minute volume                  | high/low (MV)                                    |
| Exp. Tidal volume                    | low (VT)   |
| Insp. O <sub>2</sub> -Concentr.      | high/low (FiO <sub>2</sub> )                     |
| Breathing gas temp.                  | high/low   |
| End-Exp. pressure                    | high (PEEP)                                      |
| Mean Airway pressure                 | high/low (Pmean)                                 |
| Oscillatory amplitude                | high/low (Posc)                                  |
| Osc. tidal volume                    | high/low (Vo)                                    |
| Osc. minute volume                   | high/low (MVo)                                   |
| Disconnection                        |  |
| Apnea                                |  |
| Interface                            |  |
| RS232: VueLink/PDMS/Stephan protocol |  |
| User interface                       |  |
| Display screen                       | 10.4" Color-TFT                                  |
| Input devices                        |  |
| Buttons + Turn-Push-Button           |  |
| Turn-Buttons + Potentiometer         |  |