

Because they deserve
the greatest care.



Technical Data and Specifications

INTENDED USE

Ventilator designed to provide Invasive and Non-invasive ventilation for the critical care management of neonate-infant (including premature) patients.

OPERATIVES MODES

- VCV – Volume Control (Assisted/Controlled).
- PCV – Pressure Control (Assisted/Controlled).
- PSV – Pressure Support.
- CPAP – Continuous Positive Airway Pressure.
- SIMV (VCV) + PSV.
- SIMV (PCV) + PSV.
- TCPL – Time Cycled Pressure Limited.
- SIMV (TCPL) + PSV.
- CPAP with Continuous Flow (with leak compensation for NIV).
- APRV – Airway Pressure Release Ventilation.
- PRVC – Pressure Regulated Volume Control.

PARAMETER SELECTION (according to operative mode)

- Tidal Volume: 2-350 mL.
- Resulting Minute Volume: 0.01-17 L/min.
- Inspiratory Time:
 - 0.1 – 10 s (in assist/controlled modes).
 - 0.2 – 30 s (Low time in APRV)
 - 0.5 – 30 s (High time in APRV)
- I:E Ratio: 5:1 - 1:599.
- Respiratory Rate: 1-150 bpm.
- FiO₂: 0.21-1.0.
- Inspiratory sensitivity:
 - Flow Triggered: 0.2-15 L/min.
 - Pressure Triggered: 0.5-20 cmH₂O below PEEP.
- Expiratory sensitivity for PSV: 5%-80% of the initial peak flow, in steps of 5%.
- PEEP/CPAP: 0-50 cmH₂O.
- Controlled Pressure (PCV): 2-100 cmH₂O.
- Support Pressure (PSV): 0-100 cmH₂O.
- Inspiratory Pause (programmable in VCV): 0-1 s.
- Inspiratory Flow Waveform (in VCV): Rectangular and Descending Ramp.
- Inspiratory Flow (resultant): 0.2-40 L/min.
- Continuous Flow: 2-40 L/min.
- Limited Pressure in TCPL: 3-70 cmH₂O.
- Maximum pressure limited (safety limits): up to 120 cmH₂O.

ALARMS

Light and audible signals according to priority and messages on the screen. The system keeps a record of the occurred events with name, date, and time. This record is printable and cannot be deleted.

- High and Low Inspiratory Pressure.
- Low Pressure of O₂ and Air, or one of them.
- Main Power Loss.
- Low Battery.
- High Continuous Pressure.
- Technical Failure.
- Disconnection.
- Oxygen not adequate.
- High and Low Minute Volume.
- High and Low Tidal Volume.
- High and Low O₂ percentage.
- Apnea.
- Leak (non-compensable).
- Fan Failure.
- High Respiratory Rate.
- PEEP Loss.

OTHER FEATURES AND CONTROLS

- 12" color Touch – screen
- Trends (up to 72 hs).
- Loops: Pressure vs Flow, Pressure vs Volume y Volume vs Flow. They can be saved as reference loops.
- Alarm sound volume regulation.
- Suction %O₂: for suction sequence with variable FiO₂.
- Nebulizer.
- Manual Inspiration.
- Inspiratory/Expiratory Pause (manual).
- Inspiratory O₂ sensor.
- Standby function.
- Watchdog.
- Inspiratory relief valve (antisuffocation).
- Pneumatic safety valve: 120 cmH₂O (±5).

COMPLEMENTARY FUNCTIONS

- Altitude compensation for volume correction.
- Body temperature volume correction (BTPS).
- Volume correction according to patient circuit compliance.
- Leak compensation available in all operative's modes.
- Tidal Volume Setting based on Ideal Body Weight (IBW).
- Intra-hospital transport: facilitates the mobilization when the ventilator can only be

supplied with oxygen bottles.

RESPIRATORY MECHANICS

Selection by onscreen menu:

- AutoPEEP.
- Dynamic and static compliance.
- Inspiratory and Expiratory Resistance.
- Trapped volume measurement.
- Rapid Shallow breathing index (F/V T Index).
- Imposed work of breathing (WOBI).
- Expiratory time constant (TCexp).

CONNECTIVITY

- RS-232C with DB-9 connector.

ELECTRICAL REQUIREMENTS

- Main Power: 100-240 V / 50-60 Hz. Automatic voltage switching.
- Internal Battery: 11.1 V / 7.8 Ah. Automatic recharge. Estimated duration: 2.5 horas when fully charged. Charge level indicator onscreen.

PNEUMATIC REQUIREMENTS

- Working pressure: 2.8 bar (approx. 40 psi).
- Gases supply:
 - Oxygen: Pressure 3.5-7 bar (approx. 50-100 psi). Connector: DISS 9/16"-18.
 - Air: Pressure 3.5-7 bar (approx. 50-100 psi). Connector: DISS 3/4"-16.
- Automatic gas switching when one of them is absent in order to allow patient ventilation with the remaining gas.

ACCESSORIES

- Reusable patient circuit
- Two expiratory ensembles.
- Fix orifice proximal pneumotacograph.
- Flexible arm with tubes holder.
- Water filter for compressed air inlet.
- Air supply high pressure hose (3 meters) with 3/4"-16H connectors.
- O₂ supply high pressure hose (3 meters) with 9/16"-18H DISS connectors.
- Nebulizer (complete kit).
- O₂ sensor.
- Neonatal Test lung.
- Power cord.
- Four-wheel cart (with brakes).

OPTIONAL ACCESSORIES

- Heater-humidifier.
- Micropump nebulizer Aeroneb®Pro from Aerogen.