

# Elisa Edition Universal Ventilator

Adult, Pediatric (Optional Neonatal)

# SALVICI



Smart, Reliable and Comprehensive

breathing like nature

# Detailed Technical Specifications

## Application

Intended use:	Ventilation of humans
Area:	Intensive care, recovery room, intra clinical transport of patients, general ventilation
Application:	Stationary, mobile
Patient type:	Adult and children with a body weight greater than 5 kg Newborn with a body weight from 2 to 6 kg (option)

## Dimensions and weight

Width x depth x height:	320 x 315 x 315 mm
Minimum ground space:	10.1 dm <sup>2</sup>
Weight, net:	14.7 kg

## Operation

Menu control:	Touch screen, selector
Menu language:	English, German, Spanish, French, Dutch, Italian, Polish, Portuguese, Turkish, Chinese, other languages on request

## Electrical supply

AC supply voltage:	230 V <sub>AC</sub> , 50/60 Hz / 115 V <sub>AC</sub> , 50/60 Hz
Power consumption:	< 100 W
External DC supply voltage:	25 V <sub>DC</sub>
Maximum current:	3 A <sub>DC</sub>
Turn-on:	Automatic upon loss of line supply
Battery back-up time:	≥ 30 minutes with fully charged battery and default parameters
Battery charging time:	< 24 h (empty battery)

## Gas supply

Oxygen supply (O <sub>2</sub> ) / Air supply (AIR)	
Pressure range:	270 to 600 kPa (40 to 87 PSI)
Max. Over-pressure:	1000 kPa (145 PSI)
Quality:	Medical gas, dry, oil- and particle-free
Connection:	NIST
Option:	Air supply by compressor

## Electromagnetic compatibility

Certified according to: IEC/EN 60601-1-2, according to directive 2004/108/EG

## Noise emission

Noise level: ≤ 43 dB (A)

## Ventilation

Ventilation modes:	VCV, a-VCV, SIMV-VC, SIMV-VC/PSV (volume controlled modes not available for patient type: Newborn), BiLevel, BiLevel ST, BiLevel/PSV, Dyn-BiLevel, Dyn-BiLevel/PSV, APRV, PSV, P-SIMV, CPAP, CPAP/PSV with apnea back-up ventilation.
Operating principle:	Time-controlled, volume-constant, pressure-cycled

## Measured values

Data for airway pressure:	Ppeak, Pplat, Pmean, Pmin, Ppeep, PEEPi
Other data:	Vt-I, MVsp, MVsp%, Rate sp, R(esistance), C(ompliance), RSBI, Leakage, Vtrap, NIF, PO.1, RCexp., P/V Tool



## Technical specifications

Trigger system:	Flow and pressure trigger (switchable)
Response time:	< 45 ms
Compensation:	Automatic for compliance and resistance of the breathing circuit during the system test
Patient type:	Adult, Children
Max. Insp. pressure:	90 cmH <sub>2</sub> O
Max. Insp. flow:	180 l/min for t < 5 s
Constant insp. flow:	120 l/min for t > 5 s
Device compliance:	< 2.0 ml/cmH <sub>2</sub> O
Insp. resistance:	< 1.5 cmH <sub>2</sub> O/l/s
Exp. resistance:	< 4.5 cmH <sub>2</sub> O/l/s
Patient type:	Newborn - Optional
Max. insp. pressure:	90 cmH <sub>2</sub> O
Constant insp. flow:	60 l/min
Device compliance:	< 0.7 ml/cmH <sub>2</sub> O
Insp. resistance:	< 3.0 cmH <sub>2</sub> O/l/s
Exp. resistance:	< 5.0 cmH <sub>2</sub> O/l/s

## Parameter

FIO <sub>2</sub> :	21 % - 100 %
Frequency:	4 /min - 100 /min
I:E Ratio	4.0 : 1 - 1 : 9.9
APRV I:E Ratio	9.9 : 1 - 4.0 : 1
Inspiratory Time (T <sub>insp</sub> ):	0.06 s - 3.00 s
Ramp:	0.05 s - 3.00 s
Inspiratory Pressure (P <sub>insp</sub> ):	1 mbar - 90 mbar
PEEP:	2 mbar - 50 mbar
PSV:	0 mbar - 90 mbar
Flow Trigger:	0.1 l/min - 20.0 l/min
Pressure Trigger:	(-0.1) mbar - (-20.0) mbar
Expiratory Trigger	0 - 25%
Tidal Volume (V <sub>t</sub> )	2 ml - 2600 ml
P max	10 mbar - 90 mbar
I-Flow	2 l/min - 120 l/min
Inspiratory Flow:	2-99.9LPM
Pressure Limit:	10 – 60 CmH <sub>2</sub> O
Trigger Time Window:	20% -90% of Expiration Time
PS End-flow:	10% -60% of Peak PS Flow
Bias Flow:	3-30LPM
Tube Diameter:	4mm -10mm (Adult), 3mm-6mm (Newborn)
Tube Compensation:	25% -100%

## Data transfer and Record

Hardware connection:	D-Sub 9 / RS 232
Transferred data:	Elisa settings, alarm set values, measured, numeric data, activated alarms, pressure and flow curves
Storage ability:	Up to 5000 data records



## Front panel

Type of screen:	Color LCD display with backlight
Screen size:	12.1"
Control system:	Touch screen, selector
Mounting:	Removable, tilt-able for adjusting the visual angle
Screen display:	Curve display on the screen: 3 curves at the same time, spirometry loops, P/V tool, data table.
Curve parameters:	Flow, airway pressure and volume over the time
Curve scaling:	Automatic for optimal size

## Key Features

Universal Ventilator:	Adult, Pediatric upgradable to Newborn
Weaning indicators:	PO.1, NIF and RSBI
Modes:	Invasive and Non-Invasive Ventilation.
Suction:	Automatic Suction Routine (ASR) with time adjustable Pre and Post Oxygenation.
Advanced Lung Mechanics:	Measurement of Lower and Upper Infection Points on Static PV Loop with Low Flow PV-Tool
Maneuvers:	Inspiratory Hold, Expiratory Hold and Manual Breath.
Compensation:	Tube Compensation and Leakage Compensation
Dual Mode Ventilation:	Gentle Lung Protective Ventilation with Dynamic Bi-Level.
Flow Sensors:	On-board, Maintenance Free and Re-usable.
EtCO <sub>2</sub> Monitoring:	Optional, Mainstream and Side-stream
Expiratory Valve:	Heated and Autoclave-able
Manufacturing:	Made in Germany.

## Contact Information

Sales (India):	+91 935 784 455
Customer Service:	+91 933 956 6444

## Locations

Delhi \* Lucknow \* Chennai \* Mumbai \* Kolkata \* Hyderabad \* Bangalore \* Ahmedabad.



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