



EMERGENCY VENTILATOR WITH BREATHING MONITOR

SIRIO S2/T

MAIN FEATURES

- Compact and lightweight pulmonary ventilator designed to provide safe and effective respiratory support during pre-hospital transport and intra-hospital emergencies.
- Suitable for adult, paediatric and neonatal patients (body weight > 3 kg).
- Integrated spirometer.
- Intuitive interface for rapid setting of selected parameters via rotary knobs and switches.
- Display of alarm signals and messages.
- Wide range of therapeutic options and delivery of volume-controlled, pressure-limited ventilation in both invasive and non-invasive modes.
- High performance with multiple ventilation modes including CPAP, PSV, Apnoea Back-up, AUT-AST and PEEP.



0476 Class IIb medical device compliant with MDR (EU) 2017/745



MANUFACTURED BY SIARE ENGINEERING INTERNATIONAL GROUP S.P.A.

Standards compliant



EN 1789:2007+A2:2014



D.LGS 49/2014 RAEE AND SUBSEQUENT MODIFICATIONS AND INTEGRATIONS



EN 60601-1:2006/A1:2013



EN 60601-1-2:2015



IEC 60601-1-6:2013



EN 60601-1-8:2007/A11:2017



EN 62304:2006/AC:2008



EN 794-3:1998+A2:2009



DIR. 2011/65/CE



D.LGS 49/2014




DIR. 2011/65/UE ROHS 2 AND SUBSEQUENT MODIFICATIONS AND INTEGRATIONS



DIR. DELEGATED UE 2015/863 ROHS 3 AND SUBSEQUENT MODIFICATIONS AND INTEGRATIONS

SIRIO S2/T is a medical device intended for the ventilation of adult, paediatric and neonatal patients (Min. body weight 3 kg). It is designed for use in healthcare facilities, emergency medical services, and during both intra-hospital and extra-hospital transport. The adjustable respiratory parameters include pressure limit, respiratory rate, PEEP, Minute volume and FiO₂, allowing ventilatory support to be tailored to the patient's clinical needs.

TECHNICAL DATA

Code	EV20410
Dimensions	30 x 16,5 x 13,5 cm
Weight	3,7 kg
Colour	
Electric power supply	12Vdc or feeder: 100 - 240 Vac / 12Vdc
Power consumption	9 W
Current consumption	0,04 A - 220 Vac / 0,8 A - 12Vdc
Standard internal battery	1 Pb battery
Internal battery operation (standard)(1)	6,30 hours (Tolerance ±15%)
Battery re-charging time (standard)	8 hours
Pneumatic supply (O ₂)	Oxygen: the gas pressure should be included between 280 kPa and 600 kPa (2,8 - 6 bar / 40 - 86 psi)
Max. flow requested	40 l/min
Estimated time to deplete a cylinder (2)	2 litres of O ₂ : 100 minutes 3 litres of O ₂ : 150 minutes
Patient connections	Male conic connector 22 mm / Female of 15 mm (according to EN ISO 5356-1:2015 norm)
Flow generation	Venturi system
IP degree of protection	IP44

Notes: Dimensions and weight are subject to tolerances of ±0.5 cm and ±1 kg, respectively.

(1) Battery life is indicative and measured in AUT-AST mode with the following settings: pressure 10 cmH₂O, PEEP OFF, rate 15 bpm, tidal volume 9 l/min.

(2) Cylinder duration is theoretical, based on a cylinder charged to 200 bar. Duration is indicative and measured in AUT-AST mode with the following settings: pressure 20 cmH₂O, PEEP OFF, rate 15 bpm, tidal volume 7 l/min, FiO₂ 50%.

PARAMETERS

Adjustable physiological respiratory parameters	Pressure limit, respiratory rate, PEEP, Minute volume and FiO ₂
Measured parameters	<ul style="list-style-type: none"> Respiratory rate (range: 0 ÷ 200 bpm) Rate accuracy ± 1 Bpm PAW: peak, mean, plateau, PEEP (range -20 ÷ 80 cmH₂O) Pressure accuracy ± (2 cmH₂O + 4% of the reading). Tidal Volume: Vte (range: 15 ÷ 3000 ml) Minute Volume (range: 1 ÷ 16 l/min) Volume Accuracy ± 20% for volumes > 50ml Expired Volume Accuracy ± (20% or ± 15ml) whichever is greater for volumes ≤ 50ml
Displayed parameters	Breathing cycle corrected by lungs icon, Breathing Rate (RATE), Expired Tidal Volume (VT), Minute Volume (VM), Instant Airways Pressure and Peak Airways Pressure (PAW), Mean Pressure (MAP), End Expiration Pressure (PEEP)

LUNG VENTILATOR FUNCTIONAL FEATURES

Type of ventilation	IPPV volumetric - IPPV time cycled with PRESSURE SUPPORT
Control modality	Electronic
Pressure automatic compensation (altitude)	Present (max. 5000 mt)
Respiratory parameters default setting	The trigger is reset every time the device is turned off. Default - 1cmH ₂ O
Ventilation modes	AUT + AST / PSV + APNOEA BACK UP / PEEP / CPAP
Breathing rate	From 5 to 70 bpm
Max-Min Inspiratory Time / Expiratory Time (4)	Insp Time: from 0,343 to 4,8 Exp Time: from 0,514 to 7,2
Tidal volume	From 15 to 3000 ml
Minute volume	From 1 to 16 l/min
I:E ratio	1:1.5
Inspiratory pause	Automatic setting during PSV mode
Pressure support ventilation	Adjustable from 0 (SPONT.) to 50 cmH ₂ O
Pressure limit	Adjustable from 0 to 50 cmH ₂ O
PEEP	Adjustable from 0 to 20 cmH ₂ O
Flow trend	Constant and decreasing (PSV)
O ₂ concentration	50% O ₂ or 100% O ₂
Trigger detective method	Through pressure transducer
Pressure trigger (I)	Adjustable from -1 to -5 cmH ₂ O
Inspiratory flow (FLOW)	Max 40 l/min
Patient circuits	Single hose with exhalation valve

Note: (4) Determined by Respiratory Rate.

ENVIRONMENTAL CONDITIONS

Operation	
Relative humidity	15 - 95% non-condensing
Temperature	from -10 to +40°C
Atmospheric pressure	600hPa -1200hPa
Storage	
Relative humidity	< 95% non-condensing
Temperature	from -25 to +70°C
Atmospheric pressure	200hPa -1200hPa

ALARMS

Remaining battery level from 100% to 51%	Green LED
Remaining battery level from 50% to 26%	Yellow LED
Remaining battery level from 25% to 0%	Red LED
O ₂ Supply	Low gas supply pressure
High PAW	High airway pressure. Higher than 55 cmH ₂ O
Low PAW / Apnea	Low airway pressure. Lower than 8 cmH ₂ O
Power failure	Indicates that the device is disconnected from the mains supply

THE PRODUCT INCLUDES

- Battery charger
- 12 V DC power cable
- Oxygen tubing
- Single-use PVC patient circuit with expiratory valve

ACCESSORIES

- EV20432 Single-use adult/pediatric patient circuit for Sirio with expiratory valve and flow sensor (160 cm)
- EV20433 Single-use adult/pediatric patient circuit for Sirio with expiratory valve (160 cm)
- EV20434 Disposable flow sensor (pack of 6 units)
- EV20435 O₂ connector AFNOR
- EV20436 O₂ connector UNI
- Additional battery pack (12 h autonomy)

FASTENING SYSTEMS REQUESTED



EV20431

QUICK-RELEASE 10G PLATE

for wall mounting of the tubular support.

Dimensions: 21 x h40 x 10 cm.

Weight: 1,7 kg.

Material: Lightweight aluminium alloy.



EV20430

TUBULAR SUPPORT

for transporting a mechanical ventilator and a 2 L oxygen cylinder, with a Cordura bag.

Dimensions: 45 x h41 x 35 cm.

Weight: 3,9 kg.

Material: Steel.