



Azeer Home Ventilation



VENTIllogic LS VENTIllogic plus

100% mobility and reliability in IV and NIV





VENTILlogic LS VENTILlogic plus

Your requirements for reliability
and mobility are our benchmark.

VENTILlogic LS and VENTILlogic plus offer you a high degree of reliability and versatility every day at all times. Their practice-oriented monitoring and mobility concepts are supplemented by unique ventilation functions.

VENTILlogic LS and VENTILlogic plus have leakage and single patient circuits. In addition VENTILlogic LS offers a double patient circuit system with patient valve and volume-controlled ventilation modes (VCV, aVCV).



Single patient circuit
with patient valve



Double patient circuit with patient valve
(only VENTILlogic LS)

Areas of use

- For treatment of adults and children starting with 50 ml tidal volume and 5 kg body weight
- Invasive and non-invasive ventilation
- In hospital and at home
- Stationary and mobile



Use of several replaceable batteries allows unlimited independent operation.

Our concept assures more freedom

VENTIlogic LS and VENTIlogic plus are equipped with two options for mouthpiece ventilation, namely pressure-controlled (MPVp) and volume-controlled (MPVv). Both are available in all circuit systems. Mouthpiece ventilation gives the patient maximum freedom and independence in his therapy. The three ventilation program settings allow an ideal combination of daytime mouthpiece ventilation with night-time ventilation means. The mobility concept ensures safety and reliability in the delivery of required ventilation.

- Mobile use for intra-hospital transfers: With 9 hours of battery power (internal rechargeable battery and optional replaceable battery* have a capacity of 4.5 hours each), the devices can adapt to any change of location.
- Mobile use at home: VENTIlogic LS and VENTIlogic plus give your patients freedom of movement.
- Sure in an unsure situation: Leakage is reliably compensated for in volume and pressure controlled modes.** The high-performance blower ensures continuous patient care in mobile use and difficult ventilation situations, even with imprecise fit of patient interface.

Special shock resistance

Shock and vibration resistance were specially tested against recognized standards to ensure device's compliance with demands in mobile hospital and domestic surroundings. (Shock test as per IEC 60068-2-27 and Vibration test as per IEC 60068-2-64).

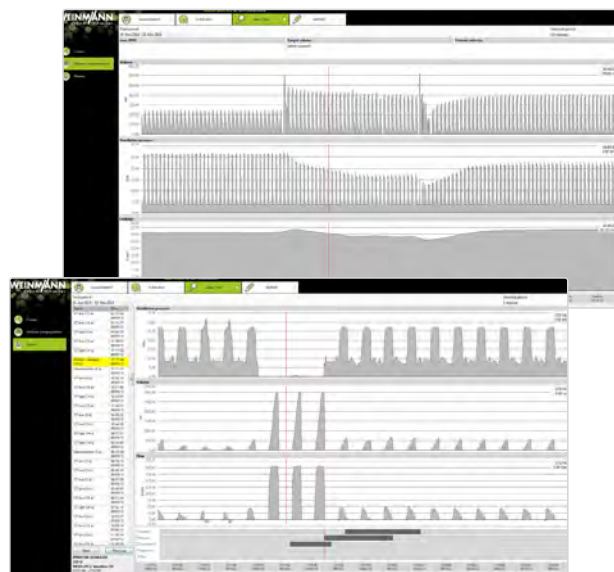
* The operating range of the rechargeable battery depends on the settings of the ventilation parameters and on the battery's age and charge level. The internal battery may be used only as an emergency source of power and not as a continuous primary source.

** Reliable leakage compensation in volume-controlled

Our monitoring concept ensures safe and reliable therapy

The comprehensive and clear monitoring concept provides the best support of your treatment:

- Intuitive operation for fast check of ventilation settings
- Simple and direct monitoring of oxygen saturation and pulse with the SpO₂ module.
- Unique alarm management (highly visible, large alarm window) for top safety: You can concentrate completely on therapy without any stress.
- VENTlviews: PC software for Löwenstein Medical ventilators reads out, displays, analyzes, archives and generates reports on patient and compliance data and their clinical application:
 - Focus on ventilation requirements
 - Process-oriented operation matches procedures in hospital



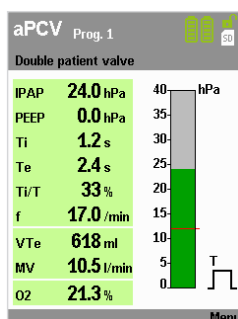
VENTlviews
(Software)

The fast and simple way to ideal therapy settings – with innovative features by Löwenstein Medical

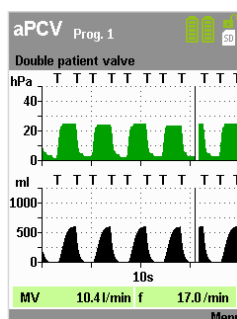
- Doctors can configure three storable ventilation programs for patients who need varying degrees of ventilation support. With the simple press of a key, the doctor, nurse or patient can select the individual programs to satisfy the patient's needs.
- LIAM (Lung Insufflation Assist Maneuver): the integrated cough support is easy to use and requires no change of masks. The patient himself or a nurse can activate the function.
- Volume compensation: Function to guarantee a pre-set target volume. The speed can be set in three levels.

Particularly suitable for COPD patients

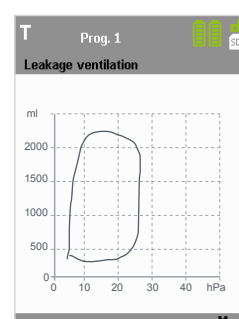
- **AirTrap Control:** Exhalation pressure relief to prevent dynamic hyperinflation. Thanks to AirTrap Control, VENTIllogic LS and VENTIllogic plus automatically regulate pressure to a frequency and expiration time ideal for the patient. The titration process is thereby significantly simplified.
- **Trigger lockout:** Effective protection from false triggering and trigger artefacts at higher trigger sensitivity. The fast way to perfectly synchronized ventilation.
- **Expiratory pressure ramp:** Temporary pneumatic splint in airways at the start of expiration to counteract expiratory collapse of airways. The expiratory flow remains larger on average, the volume can be exhaled more easily and respiratory position can be lowered.



Fast and simple monitoring of ventilation settings



Pressure and volume curves with auto-scaling function



Pressure/volume loop with auto-scaling axes



Accessories

- | | |
|---|---|
| <p>1 Replaceable battery
WM 27919</p> <p>2 Bacteria filter (for leakage circuit)
WM 24148</p> <p>3 Bacteria filter (for valve ventilation) Teleflex Iso-Gard
WM 27591</p> <p>4 Bacteria filter (for valve system)
WM 24476</p> <p>5 O₂ measurement set
WM 15732
consists of:</p> <ul style="list-style-type: none"> ■ O₂ sensor connection line – WM 27792 ■ O₂ sensor – WM 27128 ■ O₂ sensor T-piece – WM 27143 <p>6 VENTlremote alarm (10 m)
WM 27745 (10 m)
WM 27755 (30 m)</p> <p>7 SpO₂ module
WM 27280</p> <p>8 Adapter for automobile
WM 24616</p> | <p>9 Analogbox D/A
WM 27560</p> <p>10 Leakage circuit
WM 24130 (can be disinfected)
WM 24120 (can be sterilized)</p> <p>11 Single patient circuit with patient valve
WM 27181</p> <p>12 Double patient circuit with patient valve
WM 27182</p> <p>13 Water-resistant transport bag
WM 27976
for mobile usage of VENTllogic LS and VENTllogic plus</p> <p>■ Set, mouthpiece ventilation (not shown)
WM 27647</p> <p>■ Test adapter, packed (not shown)
WM 27140</p> <p>■ VENTlviews (not shown), PC-Software
WM 27870</p> <p>■ Connection cable for nurse call
WM 27780 (10 m)
WM 27790 (30 m)</p> |
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Technical data

Product class as per directive 93/42/EEC:	II b	Sound level about 69 dB(A) as per of alarm:	EN 60601-1-8
Dimensions (W x H x D):	240 x 153 x 340 mm	IPAP pressure range:	6 to 40 hPa (leakage circuit) 4 to 40 hPa (valve system)
Weight		PEEP/EPAP pressure range:	4 to 20 hPa (leakage circuit) 0 to 20 hPa (valve system)
• without replaceable battery:	about 5.9 kg	CPAP pressure range:	4 to 20 hPa (leakage circuit)
• with replaceable battery:	about 6.5 kg	Pressure accuracy:	to 35 hPa $\pm$ 0.8 hPa from 35 hPa $\pm$ 1.5 hPa
Temperature range		Increment:	0.2 hPa (1 hPa = 1 mbar $\approx$ 1 cm H ₂ O)
• Operation:	+5 °C to +35 °C		
• Storage:	-40 °C to +70 °C		
Air pressure range:	600 – 1100 hPa (below 700 hPa leakage is to be kept low because the device may not be able to compensate for high ventilation pressures)	Tidal volume:	50 – 3000 ml
Electrical connections:	110 – 230V AC, 50 – 60 Hz Tolerance -20%, +10%	Minimum pressure limit stability (PLSmin) (min. pressure in case of device failure):	$\geq$ 0 hPa
Power consumption at	230V 110V	Maximum pressure limit stability (PLSmax) (max. pressure in case of device failure):	$\leq$ 60 hPa
• Operation:	0,35 A 0,8 A	Respiratory rate:	5 to 45 bpm
• Standby:	0,05 A 0,13 A	Accuracy:	$\pm$ 0.2 bpm
Maximum power consumption:	120 W	Increment:	0.5 bpm
Switching capacity		I:E-ratio	
Remote alarm connection:	60V DC/2A; 42V AC/2A	• Inspiration time:	15 % to 67 % of breathing period
Battery capacity ^{*)}		• Increment:	1 %
• internal rechargeable battery:	4.5 hours	• Accuracy:	$\pm$ 1 %
• replaceable/rechargeable battery:	4.5 hours	Trigger level:	adjustable in 8 stages for inspiration and 14 stages for exhalation (from 5 % to 95 % of maximum flow), can be switched off for exhalation in ST mode
*) The capacity depends on the ventilation parameter settings and the battery's age and state of charge.		Pressure increase speed:	Can be set in 6 levels
Classification as per EN 60601-1		Pressure decrease speed	
• Protection from electric shock:	Protection class II	• Leakage system:	Can be set in 6 levels
• Degree of protection from electric shock:	Type BF	• Valve system:	One permanently set level
Time required to charge battery:		Accuracy	
• Charge via ventilator:	about 6 hours per battery	Volume measurement:	at 23 °C: $\pm$ 20 %, at least 25 ml
Leakage modes in both devices:	CPAP, S, ST, T, MPVp, MPVv	Max. allowable flow with oxygen feed:	15 l / at $\leq$ 1000 hPa
Valve ventilation modes in both devices:	PSV, PCV, aPCV, SIMV, MPVp, MPVv	Max. heating of respiratory air at 35°C ambient temperature:	41°C
and only VENTILogic LS:	VCV, aVCV	Pressure constancy measured as per DIN EN ISO 17510 in CPAP mode:	< 10 hPa: $\Delta p \leq$ 0.5 hPa > 10 hPa: $\Delta p \leq$ 1.0 hPa
Special therapeutic functions:		Fine filter separation level to 2 μ m:	$\leq$ 99.7 %
• AirTrap Control	• LIAM	Fine filter service life:	1000 hours in normal ambient air
• Trigger lockout	• Volume compensation	Allowable humidity operation and storage:	$\leq$ 95 % rF (no condensation)
• Expiratory pressure ramp	• Mouthpiece ventilation	Flow at max. speed at 0 hPa:	
• three ventilation programs		• Leakage ventilation:	350 l/min
Electromagnetic Compatibility		• Single patient circuit with patient valve:	345 l/min
• Radio interference suppression:	EN 55011	• Double patient circuit with patient valve (only VENTILogic LS):	345 l/min
• Radio interference resistance:	EN 61000-3-2, EN 61000-3-3, EN 61000-4-2 to 6, EN 61000-4-8, EN 61000-4-11	Tolerance:	$\pm$ 15 l/min
Mean sound level / operation as per EN ISO 17510 with 1 m distance between device and patient position:	about 28 dB(A) at 10 hPa		

