

LÖWENSTEIN
medical



LUISA

Ventilator for life-support ventilation.

With people in mind

Air for an active life. LUISA.

Inhale, exhale – something most people do without giving it much thought. Now patients on ventilators can do the same – thanks to LUISA, the new, highly efficient ventilator from Löwenstein Medical.

LUISA is exceptionally mobile, compact and lightweight. It can be operated in a vertical or horizontal position and flexibly attached to a wheelchair or bed. The ventilator's battery has a run time of up to 18 hours, giving the user a larger radius of action and a good feeling of extra security. It's easy to operate LUISA via the 10-inch touchscreen and intuitive menu navigation. Other features simplify everyday use.

LUISA provides the air needed for an active, mobile life and opens up brand new opportunities for users.

- **Battery run time** up to 18 hours
- **Display** 10-inch touchscreen
- **Positioning** vertical or horizontal
- **Connectivity:** prisma CLOUD, LUISA App, prisma therapy software (pTS), monitor connection
- **Monitoring:** FiO₂ and SpO₂ measurement
- **Functionality:** ventilation up to 30 ml VT; high-flow mode, CPAP and MPV in all circuit systems
- **Safety:** alarm displayed in two languages
- **Uncomplicated:** no adapter, intuitive operation

Modes	Leakage circuit Ø 22 mm, 15 mm	Single circuit with valve Ø 22 mm, 15 mm	Double circuit Ø 22 mm, 15 mm, 10 mm
CPAP	X	X	X
HFT	X	X	X
S	X	-	-
S/T	X	-	-
T	X	-	-
autoST	X (for adults only)	-	-
PSV	X	X	X
aPCV	X	X	X
PCV	X	X	X
aVCV	-	X	X
VCV	-	X	X
P-SIMV	X	X	X
PV-SIMV	X	X	X
MPVp	X	X	X
MPVv	X	X	X



Technical specifications

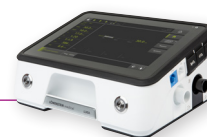
Classification according to MDR (EU) 2017/745: Product class	II b	Mean sound pressure level/operation to ISO 80601-2-72	
Product standard (among others)	EN ISO 80601-2-72: Special specifications for safety including the essential features of home ventilators for patients dependent on the device	<ul style="list-style-type: none"> • at ≥ 500 ml • at ≥ 150 ml • at ≥ 30 ml 	38.5 dB(A) ± 3 dB(A), sound power level 46.5 dB(A) ± 3 dB(A) 37 dB(A) ± 3 dB(A), sound power level 45 dB(A) ± 3 dB(A) 41 dB(A) ± 3 dB(A), sound power level 49 dB(A) ± 3 dB(A)
Dimensions in cm (W x H x D)	30 x 13 x 21	IPAP pressure range	
Weight	3.8 kg	<ul style="list-style-type: none"> • Leakage circuit • Valve circuit 	4 hPa – 50 hPa 4 hPa – 60 hPa
Temperature range		Pressure range leakage system EPAP	4 hPa – 25 hPa
<ul style="list-style-type: none"> • Operation: • Transport and storage: 	+5 °C to +40 °C -25 °C to +70 °C	Pressure range PEEP valve system	0 hPa – 25 hPa
Permitted humidity for operation, transport and storage	relative humidity 15% to 90%, non-condensing > 35° C to 70° C at a water vapor pressure of up to 50 hPa	Pressure range CPAP	4 hPa – 20 hPa
Air pressure range	700 hPa to 1100 hPa, corresponds to an altitude of 3,000 m above mean sea level	Respiratory frequency, adult	2 – 60 breaths/min
Maximum applied flow at 20 hPa	> 220 l/min	Respiratory frequency, pediatric	5 – 80 breaths/min
Screen size	10-inch touchscreen	Ti min, Ti max, Ti timed	0.2 s – 4 s (pediatric) 0.5 s – 4 s (adult) auto (only Ti timed)
System interface	3 V DC / 0.2 A	Target volume	30 ml – 400 ml (pediatric) 100 ml – 3000 ml (adult)
USB-C interface		Trigger type	Flow trigger
Maximum power output (no power input)	5 V / 1.1 A	Trigger levels	auto
Power consumption during ventilation without battery charging	230 V AC / 0.07 A	<ul style="list-style-type: none"> • Inspiration • Expiration 	1 (high sensitivity) to 10 (low sensitivity) 95% to 5% of maximum flow in 5% steps
Screen brightness 90%	48 V DC / 0.30 A 24 V DC / 0.61 A 12 V DC / 1.21 A	Speed of pressure increase adult	Level 1: 100 hPa/s, Level 2: 80 hPa/s Level 3: 50 hPa/s, Level 4: 20 hPa/s
Electrical connection, device maximum	48 V DC / 2.7 A 24 V DC / 5.4 A 12 V DC / 7.0 A	Speed of pressure increase pediatric	Level 1: 135 hPa/s, Level 2: 100 hPa/s Level 3: 80 hPa/s, Level 4: 50 hPa/s
Power supply unit		Speed of pressure increase MPV mode	Level 1: 60 hPa/s, Level 2: 45 hPa/s Level 3: 30 hPa/s, Level 4: 15 hPa/s
<ul style="list-style-type: none"> • Input voltage/maximum current • Input frequency • Output voltage/maximum current 	100-240 V AC / 2.0 A - 1.0 A ³⁾ 50-60 Hz 48 V DC / 2.7 A	Speed of pressure reduction (in leakage ventilation only) adult	Level 1: 100 hPa/s, Level 2: 80 hPa/s Level 3: 50 hPa/s, Level 4: 20 hPa/s
Power consumption		Speed of pressure reduction (in leakage ventilation only) pediatric	Level 1: 135 hPa/s, Level 2: 100 hPa/s Level 3: 80 hPa/s, Level 4: 50 hPa/s
Operating status On		Tidal volume	30 ml – 3000 ml
<ul style="list-style-type: none"> • Therapy is not running • Therapy running 	230 V AC / 0.07 A, 48 V DC / 0.30 A 24 V DC / 0.61 A 12 V DC / 1.21 A ¹⁾²⁾ 230 V AC / 0.18 A 48 V DC / 0.81 A 24 V DC / 1.61 A 12 V DC / 2.86 A ¹⁾	Minute volume (as measured over the previous five breaths)	30 ml – 3000 ml
Power consumption nurse call	maximum 60 V DC / 1 A	Maximum permitted flow for oxygen supply	0.1 l/min – 40 l/min
Internal/external battery		Permitted pressure for oxygen supply	< 1000 hPa (< 1 bar)
<ul style="list-style-type: none"> • Type • Nominal capacity • Nominal voltage • Energy • Typical discharge cycles 	Li-Ion 3200 mAh 29.36 V 93.7 Wh 500 charging cycles	FiO ₂ measurement range	21 % – 100 %
Operating hours of internal battery assuming following settings: Double circuit, PCV mode, f = 20/min, Ti = 1 s, PEEP = off, Vt = 800 ml Passive lungs: Resistance R = 5 hPa/(l/s); Compliance C = 50 ml/hPa	≥ 6 hours	HFT flow range adult	5 – 60 l/min
Duration of complete battery charge	< 6 hours	HFT flow range pediatric	5 – 25 l/min
Duration of 80% battery charge	< 5 hours	Filter class E10	
Classification to IEC 60601-1-11:		<ul style="list-style-type: none"> • Particle separation efficiency up to 1 μm • Particle separation efficiency up to 0.3 μm 	> 99.5 % > 85%, service life approx. 250 h
<ul style="list-style-type: none"> • Class of protection against electric shock • Degree of protection against electric shock • Protection against harmful ingress of solids and water 	Protection class II Type BF IP22	Service life of fine filter	approx. 250 h
		USB flash drive	USB-C 3.1
		Settable alarms	<ul style="list-style-type: none"> • High leakage • Low pressure • High pressure • Apnea • Tidal volume low • Tidal volume high • Low frequency • High frequency • Low minute volume • High minute volume • Low FiO₂ • High FiO₂ • Low SpO₂ • High SpO₂ • Low pulse • High pulse • High CO₂ • Low CO₂

* Not available in all countries. For further information, please contact your specialist dealer.

¹⁾ Without battery charge, screen brightness 90 %

²⁾ With the following settings: mode: T, patient: adult, leakage circuit 15 mm, IPAP: 40 hPa, EPAP: 4 hPa, F: 26.5 /min, Ti: 1.1 s, pressure increase: stage 1, pressure reduction: level 1, test lung, additional accessories: breathing system filter, WilaSilent exhalation system

³⁾ Tolerance: -20% + 10%



Bacteria and virus filter Teleflex Iso-Gard breathing system filter	WM 27591	USB modem* consisting of:	LMT 31763
FiO₂ measuring cell	LMT 31502	• USB modem (LMT31764)	
WILAsilent exhalation valves	WM 27589	• Cable for USB modem (LMT 32728)	
Leakage circuit		• Bracket (LMT 31761)	
• 15 mm Ø	WM 29988	Set, 90° circuit adapter	LMT 15984
• 22 mm Ø	WM 23962	SpO₂ sensor	
• autoclavable, 22 mm Ø	WM 24667	• Size S	LMT 31580
• mouthpiece ventilation, 15 mm Ø	WM 27651	• Size M	LMT 31396
• heated (i), autofill chamber, 150 cm + 60 cm, 15 mm Ø	WM 271704	• Size L	LMT 31388
• heated (i), autofill chamber, 150 cm + 60 cm, 22 mm Ø	WM 271705	Connecting cable Xpod SpO₂ sensor	LMT 31593
Single circuit with valve		LUISA hospital trolley, consisting of:	
• 15 mm Ø	LMT 31383	• Trolley 2.0 (LMT 31355)	
• 22 mm Ø	LMT 31382	• Set, LUISA plate for trolley 2.0 (LMT 31371)	
• heated (i), autofill chamber, 150 cm + 60 cm, 15 mm Ø	LMT 31385	• Device plate trolley 2.0 (LMT 31359)	
• heated (i), autofill chamber, 150 cm + 60 cm, 22 mm Ø	LMT 31384	for device type LM150TD	LMT 31370
Double circuit		• Power supply holder (LMT 31351)	
• 15 mm Ø	LMT 31577	• Water bag holder (LMT 31353)	
• 22 mm Ø	LMT 31581	• Fixing set for oxygen bottles (LMT 31352)	
• heated (i), autofill chamber, 150 cm + 60 cm, 10 mm Ø	LMT 31386	• Circuit holder (LMT 31354)	
• heated (i), autofill chamber, 150 cm + 60 cm, 15 mm Ø	LMT 31582	LUISA Homecare trolley, consisting of:	
• heated (i), autofill chamber, 150 cm + 60 cm, 22 mm Ø	LMT 31583	• Trolley 2.0 (LMT 31355)	
Mobility bag	LMT 31554	• Set, LUISA trolley plate 2.0 (LMT 31371)	LMT 31360
Expiration module		• Device plate trolley 2.0 (LMT 31359)	
• Disposable	LMT 31404	for device type LM150TD	
• autoclavable	LMT 31413	• Power supply holder (LMT 31351)	
• set, facing of expiration module	LMT 15986	Mounting bracket for ISO rail	LMT 31368
External battery	LMT 31540	Set, LUISA device plate	LMT 31359
Charger for external battery	LMT 31594	Set, LUISA plate for trolley 2.0	LMT 31371
VENTIremote alarm LUISA		AIRNIVA humidifier, 230V	LMT 100500
• 10 m	LMT 31560	incl. heating wire distributor cable, power cord	
• 30 m	LMT 31570	AIRcon Gen2 230V humidifier	LMT 101200
Cable, nurse call for LUISA		complete incl. accessories	
• 10 m	LMT 31510	Heating wire distributor cable	
• 30 m	LMT 31520	• (i+e) for AIRcon	LMT 100929
CD-ROM with software prismaTS	WM 93331	• (i) for AIRcon, prisma VENT AQUA, WILA	LMT 100942
USB flash drive	LMT 31414	Temperature probe 160cm	LMT 100910
COM cable for Philips Intellivue monitors	LMT 31578	for AIRcon/prisma VENT AQUA, WILA	
		Set, Filter	LMT 15989

* depending on current registration status

Scope of delivery

Device designation	Article no.	LUISA	LUISA
		without HFT mode	with HFT mode
LUISA basic device, LM150TD without HFT	LMT 31430	x	-
LUISA basic device, LM150TD with HFT	LMT 31410	-	x
Protection bag	LMT 31010	x	x
Single circuit with valve, 22 mm Ø	LMT 31382	x	x
Oxygen connection nozzle	WM 30669	x	x
USB-C flash drive	LMT 31414	x	x
Power supply unit	LMT 31569	x	x
Power cord (power cable)	WM 24177	x	x
Set, 12 fine filters	WM 29652	x	x
Set, 2 coarse dust filters	WM 29928	x	x
Instructions for use	LMT 68650	x	x
Accessories bag	LMT 31579	x	x

Please refer to the current price list and accessory catalog.

CE 0197

Made in Germany

Löwenstein Medical Technology
Kronsaalsweg 40
22525 Hamburg, Germany
T. +49 40 54702-0
F. +49 40 54702-461
info@loewensteinmedical.com

Sales + Service
Löwenstein Medical
Arzbacher Straße 80
56130 Bad Ems, Germany
T. +49 2603 9600-0
F. +49 2603 9600-50
info@loewensteinmedical.com
loewensteinmedical.com

© Protected by copyright. Reproduction of any kind requires the express permission of Löwenstein Medical. All information is subject to change for technical reasons.

