



# Intensive Care Medicine



For the Intensive Care Unit: Ventilators, Humidifiers,  
High-Flow Oxygen Therapy and CPAP Therapy, Secretion Management,  
Oxygen Blenders, Masks, Cannulae and Catheters



# Content

<b>Ventilation</b>	<b>4</b>
The elisa Code	4
elisa 300 / 500	6
elisa 600 / 800 / 800 <sup>VIT</sup>	8
LUIISA	10
prisma VENT50-C	11
<b>Monitoring</b>	<b>12</b>
LM7	12
P22 / P18 / P12	13
P1	14
<b>Respiratory Gas Humidifiers</b>	<b>15</b>
AirCon GEN 2	15
LM 2000	15
<b>High-Flow and CPAP Therapy</b>	<b>16</b>
charisma	16
<b>Secretion Management in Respiratory Therapy</b>	<b>17</b>
alpha 301 /302	17
<b>Oxygen Blenders</b>	<b>18</b>
LM Blend	18
Maxblend 2	18
MicroMax	18
<b>Masks</b>	<b>19</b>
JOYCEclinic Full Face	19
LENA	20
Ventura Total Face	21
<b>High-Flow Cannula</b>	<b>22</b>
LMFLO <sub>2</sub>	22
<b>Esophageal Catheter</b>	<b>23</b>
PesoCath	23

# The elisa Code



Agile system makes personalized respiratory therapy possible.

Theoretically, it's a simple thing – air has to flow in and out. In everyday hospital work, however, many different requirements have to be met for ventilation modes, setting parameters, diagnostic options and therapeutic maneuvers. A ventilator quickly becomes too complex, compromised or complicated, all of which makes intense training necessary. Because the agile system architecture of the elisa family permits implementation of a hospital's standards, it reduces operating errors and training expenditures. The user interface can be configured to suit your needs for resuscitation mode, automated SBT test and access to information during rounds.

**Innovative. Intuitive. Sustainable.**  
The elisa family.





# elisa 300 | elisa 500

The new compact class in intensive care ventilation.



elisa 300

elisa 300 and elisa 500 combine the advantages of compactness with the performance features of a modern intensive care ventilator for adults and children. With a peak flow of up to 300 liters per minute, the noise-optimized turbine ensures high flow reserves to compensate leaks, especially in mask ventilation.

The outstanding feature is the agile user interface with up to 6 freely configurable screens, which can be configured individually depending on the ICU standard. The device configuration is simply transferred via USB stick from one device to other devices.

The elisa 300 and 500 are true all-rounders and predestined for the emergency department, intra-hospital transport, weaning stations and intensive care units for maximum care.

elisa 300 and 500 are high-performance ventilators even in the basic configuration:

**Features:**

- NIV ventilation, IV ventilation, HFOT - High-Flow Oxygen Therapy
- Tube compensation
- Hygienic function, documented monitoring of the change intervals for patient accessories
- Weaning analyzer
- Up to three loops (and storing up to five reference loops each)
- Pneumatic nebulizer
- PEEPfinder with representation of the inflection points
- Recruitment maneuver
- Screenshots can be made
- Help function
- Battery for two hours of operation
- Two serial interfaces for PDMS and monitoring

**Options for elisa 300 and elisa 500:**

- CO<sub>2</sub> main current measurement
- Second battery with additional two hours of operation
- elisa@megs – data hub with up to five serial interfaces
- SPO<sub>2</sub> measurement
- LeoClac

Feature	elisa 300	elisa 500
Screen size	12"	15"
Cuffscout®	-	✓
Peso	-	✓





elisa 500

**elisa@megs**

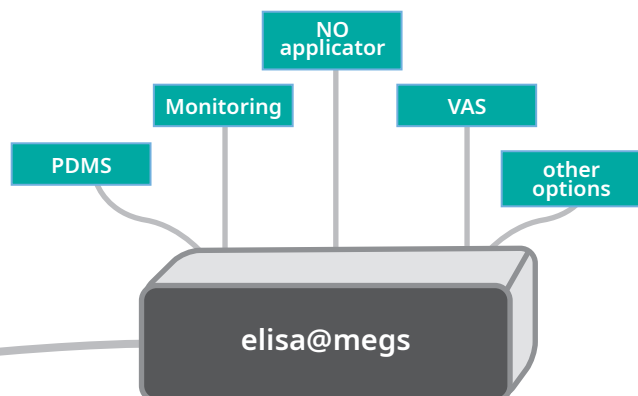
elisa@megs is a microprocessor-controlled data hub with up to five interfaces.

All relevant elisa data can be transferred to IT systems and medical devices, including PDMS, VAS-Distributed Alarm Systems, patient monitoring, NO Devices.

Others available upon request.



elisa 800



# elisa 600 | 800 | 800<sup>VIT</sup>

The premium class in intensive care ventilation.



elisa 600

## elisa 600

The universal ventilator elisa 600 is intended for invasive and non-invasive ventilation therapy for all clinical conditions and in all medical disciplines. The smart user interface can be customized to satisfy medical requirements and hospital standards. The innovative technology, simple operation and comprehensive modular design of the device help reduce complexity, avoid operator errors and support the user in the administration of ventilation therapy. In the balancing act between financial investment and development opportunities, elisa 600 represents an innovative ventilation platform for present and future applications. The device architecture with its focus on hygiene and service and many options leaves nothing to be desired.

- 18.5-inch touchscreen monitor and projector port
- Intensive care ventilator for all patient groups (adults, children, premature infants)
- Broad range of ventilation modes
- Integrated pneumatic drug nebulizer
- Integrated mesh nebulizer\*
- High-flow therapy
- NIV mode
- PEEPfinder and lung recruitment
- Integrated cuff pressure monitor – Cuffscout®\*
- Transpulmonary pressure measurement\*
- Hygiene management function
- Resuscitation mode

- Weaning tools and indices
- Mainstream or sidestream CO<sub>2</sub> measurement\*
- Anaconda function\*
- elisa@megs for simultaneous multiple data export for PDMS, monitoring, etc\*
- Two hours of battery operation, optionally expandable up to four hours
- Optional: nCPAP, nBiLevel, SPO<sub>2</sub> measurement, LeoClac

## elisa 800

elisa 800 is a perfect combination of simplicity and the full therapeutic range of clinical ventilation medicine. As an innovative top-class intensive care ventilator, elisa 800 features a unique tandem sensor system that makes the device suitable for a weight range from 300 grams to 400 kilograms. The device offers a variety of ventilation modes, maneuvers and weaning tools. It provides special instruments for every clinical ventilation phase, such as PEEPfinder with automatic inflection point detection, transpulmonary pressure monitoring or Fastwean monitoring. The innovative user interface, combined with the system's extensive configuration options, creates a personalised ventilation system for implementing the respective ventilation strategies and hospital standards.

- Intensive care ventilator for all patient groups (adults, children, premature infants)
- Selection of 18.5-inch or 21.5-inch high-resolution color touch-screen display





elisa 800

elisa 800<sup>VIT</sup>

- Intelligent, intuitive operation with Easy Access Bar
- Modular system as the basis for personalised ventilation
- Integrated pneumatic drug nebulizer
- Integrated mesh nebulizer
- High-flow therapy
- NIV mode
- PEEPfinder and lung recruitment
- Integrated cuff pressure monitor – Cuffscout®
- Transpulmonary pressure measurement
- Weaning tools and indices
- Hygiene management function
- Mainstream or sidestream CO<sub>2</sub> measurement\*
- Anaconda function
- Versatile interfaces for PDMS, NO systems and monitoring equipment
- elisa@megs for simultaneous multiple data export for PDMS, monitoring, etc \*
- Two hours of battery operation, optionally expandable up to four hours
- Optional: nCPAP, nBiLevel, SPO<sub>2</sub> measurement, LeoClac

## elisa 800<sup>VIT</sup>

elisa 800<sup>VIT</sup> combines the versatile options of a modern intensive care ventilator in the top market segment with ventilator-integrated tomography. As the world's first ventilation system with integrated electrical impedance tomography, elisa 800<sup>VIT</sup> provides radiation-free bedside imaging and ventilation under visual control.

Ventilation effects can be continuously assessed in real time in order to detect complications. The latest textile sensor technology minimizes the skin injuries caused by older systems and can be used in prone positions. The functional imaging display, specifically designed for use in everyday clinical situations, is easy to interpret.

### Ventilation with elisa 800<sup>VIT</sup>

- Standardizes ventilation settings and helps detect potential side effects of ventilation therapy
- Serves as the basis for monitoring inhomogeneous pulmonary situations for lung-protective ventilation
- Enables simple and reproducible assessment of therapy outcomes
- Permits early detection of respiratory complications
- Supports the individual implementation of therapeutic prone positioning under visual control
- Reduces in-hospital intensive care transfers of severely ill ventilated patients
- Reduces the need for routine X-rays and CT scans
- Optional: nCPAP, nBiLevel, SPO<sub>2</sub> measurement, LeoClac

\* optional

# LUISA

Air for an active life.



Inhale, exhale – something most people do without giving it much thought. With LUISA, the new, highly efficient ventilator from Löwenstein, ventilated patients can do the same. LUISA is especially 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.

- Battery run time: up to 18 hours
- Display: 10-inch touchscreen
- Positioning: vertical or horizontal
- Connectivity: Bluetooth, prisma CLOUD, App, monitor connection
- Monitoring: FiO<sub>2</sub> and SpO<sub>2</sub> 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

Learn more about our inspirers and LUISA here.



[breatheanywhere.com](http://breatheanywhere.com)





# prisma VENT50-C

The best care always.



The prisma VENT50-C has the same features as prisma VENT50 plus a High-Flow Therapy (HFT) mode. In the HFT mode the device provides a continuous flow of 5 – 60 liters per minute to which an oxygen feed can be added. The flow of air is first heated and humidified (e.g., with prisma VENT AQUA) and applied to the patient via an appropriate patient interface. Different sizes of the nasal cannula are available for non-invasive ventilation and one interface is available for use with invasive ventilation. The pressure range is the same as for the prisma VENT50 up to 50 hPa. The device offers pressure- and volume-controlled mouthpiece ventilation (MPVp and MPVv) and the LIAM function (Lung Insufflation Assist Maneuver) for cough support and secretion management. The prisma VENT50-C has a complete alarm management, internal power supply, battery with up to 12 hours running time and an integrated oxygen connection.

## High-Flow mode (HFT)

- Flushing the dead space eliminates CO<sub>2</sub>
- Humidification and warming of the respiratory tract and thus improved mucociliary clearance
- Improvement of oxygenation
- Reduction of the spontaneous breathing rate

## Brilliant display

- Large display, high contrast, sharpness and natural colours

## Simple Operation and Settings

- Intuitive menus, easy operation, fast optimization
- Simple setting with 360 ° easy turn button and speed dial buttons

## Great compatibility

- Fits a variety of tubes
- Systems for high-flow therapy
- Supplies additional devices
- Works with standard cables



# LM7

Patient monitoring with standard hardware configuration and additional slots.



**Standard configuration:**

3/5 lead ECG, RESP, SpO<sub>2</sub>, PR, NIBP, 2-TEMP, Lithium battery, touchscreen

**Optional modules:**

2-IBP, Masimo SpO<sub>2</sub>, Nellcor SpO<sub>2</sub>, SunTech NIBP; Sidestream/MicroFlow/Mainstream EtCO<sub>2</sub>, Mainstream/Sidestream AG, CO

**Other options:**

12 lead ECG, printer, rolling stand, wall mount, VGA, external display, WiFi, SD memory card, analog output (ECG or IBP)

The LM7 modular monitor has been designed to meet everyday clinical requirements, integrated seamlessly into the hospital workflow.

In acute care, a patient monitor must be reliable, easy to use and upgradeable with advanced parameters, while allowing data access when and where needed. For patient transport, the device should be easy to carry.

With its lightweight and plug-and-play modular design, its powerful functions and intuitive user interface, the LM7 patient monitor is the best choice for acute care.

- 15" (768 x 1024) TFT LCD display, three module slots
- The LM7 monitor is designed to meet the requirements of hospital environments and standard monitoring demands. The optional modules upgrade the LM7 monitor for acute care monitoring.
- The LM7 monitor's integrated automatic event recording function guarantees the integrity of monitoring data.
- The LM7 monitor's intuitive interface includes mass alarm set up, large font, and view-other bed functions. This interface, the touchscreen, rotary knob and customized quick keys make the LM7 monitor very user friendly.
- The LM7 monitor is suitable for use in the emergency room, general wards, operating room and ICU.
- Low power consumption and low noise level
- Optimized circuit design and reduced energy consumption increase battery run time by 25%
- Interfaces: VGA output, ethernet, USB x 2, defib sync, nurse call, rack for extension module
- The LM7 monitor provides stable, continuous monitoring of vital signs through use of BM100 A all-in-one module

# P Series P22 / P18 / P12

Powerful. Practical. Pioneer.



reddot design award  
winner 2021



The P series includes complete trending with high resolution (P15 – P22):

- 180 hours trend data
- 3000 parameter alarm event
- 3000 ARR events
- 2400 groups NIBP measurement
- 72 hours holographic waveform

Communication is essential:

- Software for “Central Monitoring System” Wireless and Wire Network Connection is supported.
- Monitoring communicates with PDMS via HL7 protocol.
- Communication includes connectivity to medical devices.

**Drip Module – the innovative solution in an emergency.**

The Drip Module monitors and manages intravenous treatment.



P12



P15



P18



P22

	P12	P15	P18	P22
Screen (inch)	12.1	15.6	18.5	22
Resolution	1280*800	1920*1080	1920*1080	1920*1080
Modular slot	4	6	6	6
Weight	< 5 kg	< 6 kg	< 7 kg	< 8 kg



# P1. Patient first.

Mobile Care. Continuous Care.



## Multiple use and flexibility

(stand-alone use or as part of Host Monitor P12 – P22)

### Monitoring for intra-hospital transfer

Just slide the P1 transport monitor into the patient monitor for seamless transfer from operating room, ICU, to the recovery room.



P1 with Transfer Holder



P1 with Transfer Holder and additional Module Slot



## P1

Screen (inch)	5.5 inch touchscreen
Weight	< 0.9 kg
Battery	8 hours continuous operation
Resolution	1280*720
Integrated module	CO <sub>2</sub>
Expanded module	Masimo, Nellcor SpO <sub>2</sub> Suntech NIBP Sidestream/Mainstream CO <sub>2</sub>



# Respiratory Gas Humidifiers

## AIRcon Gen 2

The humidifier Aircon Gen 2 combines modern technology and innovative design in a single unit to fulfill medical needs and economic expectations of the market. The result is physiologically conditioned air that protects the mechanically ventilated patient's mucous membranes from being dried out and prevents impairment of mucociliary clearance.

- Self-explanatory use provided by symbols and pictograms
- Stand-by function for required therapeutic applications
- Three (3) function modes (IV, NIV, FREE)
- Individual control of expiratory heater wire
- Suitable for use with all ventilators
- Distribution cable for hot wire sensors
- Intelligent alarm management
- Automatic water level monitoring
- Event and Alarm report



## LM 2000

The LM 2000 is the new generation of active humidification systems which was developed for newborns, children and adults. The large touchscreen provides fast and convenient access to all required information and functions.

- Personalized, intuitive temperature setting
- Settable modes: Invasive, Non-invasive, Weaning
- Screen protector for night mode
- Intelligent alarm management
- Electronic water level monitoring
- Event and Alarm report
- Stand-by function with necessary therapeutic applications

# charisma

The high-flow CPAP solution.



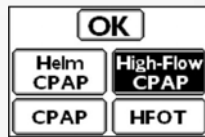
Functions:



Helmet CPAP



CPAP



High-Flow-CPAP



HFOT

charisma stands for a new generation of clinical respiratory therapy devices developed for modern challenges in CPAP and high-flow therapy. Thanks to its easy operation, versatile respiratory therapy modes, integrated consumption-free oxygen sensor and adjustable alarms, the device can be used in acute care units, recovery rooms, monitoring wards, physiotherapy and general wards. charisma is suitable for use with helmet ventilation, nasal CPAP and high-flow CPAP.

charisma's benefits for CPAP and high-flow therapy:

- Integrated drug nebulizer
- Modes for helmet CPAP, mask use and nasal application
- Consumption-free oxygen sensor for FiO<sub>2</sub> monitoring
- Leakage compensation up to 200 l/min.
- High pressure stability
- Intelligent alarm system

## Product options

O<sub>2</sub>

Paramagnetic oxygen sensor



Expanded safety package



Cart



High-flow nasal cannula



Circuit set 1



Drug nebulizer



LM 2000  
respiratory gas humidifier



AIRcon  
respiratory gas humidifier

# alpha 301 / 302

## Improved ventilation with recruitment

Respiratory therapy with Intermittent Positive Pressure Breathing (IPPB therapy) is a recognised treatment for obstructive pulmonary diseases. The administration of inhalation aerosols is recommended for patients with greatly reduced ventilation reserves and pronounced respiratory insufficiency. The alpha device family meets the therapeutic needs of clinics and healthcare professionals for the treatment of COPD, asthma, respiratory insufficiency or pulmonary fibrosis.

The slow and deep inspiration supported by the respiratory therapy device leads to better ventilation, which improves gas exchange and aerosol deposition. The adjustable expiratory resistance setting also more effectively serves poorly ventilated peripheral lung segments. That is essential for prevention because good ventilation is the best protection against infections. IPPB therapy for obstructive pulmonary diseases can be supplemented with nebulized drugs, such as bronchospasmolytic or secretolytic agents.

- Compact device, suitable for use with children and adults
- Modern design with display
- Manual control option
- Sensitive trigger range
- Infinitely adjustable expiratory stenosis
- Controlled application of oxygen concentrations (21%, 30%, 40%, 50% O<sub>2</sub>) for the length of the therapy session



# Oxygen Blenders

## LM Blend

The new generation of high or low flow air-oxygen blenders

The compact, lightweight LM Blend permits personalized settings of oxygen concentration and flow without the use of additional accessories, such as a flowmeter. It is specially designed to function in any position and during transport. To measure oxygen concentration, the LM Blend is equipped with an optional port for connection to an oxygen measuring cell.



## Maxblend 2

High-flow/low-flow air-oxygen blender

Maxblend 2 is an easy-to-use, low-maintenance blender with an integrated oxygen analyzer. Its features include a backlit LCD and acrylic flow meter, intelligent alarms and an optional AC power supply. The modular flow meters can be added to the configuration. The whisper-quiet operation enables bedside use without disturbing patient rest.



## MicroMax

High-flow/low-flow air-oxygen blender

MicroMax offers the performance of a precise air-oxygen blend. The high-flow variant has a total throughput range of 15-120 l/min. and the low-flow variant 3-20 l/min. MicroMax includes a connection port for continuous monitoring of the administered oxygen concentration with the optionally available oxygen analyzer.





# JOYCEclinic Full Face

## The right solution for every situation.

The disposable JOYCEclinic Full Face mask for acute, non-invasive ventilation has become well-established in clinical practice. Rely on the proven quality of Löwenstein Medical to support your daily work.

In response to feedback from customers, we optimized JOYCEclinic Full Face in two key areas:

The mask cushion has been made much longer and wider to quickly and reliably adjust to different contours, especially at the nasal bridge. The reinforced silicone area between the mask's cushion and body ensures a stable fit – even in case of sudden mask removal or higher pressure levels.

The four interchangeable elbows feature an intuitive, easy-to-use lever that helps the user find the right mask for every situation and every device combination. The immediately recognisable quick-release cord easily disconnects the headgear, which remains snug even at high pressure levels.

JOYCEclinic Full Face is available in three sizes in the variants non-vented, non-vented with AAV (leakage 1) and vented with AAV (leakage 2). The endoscopy adapter, available as an accessory, allows bronchoscopy access without any interruption of ventilation.



Endoscope adapter



NV without AAV\*



NV with AAV\* (Leakage 1)



V with AAV\* (Leakage 2)

\* AAV = Anti-Asphyxia Valve

# LENA

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## Reliable at high pressure too.

Most people breathe in and out without having to think about it. Patients with respiratory insufficiency or Sleep-Disordered Breathing, however, need help with breathing. The full face mask LENA was specially developed for mechanical ventilation.

The primary focus is on a comfortable mask fit, particularly when high pressures are applied or when there is a big pressure difference between inspiration and expiration. The double-lipped mask cushion is designed to satisfy patient needs. With close-fitting headgear and a stable connection between mask cushion and body, LENA maintains a good fit day and night.

LENA is rounded off with details such as the quiet, diffuse exhalation system, the ball-and-socket joint, intuitive use, integrated connection for oxygen feed, vented and non-vented variants and accessories like the quick-release cord and endoscopy adapter.





# Ventura Total Face

## Successful treatment, thanks to clear view of mouth and nose.

The Ventura Total Face masks from WILAméd were developed and produced with the patient's comfort in mind. They are less intimidating than other full face masks because the masks are clear and open. The design makes it easier to treat anxious or claustrophobic patients.

### Product features at a glance:

- Three different (angled) versions
- Headgear
- Available in three sizes (S, M, L)
- Suitable for patients who breathe through the mouth or those who have oligodontia
- Compatible with all conventional non-invasive ventilators

### The most important benefits for patients and nursing personnel:

- Clear, open view in all directions
- Ultra-soft, surgical-grade silicone cushion for lower pressure and a soft fit that covers the entire face
- Highly developed design minimizes pressure marks on the face during long-term mechanical ventilation
- Four-point mask strap conforms to the natural shape of the head

### Additional advantages:

- Can be used for up to 14 days (single patient use)
- Contains no DEHP, PVC or latex
- MRI-safe; can be used with MRI-compatible ventilators
- For adult patients weighing more than 20 kg



Vented with AAV



Nonvented with AAV



NV/ Standard Blue Elbow

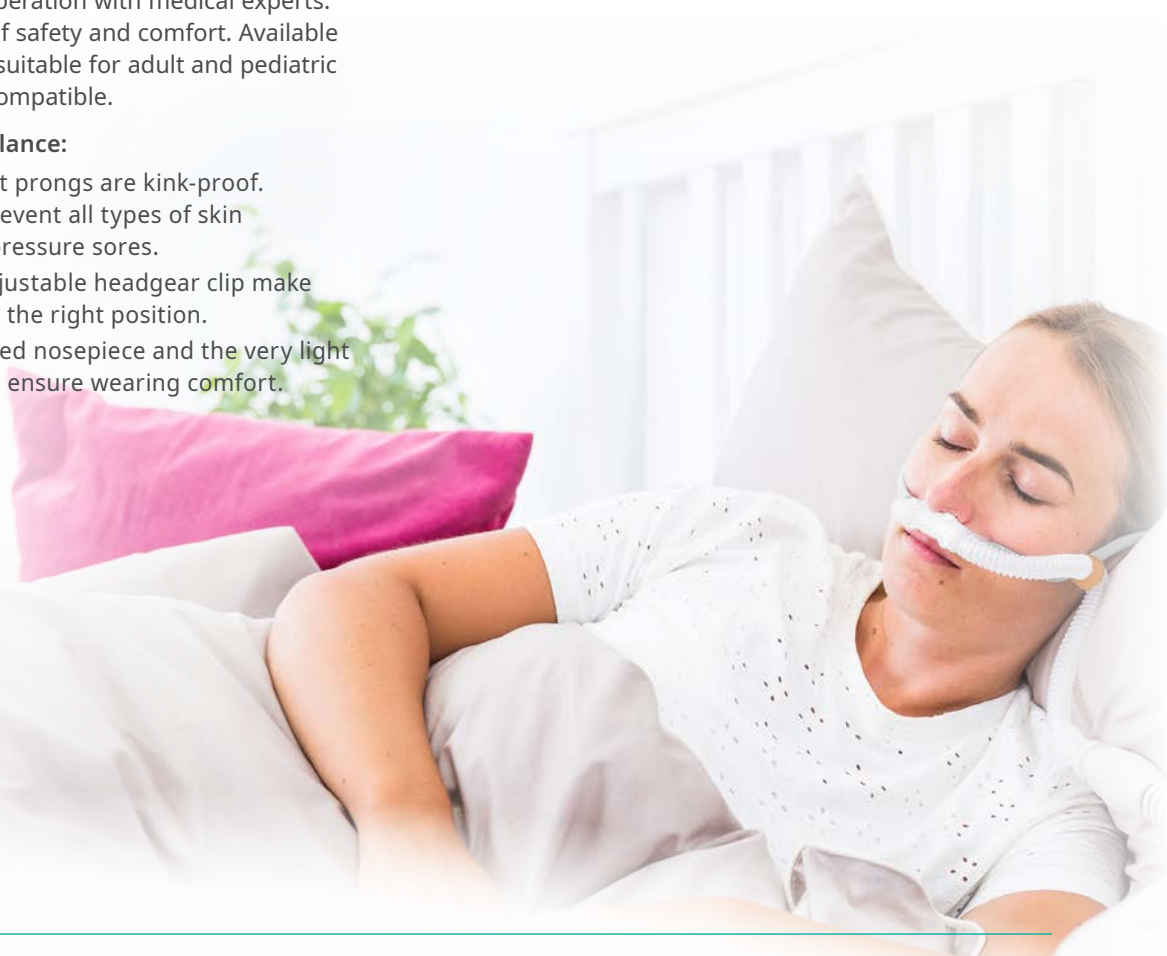
# LMFlo<sub>2</sub>

## For successful High-Flow Therapy.

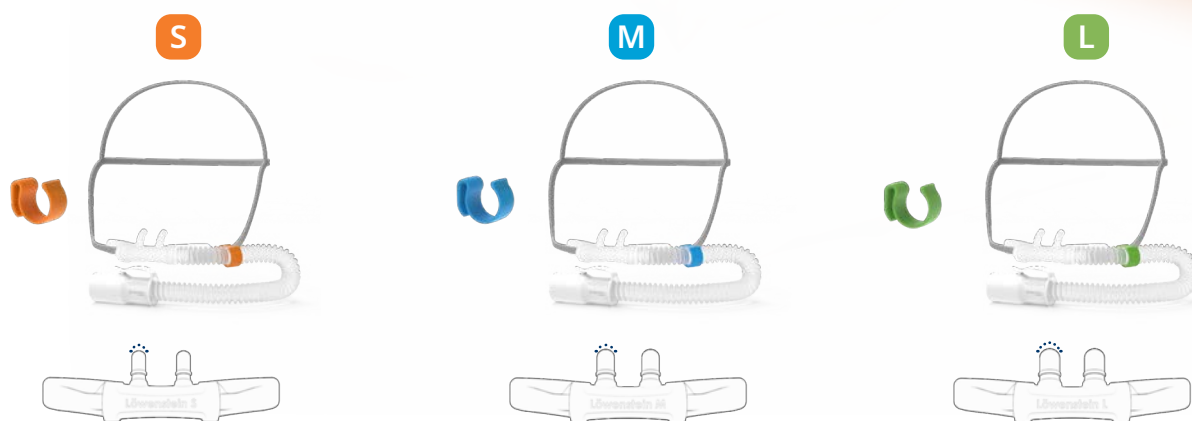
The high-flow nasal cannula LMFlo<sub>2</sub> was developed by Löwenstein in close cooperation with medical experts. It offers a high degree of safety and comfort. Available in three sizes, LMFlo<sub>2</sub> is suitable for adult and pediatric patients. It is also MRI compatible.

### Product features at a glance:

- The flexible smooth-fit prongs are kink-proof. With a soft fit, they prevent all types of skin irritations, including pressure sores.
- The Quick-Clip and adjustable headgear clip make ure the prongs stay in the right position.
- The anatomically curved nosepiece and the very light and elastic head strap ensure wearing comfort.



### Color-coded Sizes



# PesoCath

Designed for esophageal and transpulmonary pressure monitoring.

**Latest standard for enteral feeding.** Direct connection with practical locking crown complies with the new standard DIN EN ISO 80369-3 for enteral feeding connectors.

The special **esophageal balloon** catheter ensures outstanding reaction to sudden pressure changes.

**Wire-in-Wire System.** For simple extraction of the insertion wire.

**Simply safe in an emergency.** Direct channel to emergency suctioning, auscultation and gastric juice drainage.



# LÖWENSTEIN medical

## Sales + Service

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