LÖWENSTEIN
medical

COMING SOON

LEONI 4

Best Chances. From the Start.

With people in mind

Little Lionhearts.
Big Fighters.

—

Pioneering technology in neonatology.
For a sure start in life.

The premium standard in neonatal ventilation: LEONI 4. Developed with over 30 years of expertise and experience in ventilating the most sensitive lungs and tiniest humans. These powerful little fighters and their parents are what motivate us to keep improving. They deserve more precise, customized ventilation from us, and above all, they deserve to be safe. Intuitive to operate, delivering gentle, life-saving ventilation.

LEONI 4. Best Chances. From the Start.

LEONI 4

Made in Germany.

Designed, developed and produced in Bad Ems, Germany, LEONI 4 offers the state-of-the-art technological reliability required in neonatology – and with an agile system that keeps usability intuitive, configuration needs-based and training requirements low, it goes one step further into the future.

Together with Instant View Technology, which enables the current situation and any deviations to be spontaneously assessed at a quick glance, LEONI 4 is setting new standards in the safe ventilation of premature infants.

Additional display.
Constant overview of key parameters, even during parent/child time.

Ergonomic design.
All necessary connections can be directly accessed at the front of the device.

Sustainability

All components are replaceable. The modular design guarantees a long service life. Transportation routes are short, and parts are manufactured in Germany. Consumption of fresh gas is significantly reduced by the double HFO diaphragm.

Hygiene

The optimized housing design reduces areas prone to hygienic problems. Programmable individual hygiene protocols and intervals for changing consumables. The touch screen has a lock function for cleaning operations.

Service and maintenance

Cost-efficient thanks to optional zero-maintenance paramagnetic O_2 cell and service-friendly design. Customer-specific configurations can be transferred from device to device (optional).

Functions and Operation

LEONI 4 has made all the important functions even more effective and reliable. Pleasantly familiar, yet innovative and pioneering.

Making everyday processes even faster and smoother so that there is time for the important things: a loving touch for our tiniest patients and a reassuring conversation with parents.

High frequency oscillation ventilation.
Lung-protective HFO enables spontaneous breathing without pressure spikes in invasive and non-invasive ventilation with HFO.

NIV trigger.
Synchronized respiratory support for spontaneous breathing efforts. Supports the weaning process through lung-protective ventilation.

Mainstream CO_2.
Continuous real-time measurement of the partial pressure of CO_2 in the respiratory gas through end-tidal CO_2 measurement.

High-flow nasal therapy.
Effective and non-invasive respiratory support.
Functional dead space is reduced.
No separate circuit required.

Tube concept.
All ventilation modes can be implemented with the same circuit. No time-consuming or risky system changes.

Screen display

O2 % **21.0** Alarm limits

PPeak cmH2O **27.0** Graphs

PEEP cmH2O **6.3** Settings

VTe ml **6.4** Timer

Minute ... l/min **0.26**

I:E **-**

-

STANDBY VENTILATION

Pressure cmH2O

← Show More Values

Volume ml

HFO

TrigVol % **15**   I-HOLD   31% O2 **Flush** 59s   Cancel

VTG ml **Off**   O2 **21** %   OK

Ventilation performance.
Applicable tidal volumes from 0.1 ml enable ventilation of even the very smallest premature infants.

Battery concept.
The permanently installed battery can be supplemented by two additional batteries. Hot-swappable: safe battery replacement during operation.
The remaining runtime in battery mode is reliably displayed.

Modern interface communication.
Secure and flexible communication with external information systems.

Automatic system test.
The automatic system test autonomously checks and monitors all important components.

Screen and User Interface

The human-technology interface should be easy and intuitive to use.
See, touch, hear, then react.

LEONI 4 delivers security with its user-friendly and clear operability.
And the satisfying feeling that nothing vital has been overlooked.

Instant View Technology.
15.6" full HD display for a detailed view of all values from almost any position in the room. Intuitive understanding of the patient's condition and any changes.

Configurability.
Security through clarity and selective data choice.

Intuitive operation.
Touch display with easy access bar and additional encoder guarantee reliable user guidance.

Freezing curves.
View and measure curves simultaneously.

Up to 8 curves.
Parameters, curve color, positioning, and prioritization can be selected.

Screenshot function.
Curves and loops can be stored for later analysis.

Help function.
Supports the user with solutions to problems.

Detachable display.
The detachable display can be used to position the display independently of the ventilation unit. Individual bedside configuration is possible.

Screensaver.
For that important and peaceful parent/child time. Additional display provides security.

21.0

Alarm limits

16.7

Graphs

5.2

Settings

12

Timer

STANDBY
VENTILATION

31% O2

Flush

59s

Cancel

O2

21

%

OK

SpO₂

Comfort and Security

Life in the womb is snug and secure. A premature baby loses this security suddenly. This makes it all the more important that nothing startles, disturbs, or frightens these little fighters as they learn to breathe and live in their new environment. LEONI 4 uses gentle yet reliable sound and light effects to provide calm and reassurance.

Touch display with easy access bar and additional encoder.
Reliable operation using the touch display or the push/turn encoder.
Rapid operation from the front. Focus remains on the preemie and the device simultaneously.

Automatic day/night changeover.
Disturbing light effects are reduced and the readability of the display content is improved.

Dimmable LEDs.
Brightness-adaptable illumination enables users to work confidently even in darkened environments.

Alarm management.
Alarms, priorities, and delays can be programmed and forwarded to external devices.

Smart alarm tone management.
Programmable alarm tones.

Reduced noise emissions.
LEONI 4's intelligent architecture is designed to reduce noise emissions from the device.

'Parent/child time' screensaver.
Pleasantly calming visual and acoustic device environment.
Relevant ventilation parameters can be viewed at any time on the additional display.

Automatic adjustment to ambient noise level.
Minimal noise emission. Our way of reducing stress for the child, users, and parents.

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