

emergency



MEDUMAT Standard²

A Clear New Perspective

partner for life

WEINMANN
medical technology



MEDUMAT Standard²

A new perspective on modern emergency and transport ventilation

MEDUMAT Standard²: Greatest safety in an emergency

Every second counts in an emergency. Especially when securing the patient's airways, every action has to be quick and effective. It's a matter of life and death. Because the demands made of EMS are so high in such situations, the easy operability of the ventilator is indispensable in successful pre-hospital care.



See for yourself: You see more

You will get a completely new view of modern ventilation with MEDUMAT Standard², the successor to MEDUMAT Standard and MEDUMAT Standard^a. Developed in close cooperation with users, the device boasts a monitor with a large color display that shows all major respiratory parameters. The familiar color coding, e.g., for patient selection, allows for intuitive operation. Safety is ensured by clearly organized operating elements and symbols, effective acoustic and visual alarms and other details.

New Perspective: More functions for EMS

MEDUMAT Standard² offers obviously better perspectives in flexibility. Compared to previous models, the new ventilator has



many more functions, including access to ventilation through entry of the patient's height. Available modes besides IPPV are CPR (for Cardiopulmonary Resuscitation), RSI (Rapid Sequence Induction) to support induction of anesthesia and CPAP (for Non-Invasive Ventilation). All measures are based on current guidelines such as the ERC Guidelines for resuscitation; however, customized settings can also be made.

One step ahead: Emergency ventilation today

You can see how intuitive and simple ventilation is today. For pre-hospital care, emergency ward or trauma room, the well-designed ergonomics and simple operation of MEDUMAT Standard² provide a new degree of therapeutic reliability and a user-oriented perspective on emergency and transport ventilation that is unrivaled.

Your benefits at a glance

- Quick and easy access to the right ventilation with entry of **height** or via **emergency mode** for adults, children and infants
- **CPR mode** for guideline-compliant Cardiopulmonary Resuscitation
- **RSI mode** for reliable support with induction of anesthesia
- **CPAP mode** for Non-Invasive Ventilation in pre-hospital care
- **Device inlet filter** protects from transmission



More than Pure Ventilation

MEDUMAT Standard² in practice

Conventional ventilators ensure reliable a continuous ventilation quality. MEDUMAT Standard² can do much more. Special modes like RSI and CPR fulfill the latest requirements in emergency medicine and provide for a better patient outcome*, particularly

with CPAP in relation to invasive ventilation. Ventilation with CPR and RSI modes offers an abundance of benefits compared to the conventional bag-valve application.



*Sources see last but one page.



CPAP Mode

Non-Invasive Ventilation



CPAP mode, which allows for the patient's spontaneous breathing at an increased pressure level, has proven itself in treatment of cardiac pulmonary edema**. CPAP pressure can be finely adjusted anytime with MEDUMAT Standard². The device recognizes and compensates for leakage at the mask. During ventilation all parameters can be adjusted via the monitor.

Your benefits at a glance

- Quick and exact setting of CPAP pressure
- Ideal ergonomics with CPAP pressure setting and monitoring in one device
- Apnea monitoring
- 100% oxygen or AIR MIX

**Sources see last but one page.



CPR Mode

Cardiopulmonary Resuscitation



MEDUMAT Standard² reliably guides you through Cardiopulmonary Resuscitation. After you make quick entry via the CPR key and selection of the patient group, the metronome sounds the guideline-compliant rate of chest compressions. An increasingly louder acoustic signal from the metronome warns of an upcoming ventilation pause. Ventilation is provided in quickly changing algorithms of 30:2, 15:2 and continuous by the ergonomic MEDUtrigger situated close to the patient. All critical information, e.g., when the patient was last ventilated, duration of CPR, is visible on the monitor. To eliminate ventilation-induced artefacts, the user can interrupt ventilation during a defibrillation analysis with the press of a key. MEDUMAT Standard² can be used together with the defibrillation/monitoring system MEDUCORE Standard.

Your benefits at a glance

- Mask securely held in place with two hands
- Constant tidal volume, patient-specific
- Use of 100 % oxygen, reduced upon ROSC
- Adjustable pressure limit for each patient
- Reliable alarm functions (e.g., when oxygen cylinder is empty)
- Pressure display for visual monitoring
- Integrated time information
- Interruption in ventilation during defibrillation's analysis phase



Press CPR key to activate CPR mode

- CPR mode activated with just the press of a key
- Ready for use within seconds
- Simple setup for successful CPR



Ventilation with MEDUtrigger and Double-C grip

- Two hands free for ventilation
- User has complete control over mask with Double-C grip
- Simultaneous simple and ergonomic manual triggering with the thumbs



Manual interaction with defibrillator

Analysis phase:

- Ventilation stop with the press of a key
- Ventilation pause eliminates motion and thus produces an artefact-free analysis

During the shock:

- Low impedance of thorax for more effective shock delivery from defibrillator
- No oxygen enrichment of ambient air





RSI Mode

Reliable support with induction of anesthesia



In RSI mode MEDUMAT Standard² reliably supports every treatment step. First the preoxygenation of the patient occurs via the DEMAND function. The operator can see the anesthesia-induced apnea on the monitor. MEDUtrigger allows temporary manual ventilation of the patient so that access to the airways can be checked, for example. Then a switch can be made at any time to the pre-set parameters for controlled ventilation. The adjustable pressure limit assures the safety of the patient in every situation.

Your benefits at a glance

- Support of all ventilation measures
- Preoxygenation with 100% oxygen
- Visualization of (uninterrupted) spontaneous breathing
- Ventilation with MEDUtrigger for tube position check or in an emergency
- Adjustable pressure limit
- Switch to volume-controlled ventilation



Preoxygenation

- Feed of 100% oxygen for the spontaneously breathing patient
- Dependable monitoring of apnea via display
- Reliable alarms for prolonged apneic phase



Manual triggering of ventilator breath with MEDUtrigger

- In an emergency the patient can be manually ventilated by means of Double-C grip and MEDUtrigger



Position check of tube

- After successful intubation, the operator can check the position of the tube with MEDUtrigger
- After a position check the device can be switched to continuous ventilation at the press of a key





MEDUMAT Standard²

Intuitive operation for greatest degree of safety

Ideal monitor layout

for the best view of all values and settings

Connections can be made on device front

for MEDUtrigger, measurement tube and ventilation hose

Li-Ion removable battery

with operating time of ten hours



Storage & Updates

Data storage and software updates can be made via the SD memory card

User-friendly operation

quick operation of function keys for simple and fast application

Device inlet filter

Filters drawn-in ambient air

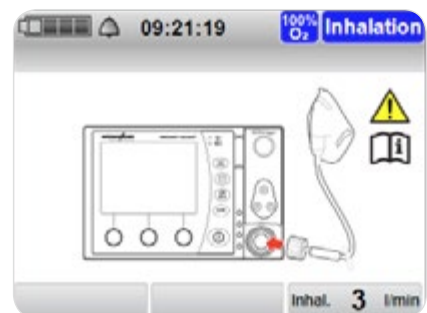


Software Options

Order with device or activate later

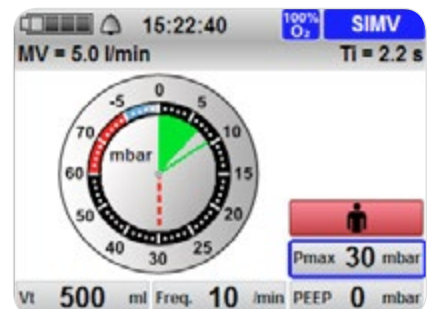
Inhalation mode for every emergency use

- Can be used with standard inhalation interfaces
- Precise setting of 1 to 10 liters of oxygen per minute
- Quick switch to CPAP mode or invasive ventilation when inhalation is no longer sufficient



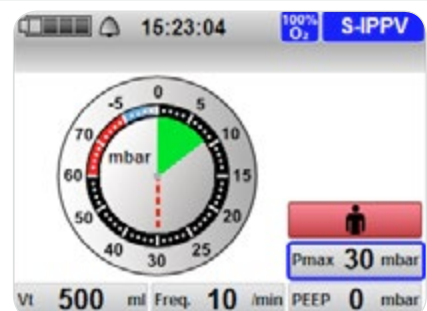
SIMV mode

- Use this mode to synchronize spontaneous breathing efforts with MEDUMAT Standard²



S-IPPV mode

- Every spontaneous breathing effort is answered with a mandatory ventilator breath





LIFE-BASE Portable System

Customized systems to satisfy your needs

Expand your MEDUMAT Standard² with defibrillation and monitoring. With the help of the LIFE-BASE portable system, you can put together the right system to satisfy your needs. You

can comfortably carry the portable system with one hand and secure it in the crash-proof wall mounting BASE-STATION in the emergency vehicle.

LIFE-BASE 3 NG

Robust portable system with accessories bag to take along necessary accessories

MEDUCORE Standard

Defibrillator-/Monitor System, Component for LIFE-BASE Portable System

MEDUMAT Standard²

Emergency ventilator, component for LIFE-BASE portable system



WM 9415

OXYWAY Pressure Reducers

Pressure reducers with and without oxygen inhalation (up to 15 l/min)

Oxygen Cylinders

Cylinders for up to 400 liters of oxygen

Remote Control for MEDUtrigger

To manually trigger ventilation in CPR Mode and RSI Mode



Your mobile solution for times when you can do without wall mounting, accessories and combinations with other devices.

Portable system LIFE-BASE light XS – small, light and functional

WM 9895



Your mobile system for when you want to mechanically ventilate a patient with external oxygen source.

Portable system LIFE-BASE 1 NG XL

WM 9400

WM 9405 with MEDUCORE Standard pro



Your mobile system for when you need quick access to oxygen cylinder.

Portable system LIFE-BASE 3 NG with oxygen cylinder

WM 9410

WM 9415 with MEDUCORE Standard pro



Would you like to learn more about the LIFE-BASE portable systems and MEDUCORE Standard defibrillators? You'll find product catalog & brochures at:
weinmann-emergency.de



WEINMANN
medical technology



Accessories and Spare Parts for MEDUMAT Standard²



1



2



3

4



5



6



7



8



9



- 1 Reusable patient circuit system 2 m
- Reusable patient circuit system 3 m

WM 28860
WM 28861

- 6 Rechargeable battery charger
- Power supply unit and charger

WM 45190
WM 28305

- 2 Disposable patient circuit system 2 m
- Disposable patient circuit system 3 m

WM 28865
WM 28866

- 7 Rechargeable battery

WM 45045

- 3 Reduced dead volume, 2 m
Disposable patient circuit system

WM 28867

- 8 Adapter for oxygen inhalation connection

WM 28263

- 4 Device inlet filter

WM 28745

- Software Options:
- Option Inhalation
- Option SIMV
- Option S-IPPV

WM 28920
WM 28916
WM 28915

- 5 MEDUtrigger 2 m
- MEDUtrigger 3 m

WM 28992
WM 28993

- 9 SD card

WM 29791



Technical Data MEDUMAT Standard²

Device Dimensions (W x H x D)	■ 206 mm x 137 mm x 130 mm
Weight including rechargeable battery	■ about 2.5 kg
Product Class as per Directive 93/42/EEC:	■ IIb
Operating Conditions:	<ul style="list-style-type: none"> ■ Temperature range: -18 °C to +50 °C ■ Humidity: 0 % rel.hum. to 95 % RH without condensation ■ Air pressure: 540 hPa to 1100 hPa ■ Alt. above sea level: - 500 m to 5000 m
Storage and Transport:	<ul style="list-style-type: none"> ■ Temperature range: - 40 °C to + 70 °C (maximal 48h) ■ Humidity: 0 % RH to 95 % RH without condensation
Rechargeable battery:	<ul style="list-style-type: none"> ■ Operating time: 10 hrs. ■ Charging time (0% - 95%): 3,5 hrs ■ Service life: at least 300 charge cycles ■ Li-Ion
Voltage:	<ul style="list-style-type: none"> ■ Vehicular power: 12 V ■ Mains power: 15 V
Display:	<ul style="list-style-type: none"> ■ TFT color display 5" ■ Resolution 320 pixel x 240 pixel
Storage medium:	■ SD card
Ventilation modes:	<ul style="list-style-type: none"> ■ Volume-controlled: CPR, RSI, IPPV, SIMV (optional), S-IPPV (optional), Inhalation (optional) ■ Pressure-controlled: CPAP
Inhalation:	■ 0 l/min to 10 l/min, in 1 l/min increments
Operating gas:	■ Medical-grade oxygen
Operating pressure level:	■ 2.7 bar to 6 bar
Maximum outlet flow:	■ At least 80 l/min at inlet pressure of 4.5 bar in Air Mix and in No Air Mix operation
I:E	■ 1:1,7 mandatory, otherwise, trigger-dependent (± 10 %)
Respiratory frequency:	■ 5 min ⁻¹ to 50 min ⁻¹ (± 1 min ⁻¹)
Tidal volume:	■ 50 ml to 2000 ml (± 40 ml or ± 20 %)
Pressure limit (Pmax):	■ 10 mbar to 65 mbar (± 3 mbar or ± 15 %)
PEEP:	■ 0 mbar to 20 mbar (± 3 mbar or ± 15 %)
Classification as per EN 60601-1:	<ul style="list-style-type: none"> ■ Type of protection against electric shock: Protection Class II ■ Degree of protection against electric shock: Type BF
Standards used:	■ EN 60601-1, EN 1789, EN 794-3, ISO 10651-3, RTCA DO-160 G

CE 0197

Certified Quality Management System meeting EC directive 93/42/EEC Annex II (EN 60601-1:2008/EN 6013485)



Technical details are subject to change.

* Sources:

Thompson, J. et al.: Out-of-hospital continuous positive airway pressure ventilation versus usual care in acute respiratory failure: a randomized controlled trial. In: Annals of emergency medicine 52 (2008), Nr. 3, S. 232-241
Deutsche Gesellschaft für Pneumologie und Beatmungsmedizin e.V. (Hrsg.): S3-Leitlinie: Nichtinvasive Beatmung als Therapie der akuten respiratorischen Insuffizienz. Hannover, 2008

** Sources:

Williams, B. et al.: When pressure is positive: a literature review of the prehospital use of continuous positive airway pressure. In: Prehospital and disaster medicine 28 (2013), Nr. 1, S. 52-60
Peter, J.V. et al.: Effect of non-invasive positive pressure ventilation (NIPPV) on mortality in patients with acute cardiogenic pulmonary oedema: a meta-analysis. In: Lancet 367 (2006), Nr. 9517, S. 1155-1163
Deutsche Gesellschaft für Pneumologie und Beatmungsmedizin e.V. (Hrsg.): S3-Leitlinie: Nichtinvasive Beatmung als Therapie der akuten respiratorischen Insuffizienz. Hannover, 2008

Simply Professional

You can rely on WEINMANN Emergency. We set the standards for mobile solutions in patient ventilation. Our 130 years of experience and close association with professional users in emergency medical services, armies/public authorities and hospitals have led to the development of intelligent and perfectly coordinated technologies. In conjunction with the professionals in emergency, transport and disaster medicine, we pursue our shared goal of saving human lives.



partner for life

Germany

WEINMANN Emergency
Medical Technology GmbH + Co. KG
Frohboesestrasse 12 ■ 22525 Hamburg ■ GERMANY
info@weinmann-emt.de ■ weinmann-emergency.de

T: +49 40 88 18 96-0 Reception
F: +49 40 88 18 96-480 Reception
T: +49 40 88 18 96-120 Customer Service
T: +49 40 88 18 96-122 After-Sales Service

Center for Production, Logistics, Service
WEINMANN Emergency
Medical Technology GmbH + Co. KG
Siebenstuecken 14 ■ 24558 Henstedt-Ulzburg ■ GERMANY

China

Weinmann (Shanghai) Medical Device Trading Co. Ltd.
info@weinmann-emt.cn ■ weinmann-emergency.cn
T: +86 21 52 30 22 25

France

WEINMANN Emergency France – Paris-Igny
info@weinmann-emt.fr ■ weinmann-emergency.fr
T: +33 1 69 41 51 20

Russia

Weinmann SPb GmbH – St. Petersburg
info@weinmann-emt.ru ■ weinmann-emergency.ru
T: +7 812 633 30 82

Singapore

Weinmann Singapur PTE, Ltd.
sales-singapore@weinmann-emt.de
weinmann-emergency.de
T: +65 65 09 44 30

Brazil

WEINMANN Emergency
Medical Technology GmbH + Co. KG (Brazil Office)
sales-brazil@weinmann-emt.de
weinmann-emergency.de

Spain

WEINMANN Emergency
Medical Technology GmbH + Co. KG (Spain Office)
sales-spain@weinmann-emt.de
weinmann-emergency.de

Venezuela

WEINMANN Emergency
Medical Technology GmbH + Co. KG (Latin America Office)
sales-venezuela@weinmann-emt.de
weinmann-emergency.de

