



emergency

# MEDUMAT Standard<sup>a</sup>

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*The Ventilation Standard for Professionals*





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## The Ventilation Standard for Professionals

MEDUMAT Standard<sup>a</sup> offers you everything you need for reliable emergency ventilation. Users around the world are impressed by its especially simple operation and ruggedness. With controlled ventilation supplied by MEDUMAT Standard and assisted ventilation by MEDUMAT Standard<sup>a</sup>, we provide you with the ventilation options you require in an emergency. Our diverse modules let you add many supplemental functions, such as CPAP therapy, to MEDUMAT ventilators. When there's not a second to lose, the well-designed operating panel with special symbols and colors help you to quickly set the right ventila-

tion parameters. When placed on our portable LIFE-BASE system, the MEDUMAT Standard<sup>a</sup> has practically unlimited mobility.

### Valuable benefits for your use

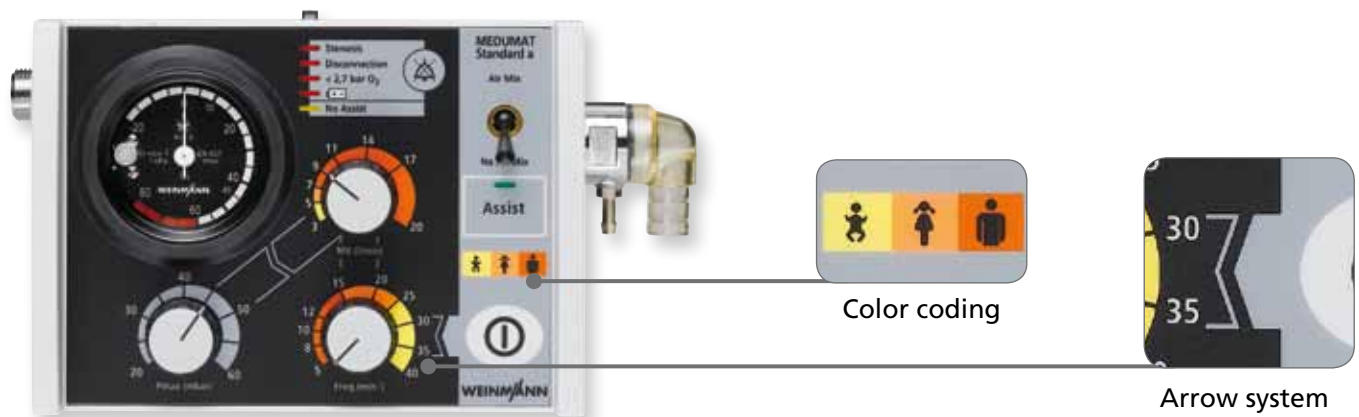
- Function expansion to meet your needs
- Alarm system ensures high level of safety
- Easy to transport
- Simple operation
- Complies with EN 1789



MEDUMAT Standard<sup>a</sup>  
WM 22800



MEDUMAT Standard<sup>a</sup>  
WM 22500



# MEDUMAT Standard<sup>a</sup>

## Ventilate Reliably and Properly

An advantage MEDUMAT Standard<sup>a</sup> and MEDUMAT Standard have over manual ventilation is the option of setting constant values for tidal volume, ventilation frequency and minute volume. These settings help to prevent ventilator-induced injuries\*. Furthermore, with a ventilator you can reliably prevent hyperventilation and damaging pressure peaks\*. That reduces the intrathoracic pressure, which in turn improves venous reflow and cardiac output\*. You can keep your hands free to provide additional care to the patient. If a problem arises, the ventilator emits acoustic and visual alarms.

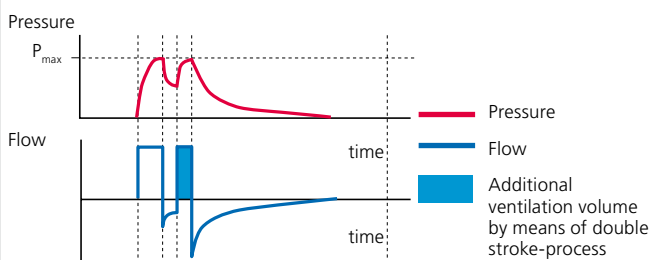
### Top reliability

- Automatic self-test when ventilator is switched on
- Color coding and arrow system simplifies fast and safe parameter settings for each patient group
- Settings for respiratory minute volume, respiratory rate and maximum ventilation pressure are infinitely adjustable
- Visual and acoustic alarms warn of acute problems such as stenosis, disconnection, loss of supply pressure, inadequate battery capacity, system outage, no triggering by patient (only in assisted mode in MEDUMAT Standard<sup>a</sup>)

### Economical and flexible

- Air-Mix function reduces FiO<sub>2</sub> to about 60%
- No oxygen required for operation
- No external power supply necessary
- Can be combined with all Weinmann modules, such as MODUL CPAP

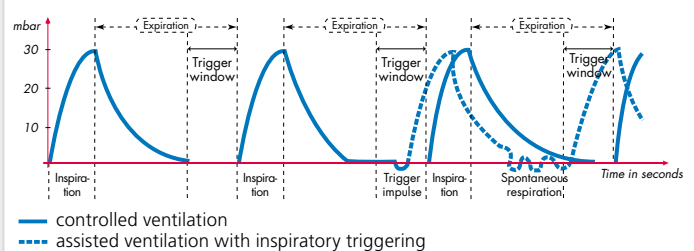
### Double stroke process



Behavior upon achieving maximum ventilation pressure (e.g., as result of CPR)

If the selected maximum ventilation pressure is exceeded, for example, during Cardiopulmonary Resuscitation (CPR), MEDUMAT Standard<sup>a</sup> or MEDUMAT Standard will briefly switch to expiration and attempt to administer a ventilator breath in the same inspiratory phase. With this double-stroke procedure, the patient receives the maximum ventilation volume.

### Assisted ventilation with MEDUMAT Standard<sup>a</sup>



Under assisted ventilation MEDUMAT Standard<sup>a</sup> gives the patient a ventilator breath in response to an inspiratory trigger. When the patient's respiratory efforts reach the trigger threshold, MEDUMAT Standard<sup>a</sup> delivers a mechanical breath to the patient. If the patient does not trigger a breath within the window for inspiration, the patient will receive controlled ventilation.

Easy to transport

Enhanced functionality with function modules

Integrated oxygen supply

Practical and safe storage of accessories



We offer you 25 pre-configured solutions to get MEDUMAT Standard<sup>a</sup> and MEDUMAT Standard quickly and safely to the emergency site.

# LIFE-BASE

## Mobility for MEDUMAT Standard<sup>a</sup> and MEDUMAT Standard

You can put together ventilation and oxygen therapy systems to fit your needs on the LIFE-BASE portable system. The extremely tough LIFE-BASE system can be carried in just one hand. For transport in a vehicle, the different LIFE-BASE models are ideally protected in the crash-proof BASE-STATION mounting. You can also conveniently carry

MEDUMAT Standard<sup>a</sup> und MEDUMAT Standard in our emergency backpack RESCUE-PACK. With RESCUE-PACK on your back, you have an unobstructed view ahead and plenty of room to maneuver. On the way to the scene of an emergency, your hands are free to carry other equipment or to open doors.



LIFE-BASE III with MEDUMAT Standard and MODUL CPAP, WM 8251

RESCUE PACK I with MEDUMAT Standard, WM 9065





## Accessories for MEDUMAT Standard and Standard

|   |   |          |
|---|---|----------|
| 1 | Refitting set for device outlet filter for MEDUMAT Standard and Standard <sup>a</sup>                           | WM 15780 |
|   | Bacteria filter for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard  | WM 22162 |
| 2 | Patient hose system with patient valve for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard                   | WM 22520 |
| 3 | Patient hose system with patient valve, disposable, for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard      | WM 28110 |
|   | Set of disposable ventilation tubes 10 pcs of WM 28110  | WM 15454 |
|   | Set of disposable ventilation tubes 25 pcs of WM 28110  | WM 15455 |
|   | Set of disposable ventilation tubes 50 pcs of WM 28110  | WM 15456 |
| 4 | PEEP valve with connection nozzle, infinitely adjustable settings from 2.5 to 10 mbar (22 mm exterior diameter) | WM 3215  |
| 5 | Reusable protective sleeve for ventilation tube for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard          | WM 8297  |
| 6 | EasyLung for MEDUMAT  | WM 28625 |
|   | Test set for MEDUMAT Standard <sup>a</sup>  | WM 15382 |
|   | Test set for MEDUMAT Standard   | WM 15335 |
| 7 | Station MEDUMAT   | WM 22550 |
|   | Station MEDUMAT with standard rail holder   | WM 22670 |

## Replacement parts

|  |   |          |
|--|---|----------|
|  | Respiration tube, double lumen for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard   | WM 22647 |
|  | Patient valve for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard, consisting of:<br>Patient hose connection (WM 3213),<br>Upper control element (WM 3181),<br>Bottom control element with spontaneous breathing option (WM 3285),<br>Lip membrane (WM 3211) | WM 3280  |
|  | Patient hose connection   | WM 3213  |
|  | Upper control element   | WM 3181  |
|  | Bottom control element with spontaneous breathing option for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard   | WM 3285  |
|  | Valve membrane for expiration arm on patient valve  | WM 3212  |
|  | Insert for spontaneous breathing arm  | WM 3282  |
|  | Membrane for spontaneous breathing arm, red   | WM 3284  |
|  | Lip membrane  | WM 3211  |
|  | Set I lip membrane (25 pcs. WM 3211)  | WM 15320 |
|  | Set II lip membrane (50 pcs. WM 3211)   | WM 15330 |
|  | Set of batteries for MEDUMAT Standard <sup>a</sup> and MEDUMAT Standard   | WM 15186 |

| Technical data  | MEDUMAT Standard <sup>a</sup>  | MEDUMAT Standard   | CE 0197 |
|---|--|--|---------|
| Device dimensions (W x H x D in mm):  | 190 x 110 x 90   | 190 x 110 x 90   |         |
| Weight (in kg)  | about 1,1  | about 1,1  |         |
| Product class as per directive 93/42/ECC:   | IIb  | IIb  |         |
| <b>Operating conditions</b><br>■ Temperature range:<br>■ Humidity:<br>■ Air pressure: | -18 to +60 °C<br>15% to 95%<br>70 kPa to 110 kPa   | -18 to +60 °C<br>15% to 95%<br>70 kPa to 110 kPa   |         |
| <b>Control:</b>   | Time-controlled,<br>volume-constant  | Time-controlled,<br>volume-constant  |         |
| <b>Storage temperature:</b>   | -40 to +70 °C  | -40 to +70 °C  |         |
| <b>Operating gas:</b>   | Medical-grade oxygen   | Medical-grade oxygen   |         |
| <b>Operating pressure:</b>  | 2,7 to 6 bar *   | 2,7 to 6 bar *   |         |
| <b>Required amount of gas:</b>  | 70 l/min   | 70 l/min   |         |
| <b>Respiratory rate:</b>  | 5 to 40 (infinitely adjustable)  | 8 to 40 (infinitely adjustable)  |         |
| <b>Ventilation modes:</b>   | Controlled ventilation (IPPV),<br>Assisted ventilation (S-IPPV)  | Controlled ventilation (IPPV)  |         |
| <b>Inspiration : Expiration</b>   | 1:1,67   | 1:1,67   |         |
| <b>Inspiration: Expiration (assisted)</b>   | 1:1 to 1:2.3 variable  | -  |         |
| <b>Respiratory Minute Volume (RMV)</b>  | 3–20 l/min (infinitely adjustable)   | 3–20 l/min (infinitely adjustable)   |         |
| <b>Tidal volume:</b>  | 75 to 4000 ml (infinitely adjustable)  | 75 to 2500 ml (infinitely adjustable)  |         |
| <b>Tolerances MV</b><br>Room temperature (20 °C):<br><br>-18 °C to +60 °C:            | for 3 l/min $\pm$ 20 %<br>for >3 l/min $\pm$ 15 %<br><br>for 3 l/min $\pm$ 35 %<br>for >3 l/min $\pm$ 20 % | für 3 l/min $\pm$ 20 %<br>für >3 l/min $\pm$ 15 %<br><br>für 3 l/min $\pm$ 35 %<br>für >3 l/min $\pm$ 20 % |         |
| <b>Max. ventilation pressure (Pmax)</b>   | 20–60 mbar * (infinitely adjustable)   | 20–60 mbar * (infinitely adjustable)   |         |
| <b>Pressurized gas connection</b>   | External thread G 3/8"   | External thread G 3/8"   |         |
| <b>Power supply</b><br><b>Expected service life</b><br><b>Maximum storage</b>         | No maintenance lithium battery 3.6 V; 5.2 Ah<br>> 2 years<br>10 years after delivery                       | No maintenance lithium battery 3.6 V; 5.2 Ah<br>> 2 years<br>10 years after delivery                       |         |
| <b>Ventilation hose</b>   | Spiral silicone hose NW 10   | Spiral silicone hose NW 10   |         |
| <b>Degree of protection from splashing water</b>                                      | IPX4   | IPX4   |         |
| <b>Standards used</b>   | EN 794-3, EN 60601-1, EN 1789,<br>RTCA-DO160 E   | EN 794-3, EN 60601-1, EN1789<br>RTCA-DO 160 E  |         |
| <b>Alarm sound pressure</b>   | 54 dB (A)  | 54 dB (A)  |         |
| <b>Manometer accuracy</b>   | Class 1,6  | Class 1,6  |         |
| <b>Patient valve dead space volume</b>  | 12,8 ml  | 12,8 ml  |         |

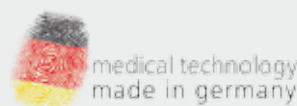
\* 1 mbar  $\hat{=}$  1 hPa

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## Weinmann medical technology

### Simply professional

You can rely on Weinmann. 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.



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