

## MEDICAL FLUID WARMERS

### OXYGEN HUMIDIFIER FLUID WARMER MP-24

Designed to work with oxygen humidifiers for adults and pediatric inhalation



MP-24

#### FEATURES:

- Contactless fluids warming
- Adjustment of infusion warming temperature using microprocessor's program
- Indication of warming readiness
- Simple and quick insertion of humidifier bottle
- Resistance to variety of disinfecting detergents and moist cleaning
- Two-level protection against overheating
- Increases efficiency of oxygen humidifier, when relative oxygen humidity is risen up to 90%

#### TECHNICAL DATA:

- Power supply: DC 24V
- Power consumption: 50 W
- Warming temperature +32 - +42°C
- 250 ml fluids warming up till 30°C temperature in 7 minutes
- Max warming up temperature +42°C
- Safety temperature +43°C
- Operating temperature: +10 - +30°C
- Heating fluid container inner diameter:
  - MP-24-2 diameter Ø 55,2 mm
  - MP-24-3 diameter Ø 54,6 mm
- Weight: 542 g
- External dimensions Ø 72 x 120 mm



## MEDICAL INFUSION FLUID WARMERS MP-14, MP-14A, MP-14B

Warmers are designed for warming up various infusion fluids to human's body temperature before these fluids access the body



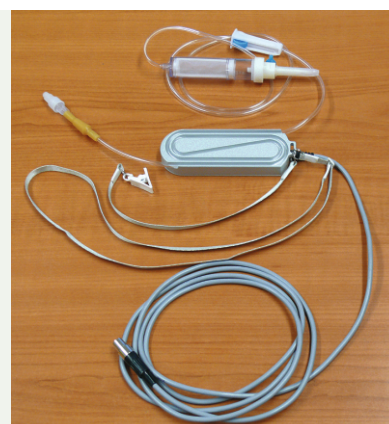
MP-14, MP-14B

### FEATURES:

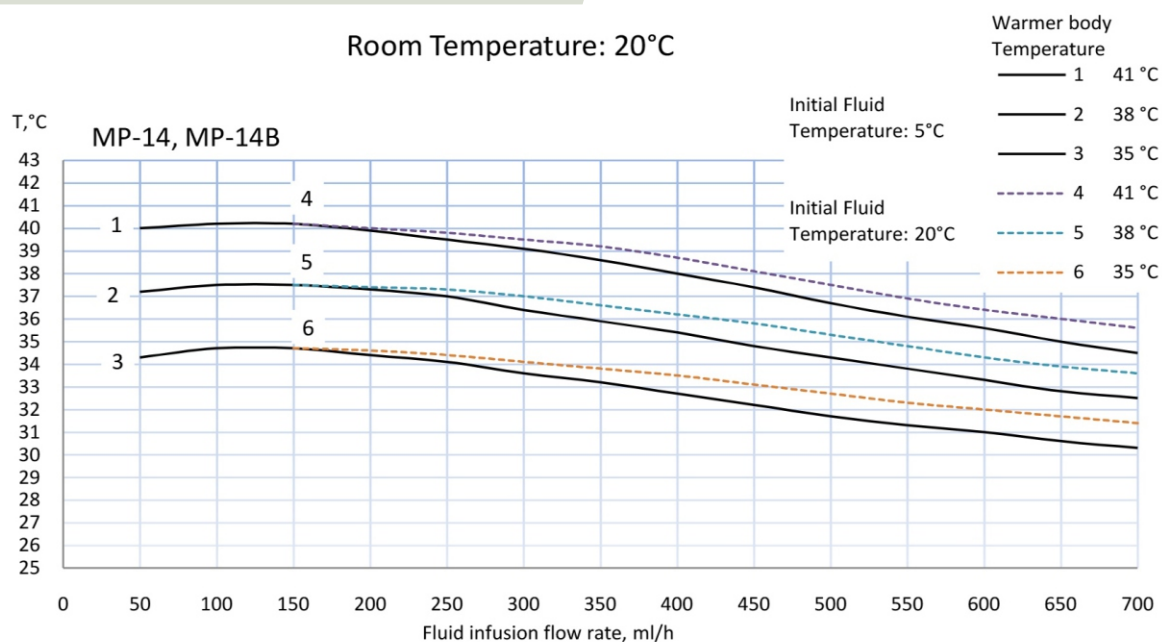
- Contactless warming of infusion fluids
- Adjustment of infusion warming temperature using microprocessor's program
- Indication of warming readiness
- Quick and easy insertion of the inhalation tube
- Resistance to variety of disinfecting detergenys and moist cleaning
- Two-level protection against overheating
- Convenient fit when used with a dripper and infusion pumps

### TECHNICAL DATA:

- Power supply: DC 24V, 12V, 55W
- Warmer pipe length 580 mm
- Working temperature reached in 1 min
- Maximum warming up temperature +42°C
- Safety temperature +43,5°C
- Operating environment temperature: +10 - +30°C
- Weight: 250 g
- External dimensions: 120 x 50 x 17,7 mm



### DIAGRAM OF WARMING INFUSION FLUIDS





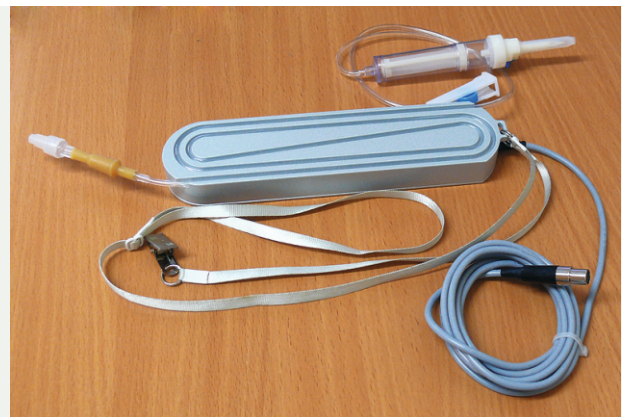
MP-14A

#### FEATURES:

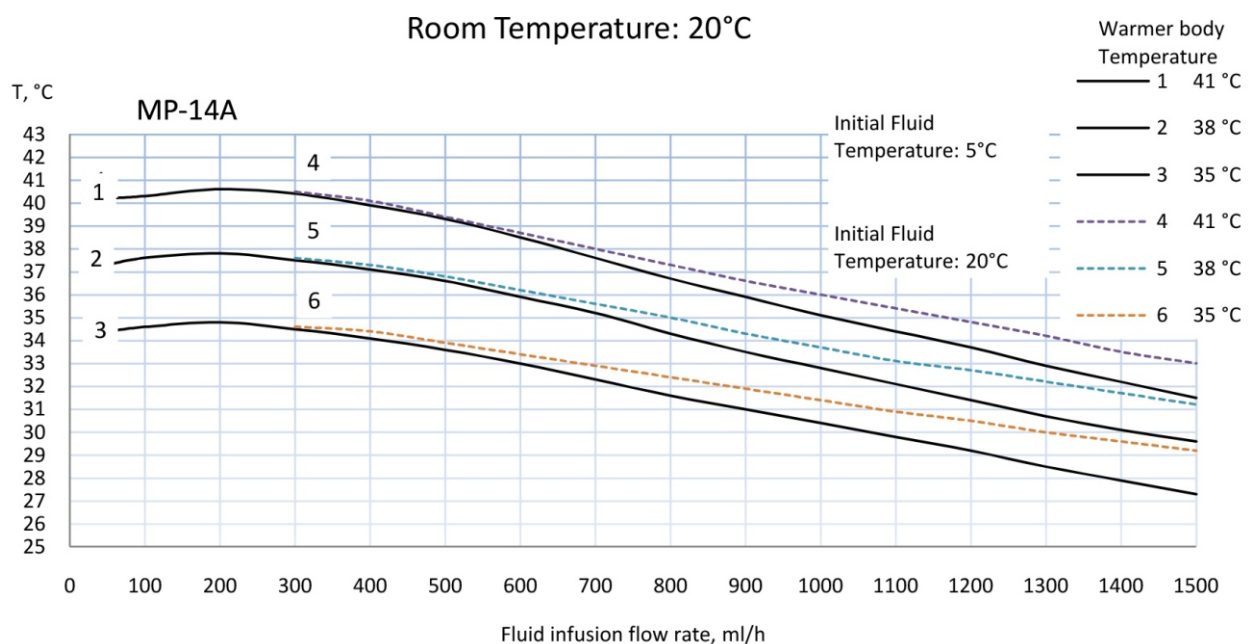
- Contactless warming of infusion fluids and blood
- Quick and easy insertion of the inhalation tube
- Protection against overheating
- For infusion tubes with outer diameter Ø4 mm - Ø5 mm
- For warming fluids and blood up to the infusion flow speed of 10 ml/min.

#### TECHNICAL DATA:

- Power supply: DC 24V, 55W
- Warmer pipe length 1000 mm
- Working temperature reached in 2 min
- Maximum warming up temperature +42°C
- Safety temperature +43,5°C
- Operating environment temperature: +10 - +30°C
- Weight: 410 g
- External dimensions: 50 x 205 x 17,7 mm



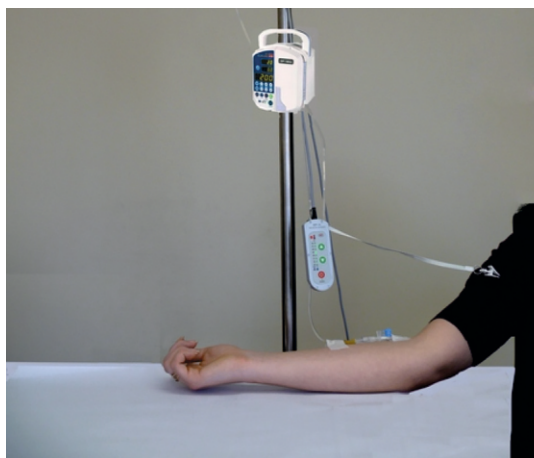
#### DIAGRAM OF WARMING INFUSION FLUIDS



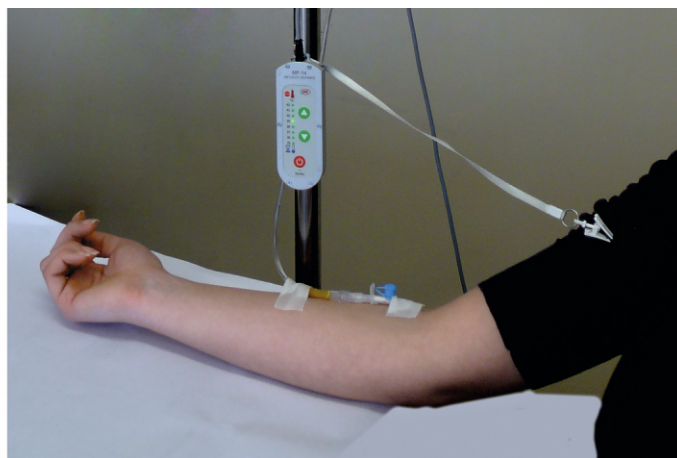


- Infusion warmers have integrated sound and visual alarm system
- Visual alarm contains of two individual LED indicators:
  - red LED indicator- indicates exceeding maximum temperature
  - blue LED indicator - indicates minimum temperature
- In case of failure in heating circuit of the device, sound and visual alarm turns on automatically
- Sound alarm can be switched off by pressing “Standby” button approx ( $\leq 1$  s)
- If there is still an unresolved fault for 12 min, sound alarm will be activated again.

Examples of application of the heater during the infusion process



Using with infusion pump



Using with set of dripper

At low speeds of flow at the outlet warmer uses a special thermal protection infusion tube

## ADAPTER AC/DC FOR MEDICAL FLUID WARMERS



### TECHNICAL DATA:

- Power supply: AC 110÷250 V; 50-60 Hz
- Output power: DC 24 V; 2,5 A
- Operating temperature  $+5^{\circ}\text{C} \div +35^{\circ}\text{C}$
- Power for medical devices IP40, Class B

2 YEARS GUARANTEE for all types of warmer's

Warmers are designed and manufactured in accordance with directive 93/42/EEC requirements.