



*EIC Umwelt- und
Medizintechnik Ltd.*

...: AQUA ...: MED ...: THERM

OPERATING INSTRUCTIONS

SERVICE-INFORMATION

EIC-Therm WS 1

Heating drawer system

Roller trolley ET- RW- 2WS 1/ ET- RW- 1WS 1

Infutex Mobi, Infutex Maxi

Models:

"37°C"

"55°C"

*EIC Umwelt- und
Medizintechnik Ltd.
Rudolf-Diesel-Str. 5
D-37308 Heilbad Heiligenstadt
Tel: +49/3606/607925
Fax: +49/3606/5071353
eMail: eic-ltd.mail@t-online.de*



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1. Putting into operation

1.1 Establishing the condition of the equipment on delivery

The consignment is to be inspected for completeness or possible damage, as well as damage incurred in transit. Because of the weight of the equipment the equipment should be always removed by two people from the crate used for transporting.

After the equipment has been unpacked, it must, in any case, be controlled by a suitably qualified person with reference to the following points:

- the completeness of the delivery (documentation / instructions for use)
- damage to the equipment (no scratches)
- mandatory locking of the drawer/s (and roller trolley)
- that the drawer opens and closes without problems

1.2 Setting up the equipment

The WS1 integrated heating drawers are compact integrated drawers in which infusion solutions, diapers, surgical linen or the like can be heated or kept in warm storage by the means of infrared radiation heat, not circulating heat.

1. The WS1 drawer system can be installed in all existing 60 cm wide cupboard units (minimum overall internal width 55 cm).
2. By using the universal support H-**WS1** the WS 1 drawer system can be fixed safely on top or under any working platform or trolley. Consider the usual tilting point of the trolley (maximum load) when fixing the WS1 drawer system on or under it.
3. The installation has to be done by educated staff only and has to be fitted in accordance with the local conditions. The attachment screws for H-WS 1 have to be chosen according to the local conditions.
 - Before installation the distances of the side parts of the **WS 1** and eventually of the upper part of the cupboard are to be determined individually. If necessary some distance parts have to be placed before tightening.
 - The WS 1 drawer system can be fixed into a cupboard by screwing through the sidewalls and the ceiling. Using screwing through the ceiling a minimum distance of 80mm to the right sidewall must be kept as the wiring system lays there. **Electrical safety is not provided by an installation within these 80 mm.**
 - The type of screws (plate-, machine-, or wooden screws) as well as the fix points is to be chosen in accordance to the weight, the tilting point as well as the intended function of the loaded drawer.
 - An installation through the bottom of the WS 1 drawer system can only be done through the pre-set thread plugs (maximum screw length 10 mm) in the sidewalls. **Electrical safety is not provided by screwing through the base plate.**



1.3 Electrical connection

The electrical connection between the equipment and the power supply system is implemented using the power cable at the equipment (230 V).

In case of a defect the electronic control unit can be replaced by dismantling the plug of the related connecting bend.

1.4 Models and their specifications

infusio-therm

textil-therm

technical data - WS 1

voltage	:	230 V	
mains frequency	:	50/60 Hz	
nominal power	:	200 W	
conservation power	:	permanent use at 22°C: 25 W	
fuse	:	1,6 AT	
setpoint temperature	:	37°C; +/- 2°C	55°C; +/- 2°C
temperature protection	:	45°C, electrical	65°C, electrical
MPG – classification	:	Class 1	
protection class	:	II	
certification	:	CE	
EMV-test report	:	AU 08-000146 vom 15.04.2008	

dimensions WS 1

interior dimensions (W x H x D)	:	550 x 335 x 500 mm (without front panel)
outer dimensions (W x H x D)	:	595 x 335 x 550 mm (incl. front panel without rag)
filling volume (W x H x D)	:	480 x 250 x 407 mm
weight	:	22 kg

roller-trolley - either 1 or 2 WS 1 :

outer dimensions (W x H x D)	:	670 x 900 x 710 mm
filling volume (W x H x D)	:	per each WS 1, 480 x 250 x 407 mm
wheels	:	125 mm, with locking lever, electrical conductive
weight	:	46 / 68 kg

Notice: All electrical work has to be done by educated staff only!

2. Instructions for use

2.1 General description of the equipment

The WS1 integrated heating drawers are compact integrated drawers in which infusion solutions, diapers, surgical linen or the like can be heated or kept in warm storage by the means of infrared radiation heat, not circulating heat.

The roller trolley is available either with one drawer system (ET- RW- 1WS 1) or two drawer systems (ET- RW-2WS 1). All wheels are electrical deductive, two of them with locking lever.

The upper plate of the installed WS 1 drawer system is able to take a maximum load of 60 kg. During carriage the drawer/s has/have to be fixed.

Among other things, up to twenty four one litre bottles or thirty six ½- bottles or bags of infusion solutions (infusio-therm) or up to four nappy or hand towel packs (textil-therm) can be heated and stored at a temperature of up to 37°C/55°C within 6-8 hours. The temperature can vary by +/- 2°C, depending on the type of skein and size.

As a result of infrared heating, the danger of potential germ formation through condensate water and re-circulated air heating is ruled out.

The drawers are designed as complete pull-out units.

2.2 Engaging the equipment, operating sequence

1. Open the drawer
2. Insert the bottles or bags (model "infusio-therm")
Insert the nappies or towel packs (model "textil-therm")
3. Shut the drawer
4. Main switch on – operation modus (green LED)

The red LED indicates that

- the drawer is opened
- an interruption or short-circuit in the measuring sensor system
- temperature > 45°C/60°C (additional acoustic signal though the drawer is closed)

An acoustic signal indicates:

the drawer has been opened longer than 3 minutes.

3. Safety advices

The model "textil-therm" is only allowed to use for heating and warmth retention of diapers, surgical linen or the like. Never use for heating and warmth retention of infusion solutions or other fluids!

Keep the storage conditions given by the product manufacturer of the fluids, medicinal product and solvents!

Check the temperature of the fluids or infusion solution before administer it to persons / patients!

Storage or preserving of blood, other body fluids, vitals or body tissues is not allowed!

4. Advices concerning cleaning and maintenance

The WS 1 drawer system can be cleaned with cleaning products and disinfectants that are used in hospitals.

The drawer system is to be removed from its place by educated staff only. Therefore the measuring sensor cable is to be loosened out of its support and the power supply plug of the control device is to be pulled off.

The 1, 6 A fuse of the WS 1 drawer system is installed in the left side of the control device.

Don't move or twist the measuring sensor system on the backside of the drawer!

During carriage the drawer/s has/have to be fixed.

5. Operational fault

The set temperature (37°C – infusio-therm or 55 °C – textil-therm) is adjusted factory-made. You can measure the set temperature by means of an infrared-thermometer on the backside of drawer winnow (down middle).

When the temperature of the liquids in the drawer are lower than the one promised, check the temperature of the drawer as described above and check if the warm-up time was long enough.

The warm-up time of liquids in the infusio-therm is – depending on kind of package and volume – 6 to 8 hours.

The warm-up time of textile-packs is 6 -8 hours.

While a shorter warm-up time the set temperature is not achieved.

1. The temperature safety cut-off is performed as follows:

- >120 - 125°C cut-off – measuring between heating plate and bottom insulation
- >60 – 65°C cut-off – measuring of the air temperature in internal space of the drawer while warming and warm storage of textiles
- >40 – 45°C cut-off – measuring of the air temperature in internal space while warming or warm storage of fluids or infusion solutions

2. The construction of the heating drawer is designed according to the technical demands of DIN EN 60635-1, DIN EN 563 and DIN EN 60601 as well as the basic demands of annex I of EC-directive 93/42 EG.

3. The heating drawer is designed for mains voltage 230 V / 50 Hz, power consumption ca. 200 W. The two-pole main switch is fitted in the stainless steel toolbar as well as the red LED for failure indication. The control unit is installed at the inner surface of the rear panel and can be exchanged without any problem in case of a defect by the service staff of a hospital.

4. The red LED indicates that

- temperature > 45°C/60°C (additional acoustic signal though the drawer is closed)
- an interruption or short-circuit in the measuring sensor system (additional acoustic signal)

An acoustic signal indicates:

the drawer has been opened longer than 3 minutes.

ATTENTION:

- When the drawer is closed and although a visual and acoustical signal occurs check the temperature of the inserted goods, switch-off the device and contact your service partner!

For more technical service information please contact the producer or educated staff.

6. Guarantee

As a customer who has bought the *EIC Therm WS 1 unit*, you have a guarantee right. The manufacturer guarantees a guarantee period of 24 months after the date of sale of the equipment, which therefore goes beyond the statutory provisions. If, during the guarantee period, a defect in the equipment should appear, the elimination of the fault (replacement parts and hours of work) will be carried out free of charge. The guarantee refers to demonstrable defective construction or defects in material. Normal use, deliberate damage or damage caused by negligence, damage caused by non-observance of the instructions for use, using an incorrect power supply voltage or frequency, or damage caused by other abnormal environmental conditions is excluded from the guarantee. Likewise, any intervention carried out by persons who are not service personnel or specialists trained by the manufacturer are excluded from the guarantee.

Spare part delivery is guaranteed for 10 years.

7. Technical data

infusio-therm

textil-therm

technical data - WS 1

voltage	:	230 V	
mains frequency	:	50/60 Hz	
nominal power	:	200 W	
conservation power	:	permanent use at 22°C: 25 W	
fuse	:	1,6 AT	
setpoint temperature	:	37°C; +/- 2°C	55°C; +/- 2°C
temperature protection	:	45°C, electronical	65°C, electronical
MPG – classification	:		Class 1
protection class	:		II
certification	:		CE
EMV-test report	:		AU 08-000146 vom 15.04.2008

Declaration of conformity according to all demands of annex I EC directive 93/94EWG and DIN EN 60601 and DIN EN 60635-1

Service: **EIC Umwelttechnik- und Medizintechnik Ltd.**
Rudolf-Diesel-Straße 5
D-37308 Heilbad Heiligenstadt
Tel.: ++49 (0) 36 06 / 60 79 25 or 60 78 93
Fax: ++49 (0) 36 06 / 5 07 13 53
E-Mail: eic-ltd.mail@t-online. de
www.eic-ltd.de

Certificate of Conformity

according directive 93/42/EWG of council of 14 June 1993 about medical products,
article 11 point (5)

The classification of the drawer units **EIC-Therm WS 1** in class 1 is based on the
rules mentioned in annex IX (MDD) passage III according rule 12.

The drawer units **EIC-Therm WS 1**

type - **infusio-therm / textil-therm**

are produced in accordance with the primary demands of
annex I of EG-directive 93/42 EWG and in accordance with
the technical demands of

- DIN EN 60601-1 (VDE 0700)
- DIN EN 60635-1 (VDE 0750)
- DIN EN 563.

MPG – classification : **class 1 general**
Protection class : **protection class II**
: **CE**

Heiligenstadt, September 2007

(signed)
Th.-F. Dorl

Classification of devices

„Heating drawer units / Heating drawers“

as used herein **WS**

The classification is according:

- directive 93/42/EWG of council of 14 June 1993 about medical products
- DIN EN 563
- DIN EN 60335-1 (VDE 0700)
- DIN EN 60601-1 (VDE 0750)

Significant for the classification is the „main effect“ of the product.

The main effect of the product is:

- retention /warmth retention of diapers, surgical linen or the like
- retention /warmth retention of fluids, infusion solutions, flushing solutions etc.

The rules 1 – 11 do not apply for WS1.

According to annex IX passage III (MDD) rule 12 is valid for WS1.

(signed) Th.-F. Dorl