



winkler

Operating Instructions

Container Heaters (0-200°C)

WODTL and  rapidLine WODTX



Safety instructions



Please read these operating instructions before commissioning the device! Failure to observe these safety instructions may result in damage to property and personal injury due to fire or electric shock!
Container heaters may only be used in an upright position with the bottom of the container facing the ground.

Container heaters are electrical equipment which may only be installed, connected and commissioned by trained personnel. Suitable electrical disconnecting and protective devices must be provided by the operator in accordance with the relevant legislative regulations.

We recommend the use of a residual current circuit breaker (RCD) with 30 mA.



All container heaters are suitable for operation in closed rooms and covered outdoor areas (degree of protection IP 54). They must not be directly exposed to the weather.

Before commissioning

Remove the heating mantle from the packaging and make sure that it is not damaged. Never lift the heating mantle by the connection cable. Check that the mains voltage corresponds to the product label.

Always use the heating mantle only for the intended container of the corresponding design and size. Never use the heater without the suitable corresponding container!

Make sure of the maximum temperature and heating time specified by the manufacturer are followed.



Keep informed (e. g. Safety Data Sheet) about which max. permissible temperature of the ingredient must not be exceeded and whether flammable gases or vapors can escape (risk of fire and explosion!).

Make sure that the outside of the container to be heated is clean and dry.

Do not use additional heating or heat sources and never expose the container heater to temperatures above the nominal temperature.

Assembly

Mount the heater in such a way that it lies smoothly and without folds on the container and that the heated areas (recognizable by the inner pockets) do NOT overlap. Use the existing fasteners to secure the heater against slipping. Do not use any fasteners other than those supplied and do not use any tools for assembly that could overstress the material. Always maintain a safety distance of at least 50 cm between two heated containers. The same applies to the distance to radiators, warm surfaces, etc.

Commissioning

Do not connect the temperature controller to the power supply until after installation. To do this, remove the temperature controller from its packaging and attach it to the fleece hook and loop pad provided on the heating mantle. Connect the heating mantle (6+PE male) to the controller (6+PE female) using the round plug connection. Use the controller to set the desired temperature set point. The temperature of the ingredient must be determined by separate fluid sensor, if necessary.



Monitor the heating phase and the operation of the tank heater to observe any overheating or irregularities and initiate appropriate measures.

If necessary, open the lid or bungholes of the container so that it does not expand inadmissibly due to a pressure build-up during heating. Monitor the fill level of the container while removing the contents. In the event of any leakage, take the container heater out of operation immediately.



Caution: At temperatures above 60°C, there is a risk of burns on the surfaces of the containers. Protect yourself against this, e.g. by using the insulation cover available as an accessory.

During initial start-up, an odor may be emitted for technical reasons; this does not constitute a defect. Please ensure good ventilation. A heating mantle that is not in operation must be disconnected from the power supply.

Disassembly and storage

Switch off the heater and allow it to cool down completely. Disconnect it from the power supply before disassembly. Then check it for damage and contamination and the connection cable for defects.

Do not use solvents or abrasive cleaners to clean the heater and never immerse it in liquids. To clean, gently wipe the surfaces and controls with a damp cloth. Keep the heater away from sharp edges and pointed objects.



If you find defects or damage of any kind, do not put the heater into operation again. Do not attempt to repair a damaged one yourself.

When the heater is not in use, it should be stored in a dry and clean environment in its original packaging. To do this, gently roll it loosely along the pockets without squeezing or bending it.

Disclaimer

All information (including illustrations and graphical representations) corresponds to our current state of knowledge and has been written to the best of our knowledge. Specifications are subject to change without notice. In addition, we reserve the right to make changes without notice to the design, materials or workmanship in the interest of technical progress.



In these operating instructions you will find all the important information on mounting and commissioning. In addition, you will find important information for your safety as well as for help in case of problems.

The user of this product must decide on his own responsibility about its suitability for the intended use.

Contents

Safety instructions:	2
1 Introduction	4
2 Applicable standards	4
3 Intended operation	4
4 Scope of delivery	5
5 Drum Heater WODTX	5
5.1 Intended use and application	5
5.2 Technical Data	5
5.3 Structure	6
5.4 Assemblage	7
5.5 Commissioning	7
6 Drum Heater WODTL	8
6.1 Intended use and application	8
6.2 Technical Data	8
6.3 Structure	9
6.4 Assemblage	9
6.5 Commissioning	10
7 Troubleshooting and problem solving	10
8 Service and maintenance	11
8.1 Repair	11
8.2 Return.....	11
9 Warranty	11

10	Disposal.....	12
11	EU Declaration	13
12	Contact.....	14

Introduction

WODT heaters are used to heat drums made of metal in order to protect the contents filled in them from frost, to heat them to a certain processing temperature or to facilitate their removal and dispensing by reducing their viscosity.

The heating element is installed within inside pockets, which ensures even heat distribution and gives the heating mantles a structure that allows them to optimally fit the surfaces of the objects to be heated. They are equipped with a hook and loop fleece to attach the digital temperature controller, which can be manually set to the desired temperature of up to 200 °C.

The light weight heater has integrated insulation to minimize unwanted heat loss. Equipped with robust pull straps and snap closures, they can be quickly and easily be attached to and removed from standard drums. Additional fastening hooks prevent them from slipping off the container are provided with the heater.

With their relatively low specific surface power, they are only suitable to a limited extent for rapid heating of liquids or melting of solid ingredients. Much more, they are ideally suited for frost protection as well as slow heating and maintaining the temperature directly at the tapping point of heated containers. Insulation lids are available as accessories to improve the efficiency and protect personal against burns on the hot surfaces of the containers.

With their high-quality materials and workmanship, the heaters provide a safe, efficient and durable solution for heating of drums and containers in industrial applications when operated as intended.

Winkler and the Winkler Logo are registered trademarks of Winkler AG. All rights reserved.

1 Applicable standards

The container heaters are designed for use in industrial applications. During planning, erection, testing, operation, maintenance and servicing, the minimum requirements to follow are:

- this operating manual,
- DIN EN IEC 60519-1, IEC 60519-1, VDE 0721-1 "Safety in electrical heating installations", Part 1: General requirements,
- applicable parts of VDE 0100,

as well as other applicable standards and regulations (e. g. of the employers' liability insurance associations) and directives that must be observed depending on the application. The protective measures against dangerous fault currents must be carried out in accordance with VDE 0100 Part 410 and Part 540 (grounding or system grounding) as well as the specifications of the standards listed above.

2 Intended operation

The container heaters are only considered to be operated as intended if the following points are taken into account:

- The heating mantle may only be operated with the specified nominal voltage.
- The heating mantle may only be operated in the range of up to 200 °C.
- Only instructed persons may work on the container heater.
- The safety and operating instructions must be observed.
- The operating instructions of the plant owner must be complied with.
- The statutory accident prevention regulations must be observed.

The following is considered improper operation:

- Operation in potentially explosive atmospheres.
- Operation by untrained persons.
- Operation in disregard of safety regulations.
- Operation with deactivated, modified or defective safety devices.

3 Scope of delivery

Check that the packaging is intact, and that the delivery is complete. Contact your supplier immediately if any parts are missing or defective.

- Scope of supply:
- 1 pc. Heating mantle
 - 1 pc. Accessory set fastening straps
 - 1 pc. Operating instructions

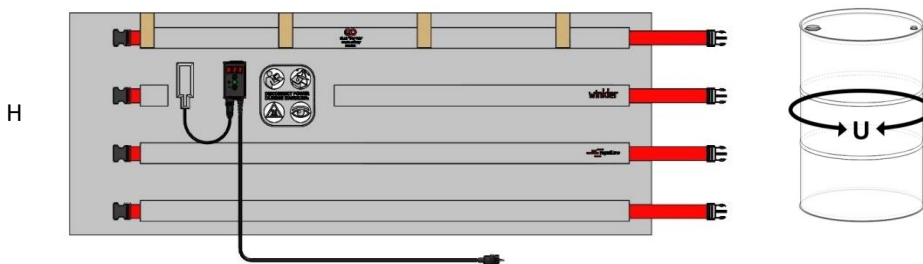
4 Drum Heater **WODTX**

4.1 Intended use and application


WODTX Drum heaters are designed for heating metal containers up to max. 200 °C **within areas NOT subject to explosion hazards.**

4.2 Technical Data

Technical Data	
Outer mantle:	water repellent PTFE Glas fiber fabric
Thermal insulation:	glass needle mat and polyester fleece
Heating element:	fluoropolymer insulated resistance heating conductor
Operating voltage:	230 VAC (+/- 10%) [115 VAC (+/- 10%) as option]
Operating temperature:	up to 200 °C
Regulation:	via temperature controller
Protection class:	SK I (protective insulation)
Protection type:	IP 54
Ambient storage temperature:	-20 ... 50°C
Length connection cable:	3 m with 7-pole round plug



Drum Heater	25-30 l	50-60 l	105-120 l	200-220 l
Nominal power	400 W	600 W	1.100 W	1.900 W
L Total length	1.150 mm	1.350 mm	1.700 mm	2.100 mm
LH Heated length	870 mm	1.100 mm	1.400 mm	1.800 mm
H Height	480 mm	520 mm	630 mm	800 mm
U min. min. perimeter drum	870 mm	1.100 mm	1.400 mm	1.800 mm
U max. perimeter drum	1.150 mm	1.350 mm	1.700 mm	2.100 mm
Weight	2,5 kg	3,7 kg	5,8 kg	8,5 kg

Product range					
Drum heater, Nominal Power (+10 %/-5 %)					Article number without temperature controller
Appliance class I (heating cable with protective screen and earthing wire)					
	25-30 l	200 °C	230 V	400 W	WODTX031-230ZP20#-WIN2
	50-60 l			600 W	WODTX061-230ZP20#-WIN2
	105-120 l			1.100 W	WODTX121-230ZP20#-WIN2
	200-220 l			1.900 W	WODTX201-230ZP20#-WIN2
	25-30 l		115V	400 W	WODTX031-115ZP20#-WIN2
	50-60 l			600 W	WODTX061-115ZP20#-WIN2
	105-120 l			800 W	WODTX121-115ZP20#-WIN2
	200-220 l			1.100 W	WODTX201-115ZP20#-WIN2
Temperature Controller					
L-430	10 A	90...260 VAC 50/60 Hz	IP 65	WRL430PW-0200WIN9	
Options					
Drum Base Heater (IP 54)	200 – 220 l	150 °C	230 V	1.000 W	WODBH200-230ZP150-WIN2 + Controller WRL430PW-0150WIN2
Insulation lid	200 – 220 l		IP54		WOITX200
Medium Sensor	L= 900 mm		4 m Sensor Kabel		WFMP0900
Y-Adaptor for Medium Sensor	for connection of Drum Heater + Medium Sensor to WRL430PW		IP65		WRZAY747-WIN2

4.3 Structure

WODTX heaters consist of an outer mantle (1) made of water repellent PTFE Glass fiber fabric. On the inside of the heater are pockets sewn pockets in which fluoropolymer insulated heating elements are installed. Thermal insulation of glass needle mat and polyester fleece are sewn in. Robust pull straps (2) and snap closures made of aluminum are used for fastening. Four hook and loop fleece pads (3) on which the hooks will be mounted.

The drum heaters have a fleece hook and loop pad next to the cable outlet (4), to which the temperature controller is attached. In addition to the Pt100 sensors, a bimetal thermal cut-out device is also installed, which prevents uncontrolled heating in the event of a technical defect in the sensors or controller. The drum heater is connected to the power supply via a 3.0 m long connection cable (5) of the temperature controller.

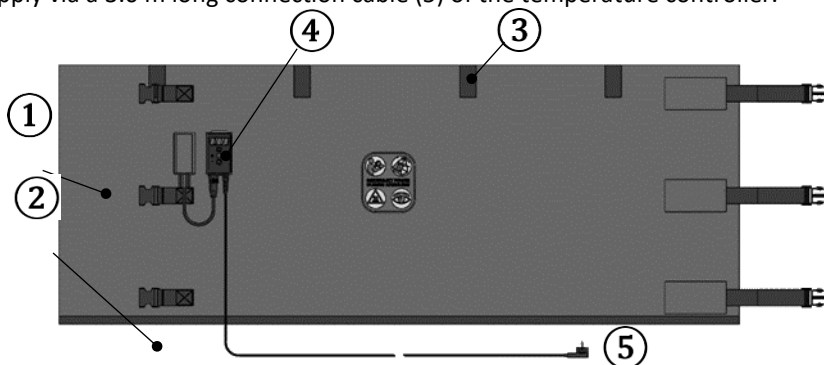


Figure 5.3.1: Drum heater WODTX (Outside)

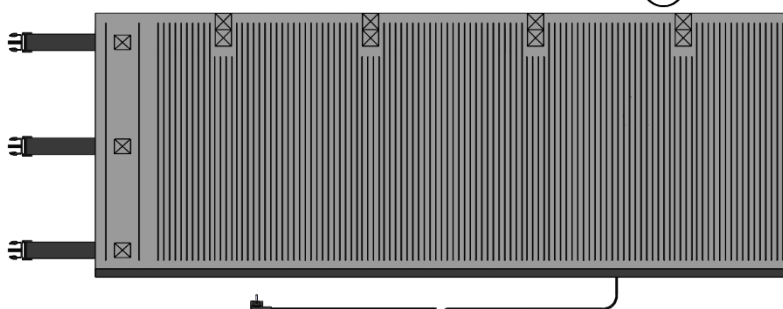


Figure 5.3.2: Drum heater WODTX (inside)

4.4 Assemblage

Place the drum heater around the drum. The pre-installed retaining straps help with mounting and at the same time prevent sagging during operation (Figure 5.4.1). Align the fastening hooks according to a good fit on your container. To protect against moisture and mechanical impact, the drum heater should not be placed directly on the floor during this process. Close the buckles and tighten the tie straps evenly (Figure 5.4.2). The drum heater must fit smoothly against the container without wrinkles and the heated areas (indicated by the inner pockets) must NOT over-lap. The tightest possible fit will ensure efficient operation and uniform heating.

Figure 5.4.1

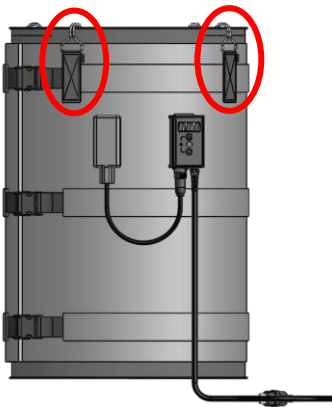
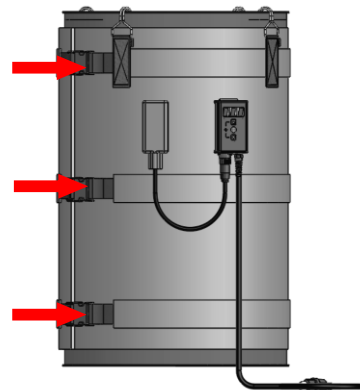


Figure 5.4.2



4.5 Commissioning

Before commissioning, make sure that the operating manual of the temperature controller is available in order to obtain detailed information about the settings and the control behaviour.

Fundamental (L-430): The hook and loop strip on the back of the temperature controller allows you to attach it to the cover of the heating mantle. A hook and loop fleece pad on the heater is provided for this purpose, which is located next to the cable with 0.3 m connection cable. Connect the 6+PE plug to the 6+PE socket of the temperature controller. The drum heater is connected to the power supply using the controller connection cable (1). The controller is switched on by pressing the up and down (2) keys simultaneously for a longer period. After switching on, the controller performs a self-test (white indication light). If everything is OK, the display briefly lights up green (3) and then drum heater begins heating. If an error is detected, an error message on display or signal LED (3) is displayed immediately.

Usually, after switching on, the set temperature has not yet been reached. The status LED (3) flashes blue slowly. This means that the heating is active, and the set temperature has not yet been reached. If the temperature is within the good range of the setpoint, the status LED (3) is permanently green. Note: The controllers are delivered with a basic setting (4) of 40°C. In the delivery state, the controller switches on automatically. Detailed information can be found in the controller operation manual.

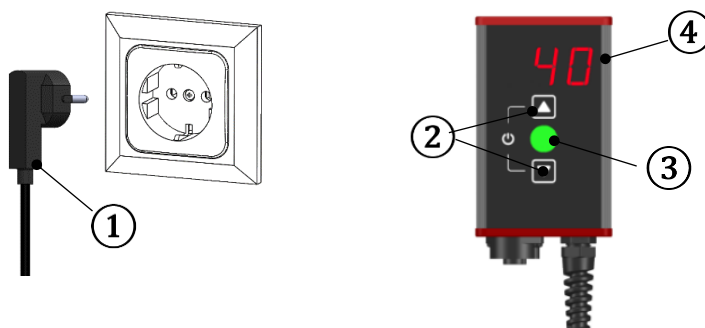


Figure 5.5.1

Monitor the heating process and the behavior of the contents. Open the lid or bungholes of the drum so that it does not expand inadmissibly due to a pressure build-up during heating. In case of liquid leakage, immediately take the drum heater out of operation and remove it.

For energy-efficient operation and to protect against burns, we recommend the use of the insulating lid (Art. WOITX200) and drum bottom heater (Art. WODBH200-230ZP150-WIN2).

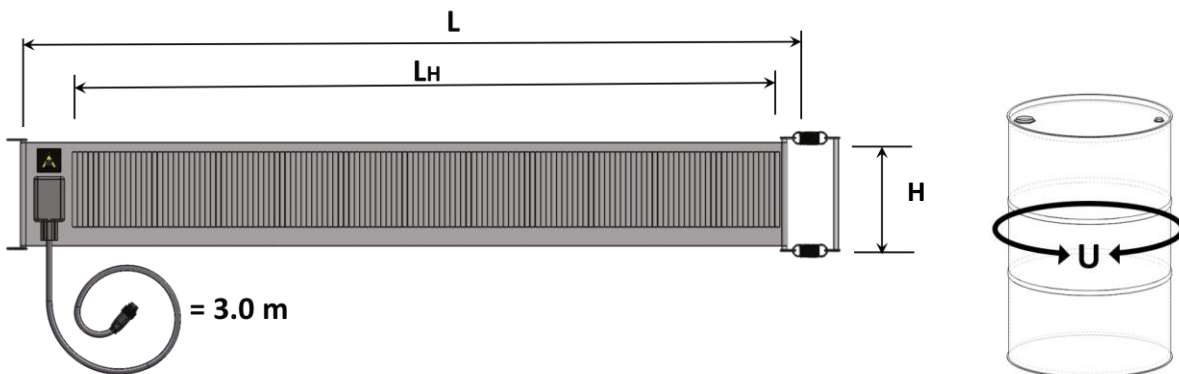
5 Drum Heater WODTL

5.1 Intended use and application

WODTL drum heaters are designed for heating metal containers up to max. 200 °C in areas **NOT** subject to explosion hazards.

5.2 Technical Data

Technical Data	
Outer mantle:	water repellent PTFE Glass fiber fabric
Thermal insulation:	glass needle mat
Heating element:	fluoropolymer insulated resistance heating conductor
Operating voltage:	230 VAC (+/- 10%) [115 VAC (+/- 10%) as option]
Operating temperature:	up to 200 °C
Protection class:	SK I (protective earthing)
Protection type:	IP 54
Ambient storage temperature:	-20 ... 50°C
Length connection cable:	3 m with 7-pole round plug



All lengths +/- 2 %	
L total length	1.640 mm
LH Heated length	1.500 mm
H Height	220 mm
U min. perimeter drum	1.800 mm
U max. perimeter drum	2.100 mm
Weight	2,3 kg

Product range					
Drum Heater					
Appliance class I	200 – 220 l	200 °C	230 V	1.000 W	WODTL201-230ZP201-WIN2
Temperature controller					
Controller with monitor function L-430	10 A	90...260 VAC 50/60 Hz	IP65	WRL430PW-0200WIN2	
Accessories					
Base Drum Heater (IP 54)	200 – 220 l	150 °C	230 V	1.000 W	WODBH200-230ZP150-WIN2 + controller WRL-430PW-0150WIN2

5.3 Structure

WODTL heaters consist of an outer mantle (1) made of water repellent PTFE Glas fiber fabric. On the inside of the heater are pockets sewn (2) in which fluoropolymer insulated heating elements are installed. Thermal insulation of glass needle are sewn in. Robust hook and tension springs (3) serves for fastening.

In addition to the Pt100 sensors, a bimetal thermal cut-out device is also installed, which prevents uncontrolled heating in the event of a technical defect in the sensors or controller. The drum heater is connected to the power supply via a 3.0 m long connection cable (4) of the temperature controller.

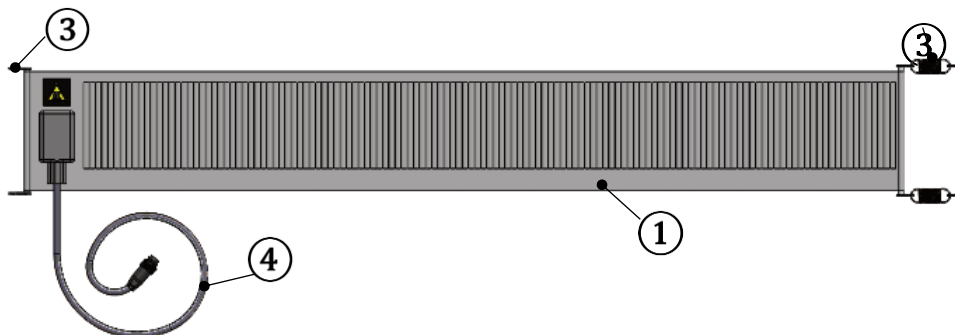


Figure 6.3.1: WODTL (outsidel)

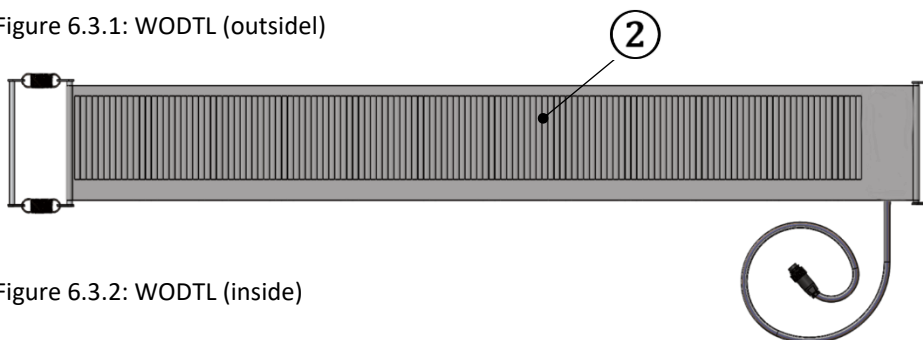
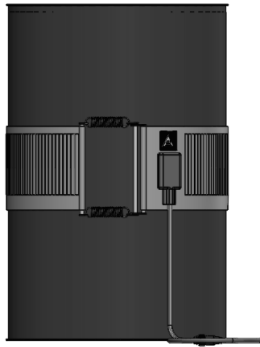


Figure 6.3.2: WODTL (inside)

5.4 Assemblage

Place the drum heater around the drum. The pre-installed hooks and tension springs help with mounting and at the same time prevent slipping during operation (Figure 6.4.1). To protect against moisture and mechanical impact, the drum heater should not be placed directly on the floor during this process. The drum heater must fit smoothly against the container without wrinkles and the heated areas (indicated by the inner pockets) must NOT overlap. The tightest possible fit will ensure efficient operation and uniform heating.

Figure 6.4.1



5.5 Commissioning

Before commissioning, make sure that the operating manual of the temperature controller is available in order to obtain detailed information about the settings and the control behaviour.

Fundamental (WRL430PW): Connect the 6+PE plug to the 6+PE socket of the temperature controller. The drum heater is connected to the power supply using the controller connection cable (1). The controller is switched on by pressing the up and down (2) keys simultaneously for a longer period. After switching on, the controller performs a self-test (white indication light). If everything is OK, the display briefly lights up green (3) and then drum heater begins heating. Note: The controllers are delivered with a basic setting of 40°C. In the delivery state, the controller switches on automatically. Detailed information can be found in the controller operation manual.

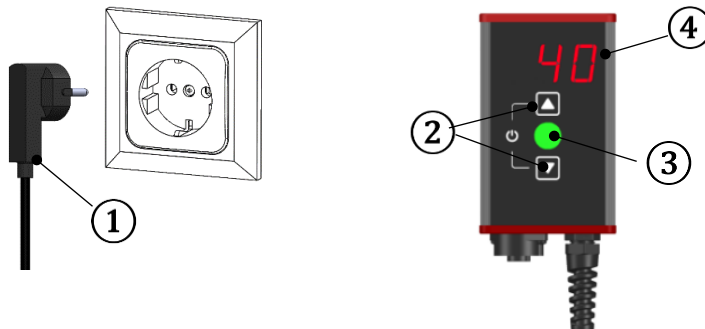


Figure 6.5.1

Monitor the heating process and the behavior of the contents. Open the lid or bungholes of the drum so that it does not expand inadmissibly due to a pressure build-up during heating. In case of liquid leakage, immediately take the drum heater out of operation and remove it.

For energy-efficient operation and to protect against burns, we recommend the use of the insulating lid (Art. WOITX200) and drum bottom heater (Art. WODBH200-230ZP150-WIN2).

6 Troubleshooting and problem solving

Please read these instructions before contacting us. These instructions are designed to answer frequently asked questions. If you cannot identify the problem or need additional help, please contact your dealer or our service department.

Problem	Solution
Heating mantle does not fit	Make sure that the heating mantle is intended for your container. Measure the height and circumference of your container and compare them with the dimensions of the heating mantle in the technical data.
Container heater does not heat	Make sure that the heater is connected to a suitable voltage supply. The type plate on the connection cable shows the rated voltage of the heater. If an error occurs, the heater is switched off and the error is indicated by rapid flashing. In addition, read the operating instructions of the temperature controller used.
Ground fault circuit interrupter or fuse trips	Check whether the circuit breaker is suitable for the current requirement of the heater. The type plate on the connection cable shows the current requirement. Inspect the heater and the connection cable for damage indicating a short circuit.
Light soiling of the outside/inside	Use a clean cloth with household detergent to wipe off the contamination. The cleaner must not contain solvents or abrasives.

If it is determined or can be assumed that safe operation is no longer possible, the heater must be taken out of operation and secured against unintentional start-up. This also includes clear marking.

This case occurs:

- If the heating mantle shows visible damage (e. g. of the outer mantle).
- When the heating mantle no longer heats.
- If the heating mantle has suffered overstressing of any kind where the permissible limits have been exceeded (e. g. due to storage, transport, assembly, commissioning, operating conditions, etc.)

7 Service and maintenance

Maintenance and servicing should be carried out at regular intervals in accordance with the standards specified under "Safety instructions", regulations and provisions applicable to the application. The function of the heating element, the controller and the limiter must be checked and documented at least once a year.

The inspection must be performed after the heating mantle has cooled down to ambient temperature and has been disconnected from the power supply. The heating mantle should not have any cuts, cracks or stitches. The insulation of the connection cable must not have any visible damage. The heating mantle should have no accumulations of dirt, oil, grease or foreign matter. Warning notices and type plates should be undamaged and clearly legible.

Heating mantles in which the heating conductors are visible have been damaged or overheated. They must be taken out of service immediately and must not be used again.

7.1 Repair

Conversions or modifications to the heater may impair its function. Repairs may only be carried out by qualified personnel. Only original spare parts and accessories may be used.

Do not attempt to repair a damaged tank heater yourself!

Send it to our service department instead.

7.2 Return

For returns, we ask that you always decontaminate the heating mantle beforehand, confirm this in writing and enclose it with the heating mantle as information. If you need a decontamination confirmation form, please contact your supplier.

8 Warranty

Winkler warrants the product to the original purchaser for a period of twelve (12) months from the date of delivery (handover of the goods).

In the event of justified complaints, Winkler shall, at its option, either remedy the defect or deliver a replacement. Winkler shall be entitled to have the defects remedied by third parties. For details, please refer to our general conditions of purchasing and ordering at www.winkler.org.

9 Disposal

Environmental information for industrial customers within the EU:

The WEEE Directive 2012/19/EU aims to prevent waste from electrical and electronic equipment and to reduce such waste through reuse, recycling and other forms of recovery.



The symbol indicates that the product should be disposed of separately from regular commercial/household waste. It is your responsibility to dispose of this product only through the legally prescribed disposal channels or the appropriate collection points designated by the government or local authorities.

Proper disposal and recycling will help prevent potential negative consequences for the environment and human health. If you need more information on how to dispose of your waste equipment, please contact your local authorities, municipal waste disposal services or the dealer where you purchased the product.

10 EU Declaration

EU-DECLARATION OF CONFORMITY



Manufacturer : WINKLER AG
Englerstraße 24
69126 Heidelberg

Contact : Tel.: ++ 49 (0) 6221-3646-0 Fax.: ++ 49 (0) 6221-3646-40
sales@winkler.org www.winkler.org

Product group : heating jackets / heating mantels / insulation jackets

Product : **WOB..., WOC..., WOD..., WRZ...**

Directives : Low voltage directive 2014/35/EU
Electromagnetic compatibility directive 2014/30/EU
RoHS directive 2011/65/EU+2015/863/EU
REACH regulation 1907/2006

We hereby declare that in planning and manufacturing of this product the basic safety and health requirements of the EU Directives mentioned above have been observed.

Other national standards and technical specifications applied:

DIN EN IEC 60519-1:2020-12; VDE 0721-1:2020-12

DIN EN 60398 VDE 0721-50:2016-02; IEC 60398:2015;
EN 60398:2015

Any modification to the product without our consent will make this declaration invalid.

Heidelberg, November 3rd 2023

Winkler AG


Daniel Ernst
Leiter Technik

11 Contact

Winkler AG
Englerstrasse 24
69126 Heidelberg
Germany

Phone: +49-6221-3646-0
Fax: +49-6221-3646-40
sales@winkler.org
www.winkler.org