



winkler

# Operating Instructions

## Gas Cylinder Heaters

 **rapidLine** **WOBP** (0-50 °C)



## 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!  
Gas cylinder heaters may only be used in an upright position with the bottom of the cylinder facing the ground.

Gas cylinder 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 gas cylinder 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 gas cylinder of the corresponding design and size. Never use the heater without the suitable corresponding gas cylinder!

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 gas cylinder to be heated is clean and dry. Do not use additional heating or heat sources and never expose the gas cylinder heater to temperatures above the nominal temperature.

### Assembly

Mount the heater in such a way that it lies smoothly and without folds on the gas cylinder and that the heated areas (recognizable by the inner pockets) do NOT overlap. Use the existing fasteners to secure the gas cylinder 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.

### 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.



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

Monitor the fill level of the gas cylinder while removing the contents. In the event of any leakage, take the gas cylinder heater out of operation immediately.

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, 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 heater.**

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.

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**1 Introduction**

Gas cylinder heaters are used to heat gas cylinders 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 heater 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 50 °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 gas cylinders.

They are ideally suited for frost protection as well as slow heating and maintaining the temperature of already heated gas cylinders.

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

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## 2 Applicable standards

The gas cylinder 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.

## 3 Intended operation

The gas cylinder 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 50 °C.
- Only instructed persons may work on the gas cylinder 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 are 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.

## 4 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. Operating instructions

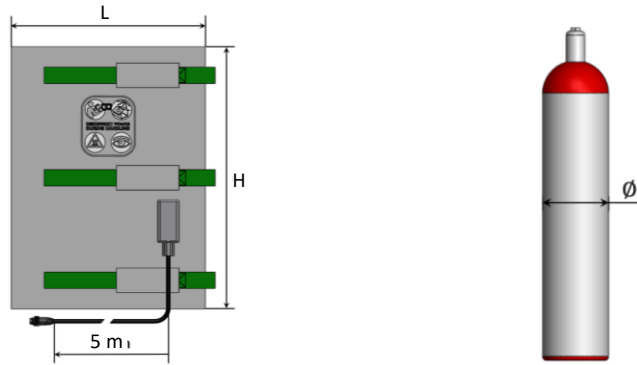
## 5 Gas Cylinder Heater **WOBP**

### 5.1 Intended use and application

Gas cylinder heaters are designed for heating metal gas cylinders up to max. 50 °C in areas NOT subject to explosion hazards.

5.2 Technical Data

Technical Data	
Outer mantle:	water repellent polyester fabric
Thermal insulation:	Polyester fleece
Heating element:	fluoropolymer insulated resistance heating conductor
Operating voltage:	230 VAC (+/- 10 %) [115 VAC (+/- 10 %) as option]
Operating temperature:	up to 90 °C
Regulation:	via temperature controller
Appliance class:	II (Protective insulation); appliance class I as option
Protection type:	IP 54
Ambient storage temperature:	-20 ... 50 °C
Length connection cable:	0,3 m with 7-pole round plug



Gas Bottle Heater	10 l	20 l	50 l	79 l
Article number	WOBP0010-230ZP140-0750MS0#	WOBP0020-230ZP230-0850MS0#	WOBP0040-230ZP230-1400MS0#	WOBP0079-230ZP318-1000MS0#
Ø Diameter	140 mm	230 mm	230 mm	318 mm
H Height	750 mm	850 mm	1.400 mm	1.000 mm
L Length	590 mm	860 mm	860 mm	1.140 mm
Nominal power	380 W	450 W	950 W	950 W
Operating voltage	230 VAC (± 10 %) oder 115 VAC (± 10 %)			
Operating temperature	up to 50 °C			
Controller	WRL430PW-0050WIN9			
Appliance class	Appliance class I Ⓢ			
Ingress protection	IP54			
Connecting cable	0,3 m with 7-pole round plug for connection to L430 controller			
Customized versions (special voltages, connectors and dimensions) available on request.				

### 5.3 Structure

Structure		
<b>Outer mantle (1):</b>	water-repellent polyester fabric	
<b>Fastening (2):</b>	robust adjustable tension snap closures	
<b>Heating cable (3):</b>	fluoropolymer-insulated heating conductor (protection class I) in pockets	
<b>Sensors (4):</b>	<ul style="list-style-type: none"> <li>- magnetic surface sensor (controller)</li> <li>- temperature monitor sensor</li> <li>- bimetal thermal cut-out device</li> </ul>	
<b>Regulation (5):</b>	Standard: controller/monitor WRL430PW-0050WIN9	
<b>Connecting cable (6):</b>	0,3 m with 7-pole round plug for connection to L430 controller	

Performance Feature	
<b>Magnetic surface sensor</b>	
<p>The magnetic surface sensor detects the exact temperature of the gas cylinder.</p>	

Gas cylinder heaters consist of an outer mantle (1) made of water-repellent polyester fabric. Pockets are sewn on the heater inner side, into which fluoropolymer-insulated heating element are installed. Double thermal insulation made of polyester fleece is sewn between the heating elements and outer side. Robust pull straps (2) and snap closures made of polyamide are used for fastening.

The gas cylinder heaters have a fleece hook and loop pad next to the cable outlet (3), to which the temperature controller (optional) 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 gas cylinder heater is connected to the power supply via a 3.0 m long connection cable (4) of the temperature controller.

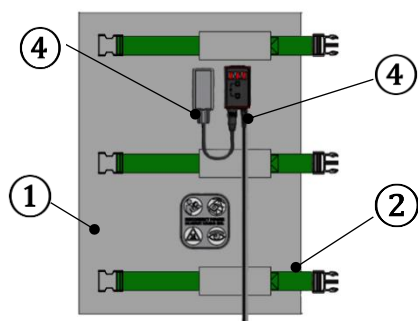


Figure 5.3.1: Gas cylinder heater WOBP (outer mantle)

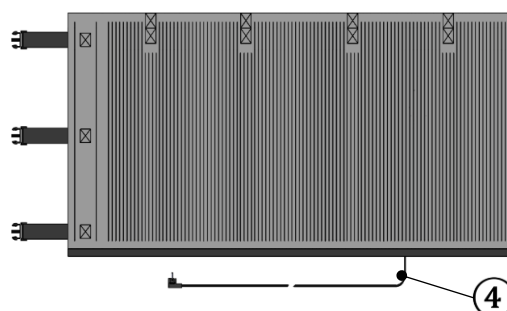


Figure 5.3.2: Gas cylinder heater WOBP (inner mantle)

**5.4 Assemblage**

Place the gas cylinder heater around the cylinder. Robust pull straps and snap closures made of polyamide are used for fastening and at the same time prevent sagging during operation. To protect against moisture and mechanical impact, the gas cylinder heater should not be placed directly on the floor during this process. Close the buckles and tighten the tie straps evenly (Figure 1.3). The drum heater must fit smoothly against the gas cylinder 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.

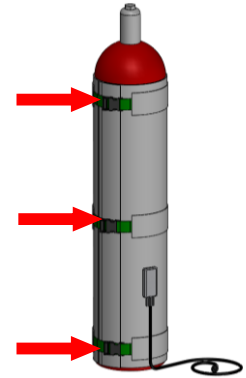


Figure 5.4.1

**5.5 Commissioning**

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

**Fundamental (WRL430PW):** 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 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 of time. 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 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.

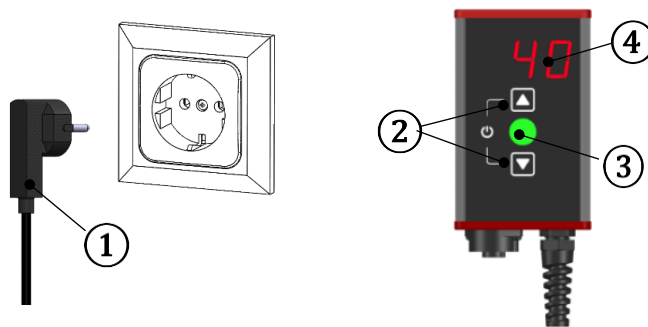


Figure 5.5.1

Monitor the heating process and the behavior of the contents. In case of liquid leakage, immediately take the heater out of operation and remove it.

**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
<b>Heating mantle does not fit</b>	Make sure that the heating mantle is intended for your gas cylinder. Measure the height and circumference of your gas cylinder and compare them with the dimensions of the heating mantle in the technical data.
<b>Gas cylinder heater does not heat</b>	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 tank 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.
<b>Ground fault circuit interrupter or fuse trips</b>	Check whether the circuit breaker is suitable for the current requirement of the gas cylinder 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.
<b>Light soiling of the outside/inside</b>	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 put out of operation and secured against unintentional startup. This also includes clear marking.

This case occurs:

- If the heating mantle shows visible damage.
- When the heating mantle no longer heats.
- If the heater 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.

Gas cylinder heaters 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 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](http://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 of Conformity

**EU-DECLARATION OF CONFORMITY**

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**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 3<sup>rd</sup> 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