

**Gewässer
Umwelt
Schutz**
GmbH



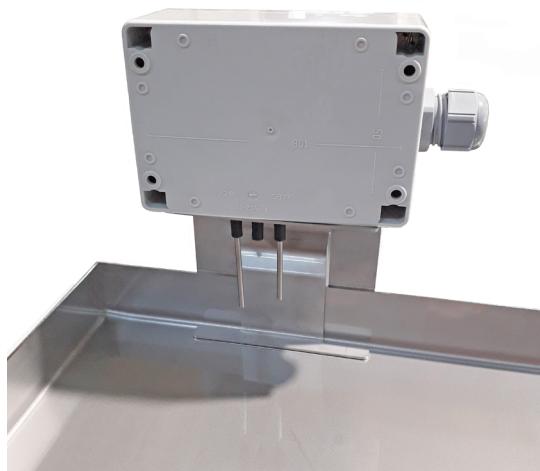
HEITHER 3.0

Assembly instructions

Introduction

These assembly instructions must be read carefully before commissioning and using the Heating Kit! These assembly instructions are considered part of the protector and must always be kept in the immediate vicinity of the installation site, or with the Heating Kit itself. Subject to alterations.

We assume no liability for errors and misprints. Version: March 2020



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General information

Read the operating instructions carefully before using the Heating Kit for the first time. Neglect of adhesives can lead to danger for persons, the environment and the installation, and thus to the loss

of any possible claims. It contains useful tips, information and warnings on avoiding danger to persons and property.

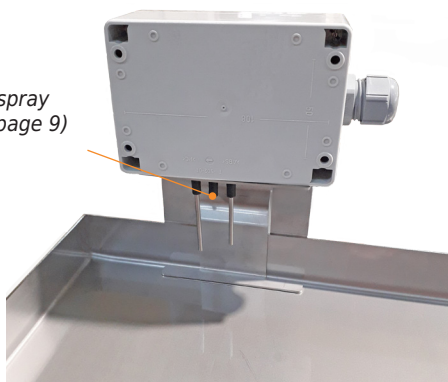
NOTE:

- The devices may only be installed by qualified personnel.
- The devices may only be connected when they are disconnected from the power supply.
- The safety regulations of the VDE, the German Federal States, their supervisory bodies, the TÜV, as well as local power supply companies must be observed.
- This device must only be used for the specified purpose.
- EMC directives must always be observed to prevent damage and faults to the device.
- Functionality can be impaired if the device is operated in the vicinity of devices that do not comply with the EMC directives.
- Hazards of any kind are to be avoided. The purchaser must ensure compliance with building and safety regulations.
- Any defects and damage resulting from the improper use of the device are excluded from warranty and liability claims.
- Only the technical specifications and connection requirements of the installation and operating instructions supplied with the device apply. Changes are possible to ensure technical improvement and continuous improvement of our products.
- Device modifications by the user render all warranty claims void.
- Changes to these documents are not permitted.

Scope of delivery:

HEITHER 3.0

Cold spray
(see page 9)

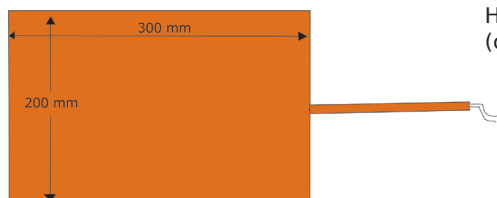


HEITHER 3.0

depending on requirements (thermostat)

NOTE:

Check if your delivery is complete.



Heating mat, depending on requirements
(custom sizes may vary!)

50 Watt
100 Watt
200 Watt
or 400 Watt

Product description

Safety catchment systems from GUS Gewässer-Umwelt-Schutz GmbH are generally suitable for summer and winter operation - without the need for additional heating. The **HEITHER 3.0** is only absolutely essential for air-conditioning and refrigeration systems that act as heat pumps and which release condensate during winter. Even at low temperatures, freezing con-

densate can impair the proper functioning of the safety catchment system, and cause damage to the heat generator. Depending on requirements, all-surface heating is switched on automatically and thaws freezing condensate and ice residue above critical levels, ensuring the proper functioning of the catchment system and the safety of the refrigeration and air-conditioning systems.

If the tray fill level reaches the short probe rod, a fault message is triggered. If required, the operator can also pick up a fault and operating message. As per the circuit diagram, the HEITHER 3.0 is connected to the power supply with 230 Volt.

The silicone heating mats are positioned below or to the side of the protector and connected to the HEITHER 3.0 as per the circuit diagram. The protector must be isolated on site.

Properly installed, the functionality of the safety device is constantly monitored.



HEITHER 3.0,
depending on design

Assembly HEITHER 3.0

The HEITHER 3.0 is equipped with a rear-mounted mounting plate, with which it is fixed to the protector from the outside (as shown).

Due to the different construction heights of the protectors, the switch boxes are available in two designs.

10 - 60 HEITHER 3.0 is designed for protectors with a backslash of 10 to 60 mm; 60 - 150 HEITHER 3.0 is for protectors with a backslash of 61 to 150 mm.

The mounting plate must be pushed onto the backslash up to the stop collar.

Silicone heating mat intallation under the protector

When installing the heater on protectors in special sizes, be sure to distribute the heating mats evenly over the entire surface (focusing especially on the separators). We are more than happy to help you with all your configuration needs.

Note that heating with the backslash is recommended when the protector is fully supported on a concrete foundation.

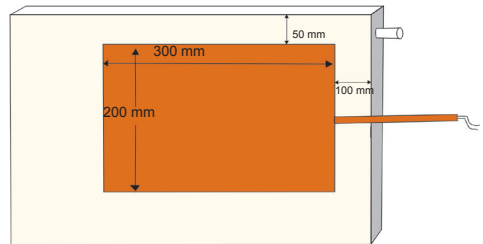
We offer heating mats in any size for these requirements.

To enable efficient thawing, the base of the protector should be provided with self-adhesive insulation. This saves energy and ensures proper thawing - even at extremely low temperatures.

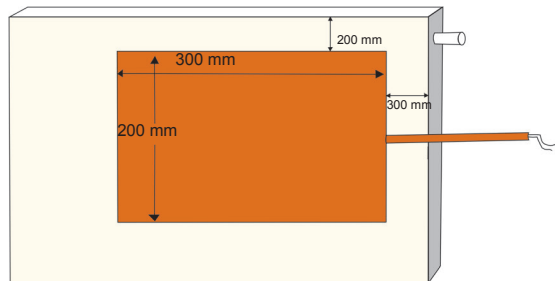
Despite the high load capacity of our heating mats, damage caused by point loads at critical sections cannot be completely ruled out. If the heating mats are exposed to an excessive load, or if direct access for installation or replacement from below is not possible, the warranty shall be voided, and any consequential costs of any kind shall not be borne by us.

NOTE:

Insulation required!



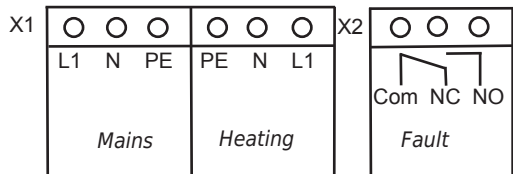
*Installation below a protector
(dimensions shown here ar for:
CUW/AUW 1 to 3)*



*Installation below a protector
(dimensions shown here ar for:
CUW/AUW 4 to 10)*

Circuit diagram

The wiring must be carried out as per the circuit diagram. The temperature sensor and the fill level sensor are already installed. The mains connection and the heating connection must be wired. The use of the fault message is optional.



Heating relay function

This relay picks up when a fill level is detected (long probe rod touches liquid) and the ambient temperature is below 3 °C.

It drops out as soon as the lower probe rod is outside the liquid, or if the ambient temperature rises.

NOTE:

- If DIL 1 is switched on, the heating relay only switches depending on the temperature (thermostat function), even if there is no fill level.
- If DIL 2 is switched on, the heating relay remains on for 12 hours when the lower probe rod is outside the liquid. A rise in temperature always causes the relay to drop out without delay.

Function

Fault message function

This relay is normally energized. The following events can cause a dropout:

- Power failure
- The shorter probe rod is wetted with liquid (fill level fault)
- Temperature measurement shows error (NTC defective)

NOTE:

If DIL 4 is switched on, the fill level fault is indicated with 5 min. delay time, otherwise the delay time is approx. 3 seconds.

DIL-Switch (Factory setting: all switches OFF)

| | |
|--------------|--|
| DIL 1 | Thermostat function ON - If this DIL switch is switched on, the heating relay only switches depending on temperature |
| DIL 2 | Follow-up time ON - If this DIL switch is switched on, the heating relay switches off with a delay of 12 hours after no fill level is detected on the long probe. If the temperature rises, the heating relay continues to switch off immediately. |
| DIL 3 | High sensitivity - When the DIL switch is switched on, the conductivity measurement of the long probe rod (heating) is carried out with high sensitivity. |
| DIL 4 | Delayed fill level fault - When the DIL switch is switched on, the fault message for the fill level will have a 5-minute delay (immediately, when the switch is open). |

LED-Funktionen

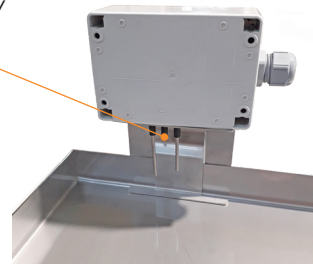


| Blink-Code | LED Heating | LED Fault |
|-------------------------------------|-------------------------|----------------------------------|
| Off ○○○○○○○○○○○○ | Device without function | - |
| 1 x short per 2 sec. ○○○○○○○○●○○ | Everything OK | - |
| 5 x per sec. ○●○●○●○●○● | Temperature < 3 °C | - |
| 2 x per sec. ○○○●●○○○●● | Probe 1 (long) active | Probe 2 (short) active |
| 1 x per 2 sec. ○○○○○●●●●● | Fault in NTC1 | - |
| Continuous light ●●●●●●●●●● | Heating ON | Fault (Relay has dropped out) |

NTC-Quick Test

The heating relay can be triggered by spraying the probe block with cold spray for at least 2 seconds at the NTC position.

Cold spray
Position:



Technical Specifications

HEITHER 3.0 (Thermostat with level detection)

| | |
|-------------------------------|---|
| Operating voltage | 230 V AC / 50 Hz |
| Protection | 10 A |
| Dimensions | Var.1 (170x120x56 mm), Var.2 (260x120x56 mm) |
| Protection class | IP 66 |
| Power consumption | ca. 3 VA |
| Temp.-Measurement | -30 °C... +130 °C ± 2°C |
| Relay outputs | <p>Heating: 230 V / 10 A max. Fault: isolated, 230 V AC max. / 2 A max.</p> <p>Switch points temperature: ON: 3 °C OFF: 4 °C</p> |
| Climatic conditions | <p>According to DIN EN 60204-1 (05-2010)</p> <p>Ambient temperature Operation: -20...+60 °C Transport / Storage: -25...+60 °C</p> |
| Max. power consumption | 2.400 watts |

Maintenance

HEITHER 3.0 should be checked and cleaned at regular intervals (leaves and other particles may impair the function of the heating kit).

Silicon heating mat

| | |
|-----------------------------------|---|
| Area output | 50, 100, 200 or 400 watt |
| Heating surface | 200 x 300 mm |
| Lowest ambient temperature | - 60 °C |
| Heat distribution | Uniformly over entire heating surface |
| Certification labels | VDE, CE, SEV, UL |
| Protection class Limiter | IP65 |
| Limiter | 85 °C |
| Compressive strength | 30 N/cm ² |
| Thickness | 3,0 mm |
| Power tolerance | +/- 10 % |
| Insulation | Silicon-glassfibre fabric |
| Dielectric strength | 12 KV/mm - Resistant to aging and weathering - Food-safe - very good chemical compatibility - Enviromentally friendly |

NOTE:

If you have any questions regarding assembly, installation, maintenance etc., please do not hesitate to contact us at:

Service number: +49 (0) 5921 71347 - 0.

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