

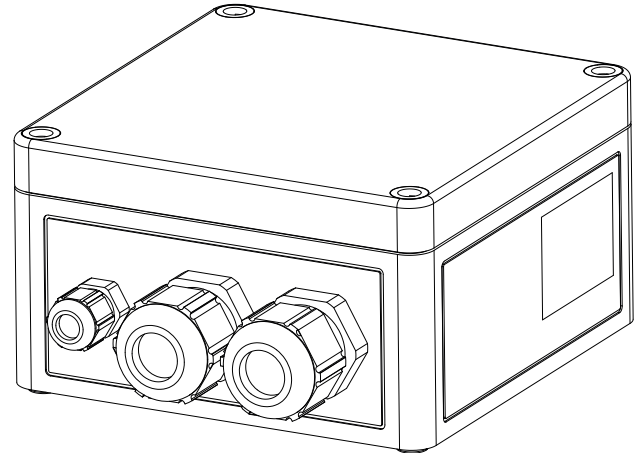
Temperature Control for ESO 90H/ESO 120H

About this guide

This document is part of the product. This document describes how to install and connect the ESO 005 temperature control.

- ▶ Do not install or use the device until you have read and understood this document.
- ▶ Keep this document for reference throughout the service life of the device. Pass this document on to any new owner or user

Please find the most up-to-date version of this document on www.kathrein-ds.com.



Features

- Dual mode temperature controller in the surface-mount housing
- Cable glands and clamps for the power supply
- Automatic switch-off if the sensor is disconnected or in case of a short circuit
- Switch-on temperature at +3 °C

Scope of delivery

- 1 x ESO 005 temperature control
- 1 x PT 100 temperature sensor
- 10 x cable ties, 360 mm
- 1 x mounting plate
- 1 x tightening strapAnwendungshinweis
- User manual

Transport and Storage

- ▶ Transport and store the device in its original packaging.
- ▶ Transport and store the device only in the permitted temperature range between -30 and +80 °C. Make sure there is no water condensation build-up.

Intended use

The ESO 005 is an electronic temperature control for the ESO 90H and ESO 120H reflector heating systems. The ESO 005 is designed for use as an ambient thermostat for frost protection heating systems and surface thermostat with remote sensor.

Any other use, or failure to comply with these instructions or documentation and instructions enclosed with the devices, will result in voiding of warranty or guarantee.

The following circumstances result in the loss of all warranty and liability claims towards the manufacturer:

- Improper Installation
- Use of non-specified mounting materials, which cannot guarantee the mechanical reliability of the antenna system
- Structural changes or interference with the components and mounting accessories in the kit, which could endanger both the mechanical and functional reliability
- Failure to observe installation and safety instructions in this manual

Functional specification

If the temperature measured by the sensor lies below the fixed set point of +3 °C, the relay closes and the heating switches on. The heating is switched off if the sensor is disconnected or in case of a short circuit.

Installation and Safety Instructions



DANGER!

Danger to life from electric shock!

- ▶ Disconnect all devices and units from the power supply during installation.
- ▶ In order to comply with the regulations for outdoor installation according to DIN VDE 0100 Part 610, it is recommended to have a residual current circuit breaker with a residual current of 0.03 A installed upstream.
- ▶ Make sure that modifications to electrical installations are only carried out by a specialist.
- ▶ Do not make any unauthorised changes yourself.



WARNING!

Risk of severe injuries during installation due to falling from or through the roof or due to falling parts!

Make sure that:



- ▶ the connected devices are disconnected from the mains supply
- ▶ the person carrying out the installation or repair does not suffer from vertigo and can move around safely on the roof or installation site
- ▶ the person carrying out the installation or repair is wearing sturdy non-slip shoes
- ▶ the person carrying out the installation or repair has a secure position to stand and hold on whilst working
- ▶ the roof and the climbing equipment (e.g. ladder) are dry and non-slip
- ▶ the roof can withstand the weight of the person carrying out the repairs
- ▶ there is nobody underneath the antenna during installation/dismantling

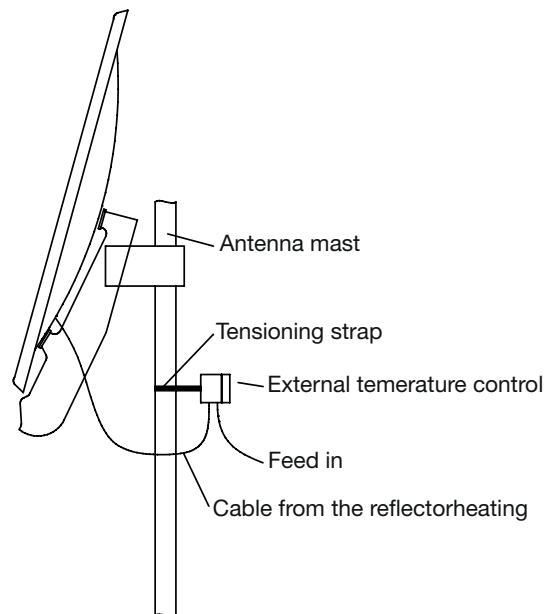
Installing and connecting the temperature control

Required Tools and Equipment

- Flat screwdriver
- Cooler spray for a performance check
- Needle-nose pliers, optional, to connect the cables

Installing the temperature control

1. Open the tightening strap using the flat screwdriver.
2. Place the ESO 005 on the antenna mount as high as possible.
3. Tighten the tightening strap by rotating the tensioning screw.



Connecting the cables



NOTICE!

Risk of damage to the unit!

- ▶ Test the heating for contact resistance and insulation resistance (Ri) before connecting the cables in the control device. For target values, see the instructions for use of the reflector heating.
- ▶ These tests should be repeated after replacement of a defective heating tray.

1. Run the connection cables of the heating tray along the antenna carrier to the ESO 005 control device.
2. Use cable ties to attach the connection cables.
3. Run the cables from the bottom through the screw connection into the control device.
4. Run the mains cable from the bottom through the screw connection into the control device.
5. If you use the ESO 005 temperature control, connect the cables as shown in Fig. 1, if you use the heating without the ESO 005, connect the cables as shown in Fig. 2.

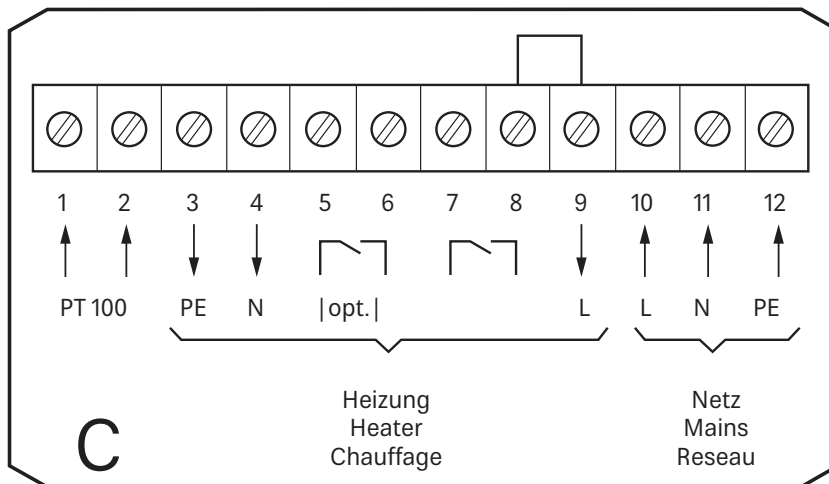


Fig. 1: ESO 005 temperature control terminal assignment

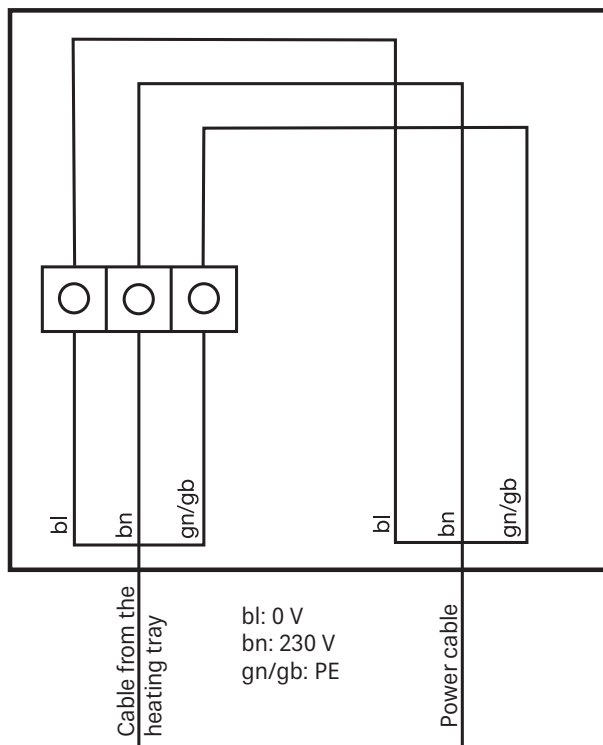


Fig. 2: Terminal assignment when using the heating without the ESO 005

Technical data

Type	Unit	ESO 005
Order no.		23710022
Housing material		Polycarbonate
Cable entry		1 x M12, 2 x M25
Measuring input		PT 100 temperature sensor
Recommended installation temperature	°C	5 – 20
Ambient temperature	°C	–30 – +80
Operating voltage	V	230 +6 %/–10 %; 50 – 60 Hz
Breaking capacity		16 A/230 V
Setting range	°C	3
Protection class		IP 66
Dimensions (H x W x D)	mm	130 x 130 x 75
Weight	g	530

Maintenance

- Check the correct attachment and seating of the temperature control on the antenna at regular intervals.
- If the temperature is higher than +5 °C, spray a cooler spray onto the sensor so that the heater switches on for a function test.

Repair and replacement

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Disposal



Electronic equipment

Electronic equipment is not domestic waste – in accordance with directive 2012/19/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 04th July 2012 concerning used electrical and electronic appliances, it must be disposed of properly. At the end of its service life, take this unit to a designated public collection point for disposal.