

# RF-HE-ST Wireless Heating Module

## Technical specifications and installation instructions

Item number 60546



## 1. Description

The **RF-HE-ST** is a wireless heating module that switches a heating device at two levels (50% power, 100% power).

A heating device connected to the **Wireless heating module RF-HE-ST** can be operated directly using the Elsner Remo 8 or Remo pro remote control, via the RF-B2-UP button interface or the Corlo P RF solar wireless button. The wireless heating module is also suitable for working with the Elsner controls WS1 and WS1000 Color and Style and for the radio system Solexa II. Then it is taught into a radio channel of the control system and receives automatic and manual commands from there.

### Functions:

- 1 Connection for the heating device (radiant heater), maximum 16 A
- 2 Heating levels (50%, 100%)
- Reception of the wireless control signal
- Suitable for: WS1 Color, WS1 Style, WS1000 Color, WS1000 Style, KNX WS1000 Style (in each case from software version 1.818). Solexa II. Remo 8 (from version 0.1), Remo pro, RF-B2-UP, Corlo P1 RF, Corlo P2 RF

### 1.0.1. Safety instructions



#### WARNING!

#### Danger from hot surfaces and heat radiation!

When installing or handling heating devices special measures, in particular against burns and danger of fire, are to be taken.

- Observe the manufacturer's safety instructions for the connected heating device!

## 1.1. Technical specifications

Housing	Plastic
Protection category	IP 54*
Dimensions	approx. 147 x 36 x 29 (W x H x D, mm)
Weight	approx. 140 g
Ambient temperature	Operation -20...+50 °C, storage -55...+90°C
Ambient humidity	max. 95% RH, avoid condensation
Operating voltage	230 V AC
Input	STAS3 plug (230 V)
Output	STAK3 coupling, can be loaded up to max. 16 A / 230 V AC (contact 2: max. 8 A, contact 3: max. 8 A)
Wireless frequency	868.2 MHz (Elsner RF)

\*In spite of the high protection category the **Wireless heating module RF-HE-ST** should be installed in a protected area so that no water can penetrate. Please observe the instructions in chapter *Connection*, page 1

The product is compliant with the provisions of EU guidelines.

## 2. Installation and commissioning

### 2.1. Installation notes



Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.



#### DANGER!

#### Risk to life from live voltage (mains voltage)!

There are unprotected live components within the device.

- VDE regulations and national regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

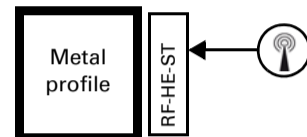
The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

## 2.2. Notes on wireless equipment

When planning facilities with devices that communicate via radio, adequate radio reception must be guaranteed. The range of wireless control will be limited by legal regulation and structural circumstances. Avoid sources of interference and obstacles between receiver and transmitter, that could disturb the wireless communication. Those would be for example:

- Walls and ceilings (especially concrete and solar protection glazing).
- Metal surfaces next to the wireless participants (e. g. aluminium construction of a conservatory).
- Other wireless devices and powerful local transmitters (e.g. wireless headphones), which transmit on the same frequency. Please maintain a minimum distance of 30 cm between wireless transmitters for that reason.



The aerial symbol on the housing shows the position of the aerial in the **RF-HE-ST**. This side must not be positioned directly on metal surfaces or objects. Otherwise, the wireless signal might be disturbed.

## 2.3. Connection

The radio module is connected between the appliance and the power supply. It may only be connected to flexible lines using STAK/STAS connectors. The connectors must be locked using the locking bow.



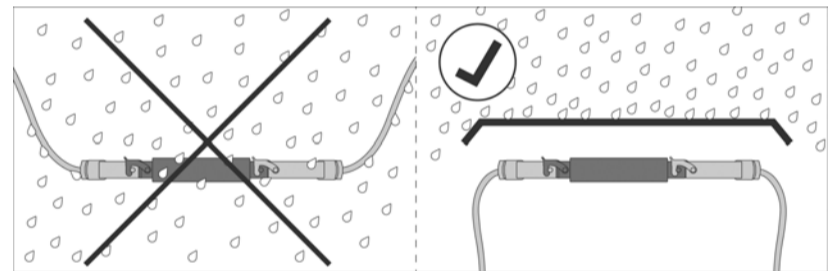
#### Do not expose to continuous sun radiation to avoid overheating.

The housing is not UV-resistant.

- Assemble the device in a protected area (e. g. in the box for the blinds/marquee/shutters in a construction profile beneath the roof tiles or in a housing).



#### No water may run along the supply line and device because water can enter in via the connectors.



- Assemble the device in a protected area (e. g. in the box for the blinds/marquee/shutters in a construction profile beneath the roof tiles or in a housing).
- Lay the supply lines out and down from the device.



#### No vibrations!

- Assemble the device in a place that is free of vibrations.

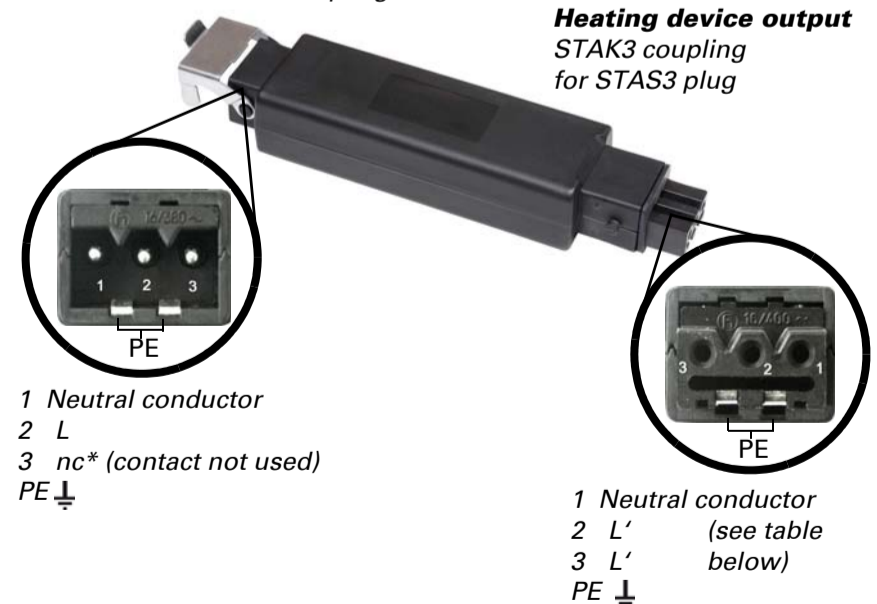
### 2.3.1. Connection

#### Mains voltage input

STAS3 slot for STAK3 coupling

#### Heating device output

STAK3 coupling for STAS3 plug



- 1 Neutral conductor  
2 L  
3 nc\* (contact not used)  
PE ⊥

- 1 Neutral conductor  
2 L' (see table below)  
3 L'  
PE ⊥

#### Heating device output

	Contact 1	Contact 2	Contact 3
Off	N	- (open)	- (open)
Level 1 (50%) ...	N	L' (230 V / max. 8 A)	- (open)
Level 2 (100%) ...	N	L' (230 V / max. 8 A)	L' (230 V / max. 8 A)

## 2.4. Establish wireless connection

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1. Set the control unit and/or remote control or the button to teaching mode (observe the corresponding manual/data sheet)
2. Switch on the **RF-HE-ST** voltage supply or briefly shut it off for at least 3 seconds if the unit is already supplied with power.
3. For 5 minutes after connecting the voltage, the **RF-HE-ST** will send a "Learn" telegram every 10 seconds.
4. The wireless connection will be established automatically. For building control systems, the display will display "Device is learning".
5. The **RF-HE-ST** will stop sending "Learn" telegrams once the reply "Learned" (for a learning process) or a control command is received (in the event of a power interruption during operation).

## 2.5. Notes on mounting and commissioning

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Device must not be exposed to water (rain). This could result in the electronic being damaged. A relative air humidity of 95% must not be exceeded. Avoid bedewing.

## 2.6. Notes on operation

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If the unit has been continuously switched on for 12 hours (whether in 50% or 100% operating mode), the unit will switch itself off automatically.