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# LINE

Without fan

**EN**

**FLOOR CONVECTOR INSTALLATION, MAINTENANCE AND  
OPERATION MANUAL**

**HEATMANN**  
SMART CONVECTION SOLUTIONS

- if the device has been used after the complaint about the defect has been lodged, and as a result the condition of the device changes to such an extent that it becomes difficult to examine the claim regarding the defect;
- have been damaged due to unprofessional installation or due to the tampering with structure of the device without the consent of the seller;
- have been used for other purposes than intended, in particular for drying wet textile materials directly on the radiator, without the use of additional dryers intended for this purpose, which may damage the surface coating of the product;
- have been damaged by the use of cleaning agents that are not intended for cleaning this type of radiator surface;
- have been purchased at a discount that was applied due to the defect and which was notified to the buyer at the time of the purchase.

The warranty shall not cover wear and tear of the product due to its excessive use. In the event that no defects of the product that occurred due to the fault of the manufacturer are identified during the inspection or if the warranty conditions have not been fulfilled, the buyer shall bear the costs related to the inspection or repair of the product. If the customer sends a defective product under warranty by post, the product must be in its original packaging to prevent further damage due to transportation. Defects that occur during discussion of the right to after sales services shall not be considered.

**Never use scouring or chemical cleaning agents to clean convector radiator.**

## WARRANTY SHEET

1. The seller's warranty shall cover the insulation, surface treatment, heat output indicators and pressure loss of heating elements, which are installed in a closed, watertight system by qualified specialists in accordance with the applicable standards and regulations, including the corrosive properties of the heat carrier that must be used for heating purposes only and never used for household needs.
2. The heating elements must be installed by a qualified specialist in accordance with the applicable requirements in a closed heating system that is professionally manufactured in accordance with VDI 2035, taking into account the protection against corrosion and sediment (skimmings).
3. When using the product, the buyer must comply with the rules set out in the enclosed installation instructions and common rules.
4. The buyer must check the condition of the product upon receipt or as soon as possible after receipt of the product.
5. The corrosive effects of the surrounding environment in which the heating elements are installed should not exceed the surface treatment requirements of the elements in accordance with the applicable standards.
6. Floor convectors with floor fan IP 20 – dry environment, IP 56 – humid environment.
7. The seller shall be liable for the defects that the product already have at the time of delivery, for defects covered by the warranty and for those defects that will occur during the warranty period.
- 8. The warranty period shall commence on the date of sale of the product to the buyer:**
  - warranty period for convectors – 5 years. Operating pressure max. 16 bar – standard version 95C.
  - warranty period for floor convector connection stability – 5 years.
  - warranty period for heat exchangers and stainless steel trenches – 10 years.
  - warranty period for electric wires and fans – 2 years.

**The warranty covers malfunctions and defects that have occurred during the warranty period due to defects in the production process or defects in the materials used in production.**

Warranty repair of the product can be obtained only by presenting the original document confirming the purchase of the product (purchase receipt) with the description of the product, date and the stamp of the store. Copies and receipts with missing data will not be accepted and will not be considered. The warranty sheet shall serve as a proof of the user's rights to the product, and it is recommended that it be kept with the sales documents.

**The customer shall forfeit the right to warranty service if the heating elements:**

- have been installed in buildings, installations or premises with high level of humidity, in particular public toilets, cleaning facilities, animal playgrounds, etc;
- have been stored in open areas and stored at temperatures below -5°C;
- have been internally damaged by corrosion, resulting in loss of insulating properties due to improper chemical composition of the coolant;
- have been deformed during inappropriate transportation or when the maximum operating pressure has been exceeded;
- have been mechanically damaged or deformed due to unauthorised actions of the buyer or during transportation;
- have been damaged intentionally or as a result of natural disasters or other impacts;

Accessories customised by order:

- thermostats: Z-RT001
- thermostatic valve (straight, angled)
- electric drive Z-TS230 – water shut-off in heat exchanger
- thermostatic head with remote control unit Z-TF001

### Structure



**Housing** made of galvanised or stainless steel with holes for pipes (water inlet and outlet), which contains all the functional structural parts of the floor convector, water connection cover and anodised aluminium strip. Convectors for humid environments will be equipped with housings featuring an additional drainage pipe.

**Al-Cu plate heat exchanger** – aluminium plate on a copper pipe  $\varnothing 16$  mm through which the heat carrier flows, the air valve and the end threaded connection with the internal thread G1/2"

**Decorative grilles** – for closing the housing, using aluminium or hardwood transverse panels or longitudinal aluminium sheet

**Anchor bolts** – for mounting the housing according to height

## Convector layout in the floor

We suggest to design the convector installation place as close as possible to the window openings. Convectors with natural convection must be placed deep inside the room, for example behind curtains.

## Installation of floor convector

Sequence of steps:

- 1 Housing installation in the floor trench
- 2 Connection to the heating system

### 1 - Housing installation in the floor trench

The trench in the floor must be clean, prepared in accordance with construction requirements (waterproofing, etc.). Trench depth = housing height + max. 35 mm. Trench width approx. +30 mm along the perimeter for convenient convector mounting. It is recommended to leave 150 mm on the water connection side. Openings must be provided for the installation of pipes in the heating system.

#### Sequence of steps:

- remove the protective packaging
- remove the grilles and assembly protective limiting chipboard
- tighten the enclosed mounting bolts to the prepared holes on the bottom of the convector, for other (self) installation, plug the holes.
- insert the housing according to the selected position into the trench
- align its height in the longitudinal and transverse directions so that the top edge of the housing is level with the clean floor.

A drainage pipe connection must be prepared for convectors intended for humid environments.

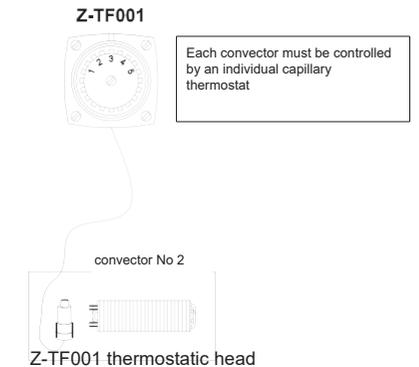
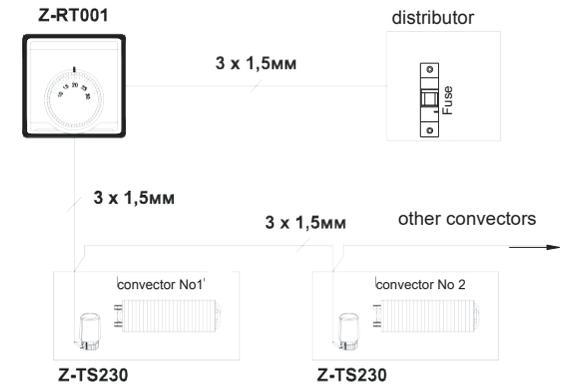
- **Cover the housing with a chipboard and close all holes tightly** (protect the installed convector elements from dust, the mounting plate also serves as a truss during concreting!). Concrete the convector. When using liquid mixtures, it is necessary to **insulate** the floor convector when laying the floor layers (for example, using SELF-LEVELLING ANHYDRITE). This means that all cracks and holes through which the liquid mixture can penetrate the floor convector must be **carefully** closed to prevent anything from entering the devices and damaging the internal components. **The convector is not designed to be waterproof.** The warranty shall not be valid if the convector is damaged by a liquid construction mixture.
- The hole between the strip and the floating floor can be filled with silicone, plug or covered with a plate.
- After the final floor finish, install the top decorative grilles.

#### Warning:

There is no self-resistance in the housing and the mounting bolts are not load-bearing elements. The bottom of the housing must rest on a horizontal load-bearing structure.

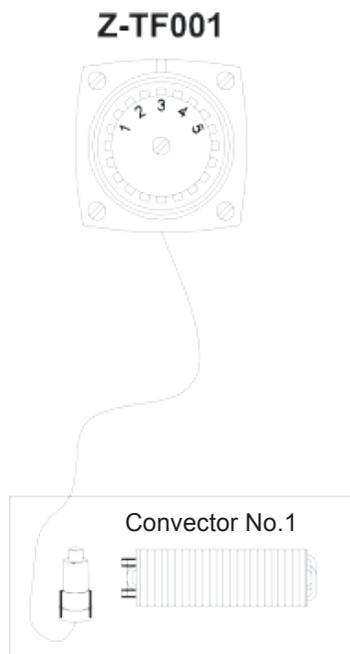
If the convector is installed on an uneven surface, resonance may occur or the noise level may increase. Due to the thermal insulation of the housing, a slightly increased overall heat release is achieved (heat transfer to the floor structure is limited). When designing the type of insulation, the requirements for pressure resistance and the hygroscopicity of the insulation must be taken into account in the first place.

### Example of Z-TS230 floor convector cable wires



## Connection example

Connection to capillary thermostat Z-TF001



Z-TF001 thermostatic head

Convectors with natural convection:

	250 80,	x	x	300 80	
175x90,	200x90,	250x90,	300x90,	350x90,	425x90
175x110,	200x110,	250x110,	300x110,	350x110,	425x110
175x125,	200x125,	250x125,	300x125,	350x125,	425x125
175x140,	200x140,	250x140,	300x140,	350x140,	425x140
			300x165,	350x165,	425x165
			300x200,	350x200,	425x200

## Application

Floor convectors are used in large glazed areas such as shop windows, conservatories, entrance rooms, common and commercial areas, meeting and presentation rooms, as well as architectural monuments. They are installed in the floor trenches, so they do not take up space and do not interfere with the arrangement of furniture, nor do they interfere with the interior concept of the room, as traditional radiators do.

## Terms of use

- heating system with forced circulation
- maximum heat carrier operating temperature – 110°C
- maximum heat carrier operating pressure – 1 MPa
- convector is designed for use at ambient temperatures from +2 to 40°C at a relative humidity of 20-70%

**Warning:** If the ambient temperature drops below +2 °C (e.g., in unheated rooms in winter), the heating system must be emptied to prevent damage if the heat carrier medium freezes.

## Parcel size

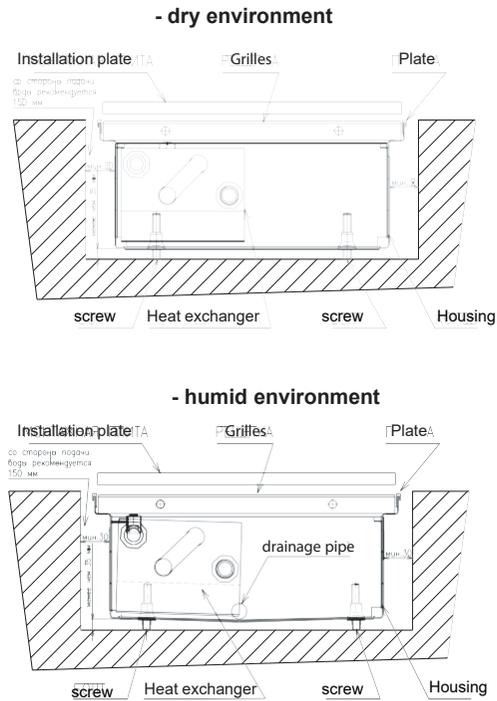
The assembled floor convector system is delivered in a standard packaging (paper cardboard, polyethylene surface film), which includes:

### Convector

- housing made of galvanised or stainless steel with mounting holes for connection to the heating system, water connection cover, anodised aluminium strip and drainage pipe for use in a humid environment.
- Al-Cu plate heat exchanger with 2 outlets for connection with G1/2" internal thread and air valve
- decorative grilles according to the customer's specification
- assembly chipboard

### Standard set (included with the convector)

- instructions for use and installation
- plugged and adjustable threaded connections 2 pcs. (straight, angled)
- mounting bolts for correct installation

**Structure:****2 – Connection to the heating system**

When installing the connection fittings, mind the markings on the bottom of the housing that determine the supply and return of the heat carrier. In both cases, an internal thread of 2 x G1/2" is available.

Depending on the auxiliary accessories ordered, connect to:

- the supply – instal a straight or angled pluggable valve (or thermostatic control valve) (not included),
- the return – install a straight or angled pluggable or adjustable threaded connection (included),
- to connect to the distribution of the heating system, you can use corrugated pressure hoses (custom-made), which allow easy cleaning of the heat exchanger and the convector housing, as well as eliminate the problems of thermal expansion of the wires/pipes.

Other important steps:

- check air valve tightness
- flush the entire heating system
- perform the pressure test according to the valid or recommended norms (standards or technical regulations, and record the results in the test report)
- fill the entire heating system with purified water according to ČSN 07 7401 standard and carefully bleed the system
- set the degree of adjustment on the valve or on the adjustable threaded connection according to the values specified in the design

**Use, maintenance and cleaning**

When using the device for the first time, we recommend that you follow the sequence specified in the relevant national standards or applicable technical regulations. The instructions in this manual and in the instructions for the individual components must also be observed during use.

Regular maintenance is a prerequisite for the continuous and uninterrupted use of the convector and its accessories. It must be stored in a dry environment and regularly cleaned of dust and other impurities. Before the start of the heating season, we recommend first cleaning the heat exchanger, housing and fans of dust deposits (using a vacuum cleaner or a damp cloth). This way you can ensure a long-lasting, productive and silent operation of the floor convector.

**Warning:**

Do not obstruct the decorative grilles, protect them from damage, scratches, etc. (for example, when moving). Contact the supply or manufacturer company if necessary.