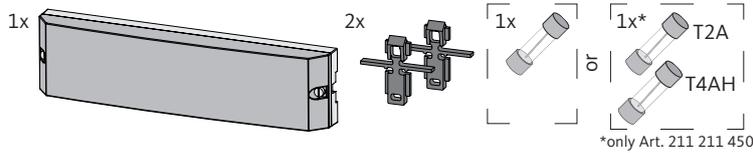


Art. 211 211 450 | Art. 211 211 452

Scope of delivery



About these instructions

Before commencing any work with the base, these instructions must be read thoroughly and completely. The instructions must be kept and be handed over to future users. The following symbols show:

- a list



a warning with respect to electrical voltage



an important information

Intended use

The base serves

- for the arrangement of a room-by-room temperature control with a maximum of 10 zones (depending on the type used) for heating and cooling systems,
- for the connection of a maximum of 18 actuators and 10 room control units (depending on the type used),
- for the connection of actuators with the control direction NC (normally closed) or NO (normally open), depending on the thermostat used,
- for the connection of an external timer,
- depending on the type used, for the connection of a pump, a CO signal generator, a temperature limiter or dew point sensor,
- for fixed installation.

Any other use, modifications or conversions are expressly prohibited and lead to dangers the manufacturer cannot be held liable for.

Safety notes

All safety notes in these instructions must be observed to avoid accidents with personal injuries and property damage.



WARNING
Danger to life due to the electric voltage at the base station!

- Always disconnect from the mains network and secure against unintended activation before opening.
- Only an authorised electrician may open the device.
- Disconnect external voltages and secure against activation.
- Only use the product if it is in flawless state.
- Do not operate the device without device cover.
- This product is not intended to be used by persons (including children) with restricted physical, sensory or mental skills or who lack experience of knowledge. If necessary, these persons must be supervised by a person responsible for their safety or receive instructions from this person on how to use this product.
- Ensure that children do not play with this device. Children must be supervised if necessary.
- In case of emergency, disconnect the complete room-by-room temperature control system.

Personnel-related preconditions

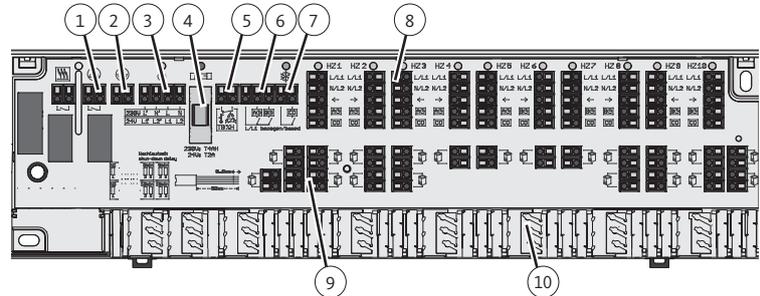
The electrical installation must be carried out according to the current national regulations as well as according to the regulations of your local electric power utility company. These instructions require technical knowledge corresponding to an officially acknowledged degree in one of the following professions:

- Systems Mechanic for sanitary, heating and air-conditioning technology
- Electrical Fitter or
- Electronics Technician

according to the profession designations officially announced in the Federal Republic of Germany, as well as according to the comparable vocational qualifications within the European Community Law.

Connections and indications

The following instructions show the full equipment. Depending on the present base, individual positions may be omitted.



- | | |
|----------------------------------------------------|-----------------------------------------------|
| 1 Pump connection | 6 Reduction channel for external system clock |
| 2 Protective conductor connection (only for 230 V) | 7 Heating/cooling change-over |
| 3 Voltage supply | 8 Thermostat connection |
| 4 Fuse | 9 Strain relief |
| 5 Temperature limiter or dew point sensor | 10 Connection of actuators |

Technical data

Operating voltage	Art. No. 211 211 450: 24 V ± 20 %, 50 Hz, 230 V ± 10 %, 50 Hz
Power consumption	Art. No. 211 211 452: 230 V ± 10 %, 50 Hz
Fuse: 24 V:	24 V: max. 36 VA / 230 V: max. 50 VA
Number of heating zones	T2A / 230 V: T4AH
Connectible actuators type	6 or 10
	Art. No. 512 002 131, 24 V
	Art. No. 512 003 316, 230 V
6 heating zones / 10 heating zones	max. 15 / max. 18 actuators
For actuators different to the above-mentioned applies the following:	
Inrush current per actuator	max. 500 mA (for 230 V)
Nominal load of all actuators	max. 24 W (for 24 V)
Pump control	
Switching capacity ^{2,3}	2 A, 200 VA inductive
Control direction	NC or NO1 / NC2
Ambient temperature	0 to +50 °C
Storage temperature	-20 to +70 °C
Ambient humidity	80 %, not condensing
Temperature for ball pressure test	Connection terminals: 100 °C
	Plastic housing: 75 °C
Pollution degree	2
Rated impulse voltage	1,500 V
ERP class acc. to EU 811/2013	1=1 %
Protection class	24 V: III / 230 V: II
Protection type	IP20
Type action	Type 1 / Type 1.C
Dimensions (H x L x D)	90 x 360 x 47 mm

1) Art. 211 211 450, depending on thermostat
2) Art. 211 211 452
3) Depending on supply voltage (24 V/230 V) of base

Conformity

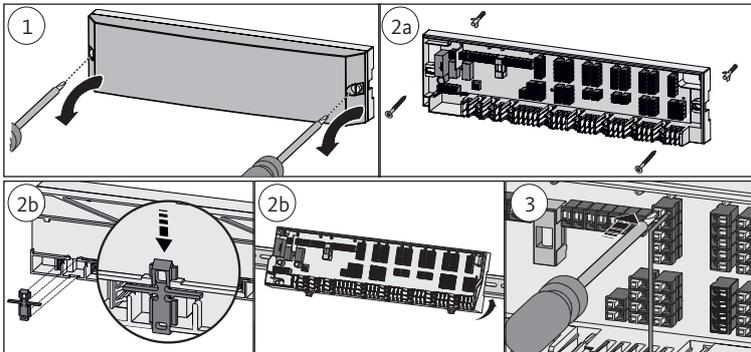
This product is labelled with the CE marking and thus complies with the requirements from the following guidelines:

- 2014/30/EU with amendments "Council Directive on the harmonisation of the laws of the Member States relating to Electromagnetic Compatibility"
- 2014/35/EU with amendments "Council Directive on the Coordination of the Regulations of EU Member Countries regarding the electrical equipment for use within certain voltage limits"
- 2011/65/EU "Council Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment"

Increased protection requirements may exist for the overall installation, the compliance of which is the responsibility of the installer.

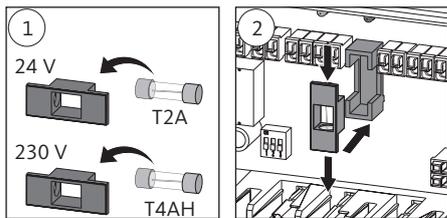
Art. 211 211 450 | Art. 211 211 452

Installation



1. Remove the cover by unlatching the casing screws.
2. Install the base. In case of wall mounting, fix the base with 2 screws \varnothing 4 mm and corresponding dowels depending on the quality of the wall. In case of installation on a mounting bracket, use a bracket TS 35/7.5.
3. Make the electric connection.
4. Install the cover.

Select and insert fuse (only Art. 211 211 450)



Depending on the fuse inserted (included in the scope of delivery), Art. 211 211 450 can be operated at 24 V or 230 V voltage sources.

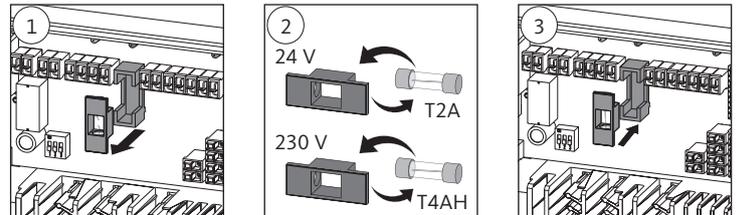
i The voltage used must be marked on the identification plate.

Change fuse



WARNING! Danger to life due to electrical voltage!

- Always disconnect the base from mains network and secure against unintended activation before opening.
- Disconnect external voltages and secure against unintended activation.



Cleaning

Please use a dry and solvent-free, soft cloth for cleaning.

Dismantling



WARNING! Danger to life due to electrical voltage!

- Always disconnect the base from mains network and secure against unintended activation before opening.
- Disconnect external voltages and secure against unintended activation.

- De-energise the complete installation.
- Remove the wiring to all externally connected components.
- Remove the base and dispose of it properly if necessary.

Electrical connection

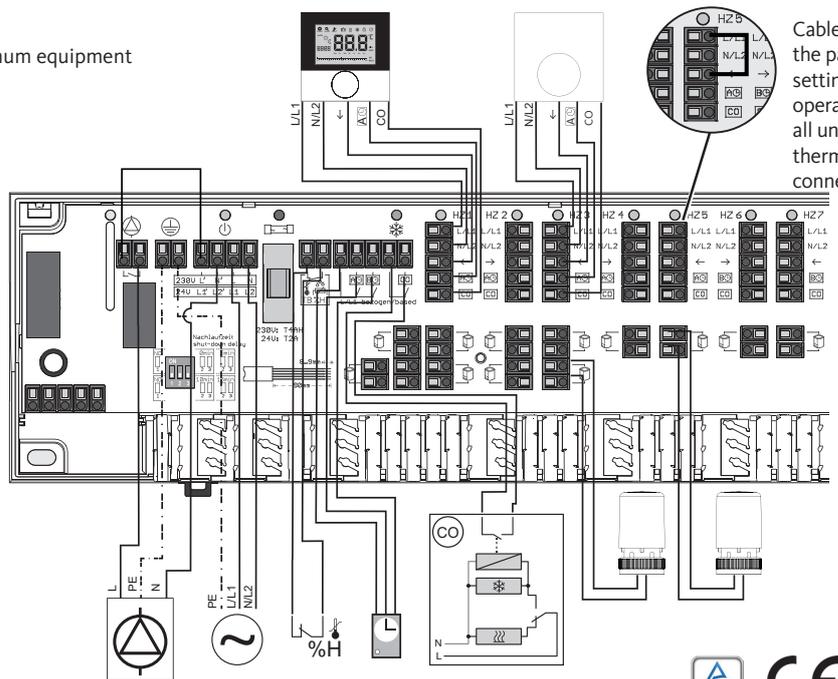
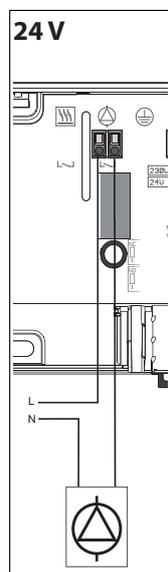
The voltage supply of the 24 V version of the terminal block must come from a safety transformer according to EN 61558-2-6 or, for North America, from a Class II transformer according to UL.

For the connection of the voltage supply, the cable cross sections must be 0.75 mm² – 1.5 mm² for 230 V. Depending on the voltage version of the base, it is possible to take L1 or L and L2 or N, as well as the protective conductor, from the base. If no temperature limiter is connected, the connection TB/%H must be bridged (provided for at the factory). The bridge must be removed as soon as a temperature limiter is connected. The temperature limiter must be a normally closed contact.

i The connected thermostats and actuators must be compatible with the connected supply.

- Digital thermostat
- Analogue thermostat
- Actuator
- Pump
- Voltage source
- Temperature limiter / dew point sensor
- System clock
- Heating/Cooling change-over
- Cooling
- Heating

Illustration shows maximum equipment



Cable bridge in the parameter setting NO operation for all unused thermostat connections.

