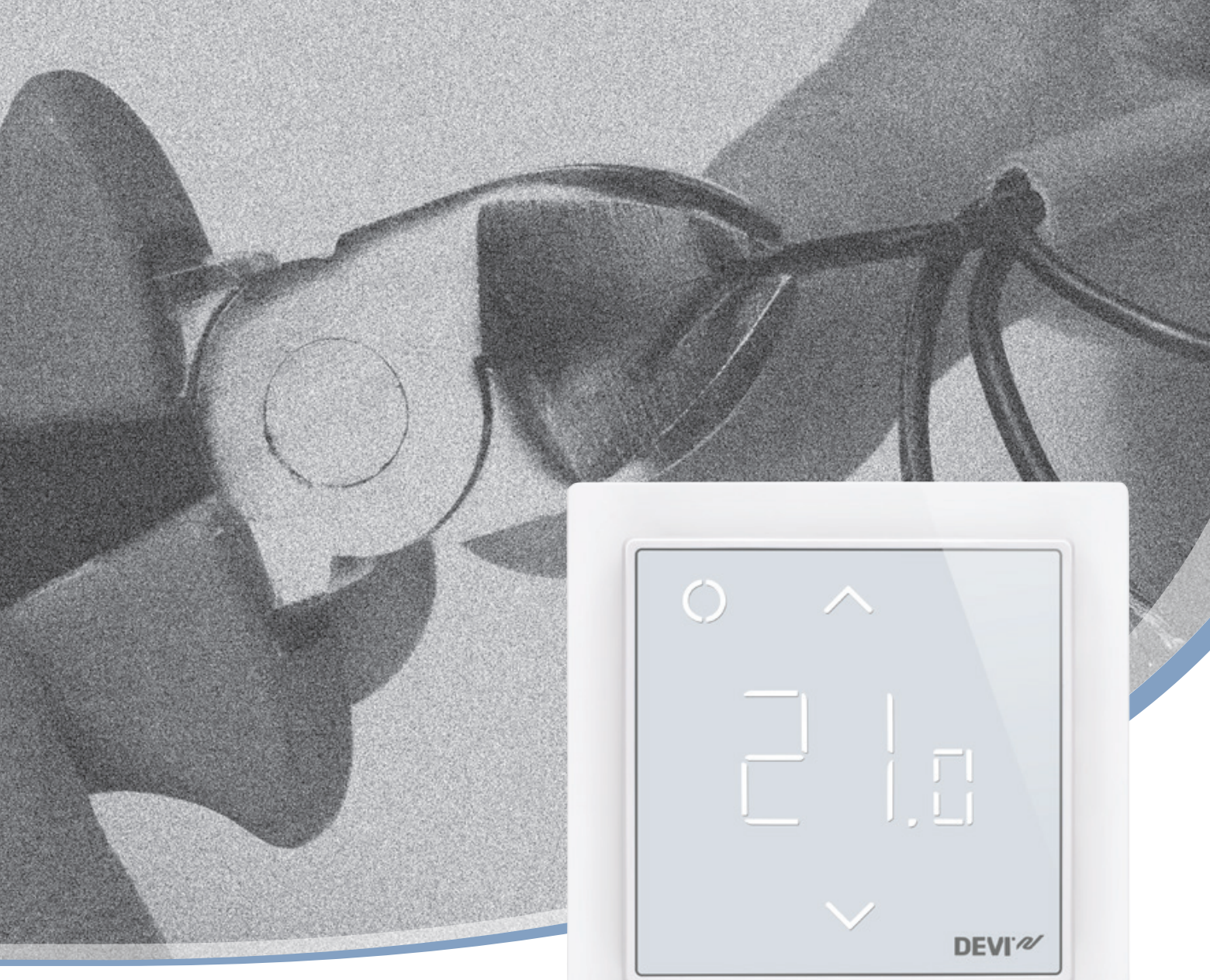

Installation Guide

DEVIreg™ Smart

Intelligent Electronic Timer Thermostat with Wi-Fi connectivity and App control

www.DEVI.com

DEVI®

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1 Introduction

DEVIreg™ Smart is an electronic programmable timer thermostat used for controlling electrical floor heating elements. The thermostat is designed for fixed installation only and can be used for both direct heating of the entire room and for comfort heating of the floor. Among others, the thermostat has the following features:

- A touchscreen display with light.
- An easy-to-follow menu-driven programming and operation.
- An installation wizard with room/floor type-specific setup (requires an app).
- Support for multiple frame systems.
- Compatible with several 3rd party NTC sensors.
- Thermostat settings can be specified before installation and imported to the thermostat using a web-generated code, or copied from a thermostat in a similar installation.
- Smart access to thermostat settings after installation by using a web code interface, for easy setup or remote troubleshooting.

Regarding Connectivity:

- 10 smart devices (like Smartphone or Tablet) can be connected to 1 thermostat.
- 2 smart devices can be in contact with the thermostat at the same time.

DEVIREG™ SMART REQUIRES WORKING WI-FI TO FUNCTION

More information on this product can also be found at: devismart.com

2 Technical Specifications

Operation voltage	220-240 V~, 50/60 Hz
Standby power consumption	Max. 0,40 W
Relay: Resistive load Inductive load	 Max. 16 A / 3680 W @ 230 V Max. 1 A cos φ= 0,3
Sensing units	NTC 6,8 kOhm at 25°C NTC 10 kOhm at 25°C NTC 12 kOhm at 25°C NTC 15 kOhm at 25°C (Default) NTC 33 kOhm at 25°C NTC 47 kOhm at 25°C
Sensing values: (Default NTC 15 K) 0°C 20°C 50°C	 42 kOhm 18 kOhm 6 kOhm
Control	PWM (Pulse Wide Modulation)
Ambient temperature	0° to +30°C

Frost protection temperature	5°C to +9°C (default 5°C)
Temperature range	Room temperature: 5-35°C. Floor temperature: 5-45°C. Max. floor: 20-35°C (if unrecoverable seal is broken then up to 45°C). Min. floor: 10-35°C, only with combination of room and floor sensor.
Sensor failure monitoring	The thermostat has a built-in monitoring circuit, which will switch off the heating if the sensor is disconnected or short-circuited
Cable specification max.	1x4 mm^2
Ball pressure test temperature	75°C
Pollution degree	2 (domestic use)
Controller type	1C
Software class	A
Storage temperature	-20°C to +65°C
IP class	21

Protection class	Class II - ⧈
Dimensions	85 x 85 x 20-24 mm (in-wall depth: 22 mm)
Weight	127 g

Electrical safety and Electro-Magnetic Compatibility for this product is covered by the compliance with the EN/IEC Standard "Automatic electrical controls for household and similar use":

- EN/IEC 60730-1 (general)
- EN/IEC 60730-2-9 (thermostat)

3 Safety Instructions

Make sure the mains supply to the thermostat is turned off before installation.

Important: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35°C.

Please also note the following:

- The installation of the thermostat must be done by an authorized and qualified installer according to local regulations.
- The thermostat must be connected to a power supply via an all-pole disconnection switch.
- Always connect the thermostat to continuous power supply.
- Do not expose the thermostat to moisture, water, dust, and excessive heat.
- This thermostat can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved, by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the thermostat.
- Cleaning and user maintenance shall not be made by children without supervision.

4 Mounting Instructions

Please observe the following placement guidelines:

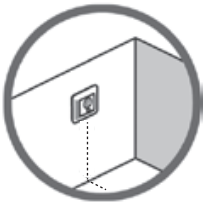
Place the thermostat at a suitable height on the wall (typically 80-170 cm.).

The thermostat should not be placed in wet rooms. Thermostat must be placed outside zone 3. Place it in an adjacent room and use floor sensor only. Always place the thermostat according to local regulation on IP classes.

Do not place the thermostat on the inner side of a poorly insulated exterior wall.

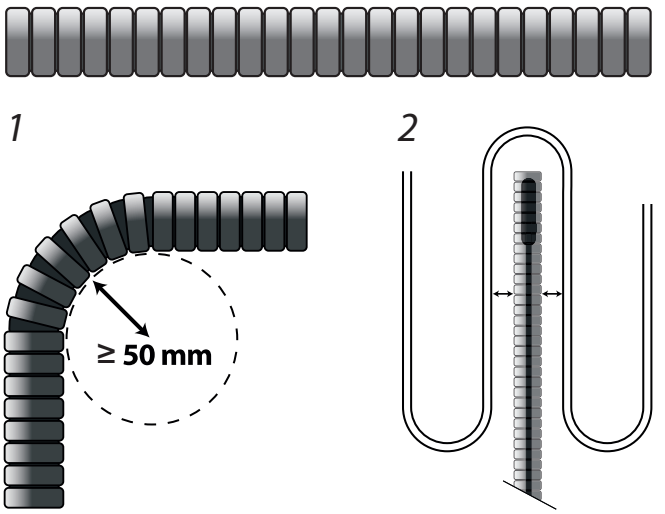
Always install the thermostat at least 50 cm from windows and doors, due to draft, when using regulation in: floor and room mode or room alone mode.

Do not place the thermostat in a way that it will be exposed to direct sunlight.



Note: A floor sensor is recommended in all floor heating applications and **mandatory** to thin mats and under wooden floors to reduce the risk of over-heating the floor.

- Place the floor sensor in a protecting plastic conduit in the floor construction in an appropriate place, where the floor is not exposed to sunlight or draft from door openings.
- Equally distant and >2 cm from the heating cables on both sides.
- The conduit should be flush with the floor surface, countersink the conduit if neces-sary and possible.
- Route the conduit to the connection box.



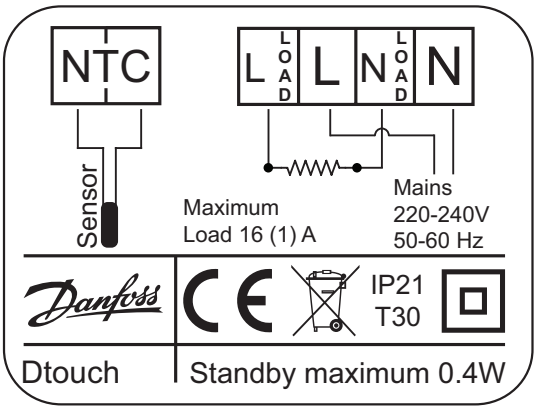
- The bending radius of the conduit must be min 50 mm.

Follow the steps below to mount the thermostat:

1. Unpack thermostat

2. Connect the thermostat according to the connection diagram.

   The screen of the heating cable must be connected to the earth conductor of the power supply cable by using a separate connector.



   Note: Always install the floor sensor in a conduit in the floor.

3. Fasten the thermostat firmly to a flush mounted wall box or an exterior wall box by driving the screws through the holes in each side of the thermostat.

4. Add the frame before assembling of top part to the snap locks/bottom part.

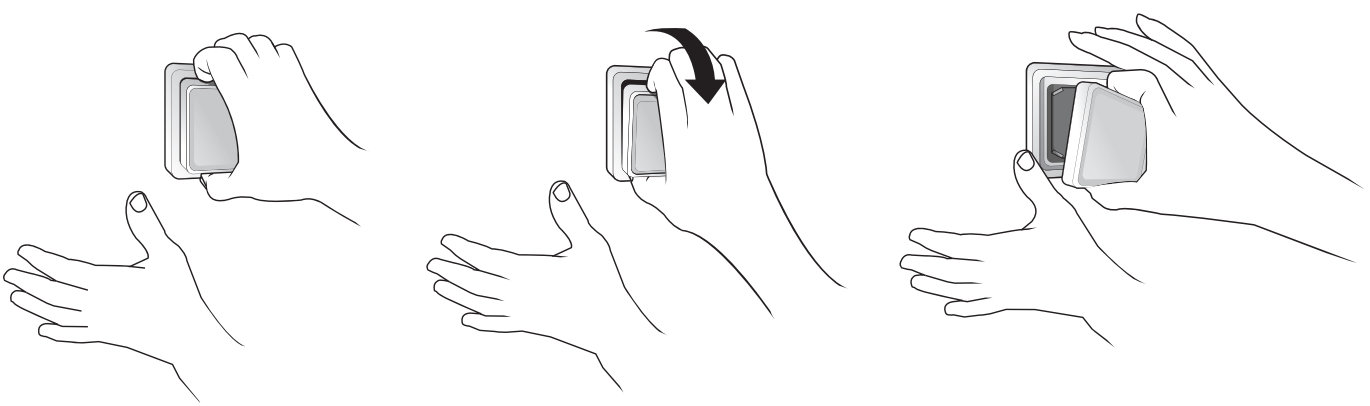
5. Click the front part module in place. Pay attention, in relation to

the female header, in not to bending the connectors. Press carefully until the frame is fixed against the rubber gasket.

When mounting and reassembling the thermostat.

Important: Do NOT press in the center of the display screen.

Press your fingers under the side of the front part and pull toward you until it releases from the snap lock:

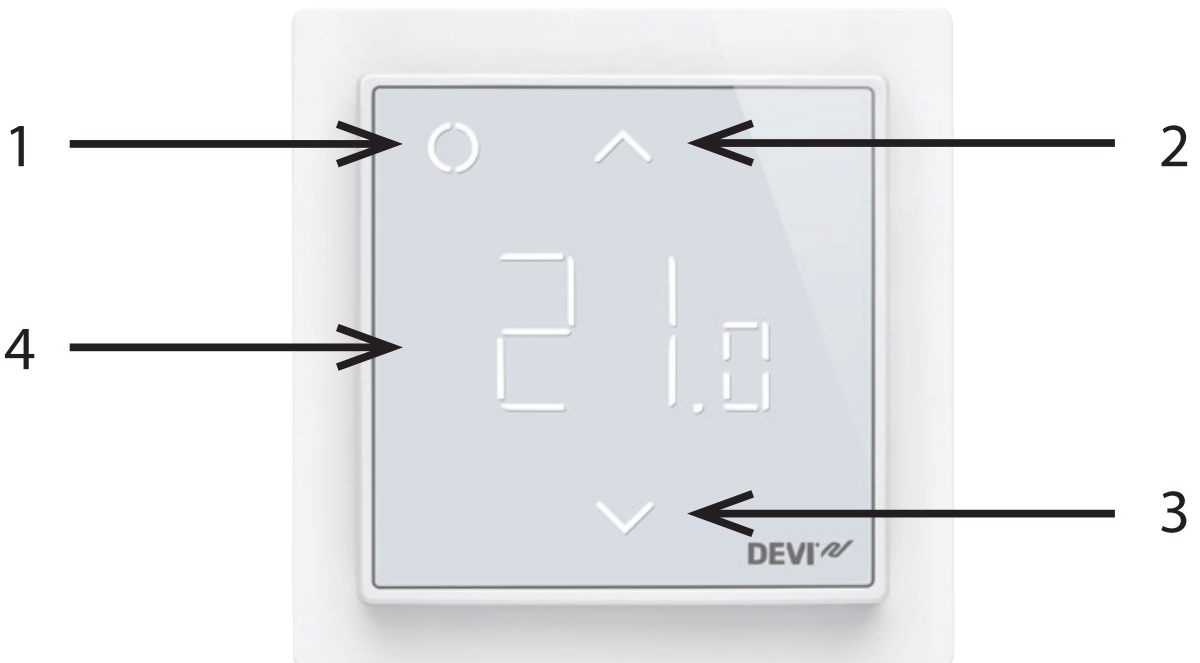


To ensure that the batteries are fully charged, the thermostat shall be connected to main supply for minimum 15 hours. The current time and day is kept for 24 hours if mains supply is off.
All other settings are stored permanently.

5 Display Symbols

Top part main functionalities are to support user interface through display and hold all the controller logic.

Display main functionalities are to show the current status of the Thermostat and recognize the user actions from the buttons. Display consists of different buttons, numbers and symbols.



Nr.	Type	Description
1	Button/Symbol	Control button
2	Button/Symbol	Arrow Up button
3	Button/Symbol	Arrow Down button
4	Symbol	3 digit 7 segment numbers with comma separator

Symbol indications

Indication	Mode/State	Description
Blue - blinking	Access Point Mode	Thermostat ready for set-up
Blue	Access Point Mode	Smart phone connected directly to thermostat for set-up
Red - blinking	Fault state	Displays Error code
Red - slow pulsing	Active Mode	Indicating heating the floor (Relay on)
Green - constant	Active Mode	Thermostat active and connected to WiFi(Relay off)

Green – blinking	Active Mode & Access Point Mode	Thermostat waiting for confirmation of action
Arrows – blinking rapidly when touched	Active Mode	Safety lock is on

Interaction directly on thermostat

Function	Button	Description
Turn thermostat on	1. Touch any button 2. Touch control button (1)	Thermostat switch on and display temperature
Turn thermostat off	1. Touch any button 2. Touch and hold control button (1)	Thermostat display will turn on Thermostat count down and switch off
Adjust set-point	Up (2)	Increases active mode/ temporary set point
	Down (3)	Decreases active mode/ temporary set point

Frost protection	Touch and hold Control (1) for 1 sec.	Deactivate frost protection
Safety lock	Touch and hold Up (2) + Down (3) for 3 sec.	Activate/Deactivate safety lock
Factory restore	Touch and hold Control (1) + Up (2) for 5 sec. After that touch Control (1) again to confirm	Activates factory restore state
Away mode	Touch and hold Control (1) for 1 sec. to deactivate Away mode	Activate/Deactivate Away/Vacation mode

Error codes

When the error occurs and is resolved the thermostat, in some cases, will require a restart to start heating again.

Error type	Nr.	Description	Solution	Need restart
Floor Sensor disconnected	E1	Connection to sensor is lost	Contact service	The thermostat requires a restart to operate again.
Floor Sensor short-circuited	E2	Sensor short-circuited	Contact service	The thermostat requires a restart to operate again.
Thermostat overheated	E3	Thermostat is overheated, heating is turned off	Wait until thermostat cools down	The thermostat requires no restart, but will start heating when the temperature is lowered
Unrecoverable error	E4	Room temperature sensor value too high or too low	Contact service	The thermostat requires a restart to operate again.

Communication Error Codes

Communication error	Nr.	Description
Wrong SSID or password	C1	STA trying to connect to the AP
No IP address	C2	STA - connection acquired, no IP yet, waiting for configuration data.
No internet connection	C3	STA connected and has an IP from DHCP server.

6 Configuring

Download App

Download the DEVIsmart™ app from App Store or Google Play or at devismart.com.

Find WiFi name and password for the WiFi network, that you would like to connect your thermostat to. If in doubt contact network administrator or internet service provider.

Identify your floor sensor type (in kOhm).

Identify your installed heating output (in W), from label on the heating element.

Power on the thermostat, and it will show "-" in the display. Then it is ready to be configured using your iPhone and Android device.

Open the DEVIsmart™ App. Follow instructions and set-up flow in the App.

DEVIreg™ Smart indication

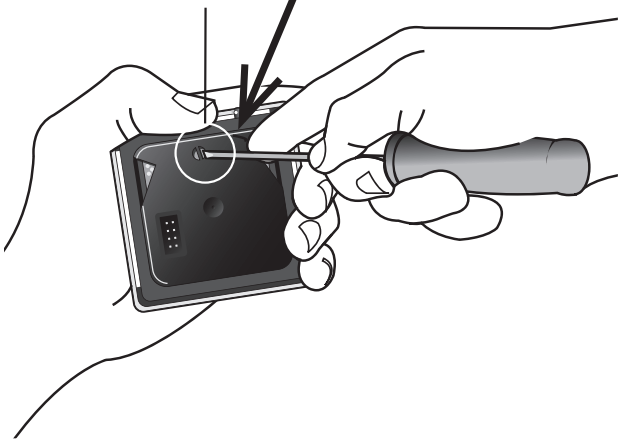
The DEVIreg™ Smart shows "–" indicating that power is ON, but still need to be configured.

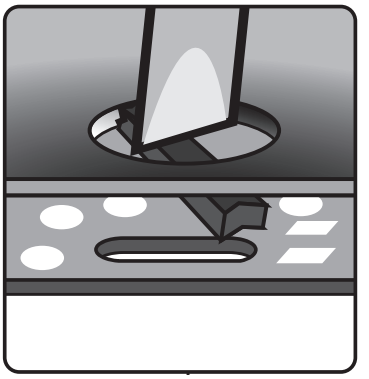
7 Settings

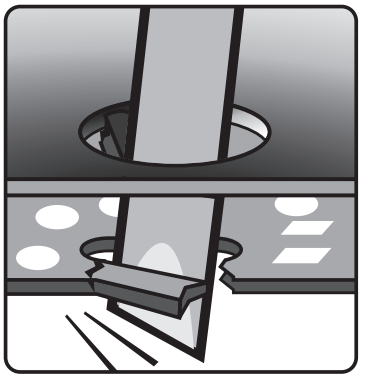
IMPORTANT DURING SET-UP

Select whether only a floor sensor or a combination of room and floor sensor should be used.

A “room only” option is also available, but requires that you have to break the small plastic seal on the back of the display module, e.g. using a screwdriver; it will be possible to set the maximum floor temperature up to 45°. Furthermore, it will be possible to use only a room sensor. However, this







option is not recommendable due to an increased risk of overheating the floor.

IMPORTANT: When the thermostat is used to control a floor heating element in connection with a wooden floor or similar material, always use a floor sensor and never set the maximum floor temperature to more than 35°C.

Note: Please contact the floor supplier before changing the maximum floor temperature and be aware of the following:

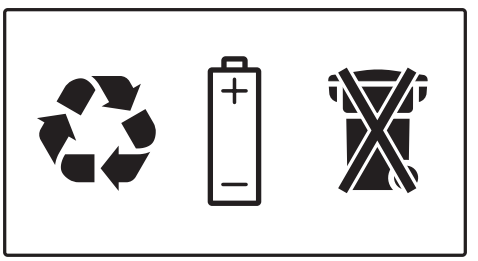
- The floor temperature is measured there, where the sensor is placed.
- The temperature of the bottom of a wooden floor can be up to 10˚C higher than the top.
- Floor manufactures often specify the max. temperature on the top surface of the floor.

Thermal resistance [m^2K/W]	Examples of flooring	Details kg/m^3	Approximate setting for 25°C floor temperature
0,05	8 mm HDF based laminate	> 800	28°C
0,10	14 mm beech parquet	650 – 800	31°C
0,13	22 mm solid oak plank	> 800	32°C
< 0,17	Max. carpet thickness suitable for floor heating	acc. to EN 1307	34°C
0,18	22 mm solid fir planks	450 – 650	35°C

8 Warranty

The products will, in the event of a fault that can be tracked back to a manufacturing defect in the DEVI product, be repaired or replaced free of charge. To apply for this warranty the installation must be performed by an authorized installer and the warranty certificate has to be stamped, signed and provided. For more details read our warranty terms and conditions.

9 Disposal Instruction



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