



Installation Guide

DEVIreg™ 528

Electronic Thermostat

www.DEVI.com

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1 Introduction


DEVIreg™ 528 is an electronic thermostat provided with a 2-pole switch and a floor sensor to measure and control the desired floor temperature. It can either be flush-mounted or surface-mounted.

The thermostat has a button for adjusting the temperature setting with a scale from (✱) 1 to 6 (each step corresponds to approximately 8°C). Furthermore, it has a LED indicator showing standby periods (green light) and heating periods (red light).

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

1.1 Technical Specifications

Operation voltage	220-240~, 50Hz
Standby power consumption	Max. 0.25W
Relay: Resistive load Inductive load	Max 10A / 2300W @ 230V cos φ= 0.3 max 1A
Sensing units	NTC 15kOhm at 25°C
Sensing values: 0°C 25°C 50°C	42kOhm 15kOhm 6kOhm
Hysteresis	± 0.4°C
Ambient temperature	-10°C to +30°C
Frost protection temperature	5°C - ❄
Temperature range	(❄) 5-45°C with floor sensor only
Cable specification max	1x4mm ² or 2x2,5mm ²
Ball pressure temperature	75°C
Pollution degree	2 (domestic use)
Type	1C
Storage temperature	-20°C to +65°C

IP class	31
Protection class	Class II - 
Dimensions	85 x 85 x 36mm
Weight	90g

The product complies with the EN/IEC Standard "Automatic electrical controls for household and similar use":

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

1.2 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.

- The sensor is to be considered as live voltage. Have this in mind if the sensor must be extended.
- Always connect the thermostat to continuous power supply.
- Do not expose the thermostat to moisture, water, dust, and excessive heat.

2 Mounting Instructions

Please observe the following placement guidelines:



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



In wet rooms, place the thermostat according to local regulation on IP classes.

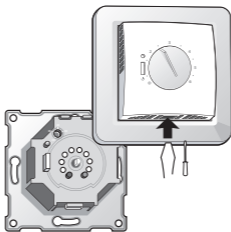


Note: A floor sensor enables a more accurate temperature control and is recommended in all floor heating applications and **mandatory** under wooden floors to reduce the risk of over-heating the floor.

- Place the floor sensor in a conduit in an appropriate place where it is not exposed to sunlight or draft from door openings.
- Equally distant and $>2\text{cm}$ from two heating cables.
- The conduit should be flush with the floor surface - countersink the conduit if necessary.
- Route the conduit to the connection box.
- The bending radius of the conduit must be min 50mm.

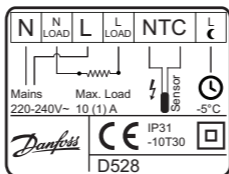
Follow the steps below to mount the thermostat:

1. Open the thermostat:



- Press the release tab in the bottom of the thermostat using a screwdriver or similar object.
- Carefully detach the front cover.
- Carefully detach the frame.

2. Connect the thermostat according to the connection diagram.



By connecting an external timer to the terminal marked by a moon symbol (and by using for example the same phase as for the mains power supply), the thermostat can be set to reduce the temperature by 5°C during specified periods.

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. Mount and reassemble the thermostat:
 - Fasten the thermostat to a flush-mounting box or a surface-mounting box by driving the screws through the holes in each side of the thermostat.
 - Install the frame and front cover in the reverse order of disassembly.

4. Turn on the power supply.

3 Settings

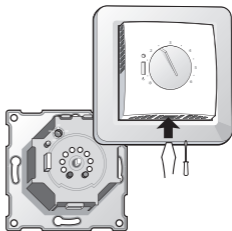
Please be aware of the following:

- The floor temperature is measured where the floor sensor is placed.
- The temperature of the bottom of a wooden floor can be up to 10 degrees higher than the top.
- Floor manufactures often specify the max temperature on the top surface of the floor (usually 27-28°C).
- Always use a floor sensor or a room + floor sensor combination to control floor heating. Without a floor sensor, the temperature control may be less accurate and you risk overheating the floor.

Thermal resistance [m²K/ W]	Examples of flooring	Details	Approximate setting for 25°C on top surface of floor
0.05	8 mm HDF based laminate	> 800 kg/m ³	28°C
0.10	14 mm beech parquet	650 - 800 kg/m ³	31°C
0.13	22 mm solid oak plank	> 800 kg/m ³	32°C
< 0.17	Max. carpet thickness suitable for floor heating	acc. to EN/IEC 1307	34°C
0.18	22 mm solid fir planks	450 - 650 kg/m ³	35°C

How to change the minimum and maximum floor temperatures

1. Remove the adjustment button.
2. Move the pins to the desired positions.
3. Put the adjustment button back in place.



4 Warranty



5 Disposal Instruction



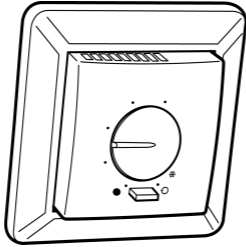
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DEVIreg 528 ELKO

140F1030

Thermostat
- Floor Sensor
220-240V~
50-60Hz~
+5 to +45°C
10A/2300W@230V~
IP 31



Product Documentation

FI SSSL 3531035

Designed in Denmark for Danfoss A/S

