

Installation Guide

# DEVIreg<sup>™</sup> 130

**Electronic Thermostat** 





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### 1 Introduction

DEVIreg™ 130 is an electronic thermostat to be installed directly on the wall. It is provided with a floor sensor to measure and control the desired floor temperature.

The thermostat has a button for adjusting the temperature setting with a scale from ( $\bigcirc$ ) 1 to 5 (each step corresponds to approximately 9 °C). Furthermore, the thermostat has an 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	220-240V~, 50Hz	
Power consumption	Max 5W	
Relay: Resistive load Inductive load	Max 16A / 3680W @ 230V cos φ= 0.3 max 1A	
Sensing units	NTC 15 kOhm at 25°C	
Sensing values: 0°C 25°C 50°C	42 kOhm 15 kOhm 6 kOhm	
Hysteresis	± 0,2 °C	
Ambient temperature	0 to +30 °C	
Frost protection temperature	5 °C - <del> X</del>	
Temperature range	(७) 5–45 °C	
Cable specification max	1 x 4 mm <sup>2</sup> or 2 x 2,5 mm <sup>2</sup>	
Ball pressure temperature	75 ℃	
Pollution degree	Degree 2 (domestic use)	
Туре	1C	
Storage temperature	-20 to +65 °C	
IP class	30	
Protection class	Class II - 🗖	



Dimensions	82 x 82 x 36 mm
Weight	90 g

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.



Do not place the thermostat on the inner side of an exterior wall.





- 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 >2cm 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:



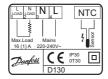
- · Lift off the button using a small screwdriver.
- · Loosen the screw which holds the front.
- Push down the release tab at the top of the thermostat using a flat object while slowly pulling off the front cover.



Fasten the thermostat directly to the wall by driving the screws through the holes in each side of the thermostat.



- **1** = Screw holes for fastening the thermostat.
- 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.



- Install the front cover and button in the reverse order of disassembly.
- 5. Turn on the power supply.

### 3 Settings

### 3.1 Temperature Settings

## How to change the minimum and maximum floor temperatures

- Lift off the adjustment button using a thin screwdriver. 1
- Move the pins to the desired positions.
  and 3).
- 3. Put the adjustment button back in place.



### Please be aware of the following:

- The floor temperature is measured where the 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).



- By default, the maximum floor temperature is set to 35 °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 floor temperature
0,05	8 mm HDF based laminate	> 800 kg/m <sup>3</sup>	28 °C
0,10	14 mm beech parquet	650 - 800 kg/m³	31 °C
0,13	22 mm solid oak plank	> 800 kg/m <sup>3</sup>	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 kg/m³	35 °C



### 4 Warranty

### A 2-year product warranty is valid for:

thermostats: DEVIreq™ 130.

Should you, against all expectations, experience a problem with your DEVI product, you will find that Danfoss offers DEVIwarranty valid from the date of purchase on the following conditions: During the warranty period Danfoss shall offer a new comparable product or repair the product if the product is found to be faulty by reason of defective design, materials or workmanship. The repair or replacement.

The decision to either repair or replace will be solely at the discretion of Danfoss. Danfoss shall not be liable for any consequential or incidental damages including, but not limited to, damages to property or extra utility expenses. No extension of the warranty period following repairs undertaken is granted.

The warranty shall be valid only if the WARRANTY CERTIFICATE is completed correctly and in accordance with the instructions, the fault is submitted to the installer or the seller without undue delay and proof of purchase is provided. Please note that the WARRANTY CERTIFICATE must be filled in, stamped and signed by the authorized installer performing the installation (Installation date must be indicated). After the installation is performed, store and keep the WARRANTY CERTIFICATE and purchase documents (invoice, receipt or similar) during the whole warranty period.

DEVIwarranty shall not cover any damage caused by incorrect conditions of use, incorrect installation or if installation has been carried out by non-authorized electricians. All work will be invoiced in full if Danfoss is required to inspect or repair faults that have arisen as a result of any of the above. The DEVIwarranty shall not extend to products which have not been paid in full. Danfoss will, at all times, provide a rapid and effective response to all complaints and inquiries from our customers.

The warranty explicitly excludes all claims exceeding the above conditions.

For full warranty text visit www.devi.com. devi.danfoss.com/en/warranty/



# **WARRANTY CERTIFICATE**

Address

Purchase date Serial number of the product Product

Art. No.

\*Connected output [W]

Installation Date & Signature

Connection Date & Signature

\*Not mandatory

The DEVIwarranty is granted to:





### 5 Disposal Instruction



### Danfoss A/S

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# **DEVIreg<sup>™</sup> 130** 140F1010





