

# DEVIreg 330 Thermostat -10 to +10c Installation Guide

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DEVIreg 330 Thermostat -10 to +10c



## **Specifications**

• Operation voltage: 220-240 V~, 50 Hz

• Standby power consumption: Max 0.25 W

 Relay: Resistive load Max 16 A / 3680 W @ 230 V, Inductive load max1A

• Sensing units: 42 kOhm, 15 kOhm, 6 kOhm

• Hysteresis: 0.05 – 0.18

• Temperature range: 20-40°C

• Cable specification max: 1×4 mm2 or 2×2.5 mm2

• Pollution degree: 2 (domestic use)

• Type: 1C

• Storage temperature: -20°C

• IP class: Class II

• Dimensions: 86 x 36 x 58 mm

• Weight: 83 g

# **Product Usage Instructions**

#### 1. Introduction

The DEVIregTM 330 is an electronic thermostat designed for electric cabinets with DIN rail attachment. It requires installation via an all-pole disconnection switch. To measure and control the desired temperature, either a floor sensor or an external room sensor must be used. For more information on this product, visit <u>devireg.devi.com</u>.

#### 2. Mounting Instructions

Follow the steps below to mount the thermostat:

- 1. Click the thermostat onto the DIN rail attachment.
- 2. Connect the thermostat according to the connection diagram.

#### **Connection Diagram:**

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

Note: When using the wire sensor for floor heating, always install the sensor in a conduit.

1. Turn on the power supply.

#### 3. Settings

If a floor sensor is used, please be aware of the following:

- For 8 mm HDF-based laminate, set hysteresis to 0.05.
- For 14 mm beech parquet, set hysteresis to 0.10.
- For 22 mm solid oak plank, set hysteresis to 0.13.
- For carpet thickness suitable for floor heating up to 22 mm solid fir planks, set hysteresis to <0.17.

#### 4. Warranty

A 2-year product warranty is valid for:

Faulty products due to defective design, materials, or workmanship. The decision to repair or replace the
product will be at the discretion of Danfoss, and no extension of the warranty period following repairs
undertaken is granted. Danfoss shall not be liable for any consequential or incidental damages.

## **FAQ**

Q: How long is the warranty period for the DEVIregTM 330 thermostat?

A: The warranty period for the DEVIregTM 330 thermostat is 2 years from the date of purchase.

Q: Can I use the thermostat without a floor sensor or external room sensor?

A: No, either a floor sensor or an external room sensor must be used to measure and control the desired temperature.

#### Introduction

DEVIreg™ 330 is an electronic thermostat to be installed in electric cabinets with DIN rail attachment. The thermostat must be installed via an all-pole disconnection switch. Either a floor sensor or an external room sensor must be used to measure and control the desired temperature.

The thermostat has a button to adjust the temperature setting with a scale from +5 to +45°C. An LED indicator shows standby periods (green light) and heating periods (red light). More information on this product can also be found at:

## • <u>devireg.devi.com</u>

## **Technical Specifications**

Operation voltage	220-240 V~, 50 Hz
Standby power consumption	Max 0,25 W
Relay: Resistive load Inductive load	Max 16 A / 3680 W @ 230 V cos φ= 0,3 max1A
Sensing units	NTC 15 kOhm at 25 °C
Sensing values:	
0 °C	42 kOhm
25 °C	15 kOhm
50 °C	6 kOhm
Hysteresis	± 0,2 °C
Ambient temperature	10 °C to +50 °C
Lowering in economy periods	-5 °C

Temperature range	+5 °C to +45 °C
Cable specification max	1×4 mm2 or 2×2,5 mm2
Ball pressure temperature	75 °C
Pollution degree	2 (domestic use)
Туре	1C
Storage temperature	-20 °C to +65 °C
IP class	20

Protection class	Class II
Dimensions	86 x 36 x 58 mm
Weight	83 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)

#### **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 the continuous power supply.
- Do not expose the thermostat to moisture, water, dust, and excessive heat.

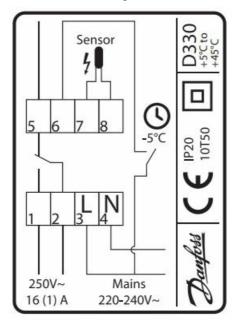
# **Mounting Instructions**

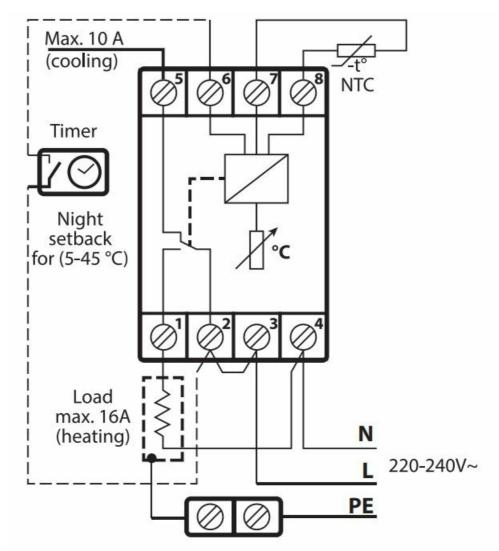
Please observe the following placement guidelines:

- Install the thermostat in an electric cabinet with DIN rail attachment or a separate DIN attachment according to local regulations on IP classes.
- Do not place the thermostat in a way that it will be exposed to direct sunlight.

## Follow the steps below to mount the thermostat:

- 1. Click the thermostat on to the DIN rail attachment.
- 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:** When you use the wire sensor for floor heating, always install the sensor in a conduit.

3. Turn on the power supply.

#### **Settings**

If a floor sensor is used, 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 manufacturers often specify the max temperature on the top surface of the floor (usually 27-28°C).
- Always use a floor sensor to control floor heating. Without a floor sensor, the temperature control may be less
  accurate and you risk overheating the floor.

Thermal resist- ance [m²K/W]	Examples of flooring	Details	Approximate setting f or 25°C floor temperat ure
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/m³	32°C
< 0,17	Max. carpet thickness suitable for flo or heating	acc. to EN 1307	34°C
0,18	22 mm solid fir planks	450 – 650 kg/m³	35°C

#### Warranty

A 2-year product warranty is valid for:

thermostats: DEVIreg<sup>™</sup> 330 (+5 to +45° C).

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 com-parable 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 nonauthorized electri-cians. 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**

WARRANTY CERTIFICATE				
The DEVIwarranty is grant	red to:			
Address		Stamp		
Purchase date				
Serial number of the produ	ict			
Product	Art. No.			
*Connected output [W]				
Installation Date & Signature	Connection Date & Signature			
*Not mandatory		31		

## **Disposal Instruction**



Danfoss A/S Nordborgvej 81 6430 Nordborg, Syddanmark Denmark

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.

- 220-240V~
- 50-60Hz~
- +5 to +45°C
- 16A/3680W@230V~



## **Documents / Resources**



<u>DEVI DEVIreg 330 Thermostat -10 to +10c</u> [pdf] Installation Guide DEVIreg 330 Thermostat -10 to 10c, DEVIreg 330, Thermostat -10 to 10c, 10 to 10c

#### References

- Welcome to DEVI | Danfoss
- Welcome to DEVI | Danfoss
- User Manual