DEVIreg Touch Frameless Installation Guide

Contents

DEVIreg Touch Frameless

Introduction

- DEVIreg™ Touch is an electronic programmable timer thermostat for controlling electrical floor heating elements.
- The thermostat is designed for fixed installation only and can be used for direct heating of the entire room and comfort heating of the floor.

Among others, the thermostat has the following features:

- A touchscreen display with a backlight.
- An easy-to-follow menu-driven programming and operation.
- An installation wizard with room/floor type-specific setup.
- Support for multiple frame systems.
- Compatible with several 3rd party NTC sensors.
- Thermostat settings can be specified before installa-tion 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.
- More information on this product can also be found at: **touch.devi.com**

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 cos φ= 0.3 Max. 1 A

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 the unrecoverable seal is broken then up to 45°C). Min. floor: 10-35°C, only with the combination of room and floor sensors.
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.	1×4 mm^2 or 2×2,5 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	103 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)

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.

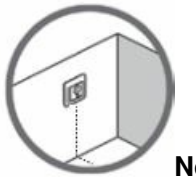
Please also note the following:

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

Mounting Instructions

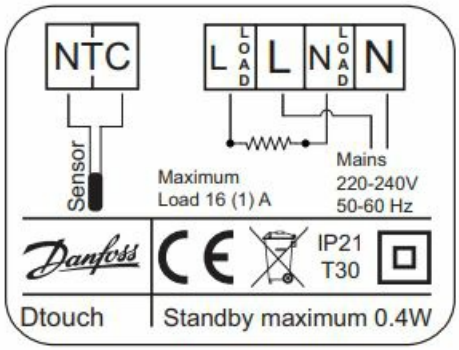
Please observe the following placement guidelines:

-  Place the thermostat at a suitable height on the wall (typically 80-170cm.).
-  The thermostat should not be placed in wet rooms. Place it in an adjacent room. Always place the thermostat according to local regulations on IP classes.
-  Do not place the thermostat on the inner side of an exterior wall.
-  Always install the thermostat at least 50 cm. from windows and doors.
-  Do not place the thermostat in a way that it will be exposed to direct sunlight.
-  **Note:** A floor sensor enables more accurate temperature control and is recommended in all floor heating applications and mandatory under wooden floors to reduce the risk of overheating 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 >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:

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 on the floor.
3. Mount and reassemble the thermostat.

- Fasten the thermostat to a socket or an exterior wall box by driving the screws through the holes in each side of the thermostat.
- Put the frame on.
- Click the display module back in place.
- Initially, the main supply is the thermostat for 15 hours to fully charge the battery. The current time and day are then kept for 24 hours if the mains supply is off. All other settings are stored permanently.

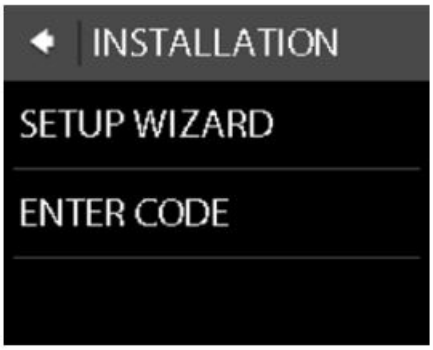
Settings

Initial Settings

Initial settings must be specified when the unit is activated for the first time:

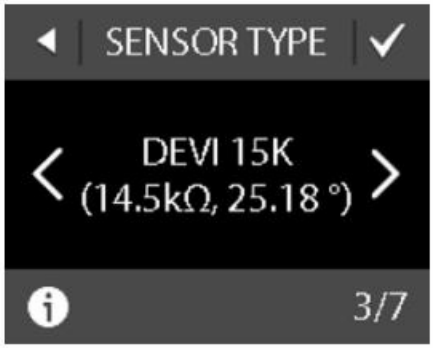
1. Use the arrows on the right side of the screen to go to your language, and press to select it. Then press in the upper right corner to confirm.
2. Press the hour numbers and use the < and > arrows to set the hour. Press to confirm.

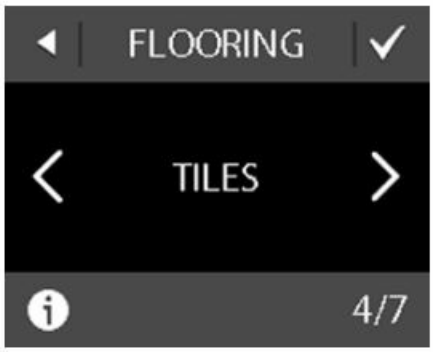
3. Press the minutes numbers and use the < and > arrows to set the minutes. Press to confirm. Press again to go to the SET DATE screen.
4. Press the day, month, and year respectively, and set the date using the < and > arrows and pressing to confirm. When the date is correct, press, to confirm on the SET DATE screen.
5. If you have already made the installation setup online, press ENTER CODE and go directly to Step 13 now. Otherwise, press SETUP WIZARD and go to Step 6.
6. On the SETUP information screen, press to start.

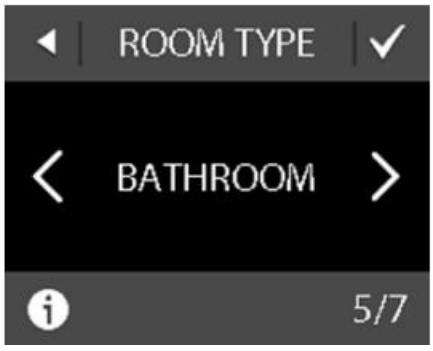


7. Use the < and > arrows to select whether only a floor sensor or a combination of room and floor sensors should be used. Press ✓ to confirm.

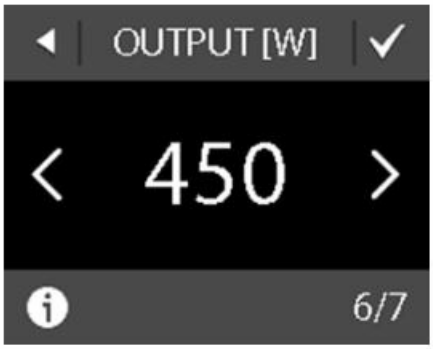
   - **Note:** A “room only” option may also be available. For details, see the “Maximum Floor Temperature” section.
8. Use the < and > arrows to select the installed floor sensor type. (Measured resistance and corresponding temperature are shown in brackets).
9. Press ✓ to confirm.
10. Use the < and > arrows to select the flooring type. Press ✓ to confirm.

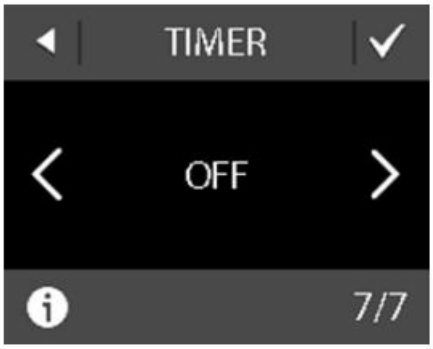






11. Use the < and > arrows to select the approximate load of the heating element. If an external relay is used or the installed output is unknown, select the «– –» option. Press ✓ to confirm.
12. Use the < and > arrows to select whether the timer should be activated or not. Press ✓ to confirm and end the initial thermostat setup. Skip Step 13.
13. Enter your web-generated code. Then press ✓ to end the initial thermostat setup. If no check mark (✓) appears, the hexacode is incorrect.





Forecast

- The forecast feature is used when you switch between economy temperature and comfort temperature. If the forecast is turned on, heating will start so that the requested tem-perature is reached at the specified time.
- For example, if your comfort temperature is set to 22°C and the comfort period starts at 6.00 am, heating will start before 6 o'clock so that your room temperature will be 22°C at 6 o'clock.
- If the forecast is turned off, heating will not start until 6 o'clock and it will take a while to reach a room temperature of 22°C.
- The forecast feature also optimizes heating stop when switching from comfort temperature to economy tempera-ture.

How to turn the forecast feature on and off.

1. Touch the thermostat display to activate it, then press the menu.

2. Press SETTINGS in the bottom right corner of the menu. Then press OPTIONS.
3. Press FORECAST. Then press ON to optimize heating start/stop or OFF to simply let the heating start/stop at the specified time. Press to confirm.
    - To return to the normal temperature display, press the back arrow in the upper left corner of the screen until you get to the main menu, then press .

Window Open

How to turn “window open detection” on or off

1. Touch the thermostat display to activate it, then press the menu.
2. Press SETTINGS in the bottom right corner of the menu. Then press OPTIONS.

3. Press WINDOW OPEN. Then press ON to temporarily turn off the heating in case of a sudden temperature drop in the room or OFF to let the thermostat heat during sudden temperature drops in the room. Press to confirm.

To return to the normal temperature display, press the back arrow in the upper left corner of the screen until you get to the main menu, then press .

Maximum Floor Temperature

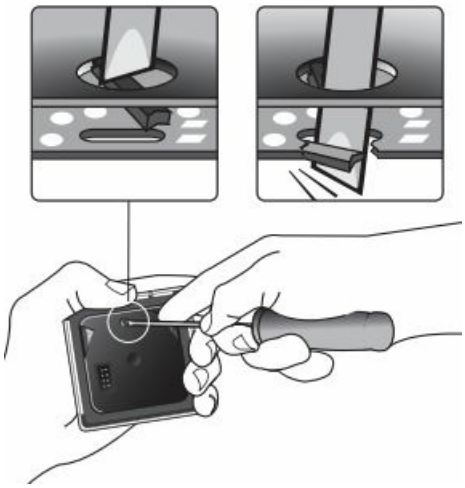
How to set the maximum floor temperature

1. Touch the thermostat display to activate it, then press the menu.

2. Press SETTINGS in the bottom right corner of the menu. Then press INSTALLATION and MANUAL SETUP.

3. Press MAX. FLOOR. Then use the < and > arrows to set the allowed maximum floor temperature. Press to ✓ confirm.

- To return to the normal temperature display, press the back arrow in the upper left corner of the screen until you get to the main menu, then press.
- If you 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 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. tempera-ture on the top surface of the floor.

Thermal resistance **[m K/W]**	**Examples of flooring**	**Details**	**The approximate setting for 25 °C floor temperature**
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 1307	34 °C
0.18	22 mm solid fir planks	450 – 650 kg/m^3	35 °C

Symbols

The following symbols may appear in the upper left corner of the temperature display:

Symbol	What it means
	The thermostat is in manual mode, i.e. the timer function is off. The timer lets you automatically switch between economy and comfort temperatures according to a predefined schedule.
	An away period has been planned. On the date of departure, the away period starts at 00:00 and the specified away temperature will be maintained 24 hours a day until the date of return at 00:00. At this time the normal temperature settings will resume.
	An error has occurred. If you press the warning symbol, more information on the error will appear.

Warranty

- **A 5-year product warranty is valid for** thermostats: DEVIreg™ Touch.
- 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 because of defective design, materials or workmanship. The repair or replacement.

- The decision to either repair or replace will be solely at the discretion of Dan-foss. 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 under 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 (The 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 the installation has been carried out by non-au-thorized 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 DEVI warranty shall not extend to products that 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

The DEVIwarranty is granted to:

- Address ————————————————-
- Stamp ————————————
- Purchase date ————————————————
- Serial number of the product ————————————————-
- Product ————————————
- Art. No ————————————————
- Connected output [W] ————————————————
- Installation Date & Signature ————————————————
- Connection Date & Signature ————————————————-

Disposal Instruction

DEVIreg™ Touch Frameless 140F1065

- **Design** Frame
- **Intelligent** Timer
- **Thermostat**
- **Floor** / Room Sensor
- **220-240V~**
- **50-60Hz**
- **0 to** +30°C
- **16A/3680W@230V~**
- **IP** 21
- DK EL 7224215616 NO EL 5402667 SE EL 8581249 FI SSTL 2600101

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Documents / Resources

	**DEVI DEVIreg Touch Frameless** [pdf] Installation Guide DEVIreg Touch Frameless, Touch Frameless, Frameless

References

- **User Manual**