MAKING MODERN LIVING POSSIBLE

Installation Guide

ECtemp 130

Electronic Thermostat

www.EH.danfoss.com

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1 Introduction

ECtemp 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 (⏻) 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: ectemp.danfoss.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 - ❄
Temperature range	(⏻) 5-45°C
Cable specification max	1x4mm^2 or 2x2,5mm^2
Ball pressure temperature	75°C
Pollution degree	Degree 2 (domestic use)
Type	1C
Storage temperature	-20 to +65°C

IP class	30
Protection class	Class II - ⧈
Dimensions	82 x 82 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.

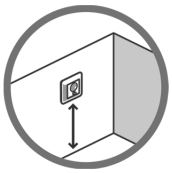
Please also note the following:

- 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

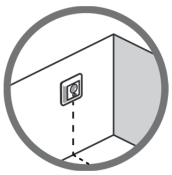
Please observe the following placement guidelines:



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.

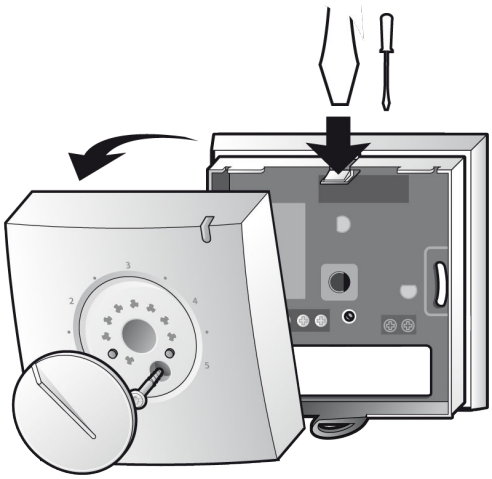
Do not place the thermostat on the inner side of an exterior wall.



- 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.

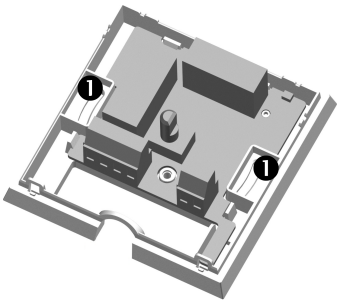
Follow the steps below to mount the thermostat:

1. Open the thermostat:



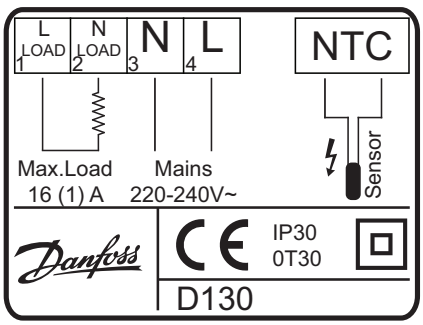
- Lift off the button using a small screwdriver.
- Loosen the screw which holds the front.
- Push down the release tab at the top of the thermostat using a flat object while slowly pulling off the front cover.

2. 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.

3. 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.

4. Install the front cover and button in the reverse order of disassembly.

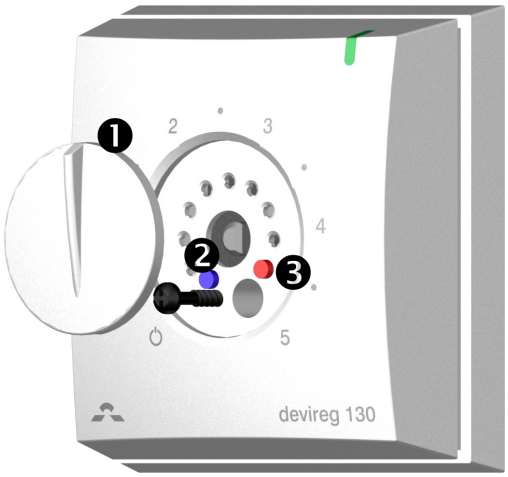
5. Turn on the power supply.

3 Settings

3.1 Temperature Settings

How to change the minimum and maximum floor temperatures

1. Lift off the adjustment button using a thin screwdriver. (1)
2. Move the pins to the desired positions. (2 and 3)
3. Put the adjustment button back in place.



Please be aware of the following:

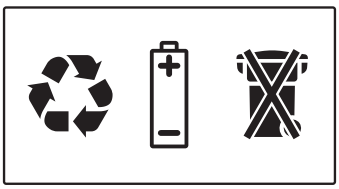
- The floor temperature is measured where the sensor is placed.
- The temperature of the bottom of a wooden floor can be up to 10 degrees higher than the top.

- 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^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

4 Warranty

5 Disposal Instruction



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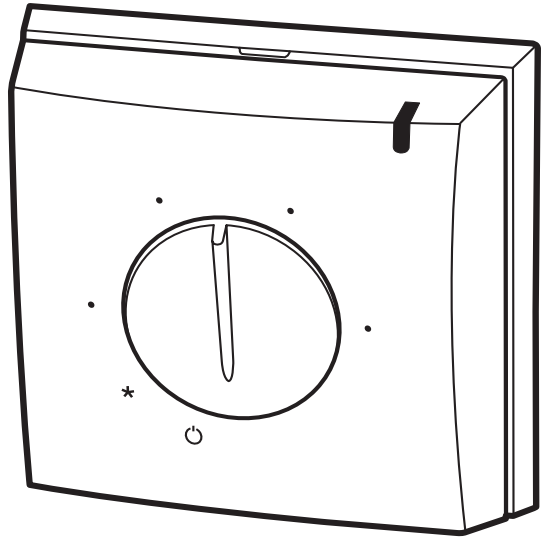

220-240V~
50-60Hz~
+5 to +45°C
16A/3680W@230V~
IP 30

Product Documentation

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Designed in Denmark for Danfoss A/S

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