

*Danfoss*



## **Instruction FH-CWT Thermostat**

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## **IMPORTANT!**

*Protect the thermostat from dirt, fluids, concrete and do NOT insert any objects into it.*

*Do not cover the thermostat, for instance by hanging towels directly in front of it.*

*Installation must be done by an authorized electrician.*

# 1. Functional Overview

## Front - fig. 1

- ① Dial knob.
- ② Red/Green LED (behind the cover).

## LED modes

- Green light ON - Thermostat is ON but not heating.
- Red light ON - Thermostat is ON and heating.

## Back - fig. 2

- ① Screw hole for wall mounting.
- ② Terminals for cable mounting.

# 2. Mounting

## Placing the Room Thermostat - fig. 4 ①

! Wherever possible, the room thermostat should be installed where the effects of sunlight, draught, or other heaters (eg. TV's), etc. are avoided.

# 3. Installation

## Installing the Room Thermostat - fig. 5 and fig.6

- Carefully remove the back plate. Do NOT enter any objects deeply into the thermostat.
- Mount the back plate to the wall box using the enclosed screws.

- Connect the thermostat correctly in accordance with the Wiring Diagram.
- Mount the cover to the back plate, and finally mount the dial knob.

### **Wiring Diagram**

The product must be connected to the following leads:

- Terminal L: Phase (L) 230 V  $\pm$  10%, 50/60 Hz
- Terminal NO: Valve (NO)
- Terminal NC: Valve (NC)
- Terminal N: Neutral (N)
- 

## **4. General usage**

### **Turning the Room Thermostat ON/OFF**

- Turn the thermostat OFF by turning the knob counterclockwise to • on the scale - Fig. 3 ①.
- Turn the thermostat ON by turning the knob clockwise to your desired temperature.

### **Setting the Room Temperature**

- Turn the knob to set the desired room temperature according to the scale - Fig. 3.
-

## 5. Frost Protection Mode

Set the thermostat to Frost Protection Mode by turning the knob to the position ❄ on the scale - Fig. 3 ②.

- When the room temperature drops below 5 °C the heating will be turned ON.
- When the room temperature raises above 6 °C the heating will be turned OFF.

## 6. Technical Specifications

Feature	Description
Approval	CE Marking, EN 60730
Colour	White RAL 9016/ Grey RAL 7011
Dimensions	86 X 99 X 29mm
Adjustment mode	Dial
Fault indication/ failure mode	If sensor failure, thermostat will turn off all output of relays
Frost protection	Yes, put the dial to position ❄ (5 °C)
Ambient temperature	- 10 °C – 60 °C

<b>Feature</b>	<b>Description</b>
Precision	$\pm 1.5\text{ }^{\circ}\text{C}$
Hysteresis	1 $^{\circ}\text{C}$ , below the setpoint temperature
IP class	30
LCD back-/nightlight	No
LCD display	No
LED indicator	Green light: Thermostat ON and no heat demand Red light: Thermostat ON and heat demand
Max. load, inductive	<1A
Max. load, resistive	<3A
Mounting	Wall mounting
Network, wire	No
Network, wireless	No
Off-set function	No
Power consumption	7 W
Power supply, battery	No
Power supply, net	230Vac $\pm$ 10% 50/60Hz

## Instruction FH-CWT Thermostat

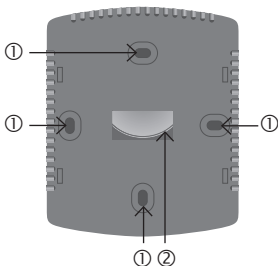
<b>Feature</b>	<b>Description</b>
Power backup settings	Not applicable
Sensor, floor	No
Sensor, room	NTC 10K accuracy: $\pm 1\%$
Sensor, room - set range	5-30 °C
Shell material/ non inflammable	94V0/ Yes
Shell material, type	ABS+PC
Static protection	Yes
Programmable	No

## 7. Figures and Illustrations

Fig. 1

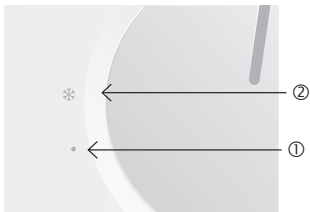


Fig. 2

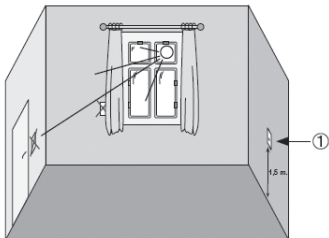




**Fig. 3**

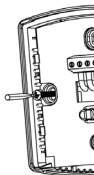
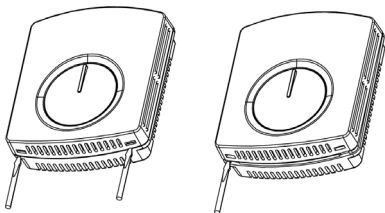


**Fig. 4**



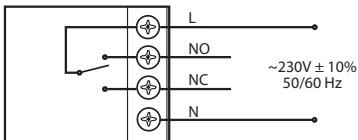
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**Fig. 5**

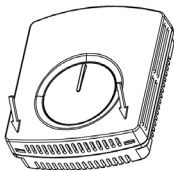
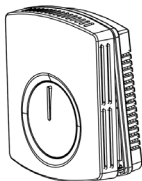
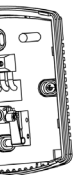
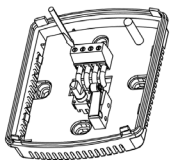


**Fig. 6**

### FH-CWT



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