

Data Sheet

Floor Heating Room Thermostats

Application



FH-CWT



FH-CWD



FH-CWP

The FH-CW room thermostats are used for room temperature control in water based floor heating systems.

By controlling the room temperature in accordance with the temperature desired by the user, the room thermostats provide optimal energy savings as well as optimal thermal comfort.

The room thermostats are available in three versions:

FH-CWT Room Thermostat (with dial)

By turning the dial to the desired set-point temperature optimal thermal comfort in the room is achieved. In addition to temperature the thermostat setting scale includes a frost symbol, allowing for minimal energy consumption, while keeping the room from freezing.

LED's display the function of the thermostat:

- green light: the thermostat is ON, but without heat demand.
- red light: the thermostat is ON and there is heat demand.

FH-CWD Room Thermostats (with display)

In addition to room temperature control, the FH-CWD can be equipped with a floor sensor, thus allowing for control of maximum floor temperature and reducing risk of overheated and damaged floors. For specific maximum floor temperatures, please refer to recommendations from floor suppliers.

Using the Frost Protection Mode instead of turning the thermostat OFF may protect against damages due to low temperatures. The room temperature will be maintained around 5°C.

FH-CWP Room Thermostat (programmable with display)

Two available timer programs are allowing temperature setback or complete turning off the heat supply during selected periods.

The ON/ OFF Timer Function allows you to program the thermostat for one period with heating turned OFF and one period with heating turned ON per day. During the ON period the thermostat will regulate in relation to the set temperature and TIMER ON will be shown in the display. During the OFF period, the heating is off, and TIMER OFF is shown in the display.

The Advanced Programmable Timer Function allows you to set a timer controlled program for automatic change between comfort temperature and energy saving setback temperature, when standard room comfort temperature is not required.

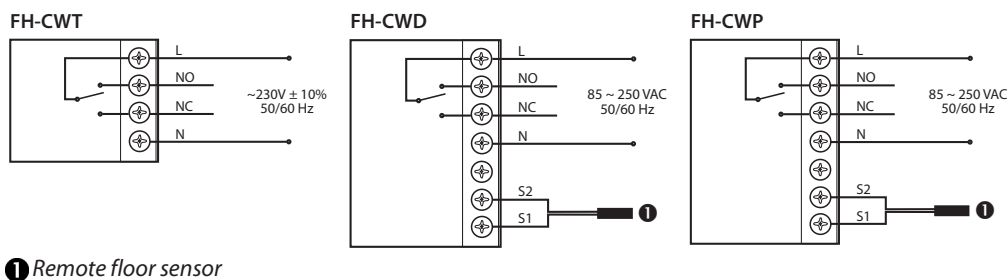
The Advanced Programmable Timer Function allows for 4 different periods / 5+2 days per week.

Ordering

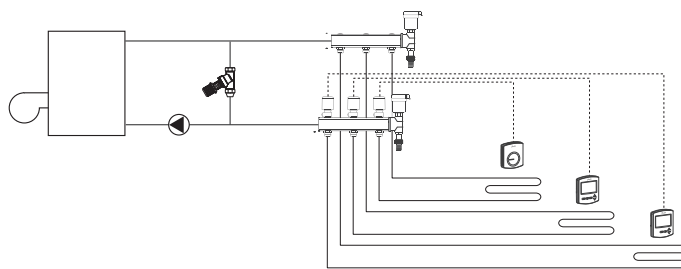
Product	Type	Supply	Output	Code no.
Room thermostat with dial	FH-CWT	230 VAC	230 VAC	088U0601
Room thermostat with display	FH-CWD	85-250 VAC	85-250 VAC	088U0602
Programmable room thermostat with display	FH-CWP	85-250 VAC	85-250 VAC	088U0603
Floor sensor	FH-CWF	-	-	088U0610

Technical data

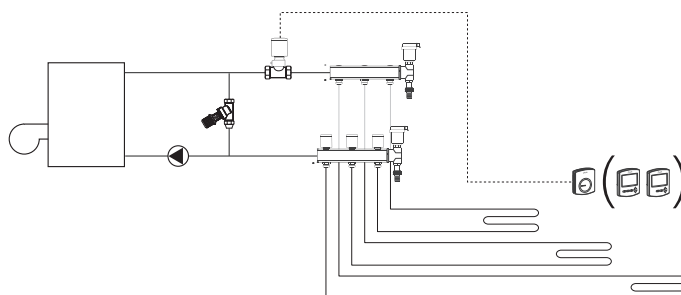
	FH-CWT	FH-CWD	FH-CWP
Adjustment mode	Dial	Buttons	Buttons
Programmable	No	No	Yes, two programs: 1. ON / OFF, two periods / day 2. Automatic shift between comfort and set-back temp., 4 periods / 5 + 2 days
LED indicator	Green: thermostat ON, no heat demand. Red: thermostat ON, heat demand.	No	No
LCD display	No	Yes, with backlight / nightlight	Yes, with backlight / nightlight
Temperature range	5 to 30°C	5 to 35°C	5 to 35°C
Precision	±1.5°C	±1.0°C	±1.0°C
Frost protection	Yes, with dial at ❄ (5°C)	Yes, if enabled (5°C / 7°C, ON / OFF)	Yes, if enabled (5°C / 7°C, ON / OFF)
Operating rating	0 to 40°C, 5 to 95% RH (non-condensing)	0 to 40°C, 5 to 95% RH (non-condensing)	0 to 40°C, 5 to 95% RH (non-condensing)
Room sensor	NTC 10K, accuracy ±1%	NTC 100K, accuracy ±1%	NTC 100K, accuracy ±1%
Floor sensor	No	Optional (FH-CWF)	Optional (FH-CWF)
Floor sensor setting range	No	20 to 45°C	20 to 45°C
Sensor fault indication	All outputs turned off	All outputs turned off - display shows E1 (room sensor failure) or E2 (floor sensor failure)	All outputs turned off - display shows E1 (room sensor failure) or E2 (floor sensor failure)
Off-set function / Temp. calibration	No	Yes, ±10°C	Yes, ±10°C
Max. load, inductive	< 1 A	< 1 A	< 1 A
Max. load resistive	< 3 A	< 3 A	< 3 A
Power consumption	7 W	2 W	2 W
Power supply	230 VAC ±10%, 50 / 60 Hz	85 - 250 VAC, 50 / 60 Hz	85 - 250 VAC, 50 / 60 Hz
Settings back-up	No	Settings retained if power failure	Settings retained if power failure
Mounting	Wall mounting	Flush mounting for European and Chinese built-in sockets	Flush mounting for European and Chinese built-in sockets
Ambient temperature	-10 to 60°C	-10 to 60°C	-10 to 60°C
Approval	CE Marking, EN 60730	CE Marking, EN 60730	CE Marking, EN 60730
IP class	30	30	30
Shell material	ABS + PC, inflammable	ABS + PC, inflammable	ABS + PC, inflammable
Static protection	Yes	Yes	Yes
Colour	White RAL 9016 / Grey RAL 7011	White RAL 9016	White RAL 9016
Dimensions	86 x 99 x 29 mm	86 x 99 x 19 mm	86 x 99 x 19 mm

Wiring Connections


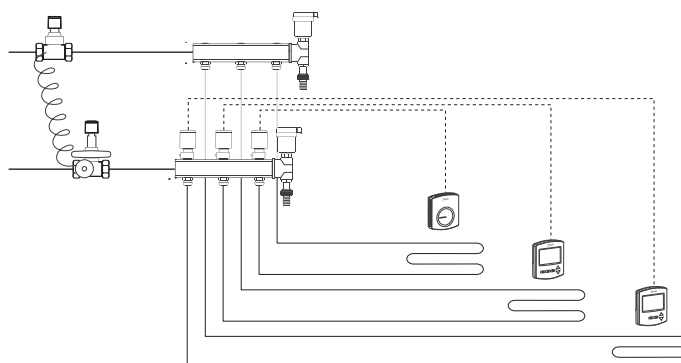
Application Examples



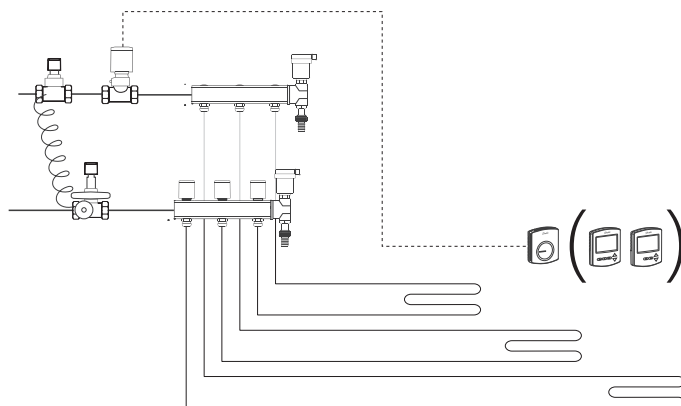
Individual room temperature control



Reference room temperature control

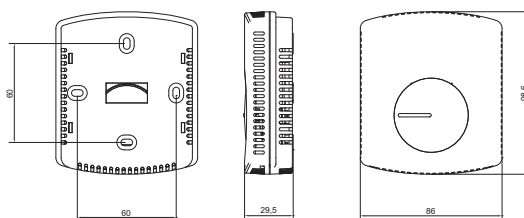


Individual room temperature control

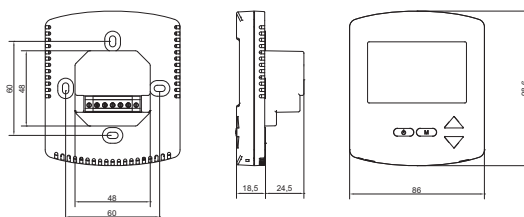


Reference room temperature control

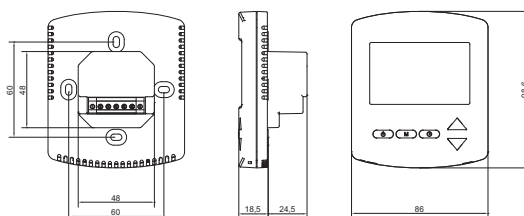
Dimensions



FH-CWT Room Thermostat with Dial



FH-CWD Room Thermostat with Display



FH-CWP Programmable Room Thermostat with Display

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