Data Sheet

Basic Plus²
Floor Heating Room Thermostats

Application

| **WT-T** | **WT-D/WT-DR** | **WT-P/WT-PR** |

All room thermostats are used for room temperature control in water-based floor heating systems. By controlling room temperature in accordance with the temperature desired by the user, the room thermostats provide optimal energy savings while upholding optimal thermal comfort in the room.

Functions

Room Thermostat, WT-T (Dial)
By turning the dial to the desired setpoint 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 avoiding freezing temperatures in the room.
The thermostat is equipped with diodes, which display a green light through the front cover while the thermostat is ON, but without heat demand. A red light is displayed when the thermostat is ON and there is heat demand.

Features of Room Thermostats, WT- D (display) and WT-P (display and programmable):
 • Modern design with white backlight.
 • **AWAY** function.
 • **Child safety lock**.
 • **3 selectable temperature control modes:**
    1. Room temp. control (default).
    2. Room with floor temp. limit control.
    3. Floor temp. control.
 • **2 selectable floor temperature control modes:**
    1. High
    2. Low
 • **Max. and min. limit settings** for room and floor temperature.
 • **Optional room temperature display** when power is OFF (default setting: no display).

 • **Floor sensor terminals.** For thermostats equipped with LCD display, enabling control of maximum floor temperature and reducing the risk of overheated and damaged floors (for specific maximum floor temperatures, refer to the recommendations from floor suppliers).
 • **Frost protection mode.** Use this feature instead of turning the thermostat OFF completely to protect against damages due to low temperatures. The room temperature will be maintained around 5° C.
 • **Temperature calibration.** This function allows you to change the temperature setpoint of the room thermostat, to compensate for a possible temperature deviation between the room thermostat and, for example, the centre of the room.
 • **Advanced programmable timer.** This function allows you to set a timer-controlled program for automatic comfort temperature and energy-saving lower setback temperature when standard room comfort temperature is not required.

Room Thermostats, WT- DR (display) and WT-PR (display and programmable)
The thermostats have voltage-free auxiliary SPST relay for controlling the external equipment, such as a boiler.
Additional features:
 • Programmable 5/2-day feature with 4 time segments (WT-P & -PR).
 • Clock in 12-hour or 24-hour format (WT-P & -PR).
Other functionalities are identical with those listed for WT-D and WT-P.

Ordering

Product	Type	Supply voltage	Output voltage	Code no.
Basic Plus² WT-T Toggle	WT-T	230 V AC	230 V AC	**088U0620**
Basic Plus² WT-D Display	WT-D	85–250 V AC	85–250 V AC	**088U0622**
Basic Plus² WT-DR Display and Relay	WT-DR	85–250 V AC	85–250 V AC	**088U0624**
Basic Plus² WT-P Programmable	WT-P	85–250 V AC	85–250 V AC	**088U0625**
Basic Plus² WT-PR Programmable and Relay	WT-PR	85–250 V AC	85–250 V AC	**088U0626**

Accessories

Product	Type	Code no.
BasicPlus floor sensor	FH-CWF	**088U0610**

Technical specifications

Feature	WT-T	WT-D/DR	WT-P/PR
Type	Dial with LED indicator	LCD display with push buttons	LCD display with push buttons, programmable
Operating room temperature	Off, 5 - 30° C	Off, 5 - 35° C	
Operating floor temperature	-	Off, 20 - 45° C	
Ambient temperature	-10 - 60° C		
Fault indication	-	Yes	
Hysteresis	1° C, below the setpoint temperature	1° C, symmetrical around the setpoint temperature	
LCD backlight	-	Yes, white	
Max. load, inductive	< 1 A		
Max. load, resistive	< 3 A		
Auxiliary relay	-	Volt-free relay (WT-DR and WT-PR), e.g. boiler	
Temperature calibration	No	Yes (+/-10° C)	
Power consumption	7 W	2 W	
Power supply	230 V AC ±10 %, 50/60 Hz	85–250 V AC, 50/60 Hz	
Sensor, room	NTC 10K, accuracy: ±1%	NTC 100K, accuracy: ±1%	
Sensor, floor	-	Optional (FH-CWF)	
Shell material	ABS, non-inflammable		
IP class	30		
ErP class	ErP Product Class **1** (1%)		
Approval	CE marking, EN 60730		
Colour	White RAL9010/Dark Grey RAL7024		
Dimensions	86 × 86 × 30 mm	86 × 86 × 16.0 mm	

VDCUC312

Wiring connections

Room thermostat, WT-T

N
L   230 V ~
NO
NC
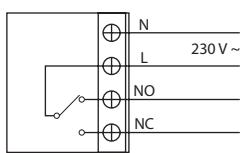
Room thermostat, WT-D/P

S2
S1
N
NC
NO   230 V ~
L
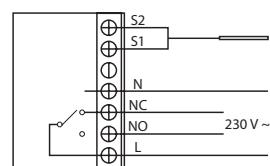
S1, S2: floor sensor

Room thermostat, WT-DR/PR

S2
S1
A1
A2
N
NC
NO   230 V ~
L
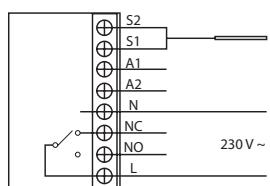
*S1,S2: floor sensor*
A1,A2: volt-free auxiliary relay,
e.g. boiler

Dimensions

Room Thermostat, WT-T (Dial)

86.0   86.0

30.0

60.0
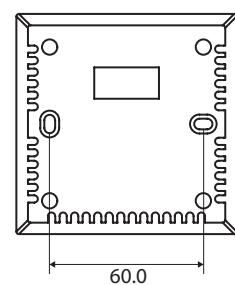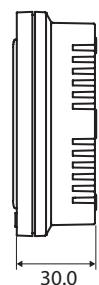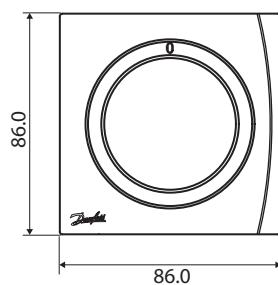
Room Thermostat, WT-D/WT-P

86.0   86.0

16.0   24.5

50.0

50.0
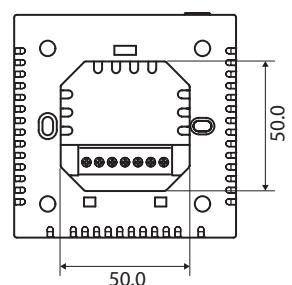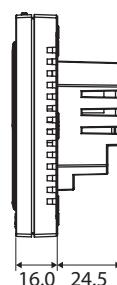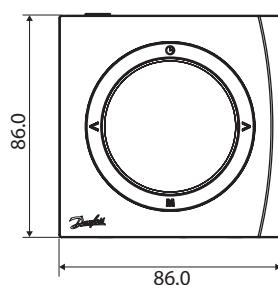
Room Thermostat, WT-DR/WT-PR

86.0   86.0

16.0   24.5

62.3

46.2
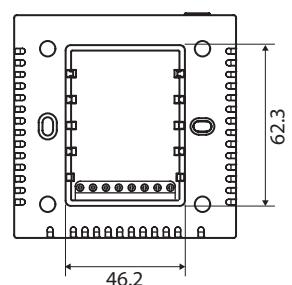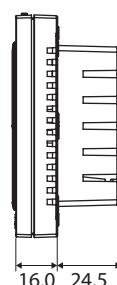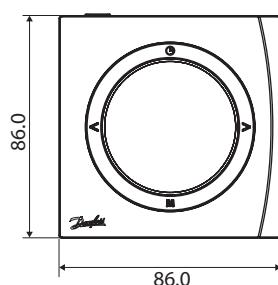
**Application examples**

Individual room temperature control
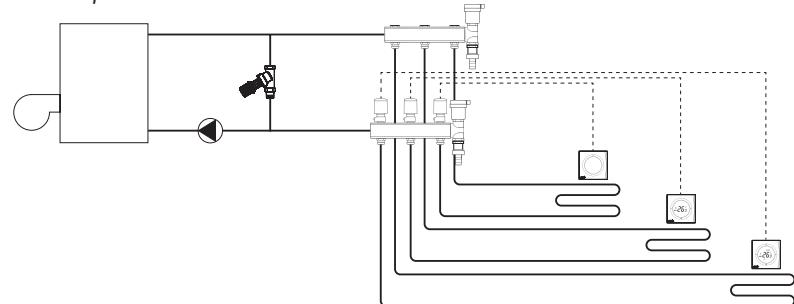
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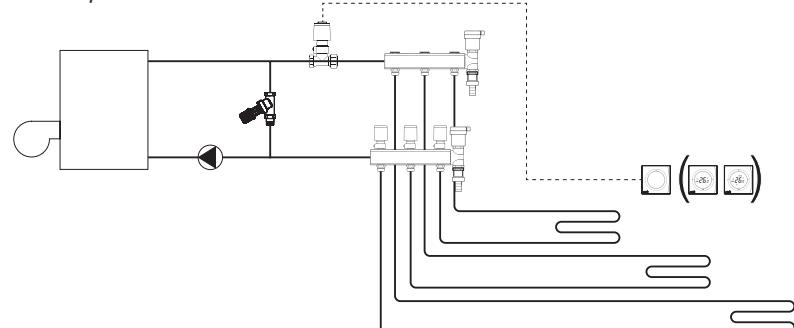
Individual room temperature control
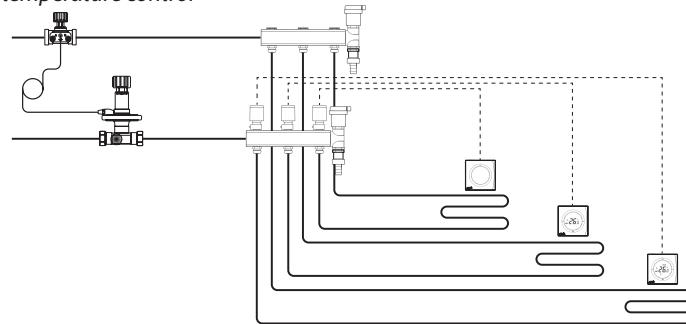
Reference room temperature control

Danfoss Randall Ltd.