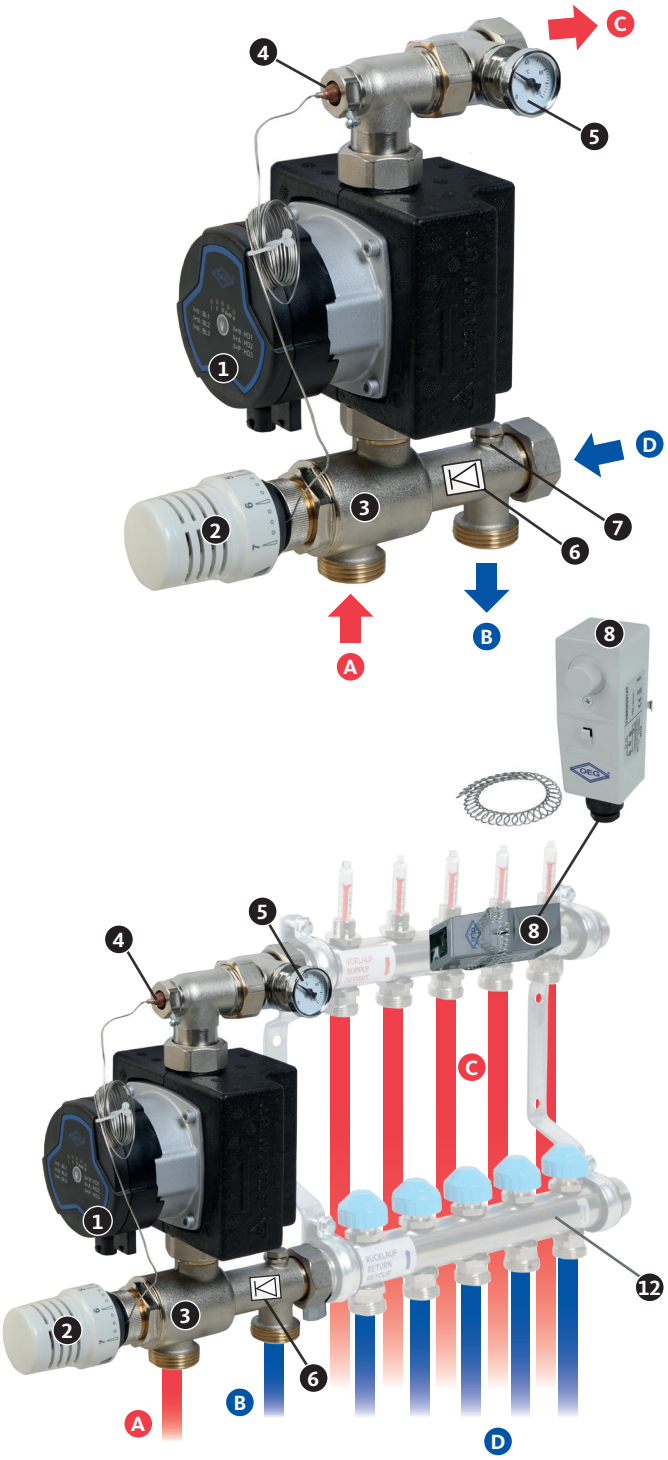
Setpoint control unit

Art. No. 512 241 931



Design

1 Circulation pump 130 mm
2 Thermostatic head
3 Mixing valve
4 Immersion sleeve for capillary tube and supply temperature sensor
5 Eccentric screw fitting with thermometer 0 – 60 °C
6 Plastic insert check valve
7 Connection for return flow temperature sensor ⅛" (optional)
8 Temperature limiter (optional, Art. No. 211 208 060)
A Primary supply 1" ET flat seals
B Primary return 1" ET flat seals
C Surface heating / cooling supply 1" union nut
D Surface heating / cooling return 1" union nut

Operation

The mixing valve (3) of the manifold control unit is designed as proportional regulator. It is controlled by a thermostatic head (2) with capillary tube and supply temperature sensor (4) on the floor heating circuit flow. Deviations from the setpoint set on the thermostatic head (2) immediately cause a change in the valve stroke so that the volume of hot water injected from the primary supply (A) changes accordingly. The injected water volume is mixed with the return water (D) from the heating circuit. In this way, the flow temperature is kept constant within a narrow temperature range. The actual value can be checked on the thermometer (5). The check valve (6) prevents a short-circuit of the primary circuit. The temperature limiter (8) switches off the circulation pump (1) when the supply temperature is exceeded, thus preventing the surface heating system from overheating. The thermostatic head opens the mixing valve in the cooling mode.

Technical data and materials

Technical data	
Operating ambient temperature	0 – 40 °C
Operating medium temperature	0 – 80 °C
Max. operating pressure	10 bar
Setting range of supply temperature	20 – 70 °C
Heat demand	approx. 14 kW, ΔT=10 K
Voltage	230 V ~
Kvs value	3.2
Differential pressure	max. 500 mbar
Connections primary (boiler circuit)	1" ET flat seals
Connections secondary (underfloor heating)	1" union nut with flat seals

Materials	
Fittings	brass CW617 N, nickel-plated
Plastics	impact- and temperature-resistant
Flat seals	AFM 34/2
O-rings	EPDM

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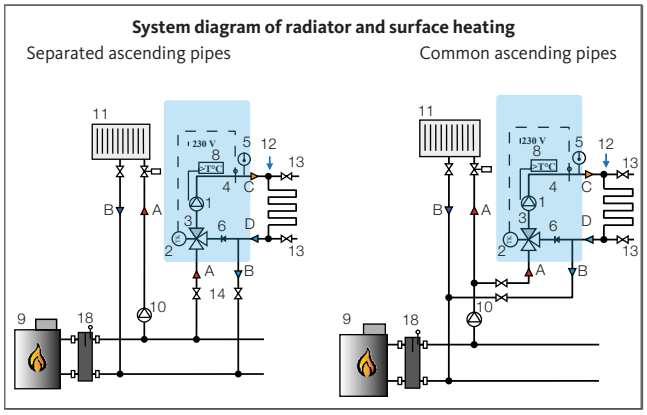
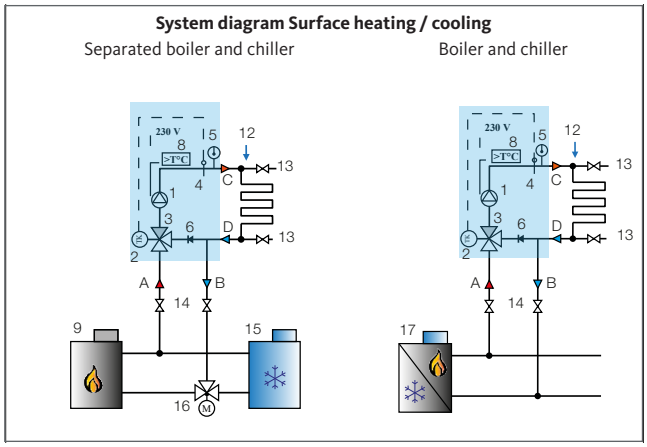
Examples of applications

1 Circulation pump for surface heating / cooling
2 Thermostatic head
3 Mixing valve
4 Supply temperature sensor
5 Thermometer
6 Plastic insert check valve
8 Temperature limiter
9 Heat generator
10 Primary circulation pump
11 Heating element / radiator
12 Heating manifold (e.g. HKV2013AF)
13 Flushing, filling and draining valve
14 Shut-off valves (recommendable)
15 Chiller
16 Zone valve
17 Reversible heat pump (heating / cooling)
18 Hydraulic separator
A Primary supply
B Primary return
C Surface heating / cooling supply
D Surface heating / cooling return





Pressure loss curve