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English

Installation and Operation Instructions Floor distribution manifold for HomeBloC® Digital

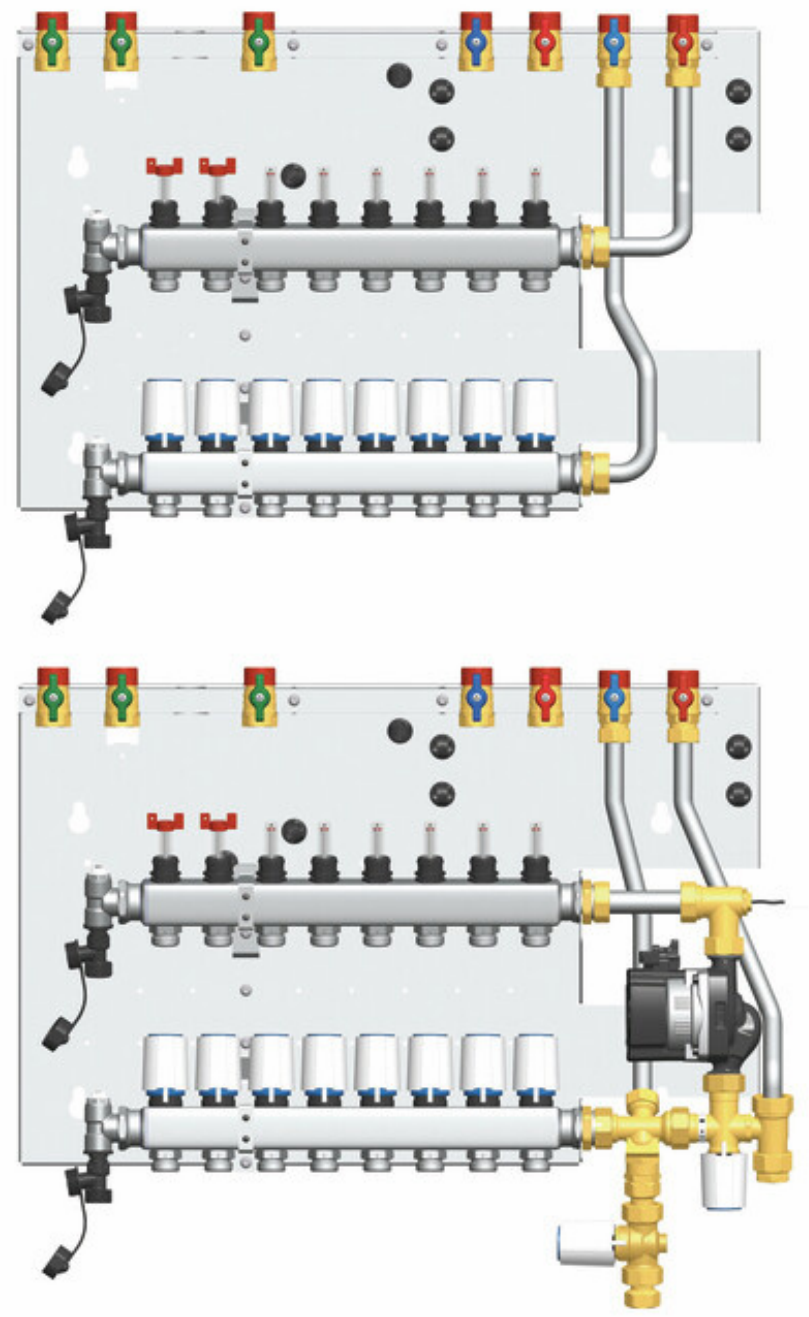


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1 General Information



Carefully read these instructions before installation and commissioning.

Save these instructions in the vicinity of the installation for future reference.

1.1 Scope of these instructions

These instructions describe the installation, commissioning and function of a floor distribution manifold for the flat station HomeBloC® Digital.

For other components, please follow the instructions of the respective manufacturer. The chapters marked with [specialist] are intended for specialists only.

The floor distribution manifold complies with the relevant directives and is therefore labelled with the CE mark. The Declaration of Conformity is available upon request, please contact the manufacturer.

1.2 Designated use

The product may only be used taking into consideration these instructions and the technical limit values indicated in these instructions.

The product is intended for use in a domestic environment. The product can also be used in non-domestic environments, e.g. in small businesses, provided it is used in the same way.

Only use original accessories with the product. Improper usage of the product excludes any liability claims.

2 Safety instructions

The installation and commissioning as well as the connection of electrical components require technical knowledge commensurate with a recognised vocational qualification as a fitter for plumbing, heating and air conditioning technology, or a profession requiring a comparable level of knowledge [specialist].

The following must be observed during installation and commissioning:

- relevant local and national regulations
- accident prevention regulations of the professional association
- instructions and safety instructions mentioned in these instructions

⚠ CAUTION



Personal injury and damage to property!

The product must only be used in heating circuits filled with heating water according to VDI 2035 / Ö-Norm H 5195-1.

► The product must **not** be used in drinking water applications.

NOTICE

Material damage due to mineral oils!

Mineral oil products cause lasting damage to seals made of EPDM, whereby the sealant properties are lost. We do not assume liability nor provide warranty for damage to property resulting from sealants damaged in this way.

► It is imperative to prevent the EPDM sealing elements from making contact with substances containing mineral oils.

► Use a silicone- or polyalkylene-based lubricant free of mineral oil such as Unisilikon L250L and Syntheso Glep 1 from Klüber or a silicone spray.

NOTICE

Material damage due to unsuitable tools!

Multifunctional tools, such as water pump pliers or adjustable spanners, quickly cause damage to the valves and screw connections.

► Only use suitable tools for any work on the product.

NOTICE

Material damage due to cleaning agents containing alcohol!

Cleaning agents containing alcohol damage the product, which can lead to leaks. We do not assume liability nor provide warranty for damage to property resulting from products damaged in this way.

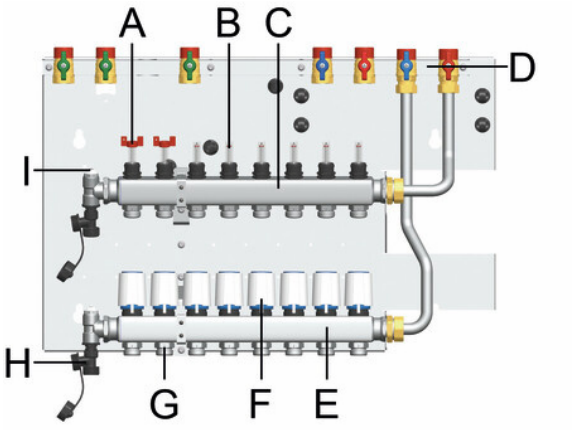
- ► Avoid at all costs that the product comes into contact with substances containing alcohol.
- ► Use alcohol-free cleaning agents and a clean cloth for cleaning.

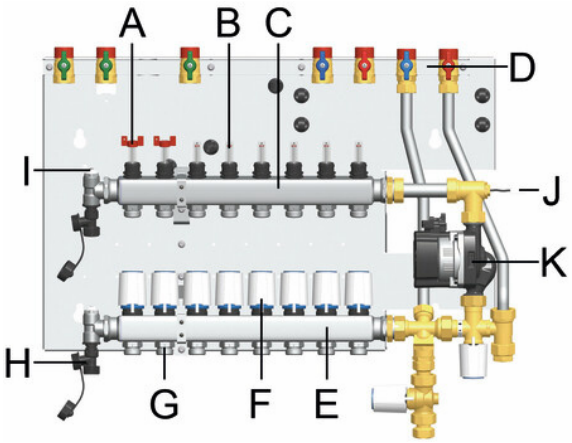
3 Product description

The product consists of the floor distribution manifold and a ball valve rail including ball valves for mounting on flat stations of the HomeBloC® Digital series.

The PAW flat station HomeBloC® Digital and the wall-mounted or flush-mounted cabinet are not included in the scope of delivery and must be ordered separately!

The floor distribution manifold is equipped with thermal actuators (for flat stations type WF, WF+DLE, WRF-E) or additionally with an injection circuit (for flat stations type WRF+DLE).





A Adjusting wrench for flow limiter
B Flow meter / flow limiter on the flow distribution manifold
C Flow distribution manifold
D Ball valve rail
E Return collector
F Thermal actuator
G Pipe connection
H Fill and drain valve with safety cap
I Vent valve
J Temperature sensor Pt1000
K Injection circuit

4 Mounting and installation [specialist]

NOTICE

Damage to property!

The installation site must be dry, stable, frost-proof and protected against ultraviolet radiation in order to prevent material damage of the installation.

4.1 Installation

NOTICE

Damage to property!

The floor circuit pump (P2) can be protected in the controller via a thermostat (safety temperature limiter). This is necessary if the heat generator temperature can be higher than the maximum floor circuit temperature (due to the material or the surface temperature). A corresponding temperature thermostat must be provided by the customer and is available from PAW accessories (item no. 1280601101). Non-observance can lead to damage to the building.

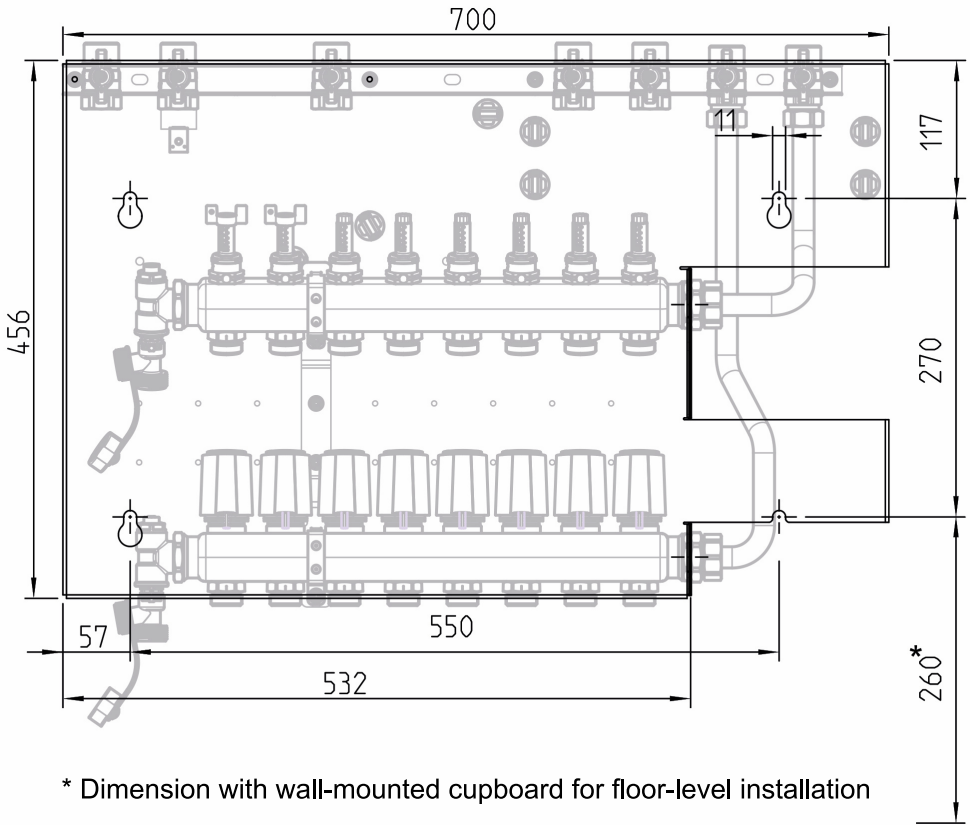
NOTICE

The following description assumes the use of a PAW wall-mounted or flush-mounted cabinet. Please observe the separate and corresponding instructions. When using a cabinet provided by the customer, please observe the corresponding instructions and its dimensions!

When using a flush-mounted cabinet, the floor distribution manifold is fixed or suspended in the cabinet. When using a wall-mounted cabinet, the floor distribution manifold is attached to the wall (see drilling template). This requires: 4x drill hole Ø 10 mm, min. 60 mm deep, for stair bolts M8 x 80 mm

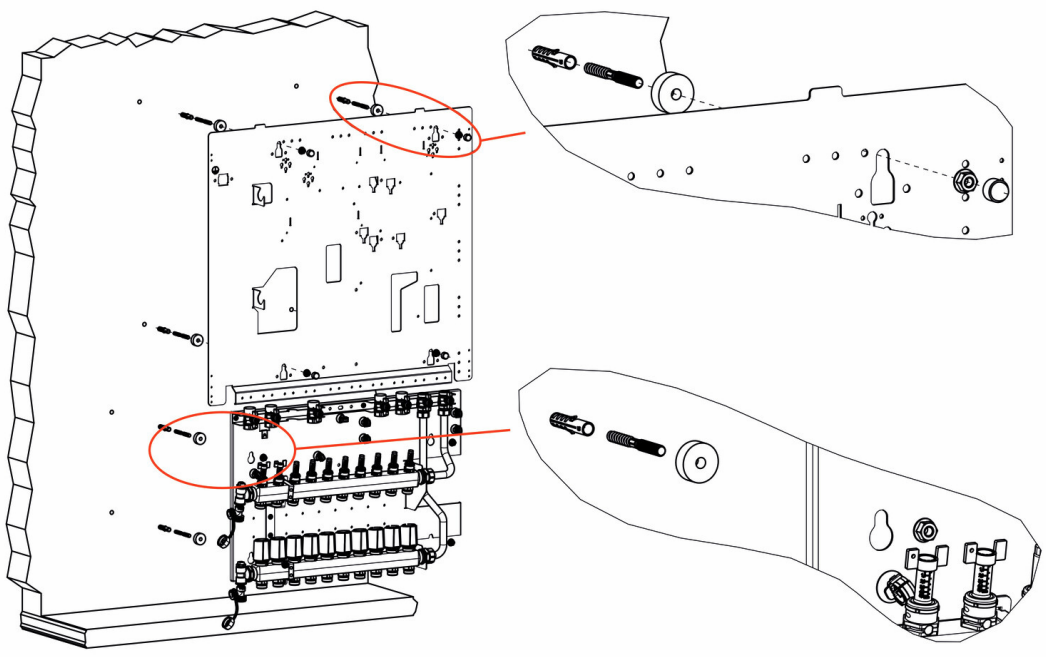
1. Use flush-mounted cabinet: Install the cabinet without the front frame according to the separate instructions.

   Use wall-mounted cabinet: Drill suitable holes and screw the M8 stair bolts for the floor distribution manifold into the wall plugs in such a way that about 25 mm of each screw still stick out (see following drilling template).



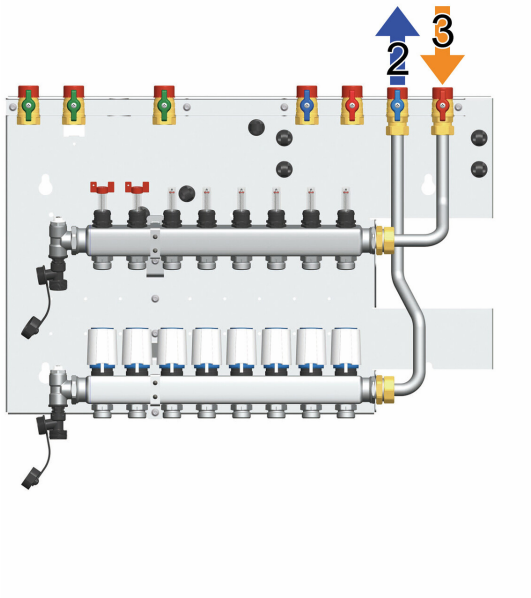
* Dimension with wall-mounted cupboard for floor-level installation

2. Put the distance pieces onto the stair bolts / stud bolts. Place the preassembled PAW floor distribution manifold on the stair bolts / stud bolts and secure the distribution manifold with nuts.

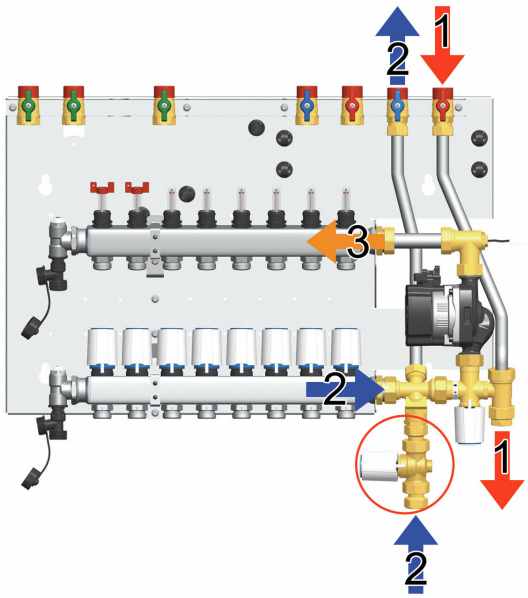


3. Lay the connecting pipes in the cabinet. Please also refer to the separate operating instructions of the flat station.
4. Connect the connecting pipes with the corresponding ball valve. Connect the pipework for the radiant floor heating to the floor distribution manifold.

   Only for variants with injection circuit: Mount the enclosed brass component to the return line of the injection circuit (see image of floor distribution manifold for type WRF+DLE).



Floor distribution manifold for type WF / WRF-E



Floor distribution manifold for type WRF + DLE

1: FL hot **2**: RET cold **3**: FL mixed

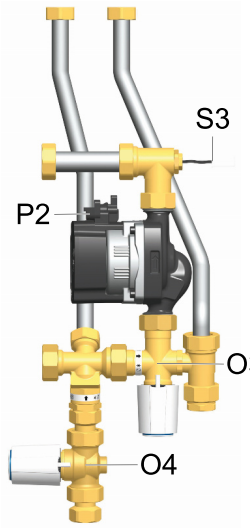
5. Lock the thermal actuators onto the blue and black adapters of the valves on the return collector and on the injection circuit. For the electrical connection of the actuators, please refer to the chapter on electrical installation.
6. Connect the PAW flat station or a flat station provided by the customer in accordance with the separate instructions and screw the connections hand-tight. Align the station, if necessary.
7. Firmly tighten all screw connections. Place the cover caps on the stair bolts / stud bolts.
8. The PAW wall-mounted cabinet or the front frame of the PAW flush-mounted cabinet can now be hooked in and fixed (see separate instructions). A cabinet provided by the customer can now be mounted or completed in accordance with the corresponding instructions.
   Important: Ensure that the cabinet is sufficiently earthed!

   Now start the electrical installation.

4.2 Electrical installation

The thermal actuators of the individual floor circuits on the floor distribution manifold must be connected to the controller. Please refer to the chapter on electrical installation in the instructions of the station.

For floor distribution manifolds with injection circuit, additional connections must be made as follows.

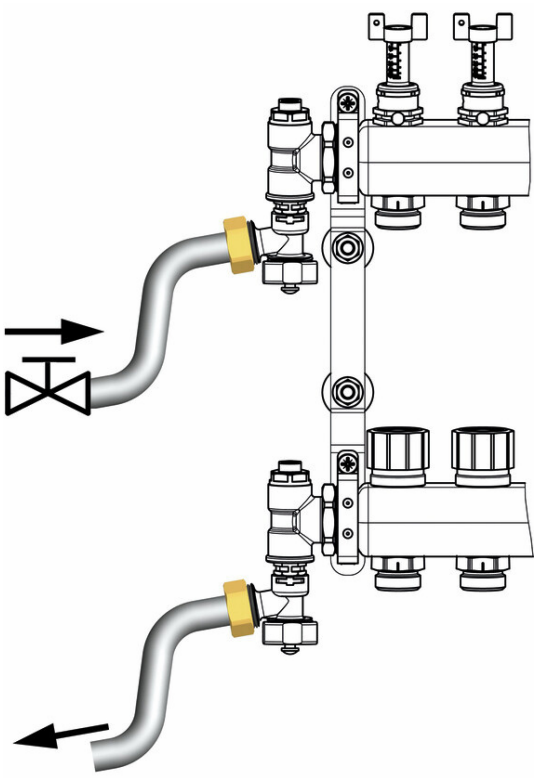


The cables for the flow temperature sensor (S3) and for the power supply to the floor circuit pump (P2) are already connected in the controller. Connect the cable to the sensor S3 on the injection circuit and put the plug (P2) into the pump socket.

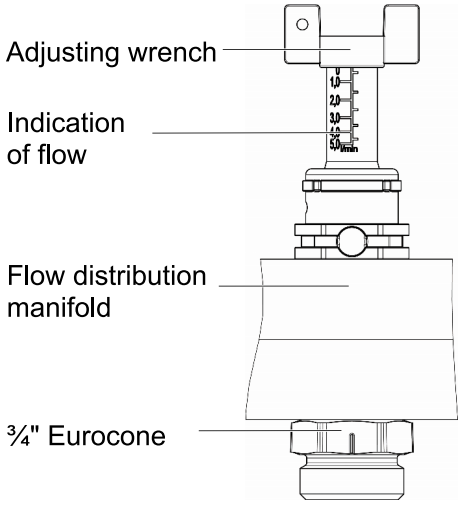
Snap the thermal actuator for the valve of the injection circuit onto the valve "O3" and connect it to the terminals "O3" in the controller.

Snap the thermal actuator for the valve of the high-temperature circuit onto valve "O4" and connect it to terminals "O4" in the controller.

4.3 Commissioning



1. Once the installation of the floor distribution manifold has been completed, we recommend a final pressure and leak test of the pipe:
   - with compressed air at 6 bar for 24 hours and then
   - with water at 6 bar for 3 days.
2. Flush and fill the radiant floor heating.
3. Use the safety cap to operate the filling and drain valves!



Setting the flow rate for each heating circuit:

Adjusting range of the flow rate = 0-5 l/min

Reading accuracy = +/- 15 %

Maximum torque for setting the flow rate = 1 Nm

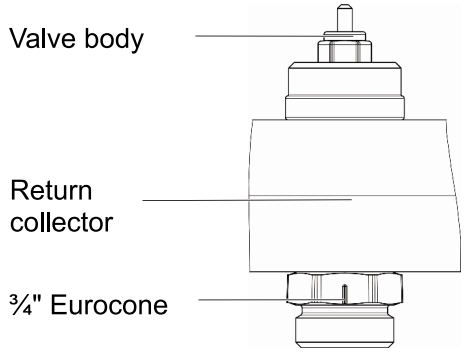
Set to:	Flow rate:
1 l/min	0.06 m^3/h
2 l/min	0.12 m^3/h
3 l/min	0.18 m^3/h
4 l/min	0.24 m^3/h
5 l/min	0.30 m^3/h
Completely open	K_{VS} = 0.78 m^3/h

⚠ CAUTION

Damage to property!

The flow meter is supplied with an adjustment wrench. The use of other wrenches can lead to damage.

► Only use the supplied wrench to adjust the flow meters!

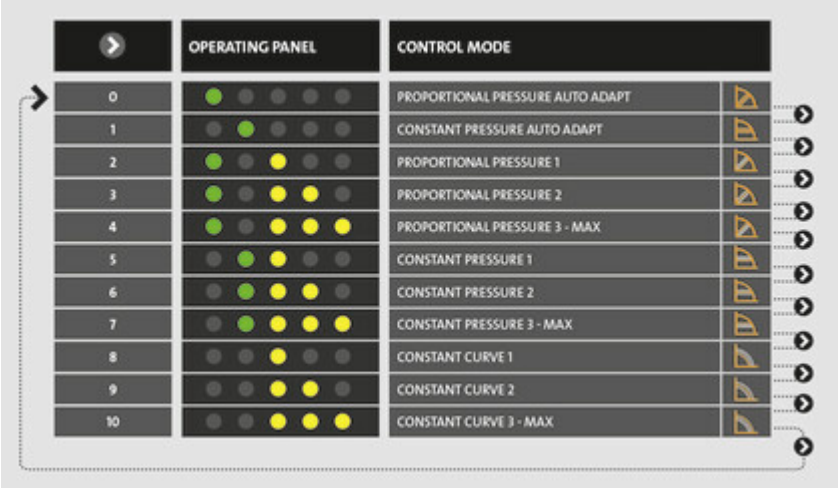


Valve body for thermal drive:

Connection for valve drive	M30 x 1.5
Shut height	12.7 mm
Valve lift	1.9 mm
K_{VS} value	1.92 m^3/h

Recommended pump setting for variants with injection circuit:

Please press the arrow button on the pump repeatedly until the recommended pump setting is reached. The recommended setting is constant pressure (Constant Pressure 1).



Source: Grundfos

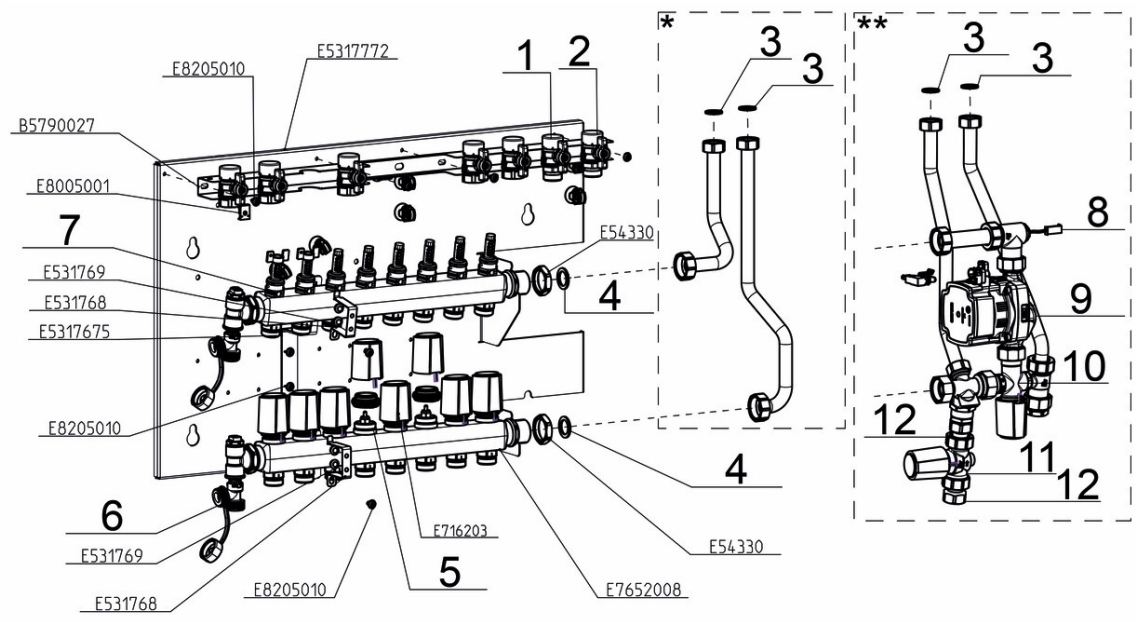
5 Scope of delivery

NOTICE

Serial number

Complaints and requests / orders of spare parts will only be processed with information on the serial number!

The serial number is placed in the lower right corner of the retaining plate.



*: version without injection circuit **: version with injection circuit

Distribution manifold	Item number	Distribution manifold	Item number	Distribution manifold	Item number
2-fold	128500210x	5-fold	128500510x	8-fold	128500810x
3-fold	128500310x	6-fold	128500610x	9-fold	128500910x
4-fold	128500410x	7-fold	128500710x	10-fold	128501010x

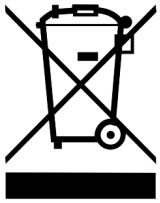
x = 2 for version with injection circuit, x = 3 for version without injection circuit

Position	Spare part	Item number
1	Pump ball valve DN 15, ¾" ext. thread x ¾" ext. thread, blue handle	N00526
2	Pump ball valve DN 15, ¾" ext. thread x ¾" ext. thread, red handle	N00527
3	Seal 24.0 x 17.0 x 2.0, ¼", for thread connection ¾", 10 pieces	N00030
4	Seal 30.0 x 21.0 x 2.0, ½", for thread connection 1", 10 pieces	N00024
5	Valve with cap, 1.9 mm stroke, ½" ext. thread sealf-sealing - M30 x 1.5	N00169
6	Fill and drain valve with safety cap, ½" ext. thread self-sealing, 2x ¾" ext. thread	N00170
7	Flow rate display, adjustable, 0-5 l/min, with wrench, ½" ext. thread self-sealing	N00168
8	Temperature sensor Pt1000, screw-in sensor 9 mm, G¼"	N00230
9	Grundfos UPM3 Auto 15-70	N00158
10	Valve for injection circuit, 2x 1" union nut x ½" int. thread	N00661
11	2-way valve, 2 x 1" ext. thread, 2.7 mm stroke	N00509
12	Flange fitting, 1" union nut x ¾" int. thread	N00171

6 Technical data

Floor distribution manifold	
Dimensions	
Height (sheet metal)	456 mm
Installation height	470 mm without injection circuit / 601 mm with injection circuit
Width	700 mm without injection circuit / 737.5 mm with injection circuit
Depth	165 mm
Centre distance consumer	50 mm
Centre distance generator	65 mm
Pipe connections	
Flow connection distribution manifold	1" ext. thread
Return connection collector	
Flush connection	¾" ext. thread
Heating circuit connections	¾" Eurocone
Operating data	
Min. admissible pressure	0.5 bar (only version with injection circuit)
Max. admissible pressure	6 bar
Max. operating temperature	55 °C
Max. propylene glycol content	50 %
K_{VS} value	Flow rate regulator: 0.78 m^3/h (fully open) Valve body 1.92 m^3/h Injection circuit primary / station side: 1.7 m^3/h Injection circuit secondary / consumer side: 3.4 m^3/h
Materials	
Distribution manifold	Stainless steel (AISI)
Thread connections	
Brackets	
Valves	PPS; PA6.6 / PA6.6 GF30; PA12 / PA12 GF30; POM; PP; Grivory
Flow meter / flow limiter	
Seals	EPDM, peroxide cross-linked

7 Disposal

NOTICE	
	Electrical and electronic devices must not be disposed of in the household waste. For your return, there are free collection points for electrical appliances and, if necessary, additional points of acceptance for the reuse of the devices in your area. The addresses can be obtained from your city or communal administration. If the old electrical or electronic device contains personal data, you are responsible for deleting it before returning the device. Batteries and rechargeable batteries must be removed prior to the disposal of the product. Depending on the product equipment (partly with optional accessories), single components can also contain batteries and rechargeable batteries. Please observe the disposal symbols on the components.

NOTICE	
	**Disposal of transport and packaging materials** The packaging materials are made of recyclable materials and can be disposed of with recyclable materials.

Item no. 9912850xx10x-mub-en

Translation of the original instructions

We reserve the right to make technical changes without notice!

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