



Installation and Operation Instructions HeatBloC® K38 DN 25 / DN 32



DN 25



DN 32

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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, functioning and the operation of a mixed HeatBloC®.

For other components of the installation, such as the pump, the controller or the modular distribution manifold, please observe the instructions of the corresponding manufacturer. The chapters called [specialist] are intended for specialists only.

1.2 Designated use

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

It must **not** be used in drinking water applications.

Improper usage excludes any liability claims.

This product 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.

Only use PAW accessories with the product.

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.

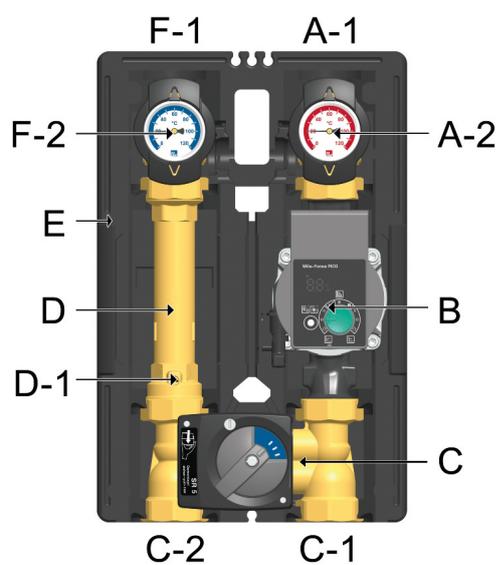
3 Product description

3 Product description

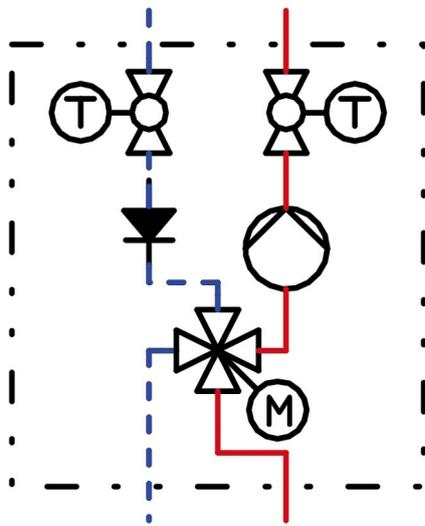
The HeatBloC® K38 is a preassembled group of fittings for heating circuits.

The PAW HeatBloC® is designed such that it can be directly mounted onto a PAW distribution manifold or a mounting plate with thread connections.

3.1 Equipment



- A-1 Flow to the consumer circuit
- A-2 All-metal thermometer with immersion sleeve, integrated in the ball valve (flow)
- B Heating pump
- C 4-way mixing valve
- C-1 Flow from the heat generator
- C-2 Return to the heat generator
- D Return pipe
- D-1 Check valve
- E Design insulation with optimised function
- F-1 Return from the consumer circuit
- F-2 All-metal thermometer with immersion sleeve, integrated in the ball valve (return)

3.2 Function

4-way mixing valve

K38 allows to keep up the boiler return temperature and to maintain a minimum boiler flow rate (with boiler circuit pump). A part of the flow water from the boiler is mixed into the return from the consumers, depending on the adjustment of the mixing valve. A boiler circuit pump is usually necessary.

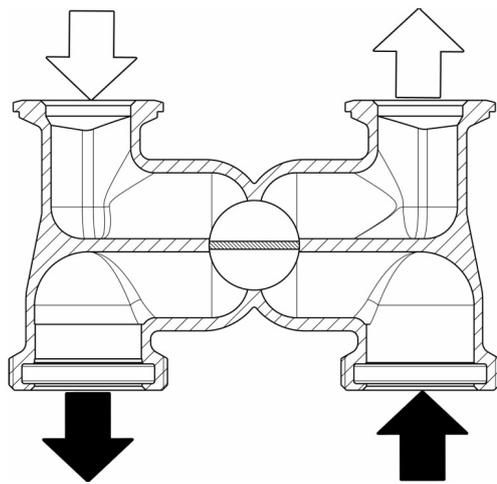
When K38 is mounted on a distribution manifold, a boiler circuit pump is mandatory. In this case the 4-way mixing valve serves as a hydraulic separator (depending on the adjustment of the mixing valve).

Application range:

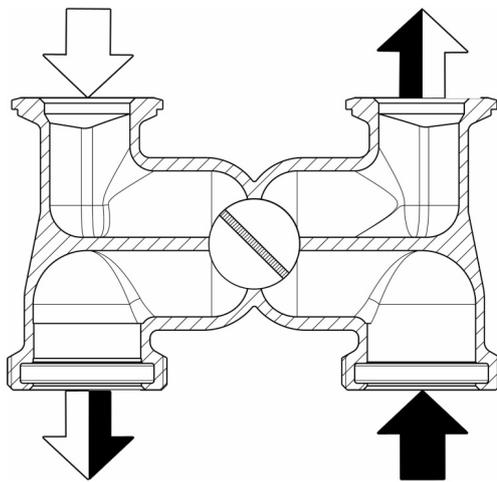
- for heating systems controlled by a mixing valve in combination with a boiler temperature maintenance
- to maintain a minimum boiler flow rate

3 Product description

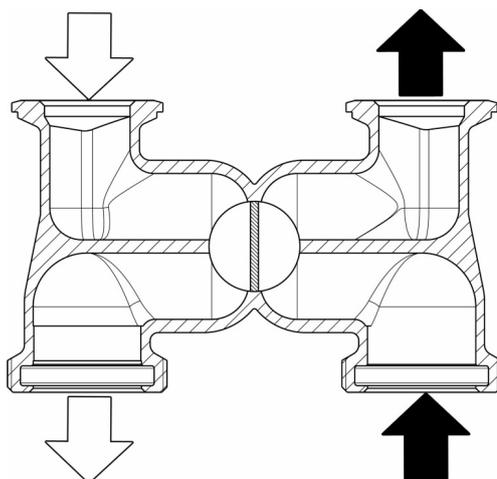
3.3 Mixing valve [specialist]



Mixing valve position 0



Mixing valve position 5

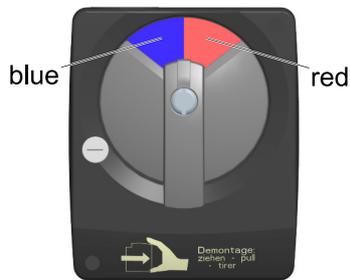


Mixing valve position 10

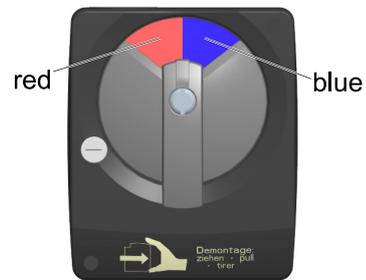
3.4 Accessories: Actuator (optional)

The PAW actuator for weather-compensated control is available as an accessory.

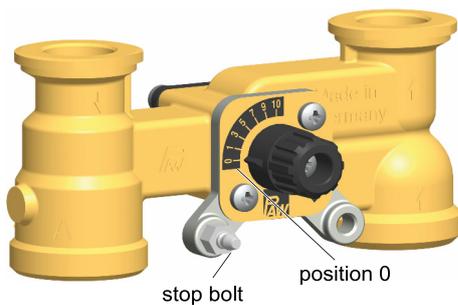
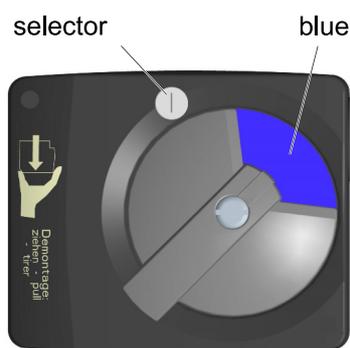
For mixing valves with flow on the left, the scale must be turned by 180°.



for mixing valve with flow on the right



for mixing valve with flow on the left



Assembly of the actuator - flow on the right:

If the PAW actuator has been purchased as an optional accessory, the mixing valve contains a metal plate. To mount the PAW actuator on the mixing valve, proceed as follows:

1. Turn the rotary knob of the mixing valve into **position 0**.
2. Set the actuator to manual mode by turning the selector switch.
3. Turn the rotary knob of the actuator to the left to the position shown on the adjacent figure.
4. Mount the rotation lock / the stop bolt in the **left** opening of the metal plate. The actuator is fixed on a stop bolt.
5. Put the PAW actuator on the rotary knob of the mixing valve and mount the actuator on the stop bolts. The PAW actuator must be mounted in a horizontal position.
6. Set the actuator to automatic mode.

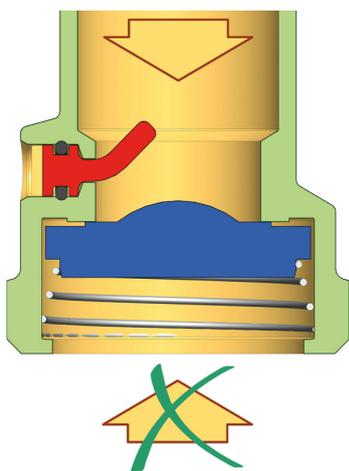
3 Product description

3.5 Check valve

The HeatBloC® is equipped with a check valve (D-1) in the return pipe. The check valve can be opened.

The check valve is spring-operated. The opening pressure is 200 mm wc.

Operation

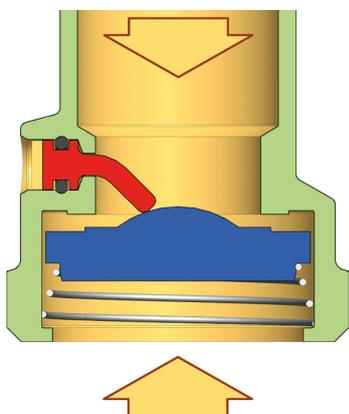


During operation, the marking must be directed to "Z".

- The check valve is closed.
- Flow only in the direction of the arrow.



Filling, draining, venting



For filling, draining and venting the installation, the marking must be directed to "A".

- The check valve is open.
- Flow in both directions.



4 Mounting and installation [specialist]

The HeatBloC® can either be mounted on a distribution manifold or on a wall bracket. The distribution manifold and the wall bracket are opt. accessories and are thus not included in the scope of delivery.

WARNING

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.

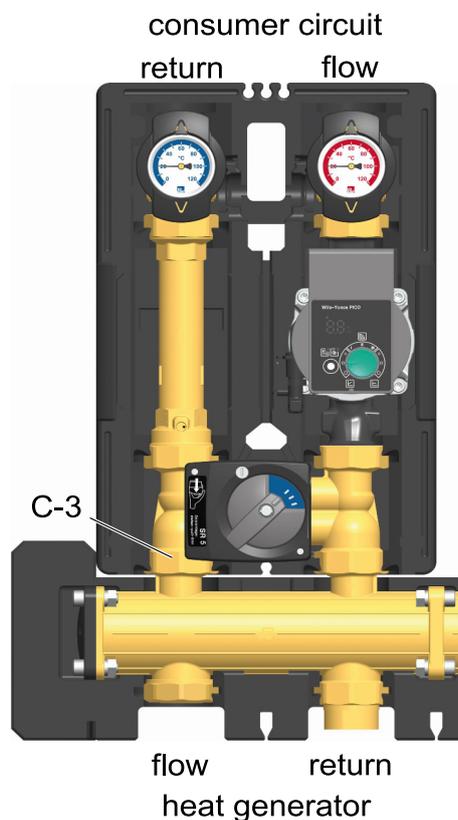
4.1 Installation and commissioning of the HeatBloC®

The HeatBloC® can be mounted

Option 1:

on a PAW modular distribution manifold.

In this case, a non return valve DN 25: 34011, DN 32: 37011) must be inserted in the mixing valve return (C-3) to prevent unwanted circulation.



4 Mounting and installation [specialist]

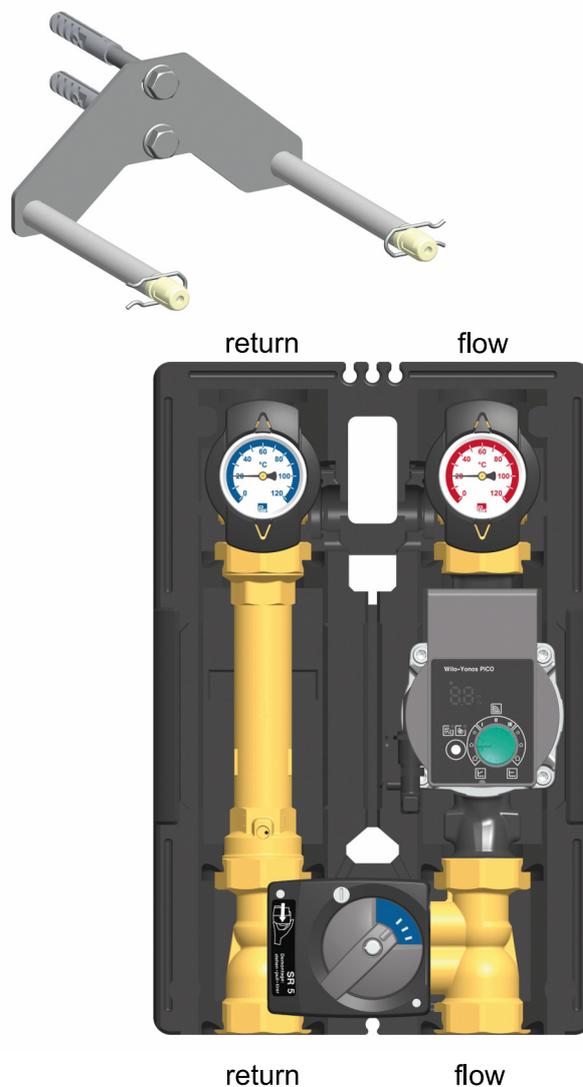
Option 2:

on a mounting plate with transition thread connections.

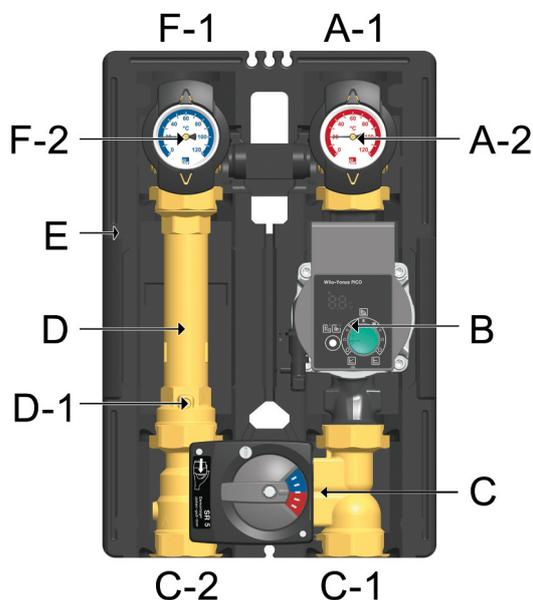
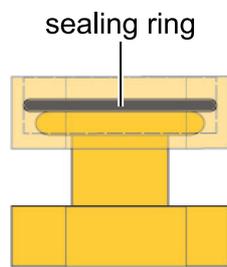
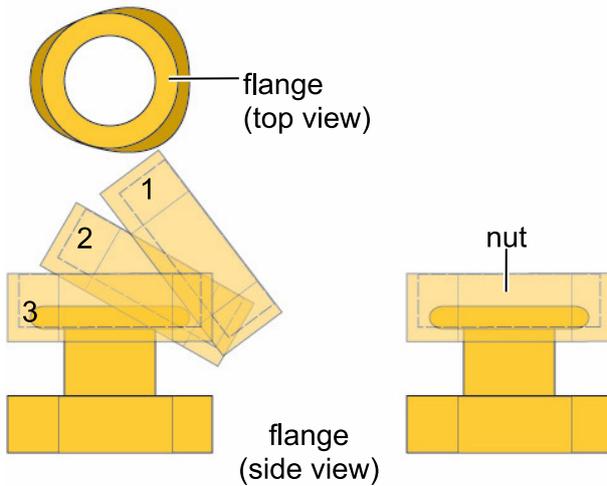


Option 3:

directly on a wall bracket



Please observe the separate and respectively corresponding instructions regarding the installation of the distribution manifold, of the mounting plate and of the wall bracket.



1. Take off the thermometer handles (A-2, F-2) and remove the insulating front shell of the HeatBloC®.
2. Unscrew the nuts on the lower connections of the HeatBloC® and take out the sealing rings.

If a PAW modular distribution manifold or transition connection is used:

3. Put the two nuts over the flanges.
4. Insert the sealing rings into the nuts.
5. Put the HeatBloC® onto the two nuts.
6. Tighten the nuts. Make sure that the nuts do not get jammed and that the sealing rings do not slip.
7. Connect the HeatBloC® to the installation by using the pipes. The installation to the piping must be carried out without any tension.
8. Connect the pump.
9. Carry out a pressure test and check all thread connections.
10. Mount the insulating front shell and the thermometer handles (A-2, F-2).

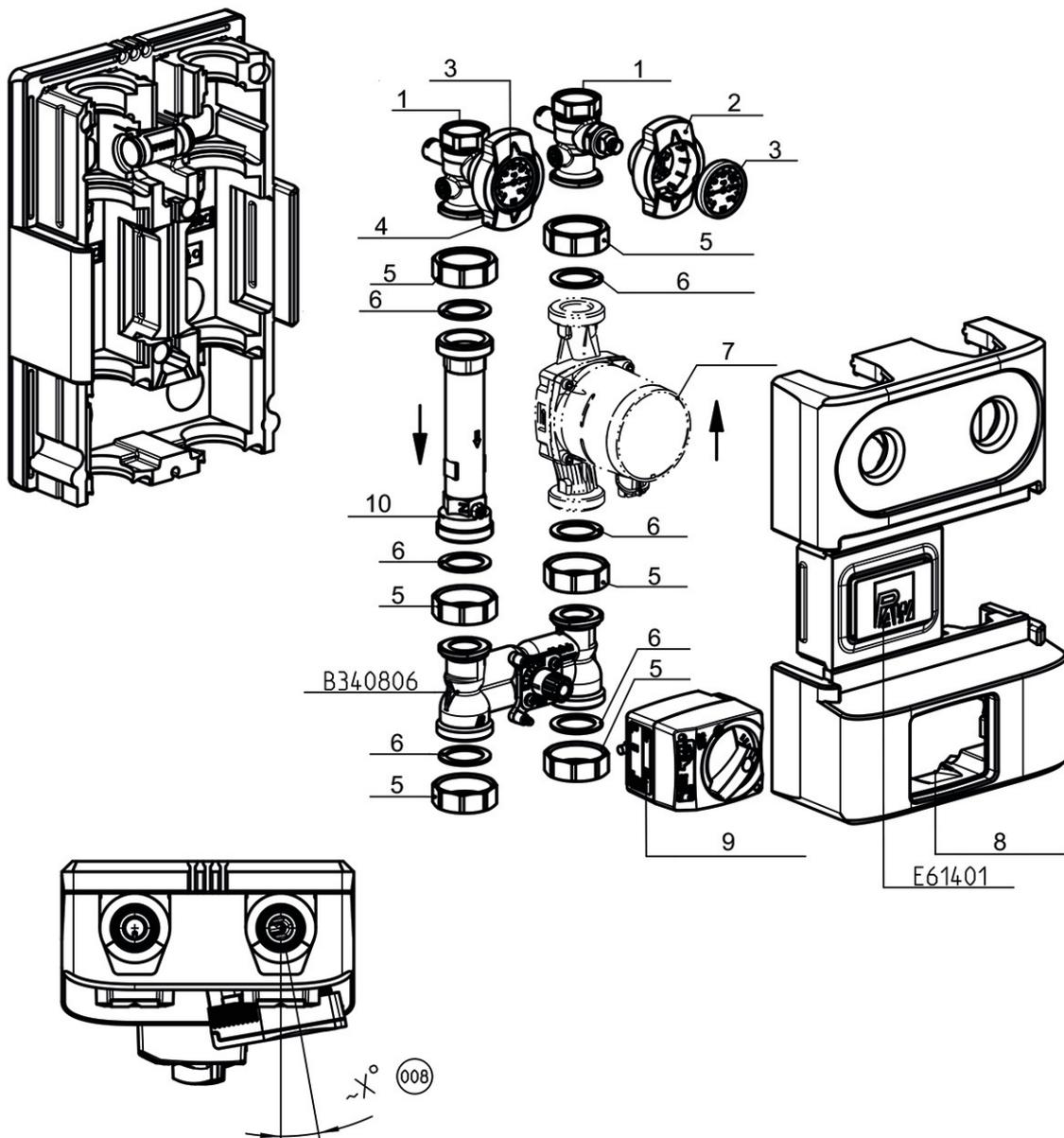
5 Scope of delivery [specialist]

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 on the return pipe of the product.

5.1 Spare parts DN 25



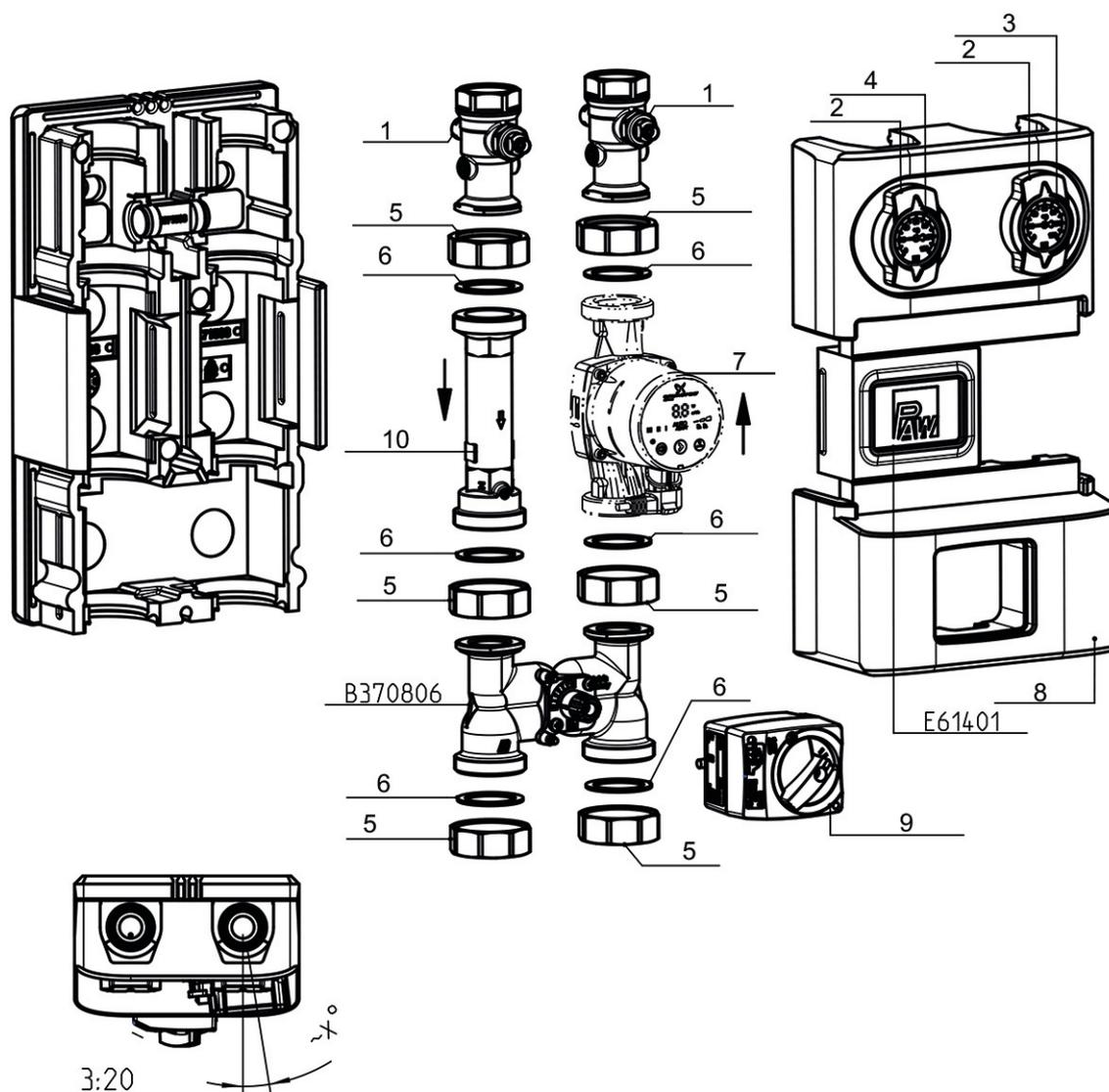
Position	Spare part	Item number
1	Thermometer ball valve DN 25, flange 1" x 1" int. thread	N00244
2	Thermometer handle for thermometer ball valve 1"	N00248
3	Dial thermometer, red scale, d = 50 mm, 0-120 °C	N00242
4	Dial thermometer, blue scale, d = 50 mm, 0-120 °C	N00243
5	Union nut G 1½"	2155
6	Gasket 1" for threaded connection 1½"	N00131
7	Pump see following table	
8	Insulation for HeatBloC® DN 25	N00016
9	Actuator 5 Nm, 230 V, 50 Hz	705001
10	Brass pipe DN 25, 2 x 1½" ext. thread, 180 mm, with check valve	N00018

Item no. heating circuit*	Pump	Item no. pump	EEl
36083(M)WP6	Wilo Para SC 25/6-43	N00259	< 0.20
36083(M)WP8	Wilo Para SC 25/8-60/O	N00271	< 0.20
36083(M)WN06	Wilo Yonos PICO 25/1-6	N00214	< 0.20
36083(M)GM6	Grundfos UPM3 Auto L 25-70 PP3	N00237	< 0.20
36083(M)GH6	Grundfos Alpha2.1 25-60	N00236	< 0.17
36083(M)GL9	Grundfos UPML 25-95 Auto	N00396	< 0.23

*Heating circuits with an actuator additionally contain a M in the item number, f. ex. 36083MWP6
(without actuator = 36083WP6)

5 Scope of delivery [specialist]

5.2 Spare parts DN 32



Position	Spare part	Item number
1	Thermometer ball valve DN 32, flange 1¼" x 1¼" int. thread	N00245
2	Thermometer handle for thermometer ball valve 1"	N00248
3	Dial thermometer, red scale, d = 50 mm, 0-120 °C	N00242
4	Dial thermometer, blue scale, d = 50 mm, 0-120 °C	N00243
5	Union nut G 2"	2156
6	Gasket 1¼", for threaded connection 2"	N00133
7	Pump see following table	

Position	Spare part	Item number
8	Insulation for HeatBloC® DN 32	N00027
9	Actuator 5 Nm, 230 V, 50 Hz	705001
10	Brass pipe DN 32, 2x 2" ext. thread, 180 mm, with check valve	N00139

Item no. heating circuit*	Pump	Item no. pump	EEl
39083(M)WP6	Wilo Para SC 30/6-43	N00261	< 0.20
39083(M)WN06	Wilo Yonos PICO 30/1-6	N00313	< 0.20
39083(M)WY10	Wilo-Yonos PARA HF 30/0.5-10	E12361510	< 0.24
39083(M)GM6	Grundfos UPM3 Auto L 32-70 PP3	N00240	< 0.20
39083(M)GH6	Grundfos Alpha2.1 32-60	N00239	< 0.17
39083(M)GL9	Grundfos UPML 32-95 Auto	N00344	< 0.23

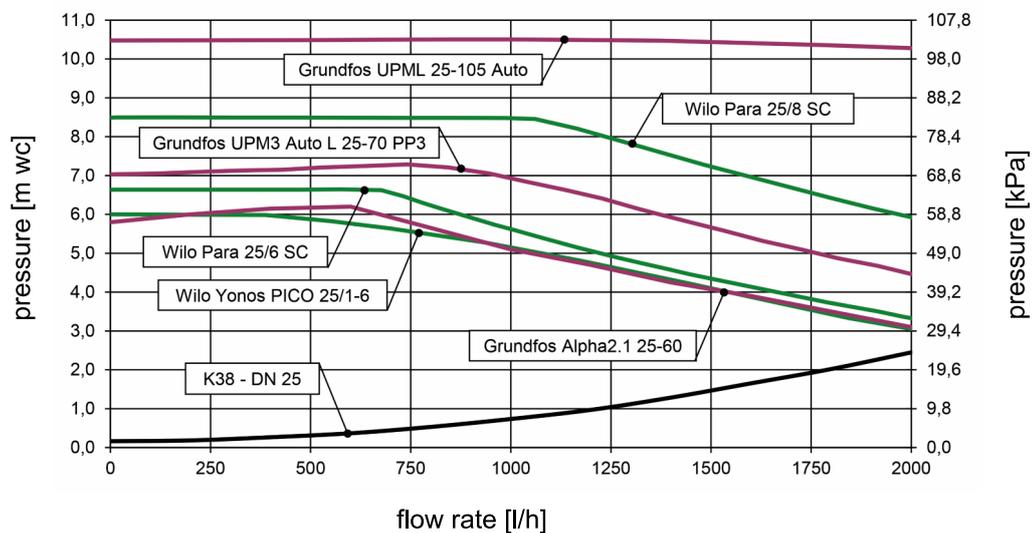
*Heating circuits with an actuator additionally contain a M in the item number, f. ex. 39083**M**WY6
(without actuator = 39058WY6)

6 Technical data

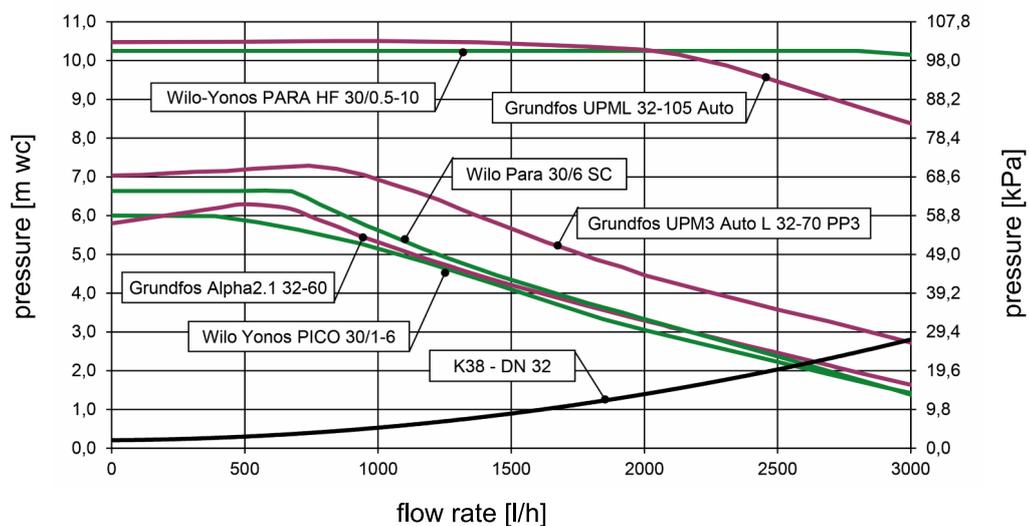
HeatBloC® K38	DN 25 (1")	DN 32 (1¼")
<p>Technical drawing of the HeatBloC K38 device showing dimensions: 1 (centre distance), 2 (width insulation), 3 (height insulation), and 4 (installation length).</p>	<p>Technical drawing of the HeatBloC K38 for DN 25 (1 inch) with labels: A-1, A-2, B, C, C-1, C-2, D, D-1, E, F-1, F-2.</p>	<p>Technical drawing of the HeatBloC K38 for DN 32 (1¼ inch) with labels: A-1, A-2, B, C, C-1, C-2, D, D-1, E, F-1, F-2.</p>
Dimensions		
Centre distance (1)	125 mm	125 mm
Width insulation (2)	250 mm	250 mm
Height insulation (3)	383 mm	441 mm
Installation length (4)	340 mm	400 mm
Connections		
Outlet (A-1, F-1)	1" internal thread	1¼" internal thread
Inlet (C-1, C-2)	1½" external thread	2" external thread
Operating data		
Max. pressure	6 bars	6 bars
Max. temperature	110 °C	110 °C
K _{V5} value [m³/h]	4.1	6.1
Opening pressure check valve (D-1)	200 mm wc, can be opened	

HeatBloC® K38	DN 25 (1")	DN 32 (1¼")
Materials		
Valves and fittings	Brass	
Gaskets	EPDM	
Insulation	EPP	

6.1 Pressure drop and pump characteristic curves DN 25



6.2 Pressure drop and pump characteristic curves DN 32



7 Disposal

NOTICE	
	<p>Electrical and electronic devices must not be disposed of in the household waste.</p> <p>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.</p> <p>If the old electrical or electronic device contains personal data, you are responsible for deleting it before returning the device.</p> <p>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.</p> <p>Please observe the disposal symbols on the components.</p>

Disposal of transport and packaging materials

The packaging materials are made of recyclable materials and can be disposed of with recyclable materials.

Item no. 993x083x-mub-en

Translation of the original instructions

We reserve the right to make technical changes without notice!

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