



Installation and Operation Instructions HeatBloC® K31 DN 40 / DN 50



DN 40



DN 50

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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 an unmixed HeatBloC®.

For other components of the installation, such as the pump, the controller or the distribution manifold, please observe the instructions of the corresponding manufacturer. The chapters marked with [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

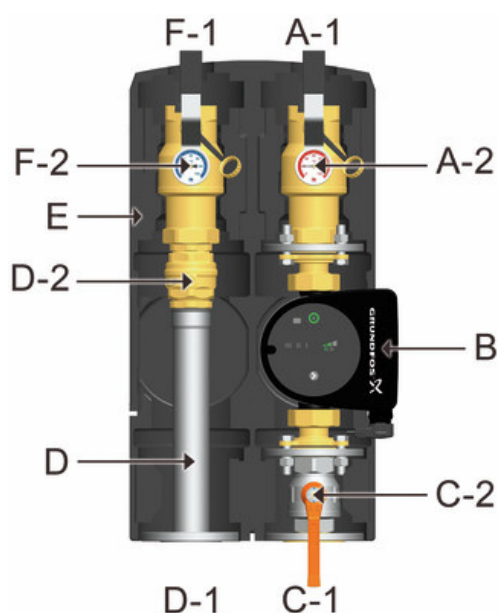
3 Product description

The unmixed HeatBloC® K31 is a premounted group of fittings for heating circuits. The pump can be isolated, it is thus not necessary to drain the heating circuit during servicing.

The HeatBloC®s DN 40 can be directly mounted on modular distribution manifolds DN 40.

The HeatBloC®s DN 50 can be directly mounted on modular distribution manifolds DN 50.

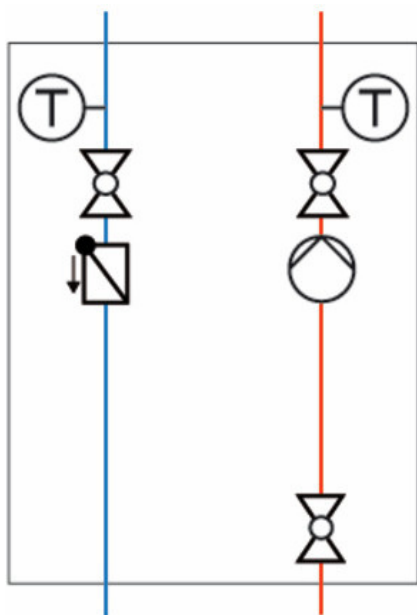
3.1 Equipment



- 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-1 Flow from the heat generator
- C-2 Ball valve
- D Return pipe
- D-1 Return to the heat generator
- D-2 Check valve, can be opened
- 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)

Example: K31 DN 40

3.2 Function



K31 - unmixed HeatBloC®

An integrated circulation pump transports the water from the heat generator to the consumers. The ball valves allow a maintenance of the pump, of the boiler / heat generator circuit as well as of the consumer circuit without putting the entire installation out of operation. Two thermometers display the temperatures of the flow and the return and allow thus a function control. The integrated check valve can be opened, it avoids an unwanted circulation and can be put out of operation to flush and fill the installation. The insulation avoids that heat energy gets lost.

Application range:

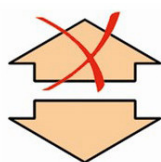
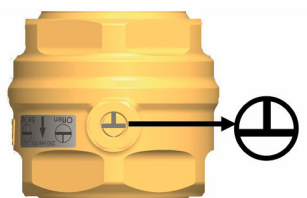
- Boiler charging
- Storage tank charging and discharging
- Radiator heating circuits
- Ventilation heating circuits

3 Product description

3.2.1 Check valve

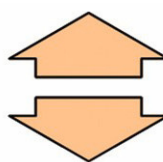
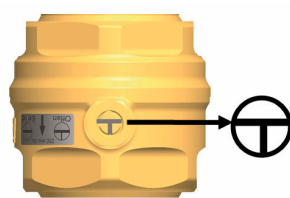
The product is equipped with a check valve in the return line. The check valve can be opened.

Check valve (normal flow direction in the figure: downwards)



Position 0 ("operation")

Check valve is operating,
flow only in flow direction.



Position 180° ("open")

Check valve not operating,
flow in both directions.

4 Mounting and installation [specialist]

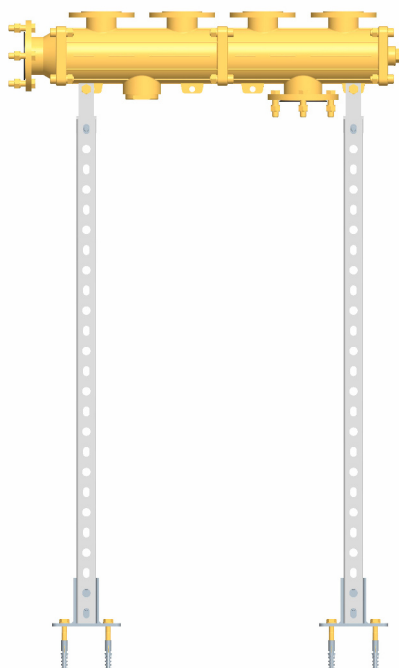
The HeatBloC® is mounted on a modular distribution manifold DN 40, DN 50 or on a bracket. The modular distribution manifold and the floor or wall bracket are not included in the scope of delivery.

NOTICE

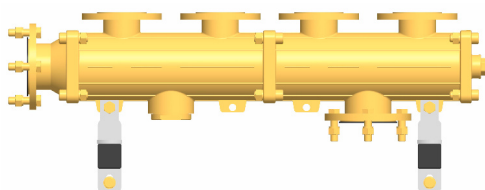
Damage to property!

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 of the modular distribution manifold



Floor bracket (1)



Wall bracket (2)

1. Determine the location of installation.

Floor bracket (1): The distance to the wall must be about 25 cm. Anchor the floor bracket in the floor with appropriate screws and wall plugs. The height of the floor bracket can be adapted by shortening the support rails.

Wall bracket (2): Anchor the wall bracket in the wall with appropriate wall plugs and screws.

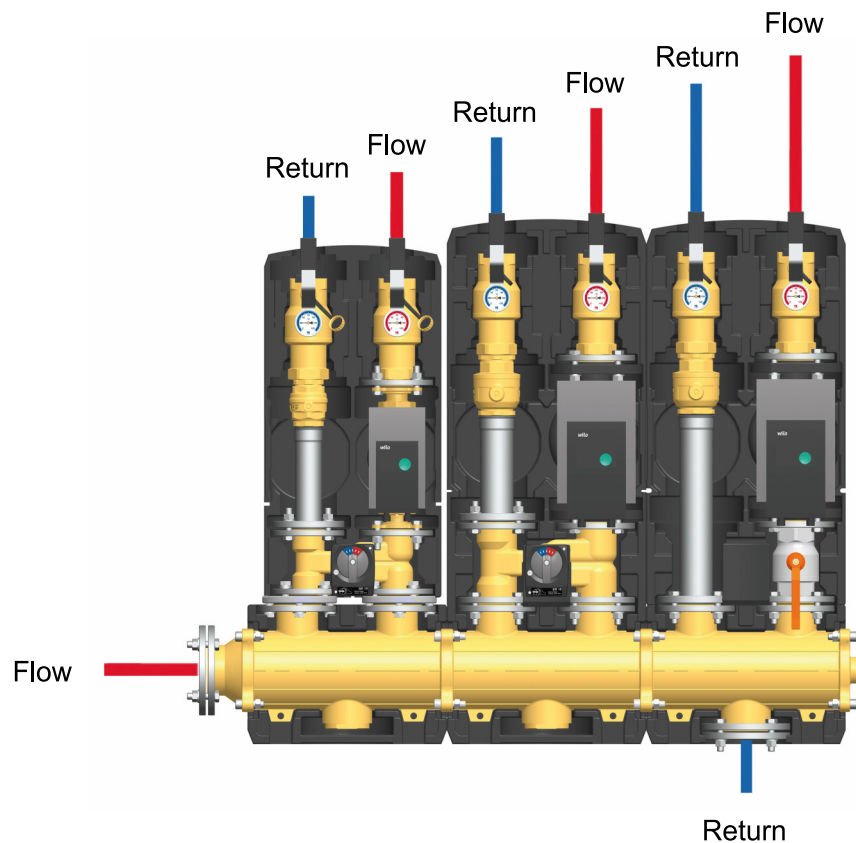
2. Take off the insulating front shell of the modular distribution manifold.
3. Put the distribution manifold onto the bracket and push the screws of the bracket through the ears at the manifold.
4. Fix the modular distribution manifold to the bracket by using screws.

4 Mounting and installation [specialist]

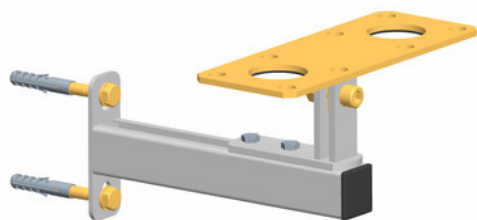
4.2 Installation of the HeatBloC® on the modular distribution manifold

Mounting example:

For the installation of a HeatBloC® DN 40 on a distribution manifold DN 50, reducing flanges (item no. 51610) are necessary!



1. Remove the thermometers from the handles, dismount the ball valve handles and take off the insulating front shell of the heating circuit.
2. Put the heating circuit with the gaskets onto the flanges of the distribution manifold and screw the flanges together.
3. Connect the heating circuit to the installation by using the pipes. The installation to the piping must be carried out without any tension. Connect the pump. Consider the flow direction of the pump!
4. Check all thread connections and carry out a pressure test.
5. Mount the insulating shells and the ball valve handles and insert the thermometers.

4.3 Installation of the HeatBloC® DN 40 on a wall bracket with mounting plate


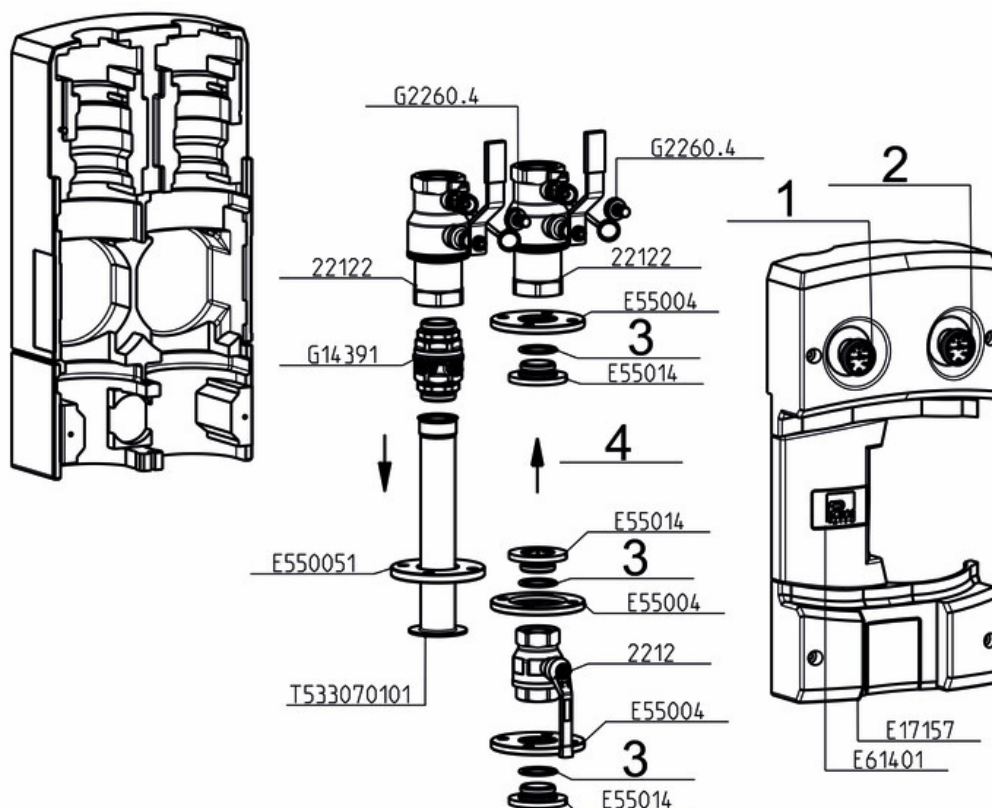
1. Anchor the wall bracket in the wall with appropriate wall plugs and screws.
2. Put the heating circuit on the wall bracket and connect the heating circuit to the installation by using the pipes. Do not forget to insert gaskets above and below the mounting plate. The installation to the piping must be carried out without any tension.
3. Connect the pump.
4. Check all thread connections and carry out a pressure test.
5. Mount the insulating front shell and the handles and insert the thermometers.

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 Scope of delivery [specialist]

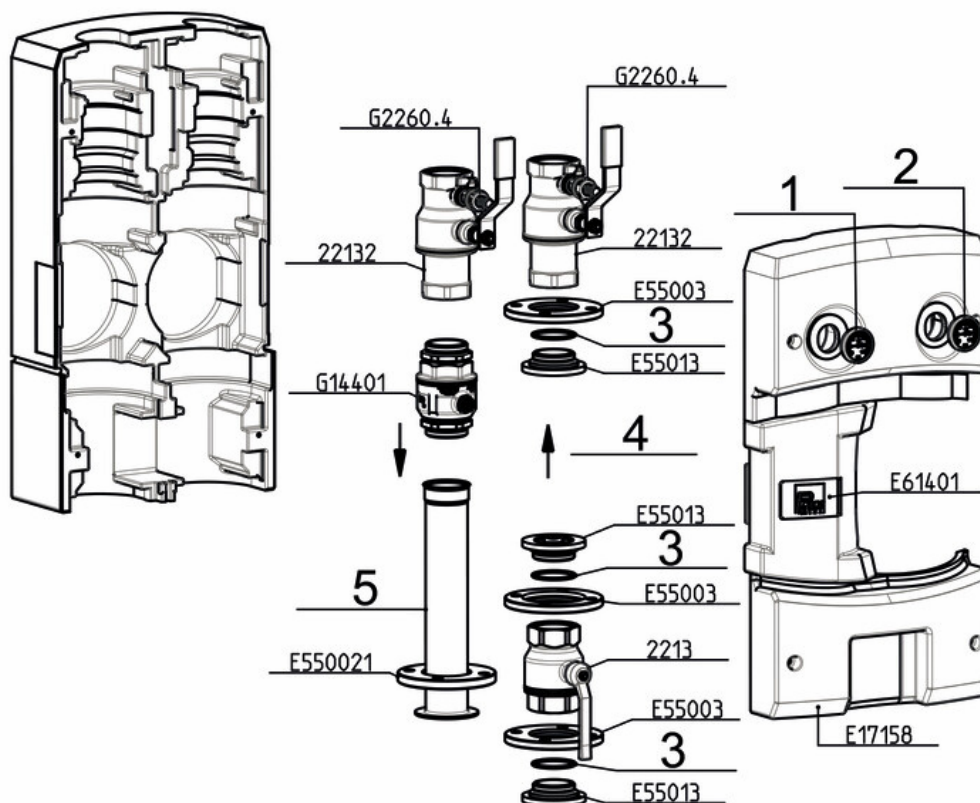
5.1 Spare parts K31 DN 40



Position	Spare part	Item number
1	Dial thermometer, blue scale, d = 50 mm, 0-120 °C	N00243
2	Dial thermometer, red scale, d = 50 mm, 0-120 °C	N00242
3	Set of gaskets dist.manif DN40 / DN 50	N00061
4	Pump see following table	

Item no. heating circuit	pump	Item no. pump	EEL
41211WY8	Wilo Yonos MAXO plus 40/0.5-8	E12343708	< 0.20
41211WY10	Wilo Yonos MAXO plus 30/0.5-10	N00398	< 0.20
41211WY12	Wilo Yonos MAXO plus 40/0.5-12	E12343712	< 0.20
41211GL10	Grundfos Magna1 32-100	E1217310	< 0.21
41211GL12	Grundfos Magna1 40-120 F	E121761	< 0.21
41211GH12	Grundfos Magna3 40-120 F	E121763	< 0.18

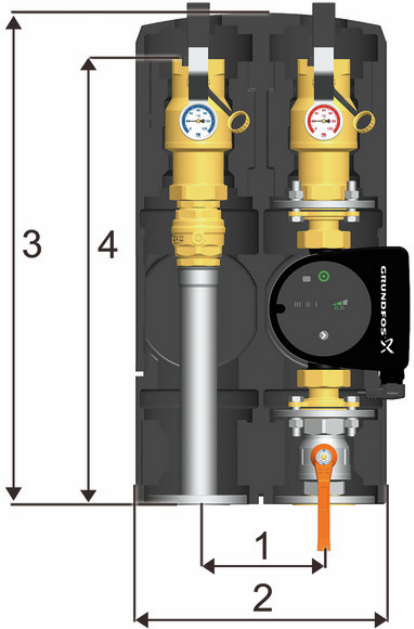
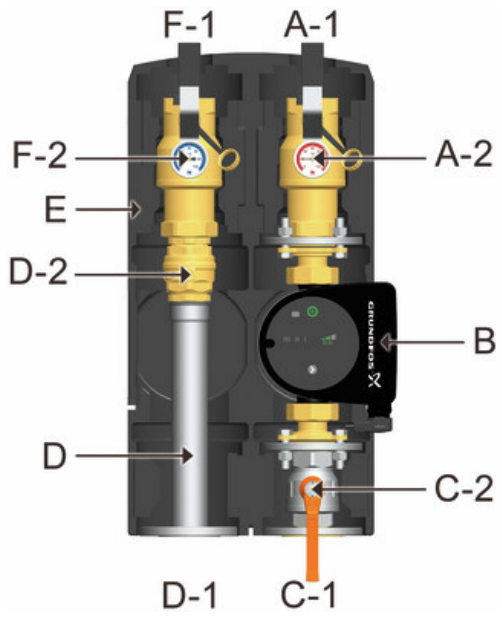
5.2 Spare parts K31 DN 50



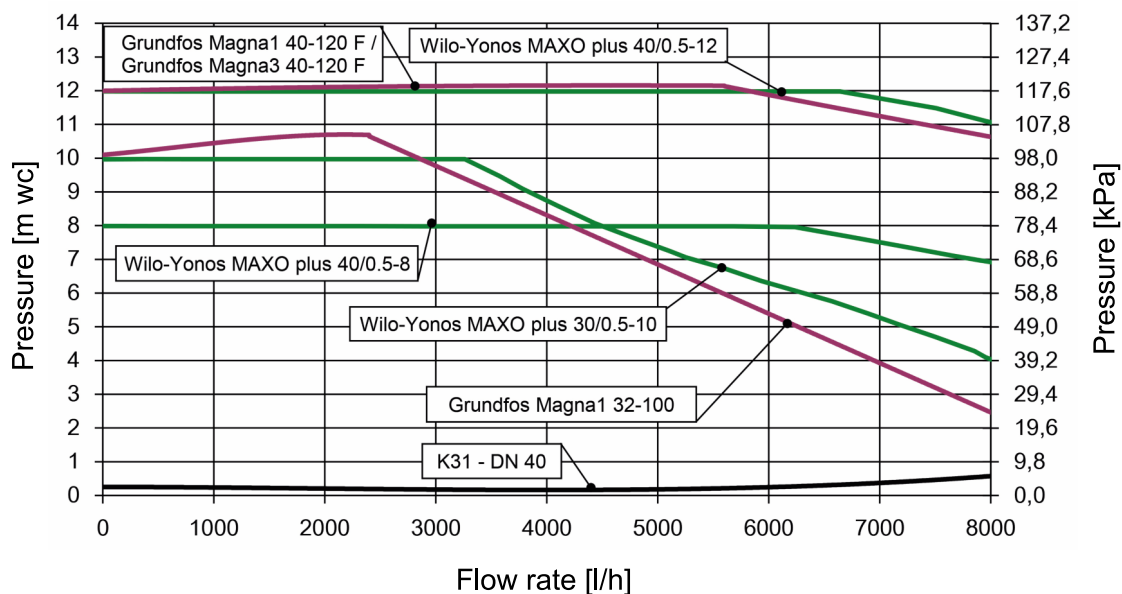
Position	Spare part	Item number
1	Dial thermometer, blue scale, d = 50 mm, 0-120 °C	N00243
2	Dial thermometer, red scale, d = 50 mm, 0-120 °C	N00242
3	Set of gaskets dist.manif DN40 / DN 50	N00061
4	Pump see following table	
5	Steel pipe DN 50, 2" int. thread	N00554

Item no. heating circuit	pump	Item no. pump	EEl
51211WY9	Wilo Yonos MAXO plus 50/0.5-9	E12343809	< 0.20
51211WM12	Wilo Yonos MAXO plus 50/0.5-12	E12343812	< 0.20
51211GL12	Grundfos Magna1 50-120 F	E121781	< 0.21
51211GH12	Grundfos Magna3 50-120 F	E121783	< 0.18

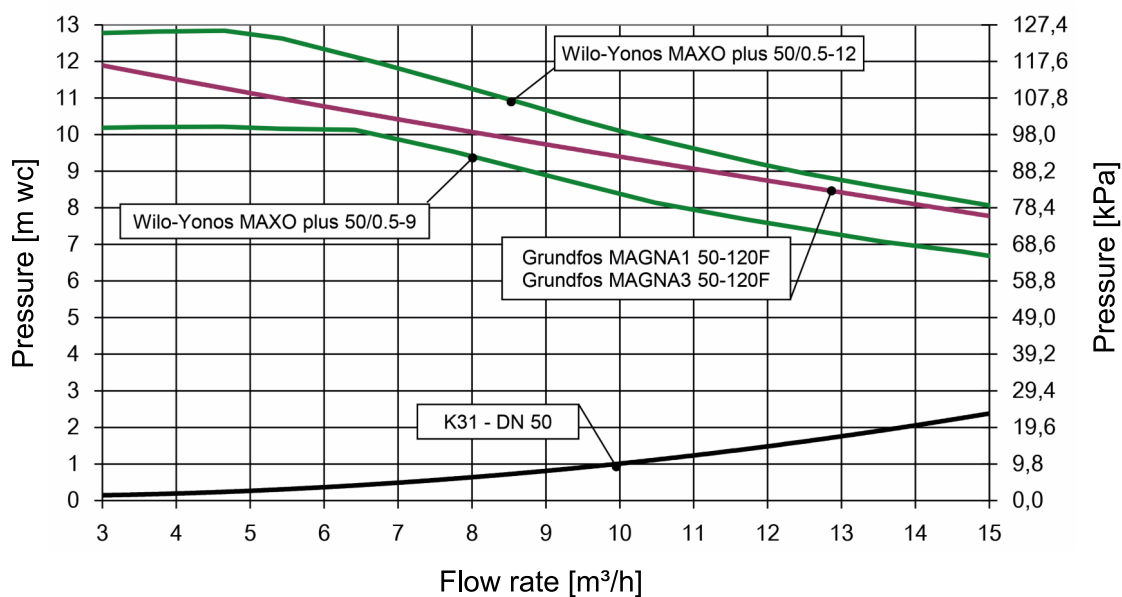
6 Technical data

HeatBloC® K31	DN 40 (1½")	DN 50 (2")
		
Dimensions		
Centre distance (1)	160 mm	180 mm
Width insulation (2)	320 mm	360 mm
Height insulation (3)	610 mm	660 mm
Installation length (4)	560 mm	630 mm
Connections		
Connection consumer (A-1, F-1)	1½" int. thread	2" int. thread
Connection generator (C-1, D-1)	Flange DN 40 / PN 6	Flange DN 50 / PN 6
Operating data		
Max. pressure	6 bars	6 bars
Max. operating temperature	95 °C	95 °C
K _{VS} value [m³/h]	28.3	31.2
Opening pressure check valve (D-2)	200 mm wc, can be opened	250 mm wc, can be opened
Materials		
Valves and fittings	Brass	
Gaskets	EPDM / NBR / AFM34	
Insulation	EPP	

6.1 Pressure drop and pump characteristic curves DN 40

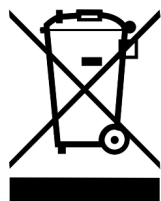


6.2 Pressure drop and pump characteristic curves DN 50



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. 99x1211x-mub-en

Translation of the original instructions

We reserve the right to make technical changes without notice!

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