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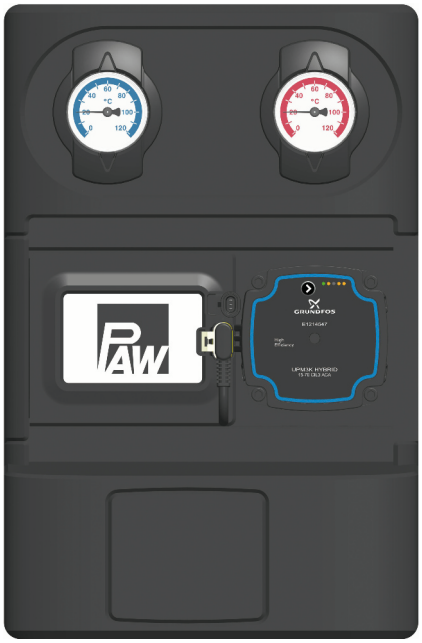
English

Installation and Operation Instructions
CoolBloC C31
DN 25 / DN 32



DN 25

DN 32

Table of Contents

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, function and the operation of the unmixed CoolBloC C31 DN 25 and DN 32.

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.

WARNING

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.

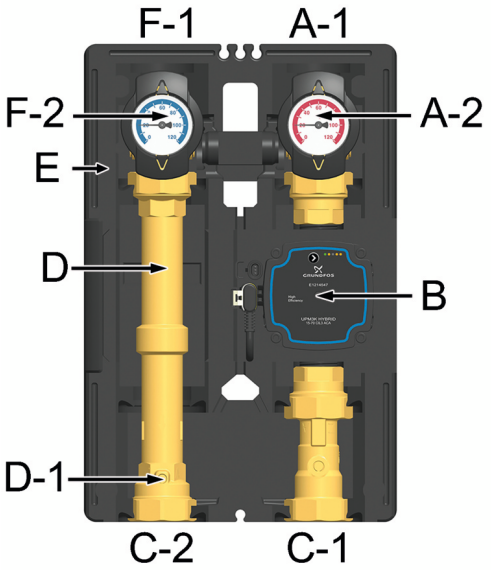
► Use a silicone- or polyalkylene-based lubricant free of mineral oil such as Unisilikon L250L and Syntheso Glep 1 from Klüber or a silicone spray.

3 Product description

The CoolBloC C31 is a pre-assembled group of fittings for heating and cooling circuits. The integrated pump can be isolated by means of the ball valves and can thus be maintained easily.

The CoolBloC can be mounted with a thermally decoupled wall bracket or alternatively on a modular PAW distribution manifold. With transition connections, PAW CoolBloCs can also be mounted on PAW modular distribution manifolds of other dimensions.

3.1 Equipment



A-1 Flow to the consumer circuit

A-2 Plastic thermometer with immersion sleeve, integrated in the ball valve (flow)

B Circulation pump, approved for cooling operation

C-1 Flow from the heat / cold generator

C-2 Return to the heat / cold generator

D Return pipe

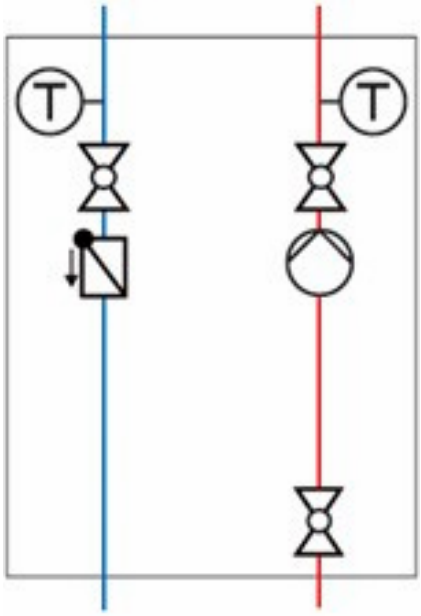
D-1 Check valve, can be opened

E Design insulation with optimised function

F-1 Return from the consumer circuit

F-2 Plastic thermometer with immersion sleeve, integrated in the ball valve (return)

3.2 Function



Direct CoolBloC

An integrated circulation pump transports the fluid from the heat / cold 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 is equipped with special sealing lips and an insulating element for the pump. It is thus avoided that heat energy gets lost during heating operation.

During cooling operation, the insulation reduces possible condensation.

Application range

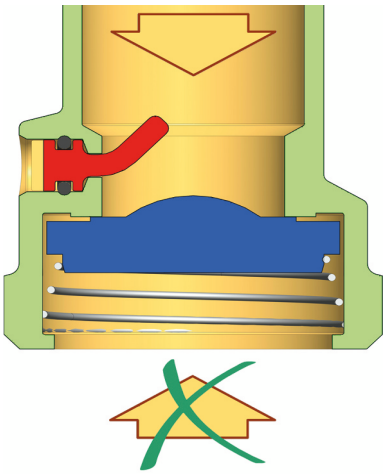
- Heating and cooling circuits for modulating temperature operation

3.2.1 Check valve

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

Operation

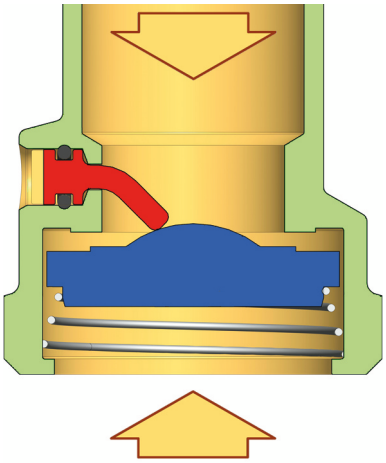
During operation, the marking must be directed to "Z".



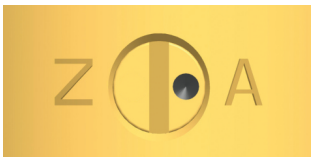
- The check valve is closed.
- Flow only in the direction of the arrow.

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 product can be mounted on a thermally decoupled wall bracket or on stair bolts. The wall bracket and the stair bolts with wall plugs are optional accessories and are thus not included in the scope of delivery.

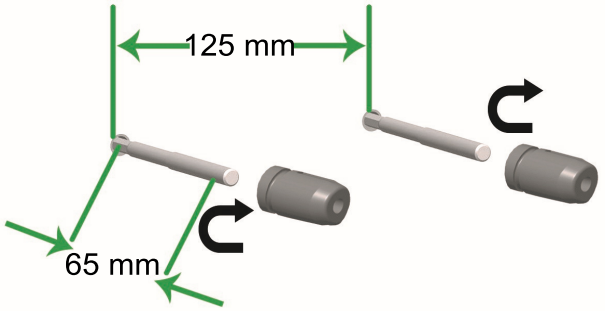
WARNING
Damage to property! The installation site must be dry, stable, frost-proof and protected against ultraviolet radiation in order to prevent material damage of the installation.

4.1 Installation and commissioning of the CoolBloC

The CoolBloC can be installed

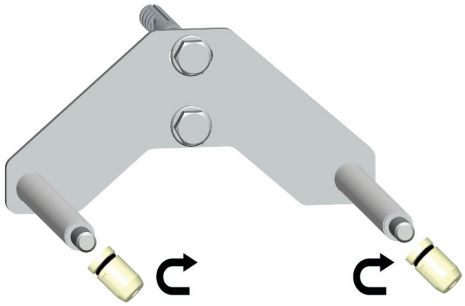
Option 1:

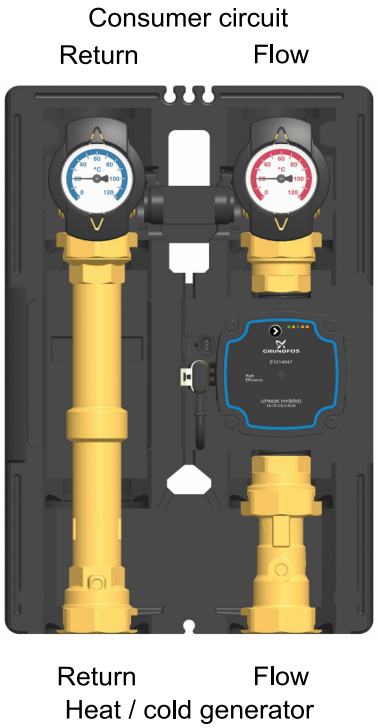
with stair bolts M8 and wall plugs (not included in the scope of delivery).



Option 2:

directly on a wall bracket (not included in the scope of delivery).





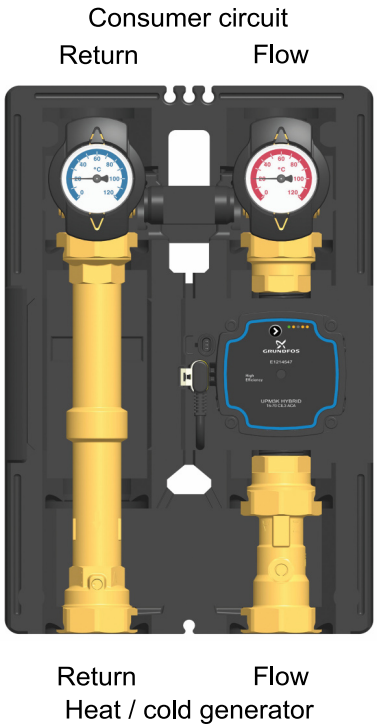
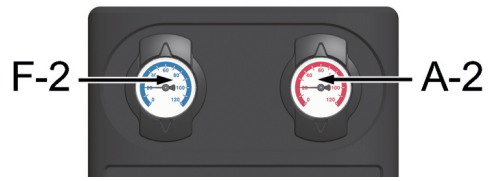


Fig. 1



1. Remove the thermometer handles (A-2, F-2) (see figure 1).
2. Remove the insulating front shell of the CoolBloC in the following order:
   - Remove the upper insulating element of the thermometers.
   - Remove the insulating element from the return pipe.
   - Remove the lower insulating element.
3. Put the clips in the groove of the ball valves (see figure 2).

Fig. 2

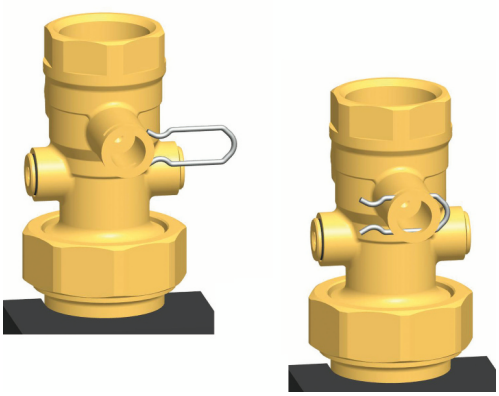
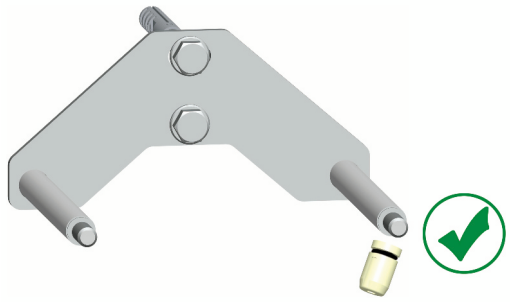


Fig. 3

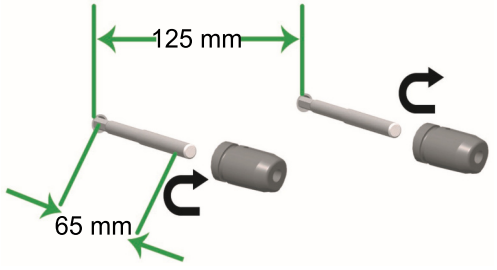
For assembly on a wall bracket:



4. Mount the wall bracket to the wall.
5. To fix the plastic stop bolts, the notch must point in the direction of the wall bracket (see figure 3). Screw the stop bolt on the thread of the wall bracket.
6. Continue with point 9.

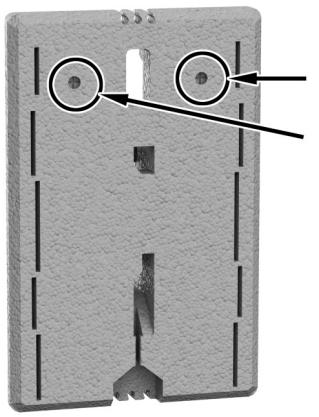
Fig. 4

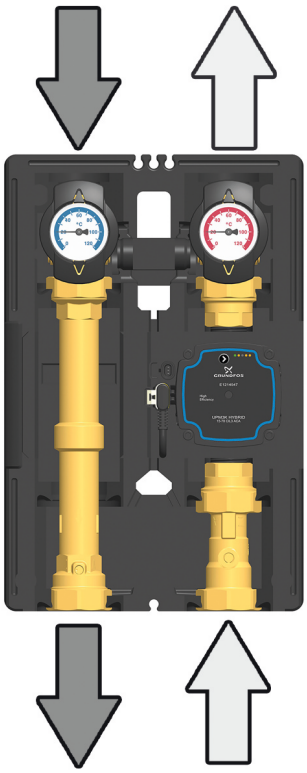
For assembly with stair bolts:



7. Mount two stair bolts M8 with a distance of 125 mm (see figure 4). The stair bolts must stick out of the wall by at least 65 mm.
8. Screw the plastic stop bolt with the groove pointing in the direction of the wall on the stair bolts.

Fig. 5





9. Punch out the holes at the marked areas in the insulation (see figure 5).
10. Push the insulation on the wall bracket or on the stair bolts.
11. Now push the fittings on the wall bracket or on the stair bolts until the clips snap in.
12. Connect the CoolBloC to the installation by using the pipes. The installation to the piping must be carried out without any tension.
13. Connect the pump.
14. Carry out a pressure test and check all thread connections.
15. Pull the insulating back shell forward to the fittings such that they snap in.
16. Connect the cable with the pump and insert the cable in the cable channel.
17. Mount the insulation in the following order:
    - Insulating element above the return pipe
    - Upper insulating element for the thermometers
    - Lower insulating element
18. Mount the thermometer handles.

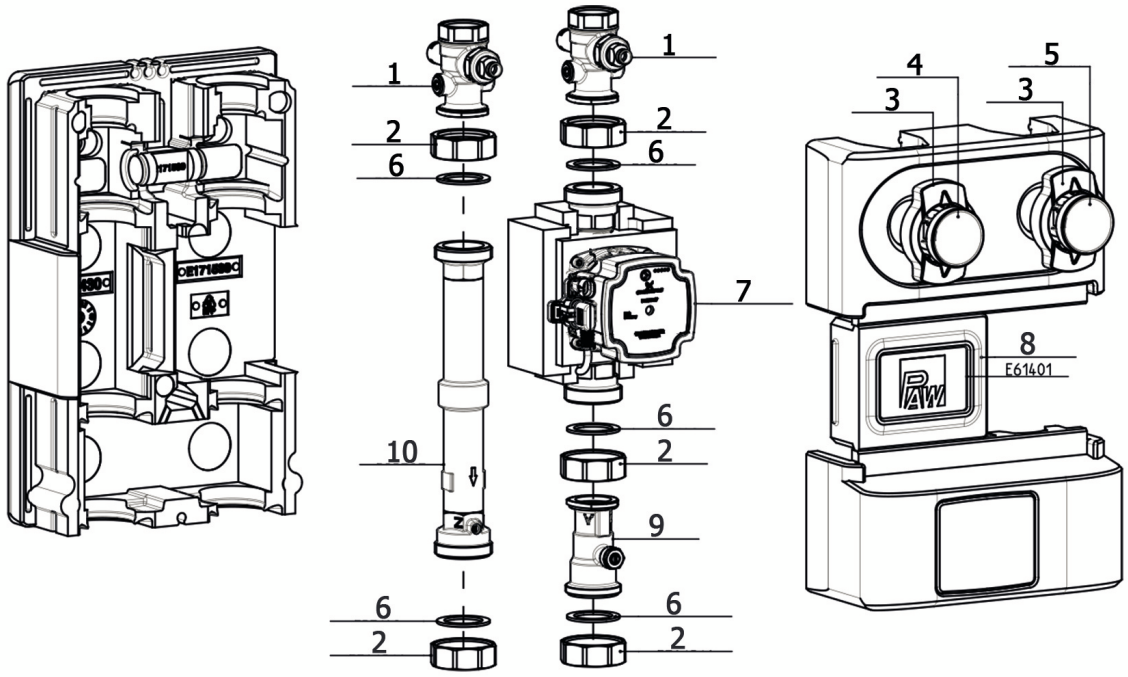
5 Scope of delivery [specialist]

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

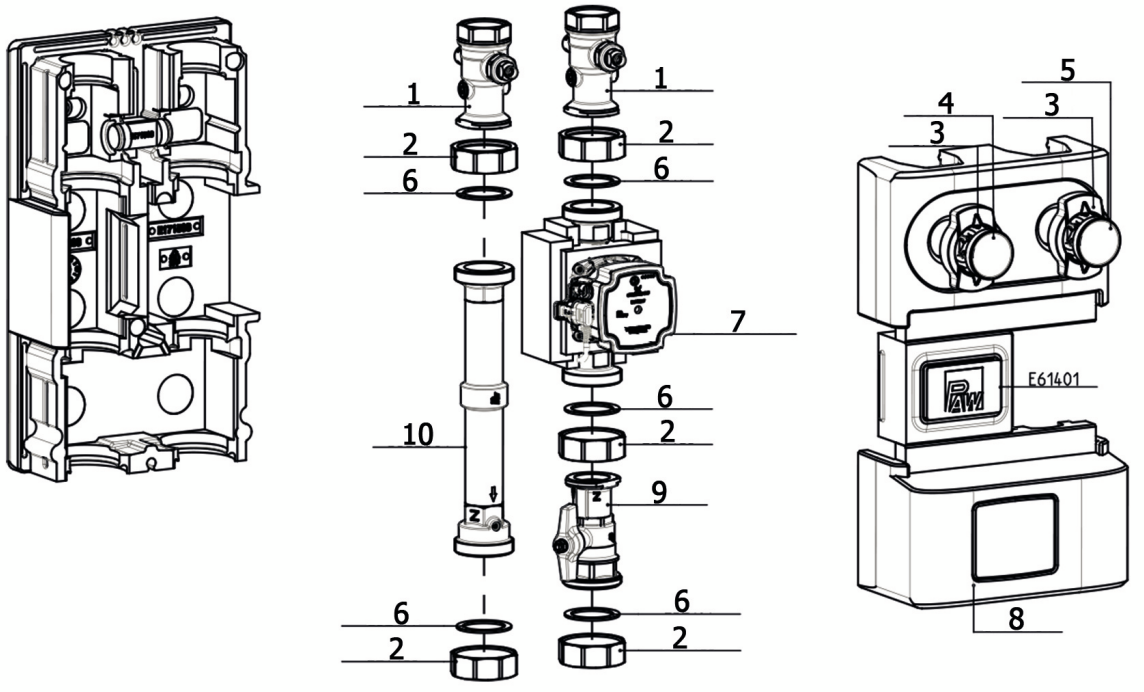


Position	Spare part	Item number
1	Thermometer ball valve DN 25, flange 1" x 1" int. thread	N00244
2	Union nut G 1½", passage 42 mm, wrench size 52	N00269
3	Thermometer handle for ball valve 1" and 1¼"	N00248
4	Dial thermometer plastic blue, d=50 mm, 0-120 °C	N00181
5	Dial thermometer plastic red, d=50 mm, 0-120 °C	N00180
6	Sealing kit, 10 pieces, 1", for thread connection 1½"	N00131
7	Pump see following table	
8	Insulation DN 25	N00016

Position	Spare part	Item number
9	Pump ball valve DN 25, flange 1" x 1½" ext. thread	N00262
10	Brass pipe DN 25, 2 x 1½" ext. thread, 262 mm, with check valve	N00021
no pos.	Sealing set, 10 pieces, ½", for thread connection 1", for Grundfos UPM3K	N00129
no pos.	Screw-in fitting 1½" ext. thread x 1" int. thread, for Grundfos UPM3K	N00149

Item no. Heating circuit	Pump	Item no. Pump	EEI
4236013GK7	Grundfos UPM3K Hybrid 15-70 CIL	N00046	< 0.20
4236013WP8	Wilo PARA SC 25/8-60/O	N00271	< 0.20

5.2 Spare parts DN 32

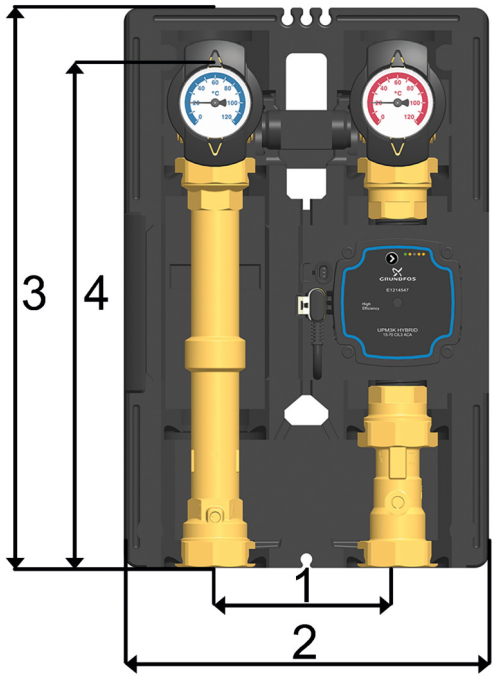
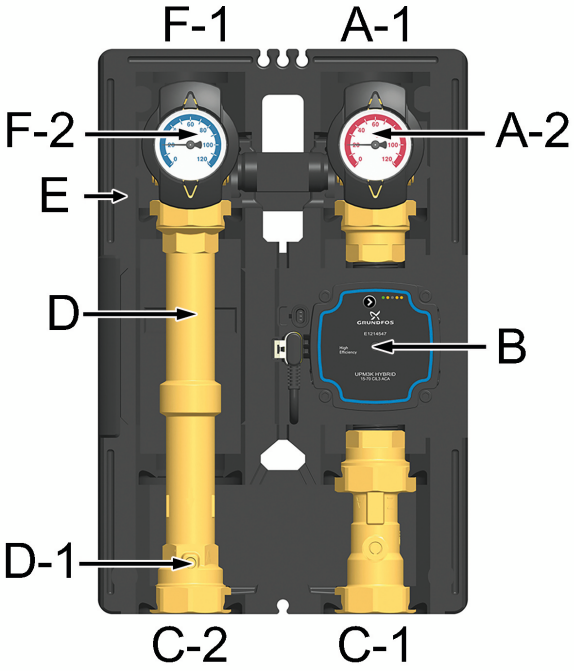


Position	Spare part	Item number
1	Thermometer ball valve DN 32, flange 1¼" x 1¼" int. thread	N00245
2	Union nut G 2"	2156

Position	Spare part	Item number
3	Thermometer handle for ball valve 1" and 1¼"	N00248
4	Dial thermometer plastic blue, d=50 mm, 0-120 °C	N00181
5	Dial thermometer plastic red, d=50 mm, 0-120 °C	N00180
6	Gasket 1¼", for threaded connection 2"	N00133
7	Pump see following table	
8	Insulation DN 32	N00027
9	Pump ball valve DN 32, 2" ext. thread x flange 1¼"	N00539
10	Brass pipe DN 32, 2x 2" ext. thread, 292 mm, with check valve	N00140
no pos.	Sealing set, 10 pieces, ½", for thread connection 1", for Grundfos UPM3K	N00129

Item no. Heating circuit	Pump	Item no. Pump	EEI
4239013GK7	Grundfos UPM3K Hybrid 15-70 CIL	N00046	< 0.20
4239013GL9	Grundfos UPML 32-95 Auto	N00344	< 0.23
4239013WM08	Wilo PARA MAXO 30/1-8	E12343508	< 0.20

6 Technical data

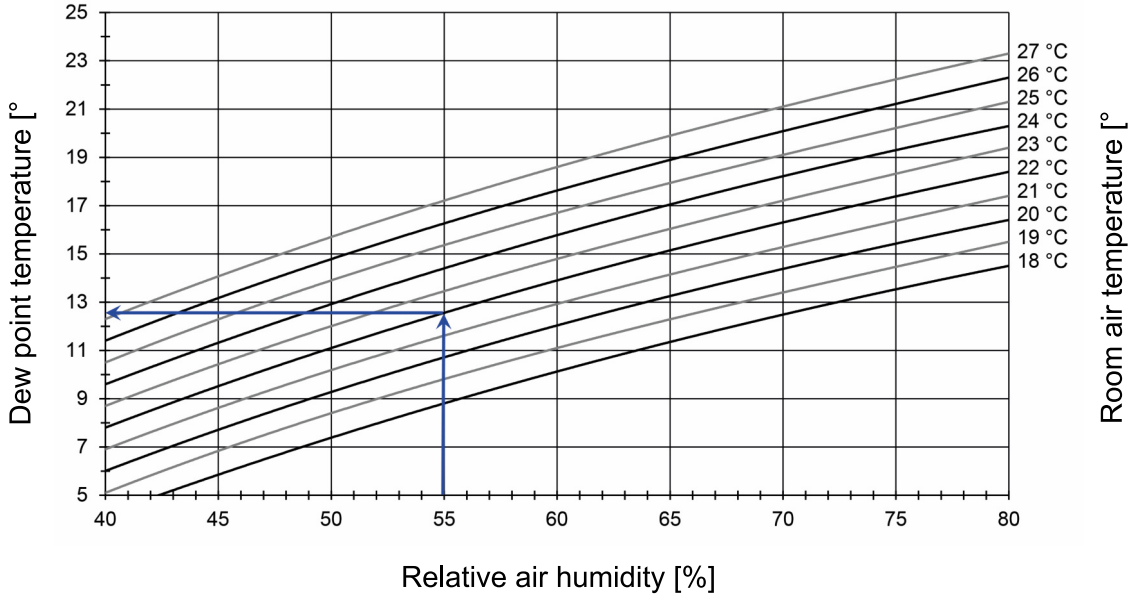
CoolBloC C31	DN 25 (1")	DN 32 (1¼")
		
Dimensions		
Centre distance (1)	125 mm	125 mm
Width insulation (2)	250 mm	250 mm
Height insulation (3)	383 mm	441 mm
Installation length (4)	340 mm	400 mm
Connections		
Outlet (A-1, F-1)	1" int. thread	1¼" int. thread
Inlet (C-1, C-2)	1½" ext. thread, flat sealing	2" ext. thread, flat sealing
Operating data		
Max. pressure	6 bars	
Minimum temperature*	+ 5 °C	
Max. temperature	95 °C	

CoolBloC C31	DN 25 (1")	DN 32 (1¼")
K_{VS}value [m^3/h]	7.2	15.1
Opening pressure check valve (D-1)	200 mm wc, can be opened	
*In general, the cooling water temperature must not fall below 15 - 16 °C in order to minimise the formation of condensation water (shortfall of the dew point temperature) at the system components. The diagram "Determination of the dew point" allows a rough estimation to know if the dew point temperature is undercut.		
Materials		
Valves and fittings	Brass	
Gaskets	EPDM	
Insulation	EPP	

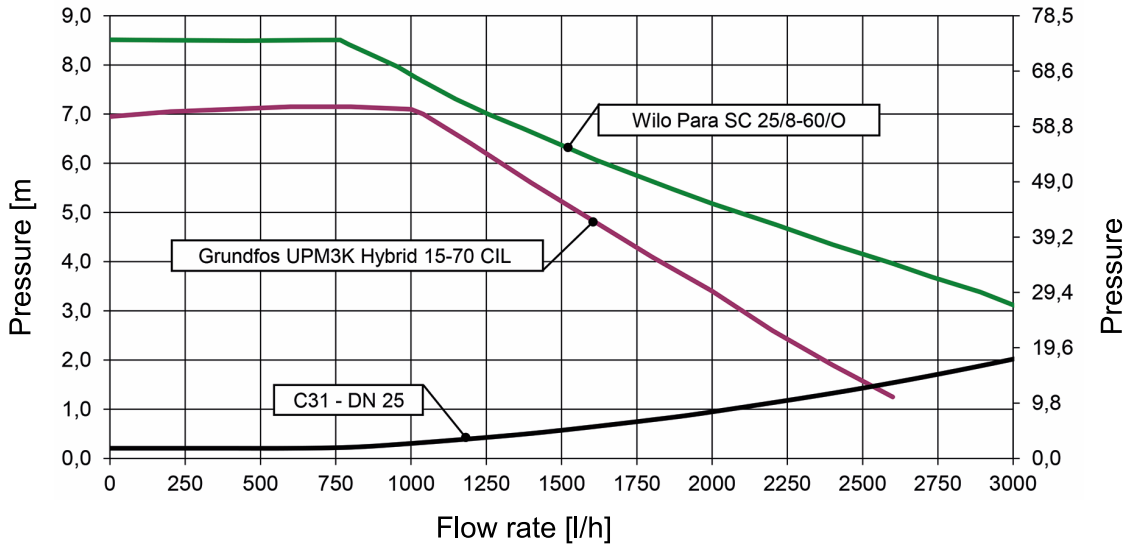
6.1 Determination of the dew point

Example: Room air temperature 22 °C, relative air humidity 55%, dew point temperature 12.5 °C

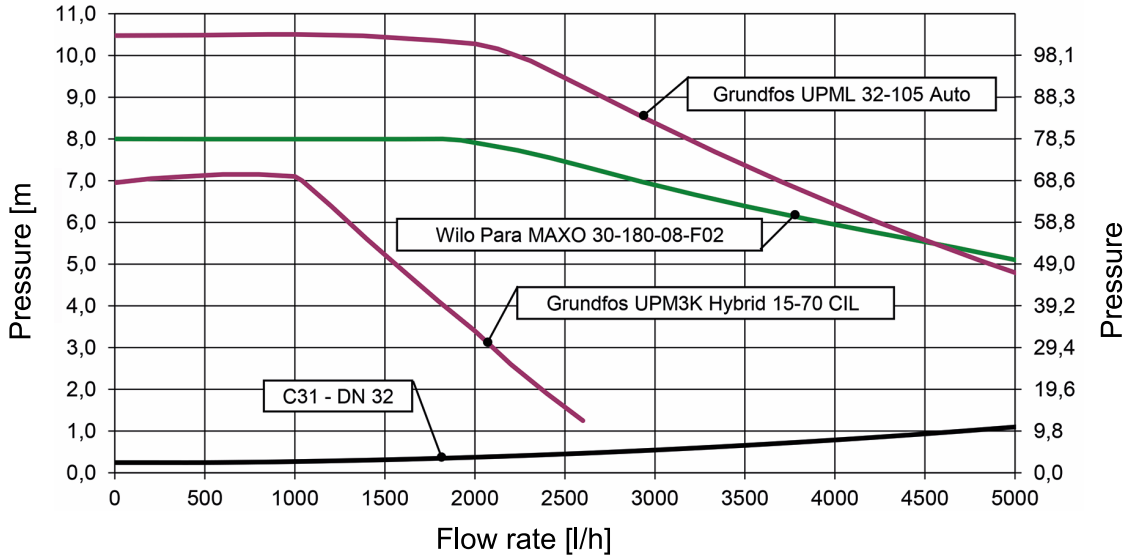
This means: If the medium temperature falls below 12.5 °C, condensate / perspiration water is generated at the pipes and valves and fittings, which flows for example into the insulation or the floor!



6.2 Pressure drop and pump characteristic curves DN 25



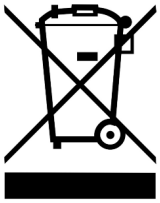
6.3 Pressure drop and pump characteristic curves DN 32



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.

Disposal of transport and packaging materials

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

Item no. 99423x013GK7-mub-en
Translation of the original instructions

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