



Installation instructions Circulation set for FriwaMini





Table of Contents

1	General Information.....	3
1.1	Scope of these instructions.....	3
1.2	About this product.....	3
1.3	Designated use.....	3
2	Safety instructions.....	4
3	Product description.....	5
4	Mounting and installation [specialist].....	6
4.1	Connection of the pump to the controller FC3.10.....	8
4.2	Connection of the pump to the controller FC4.13.....	10
5	Scope of delivery.....	13
6	Disposal.....	14

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 assembly and the installation of the circulation set for the domestic hot water module FriwaMini. The chapters marked with [specialist] are intended for specialists only.

For other components of the system, such as the domestic hot water module, tanks, controllers or pumps, please observe the instructions of the corresponding manufacturer.

This circulation set 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 About this product

The circulation set allows you to connect a circulation line to the domestic hot water module FriwaMini.

1.3 Designated use

The circulation set must only be used for the internal installation in a FriwaMini.

Only use PAW accessories with the circulation set.

Improper usage 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

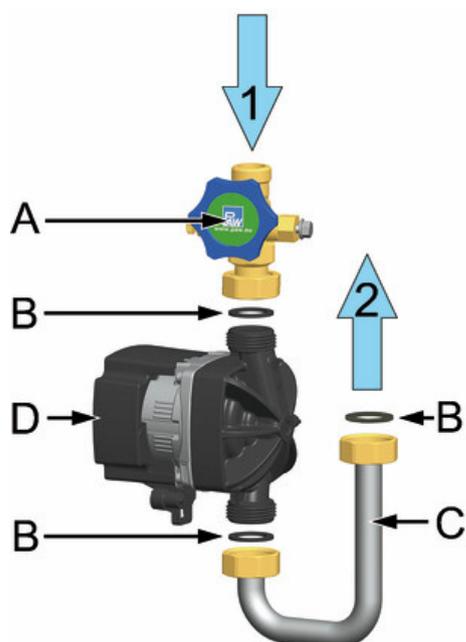
NOTICE

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

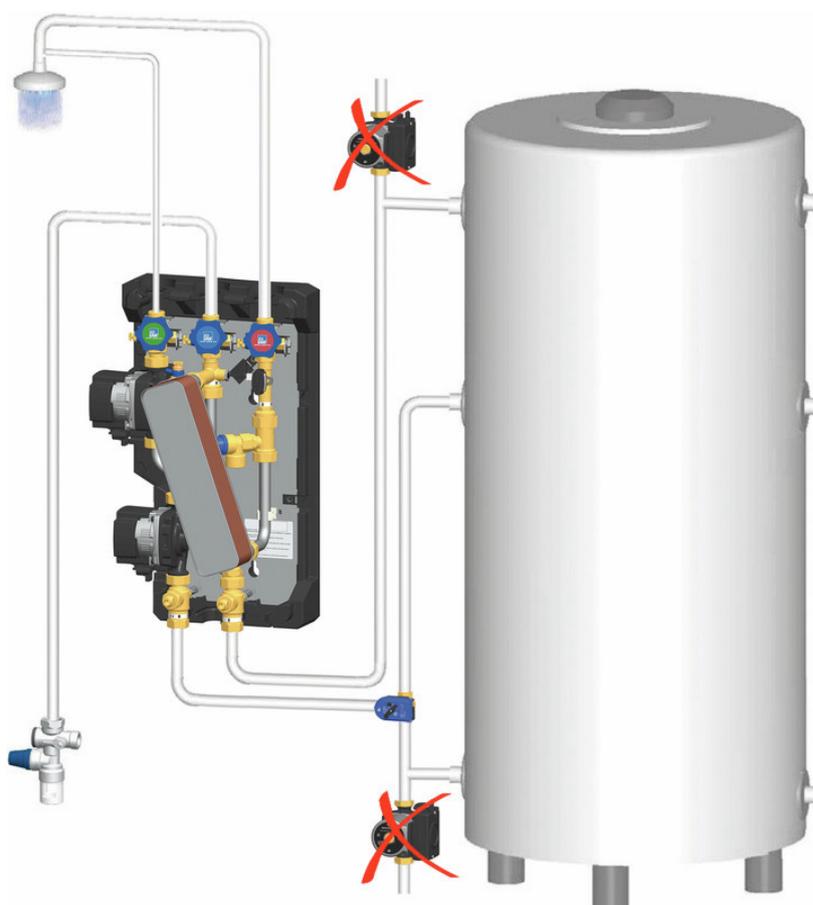


Connections

- 1 Circulation line
- 2 Cold domestic water inlet FriwaMini

Equipment

- A Piston valve with drain valve
- B Gasket (EPDM), 3x
- C Stainless steel pipe
- D Circulation pump



Mounting example: FriwaMini with circulation set

4 Mounting and installation [specialist]

WARNING

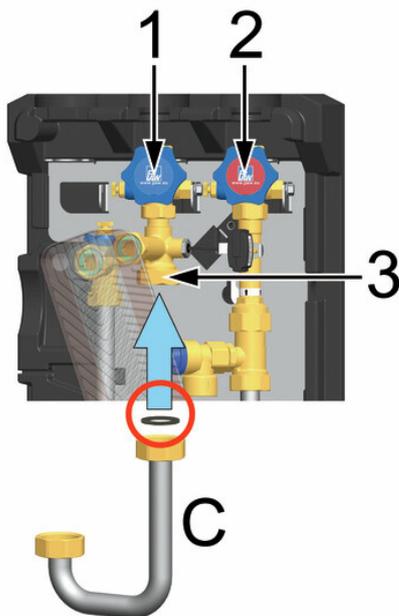


Risk to life and limb due to electric shock!

- ▶ Prior to commencing electrical work on the controller, pull the mains plug!
- ▶ Only after completing all installation work, plug the mains plug of the controller into a socket. An unintentional start of the motors is thus avoided.

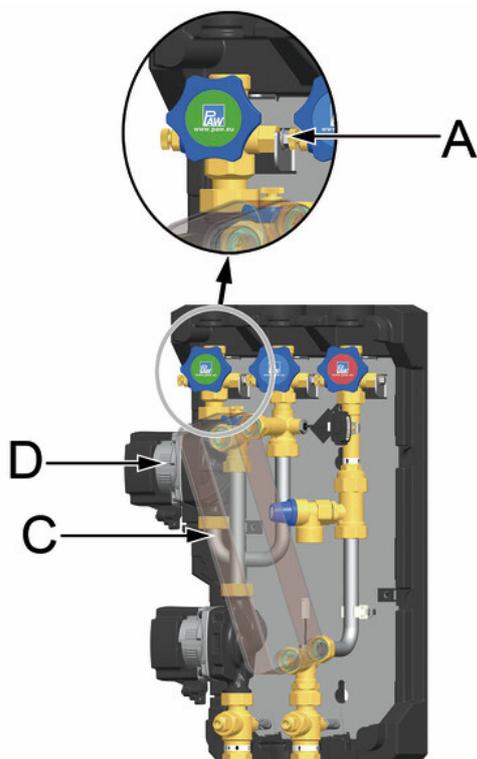
NOTICE

Use appropriate tools for the mounting and installation of the system. You will need an open-ended spanner with a wrench size of 38 mm.



1. Remove the insulating front shell of the module. It is not necessary to remove the insulating shell of the heat exchanger on which the controller is mounted.
2. Close the piston valves [1|2].
3. Remove the sensor from the T-piece [3] of the cold water inlet.
4. Remove the cap from the T-piece [3] of the cold water inlet and, coming from the right, mount the pipe [C] with the long limb by using the enclosed gasket at the T-piece. Tighten the thread connection manually.

4 Mounting and installation [specialist]



5. Coming from the left, mount the pump [D] with the piston valve [A] to the short limb of the pipe [C]. Do not forget to insert the gasket.
6. Make sure that the piston valve [A] of the circulation set is hung in the mounting plate.
7. Firmly tighten the thread connections by using the open-ended spanner. Hold the lower line in place when tightening the thread connection.

Do not apply too much pressure as the thread connection of the pump housing is fragile.
8. Connect the piston valve [A] to the installation by using the pipes.
9. Fill and vent the circulation circuit.
10. Connect the sensor to the T-piece [3] of the cold water inlet again.
11. For the commissioning of the controller, please proceed as described in the following chapter.

4.1 Connection of the pump to the controller FC3.10

NOTICE

Damage to property!

When the DHW module is delivered, the circulation is not activated (see controller instructions, chapter *Circulation*). It is mandatory to select and preset the operation mode. The revolution speed of the circulation pump is defined via the PWM signal (factory setting: 40%).

WARNING



Risk to life and limb due to electric shock!

- ▶ Prior to commencing electrical work on the controller, pull the mains plug!
- ▶ Only after completing all work, plug the mains plug into a socket. This avoids an unintentional start of the motors.

For the operation of the circulation pump, three possible operation modes are stored in the controller (see controller instructions, menu "Functions").

The following figures show how to wire the circulation pump with the controller.

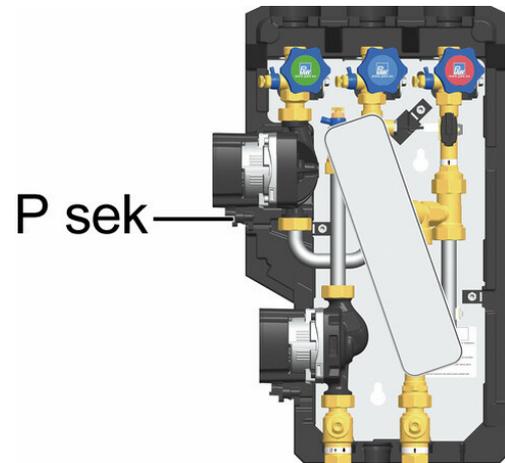
4 Mounting and installation [specialist]

1. Disconnect the power supply of the system.
To do this, remove the Schuko plug of the controller from the power socket.
2. The pump cable is closed with a protective cap which protects against humidity.

Remove the protective cap and plug the connector of the premounted pump cable "P sec" into the circulation pump (right socket).
3. Plug the PWM2 cable into the circulation pump (left socket).
4. Reinsert the insulating front shell.
5. Plug the Schuko plug in the socket and put the controller into operation according to the controller instructions.
6. The system is now ready for operation.



Controller FC3.10



4.2 Connection of the pump to the controller FC4.13

NOTICE

Damage to property!

When the DHW module is delivered, the circulation is not activated (see controller instructions, chapter *Circulation*). It is mandatory to select and preset the operation mode. The revolution speed of the circulation pump is defined via the PWM signal (factory setting: 40%).

WARNING



Risk to life and limb due to electric shock!

- ▶ Prior to commencing electrical work on the controller, pull the mains plug!
- ▶ Only after completing all work, plug the mains plug into a socket. This avoids an unintentional start of the motors.

For the operation of the circulation pump, three possible operation modes are stored in the controller (see also controller instructions).

The following figures show how to wire the circulation pump with the controller.

4 Mounting and installation [specialist]

1. Disconnect the power supply of the system.
To do this, remove the Schuko plug of the controller from the power socket.

2. The pump cable is closed with a protective cap which protects against humidity.

Remove the protective cap and plug the connector of the premounted pump cable "P sek" into the circulation pump (right socket).

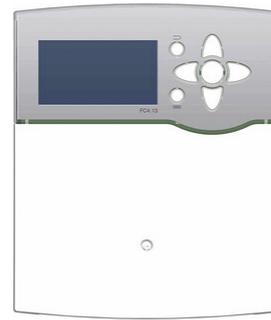
3. Remove the front panel of the controller (see controller manual.)
4. Connect the PWM2 cable of the circulation pump to the terminal "24".

Observe the polarity of the PWM connection:

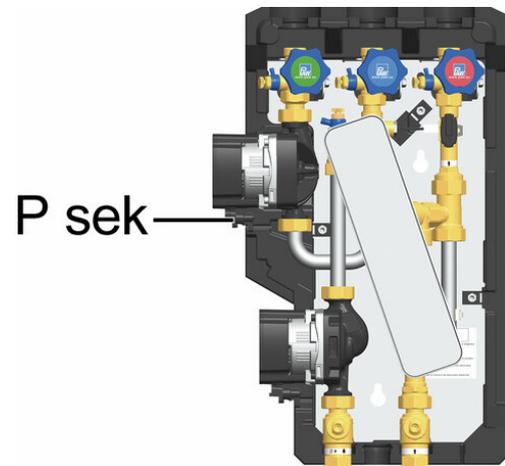
Brown: 24

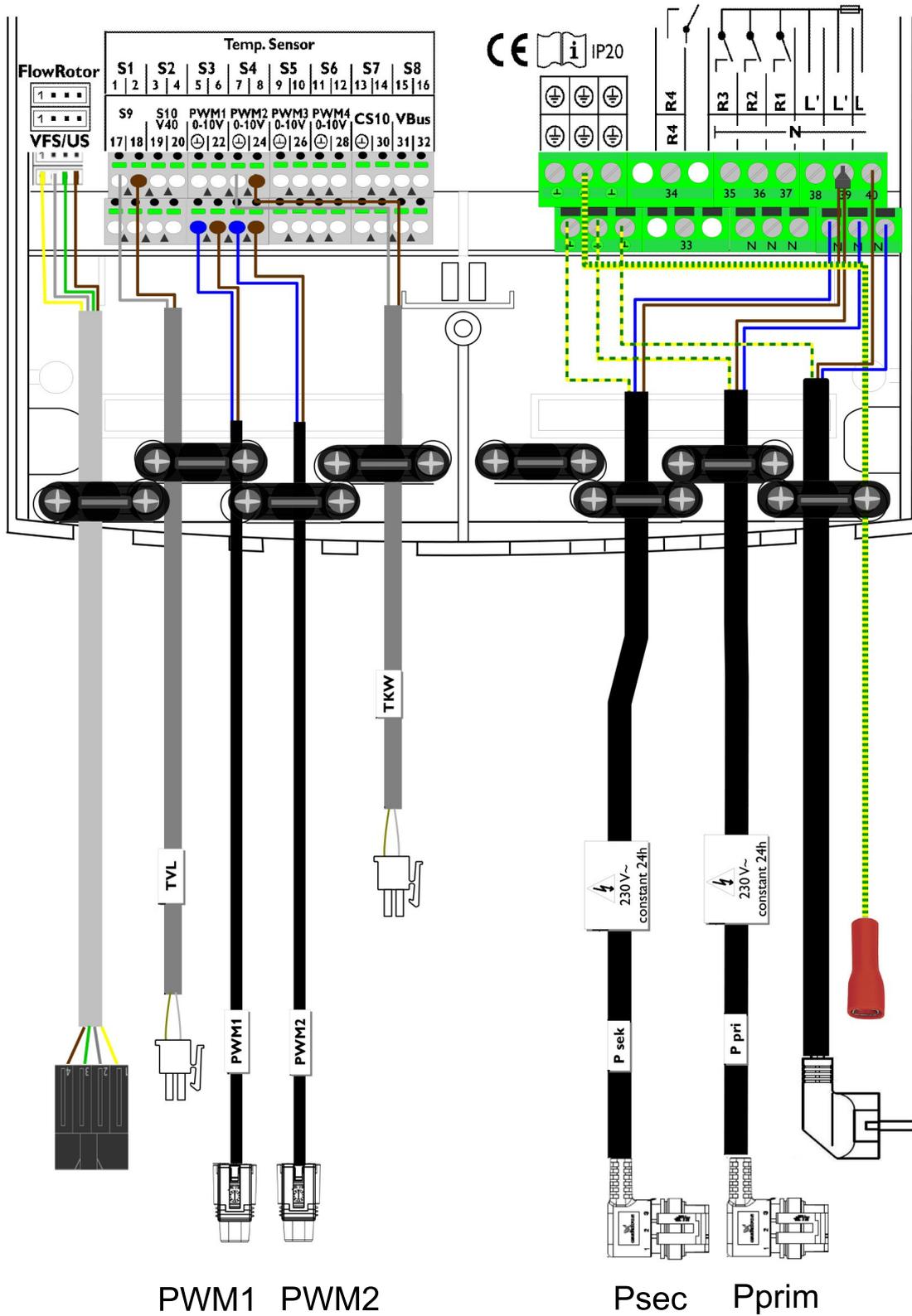
Blue: GND (⊥)

5. Close the front panel of the controller.
6. Reinsert the insulating front shell.
7. Plug the Schuko plug in the socket and put the controller into operation according to the controller instructions. The system is now ready for operation.



Controller FC4.13



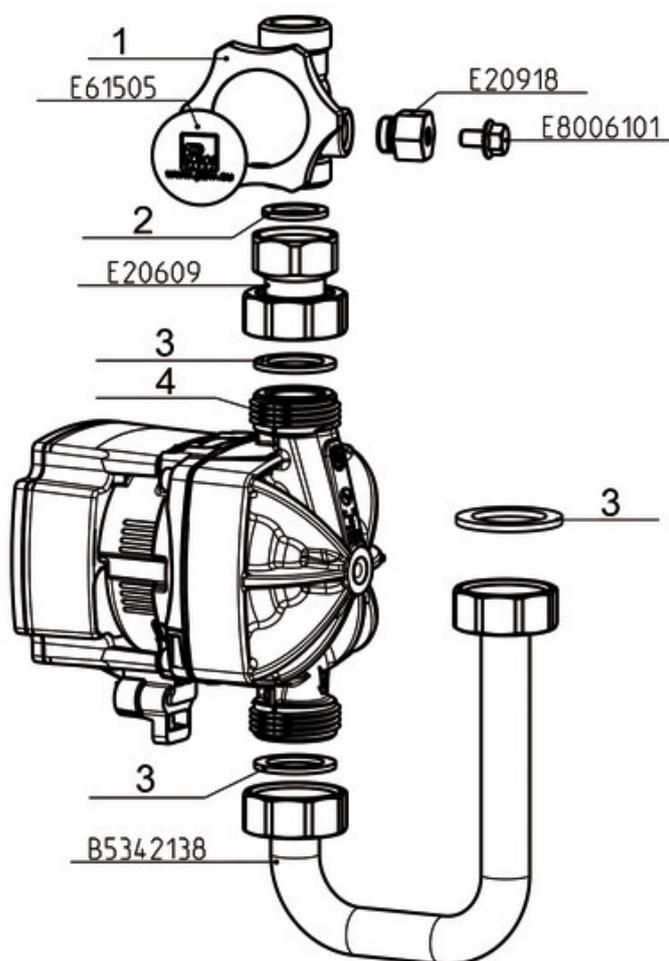


5 Scope of delivery

NOTICE

Serial number

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



Position	Spare part	Item number
1	Piston valve DN 15; 2 x ¾" ext. thread; with gaskets	N00006
2	Gasket ¼", AFM 34, for thread connection ¾", 10 pieces	N00030
3	Gasket ½", EPDM, AKT 9000, for thread connection 1", 10 pieces	N00129
4	Pump Grundfos UPM4 15-70 CIL3	N00003

6 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.



6 Disposal

Item no. 996404111-mub-en

Translation of the original instructions

We reserve the right to make technical changes without notice!

Printed in Germany – Copyright by PAW GmbH & Co. KG

PAW GmbH & Co. KG

Böcklerstraße 11

31789 Hameln, Germany

www.paw.eu

Phone: +49-5151-9856-0

Fax: +49-5151-9856-98