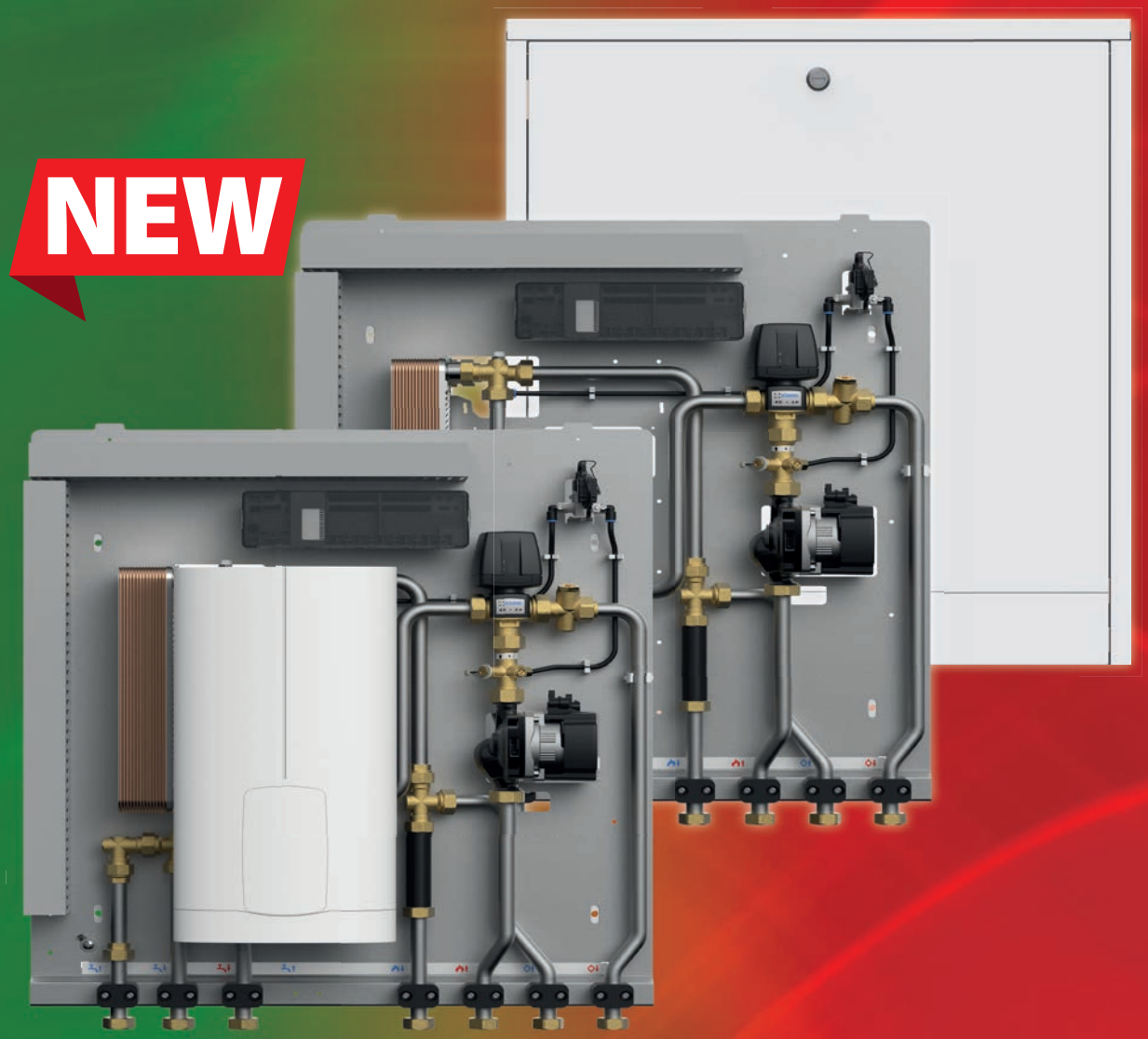
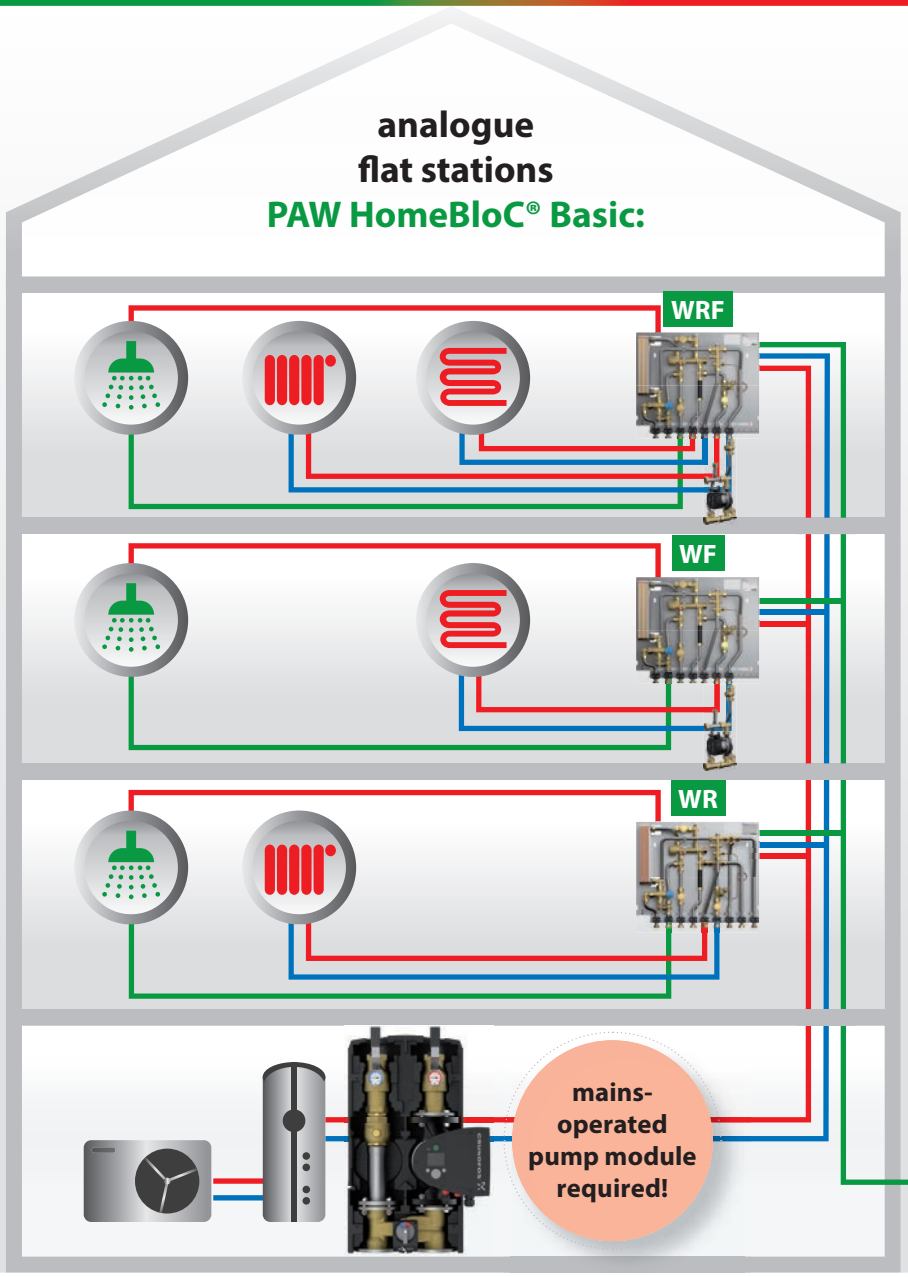
HomeBloC®
Flat stations



HomeBloC® Digital

Technical data and product information



HomeBloC® Basic:

- mains-operated pump module required for the system supply of the domestic hot water preparation and heating
- dependent on the heat generation, if applicable with mixing valve with differential pressure control units

Legend for versions:

W:
hot water preparation, controlled on demand, hydromechanically controlled

F:
unregulated, direct connection for radiant floor / panel heating circuit, requires an additional regulation as well as an injection-type circuit

R:
differential pressure controlled, direct heating circuit connection

Hybrid:
with instant water heater for minimal generator temperatures

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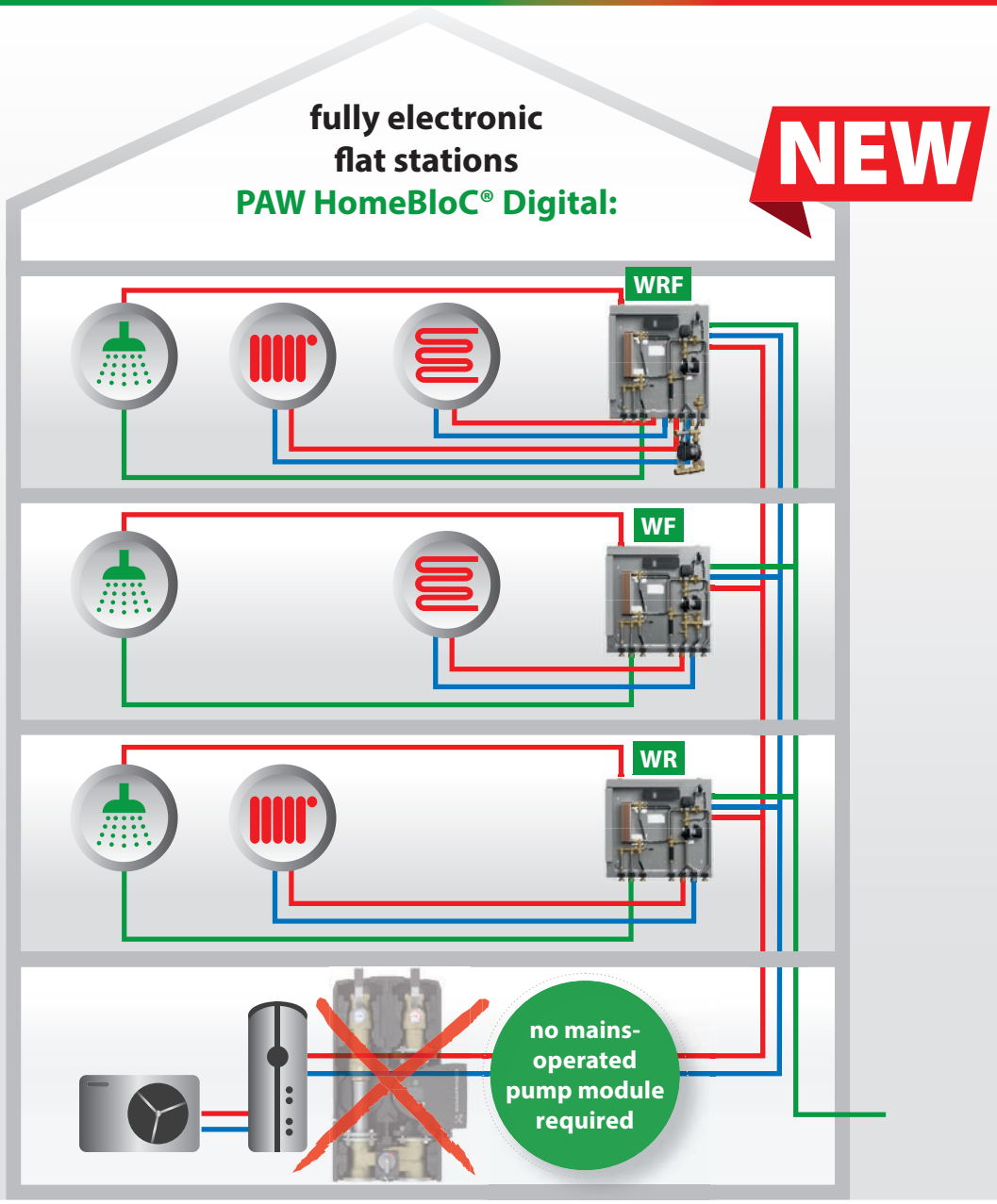

HomeBloC® Digital:

- each flat station operates independently according to the user requirements, a mains-operated pump module is not required
- optimal energy efficiency thanks to a very exact, demand-oriented power adjustment

Legend for versions:

W:
hot water preparation, controlled on demand, operates fully electronic with degree accuracy

F:
fully electronic and differential pressure controlled, mixed connection for radiant floor / panel heating circuits

R:
fully electronic and differential pressure controlled, direct heating circuit connection

Hybrid:
with instant water heater for minimal generator temperatures

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Flat stations for decentralised domestic hot water preparation and comfortable heat supply

Special features HomeBloC® Digital

- ✓ integrated pump controlled by differential pressure in each station, no mains-operated pump module required
- ✓ hydraulic balancing of the system included
- ✓ electronic control of the domestic hot water temperature
- ✓ completely equipped with required measurement and control technology
- ✓ each flat station operates independently according to the user requirements
- ✓ highly efficient in combination with heat pumps
- ✓ digital communication via Modbus
- ✓ connection to the building control system and SmartHome ready
- ✓ all parameters of the installation can be retrieved

Type / version	WR	WF	WRF
HomeBloC® **Basic**	✓	✓	✓
HomeBloC® **Basic Hybrid**	✗	✓ NEW	✓ NEW
HomeBloC® **Digital**	✓ NEW	✓ NEW	✓ NEW
HomeBloC® **Digital Hybrid**	✓ NEW	✗	✓ NEW

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Advantages HomeBloC® Digital:

- **Supply reliability:**
  customised hygienic hot water preparation and provision of thermal heat
- **System monitoring:**
  billing according to the consumption of each flat thanks to consumer data collection per flat, maximum reliability thanks to status messages to the BMS
- **Time saving:**
  completely premounted and pressure tested station, can be mounted quickly, error-free and with minimal effort
- **Cost saving:**
  quick installation, reliable technology and highly efficient operation reduce the running costs for installation and maintenance

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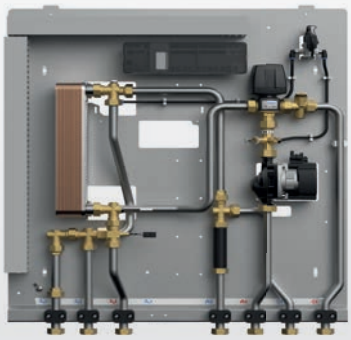
Digital:

HomeBloC® Digital WR

- domestic water heater
- direct heating circuit connection



HomeBloC® Digital WF

- domestic water heater
- mixed heating circuit connection

HomeBloC® Digital WRF

- domestic water heater
- direct heating circuit connection
- injection-type circuit

Digital Hybrid:

HomeBloC® Digital WR + DLE

- domestic water heater
- direct heating circuit connection
- instant water heater

HomeBloC® Digital WF + DLE

- domestic water heater
- mixed heating circuit connection
- instant water heater

HomeBloC® Digital WRF + DLE

- domestic water heater
- direct heating circuit connection
- injection-type circuit
- instant water heater

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Technical data

Application range	for flats, hotel areas, office floors etc.

Dimensions	
All connections	¾" int. thread, flat sealing
Construction depth	110 mm possible, dependent on the equipment and the requirements
Height / width	dependent on the equipment and the requirements
Electrical connection	power supply 230 V~, 50 Hz
Power consumption controller	5 W
Maximum power consumption	dependent on the equipment

Materials	
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet
Cover frame, door, base cover	standard: steel sheets, powder-coated, white (RAL 9016), other colours or designs possible on request optional: plastic, solid-coloured or printed
Ball valves, fittings: domestic hot water circuit	Brass, approved for potable water
Ball valves, fittings: heating circuit	brass
Pipes	stainless steel (1.4401), approved for potable water
Gaskets	fibre composite / EPDM / teflon
Heat exchanger	standard: plate heat exchanger, stainless steel plates soldered with copper optional: coated for corrosion protection or version in full stainless steel, dimensioning according to your needs

Operating temperature	
Operating pressure: domestic hot water	max. 10 bars
Operating pressure: heating system	max. 2.5 bars
Operating temperature: domestic hot water	max. 60 °C
Operating temperature: heating system	max. 70 °C

Outputs	
Output capacity (10 -> 45 °C)	up to 25 l/min (equates to 61 kW)
Heating capacity	up to 9 kW (when ΔT = 10 K)

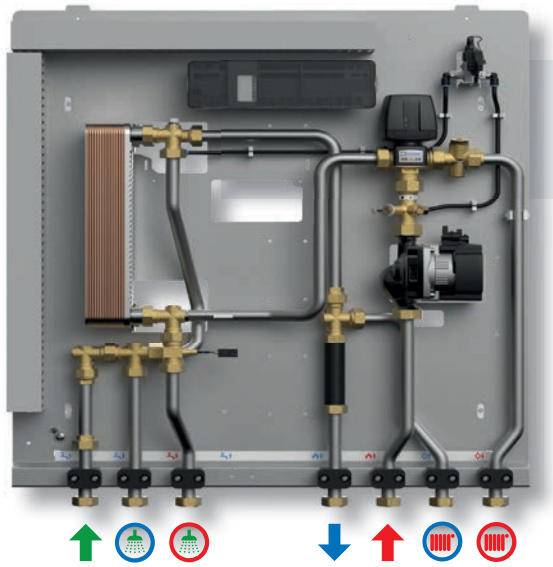
Instant water heater	11 kW allows the decrease of the flow temperatures on the boiler side or the increase of the domestic hot water output

HomeBloC® Digital – Great diversity according to your needs

The PAW HomeBloC® Digital is available in the **three basic versions WR, WF and WRF** which mainly differ in the equipment features of the heating circuits to be supplied. **WR** stands for hot water and radiator circuit, **WF** for hot water and radiant floor circuit and **WRF** is a combination of hot water, radiator und radiant floor circuit.

The control and regulation for all stations is based on the electronic controller module developed by PAW.
The desired domestic hot water temperature is set during commissioning. During operation, this set temperature is provided efficiently and with degree accuracy. Easily adjustable time programmes and operation modes (e.g. holiday, party etc) allow a very individual and yet most efficient operation.
The operation and setting of the controller is carried out via one (or multiple) room control unit(s) and/or an app.
The room control units are available in a pipeline-bound as well as in a wireless version. By default, the controller can regulate five independent zones comfortably. An expansion to up to 17 independent zones is technically possible.

For a simple integration into a building management system, already the basic controller provides different standard interfaces / protocols. An appropriate parametrisation leads to a minimisation of standstill losses and a decrease of heating-up times, which has a positive influence on the energy performance level of the building.
All messages, operating times, parameters and statistics can be retrieved so that a possibly required maintenance assignment on site can be prepared accordingly.



Legend for connections:

- **Cold water inlet**
- **Domestic cold water**
- **Domestic hot water**
- **Heat generation return**
- **Heat generation flow**
- **Radiator circuit return**
- **Radiator circuit flow**
- **Radiant floor circuit return**
- **Radiant floor circuit flow**

HomeBloC® Digital WR: Radiator circuit (unmixed)

This HomeBloC® Digital **WR** version is designed to be connected to an unmixed circuit.

The temperature of the flow line is provided by the central heat generation system, dependent on the weather and on the demand.
This temperature can be used for heating domestic water as well as for heating the rooms.

As a result of the differential pressure control of the pump, the hydraulic balancing of all stations is ensured. An oversupply (may be accompanied by noises) or an undersupply of individual areas is therefore surely excluded.

Application example:
A property has one or multiple radiator circuits. The HomeBloC® Digital **WR** version suits perfectly for this application.
The flow temperature can be provided directly from the radiator to the room.
The controller is pre-set to the initial pressure of 100 mbars for the operation with standard thermostatic valves.

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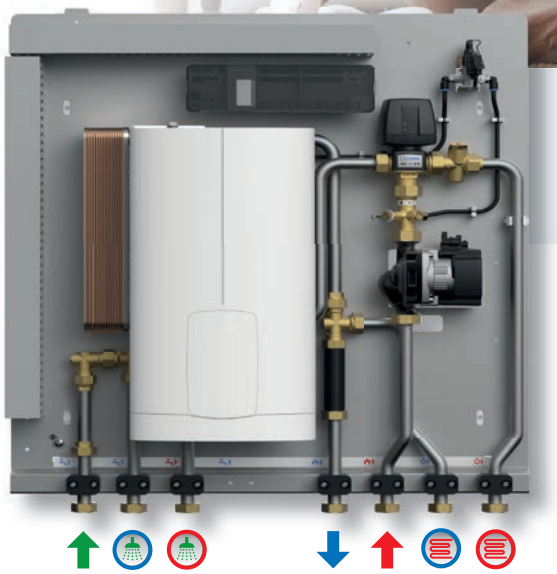

HomeBloC® Digital WR + DLE: direct low-temperature heating circuit plus domestic water postheating

The HomeBloC® Digital **WR + DLE** version is designed for minimal generator temperatures.
The central heat generator must solely provide the minimum temperatures for a radiant panel heating.
The desired domestic hot water temperature is reached by means of the postheating with an instant water heater (DLE).

This allows the most efficient operation of a heat pump.

Application example:
A property has a radiant panel heating - e.g. a radiant floor heating or a wall heating. The HomeBloC® Digital **WR + DLE** version suits perfectly for this application.
The flow temperature can be provided directly from the radiant panel heating to the room. The controller is designed for the initial pressure of 150 mbars for the operation with standard radiant floor heating systems.

Legend:

WR: hot water + radiator circuit

WR + DLE: hot water + radiant floor heating circuit + instant water heater

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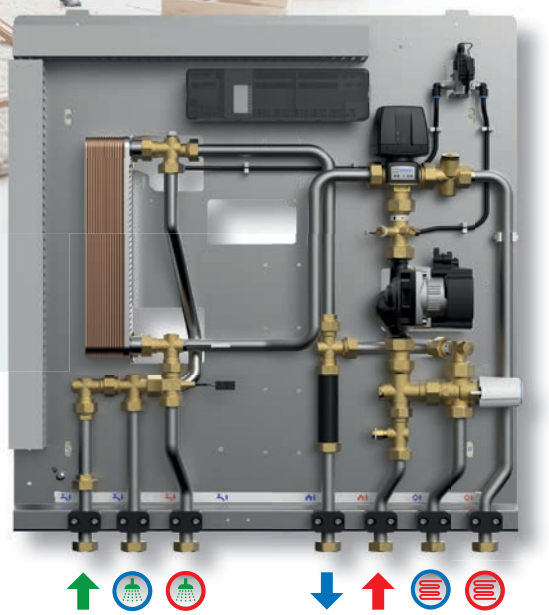

HomeBloC® Digital WF: Radiant floor circuit (mixed)

The HomeBloC® Digital **WF** version is designed to be connected with a mixed heating circuit.

The temperature of the flow line is provided by the central heat generation system, dependent on the weather and on the demand. This temperature is sufficient for heating domestic water in the heat exchanger of the station.

The temperature of the flow line, which must be available for heating domestic water, is too high for heating a low-temperature or a radiant panel heating system (e.g. radiant floor or wall heating).
Therefore, the type **WF** station is equipped with a mixing valve unit. The heating circuit flow temperature is calculated as a function of the outside temperature or the room temperature by means of a heating curve – or is set as a fixed value / constant temperature.

The pump is regulated to a specified differential pressure. This ensures the hydraulic balancing of all stations. An oversupply (may be accompanied by noises) or an undersupply of individual areas is therefore surely excluded.

Application example:
A property has one or multiple radiator floor circuits. The HomeBloC® Digital **WF** version suits perfectly for this application.
The flow temperature can be provided directly from the radiant panel heating to the room. The controller for this version is designed for the initial pressure of 150 mbars for the operation with standard radiant floor heating systems.

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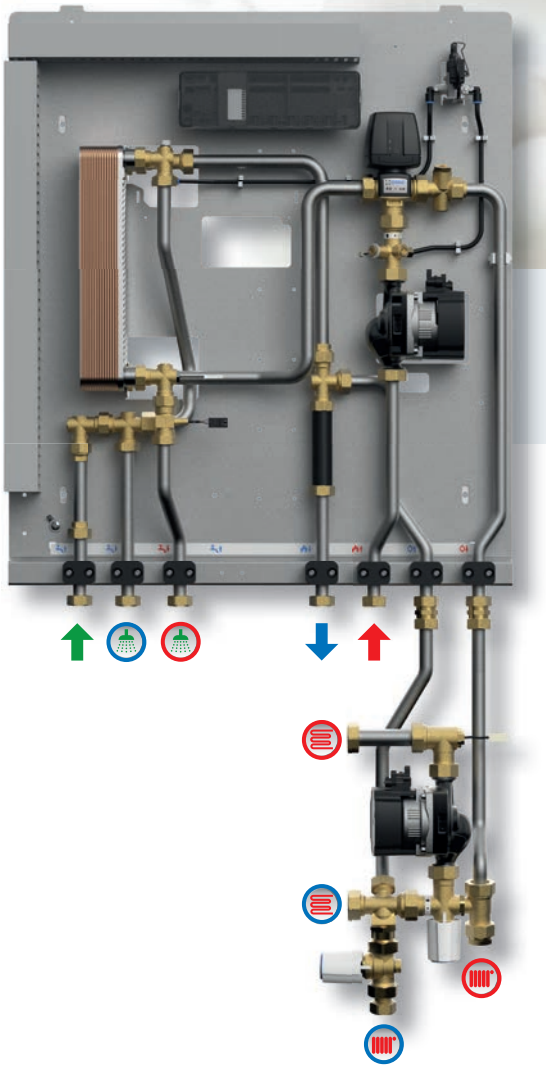
HomeBloC® Digital – Great diversity according to your needs



HomeBloC® Digital WRF: Radiator circuit and radiant floor circuit (mixed + unmixed)

The HomeBloC® Digital **WRF** version combines the functionality of the WR and WF versions.
Radiator circuits and radiant floor circuits can be operated simultaneously.

The temperature of the flow line is provided by the central heat generation system, dependent on the weather and on the demand. This temperature is sufficient for heating domestic water in the heat exchanger of the station as well as for operating the radiators that are connected directly. The radiant floor heating is operated in parallel via the outgoing injection-type circuit.

Application example:
A property has one or multiple radiator floor circuits as well as a radiator circuit. The HomeBloC® Digital **WRF** version suits perfectly for this application.
The flow temperature of the radiant panel heating is controlled via the injection-type circuit, the required differential pressure is set at the self-regulating pump. For this version, the controller is pre-set to the initial pressure of 100 mbars for the operation with radiator heatings.

Legend:

WF: hot water + radiant floor circuit

WRF: hot water + radiator and radiant floor circuit

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Illustration		Item no.
	**Ball valves with our without mounting rail** To shut off the lines during commissioning and maintenance. Marked in colour for easy assignment, DVGW approved, connection side G¾" internal thread. Including covering caps to avoid contamination of the ball valves until installation of the station. The ball valves can be ordered with or without mounting rail. When using the mounting rail, the ball valves are mounted to the wall even before the installation of the station. Thus all pipes can be connected and the system may be set under pressure.	
	7 ball valves with mounting rail	**1280207201**
	7 ball valves without mounting rail	**1280107101**
	**Pressure-dependent heat retaining**	**1280303101**
	By using the pressure-dependent heat retaining, it is possible to achieve a higher and efficient hot water convenience during summer operation (no heating operation). By means of an increased pressure demand (from a control technology perspective, the pump is - for the time window of the heat retaining - set to an increased differential pressure), the bypass valve between the heating flow and return is open and the supply line to HomeBloC® Digital is maintained warm. This allows a quick and efficient preparation of hot domestic water.	
	**Thermal heat retaining**	**1280302101**
	By using the thermal heat retaining, it is possible to achieve a higher hot water convenience during summer operation (no heating operation). The temperature dependent bypass between the heating flow and return maintains the supply line to the HomeBloC® Digital in the operation mode constantly warm, thus hot domestic water can be quickly provided.	
	**Supplementary set domestic water circulation**	**1280817101**
	Including pipe set, connection fittings with ball valve and required sensor technology. Required for downstreamed hot water connection pipings with a content of more than 3 litres (according to DIN 1988-200) to the most distant withdrawal point or for an increased demand of comfort. During operation, it provides instantly available hot domestic water.	

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Illustration		Item no.
	**Floor distribution manifold, complete set for HomeBloC® Digital type WF and type WR** The PAW heating distribution manifold for radiant floor heating ensures a steady and comfortable heat distribution in the flat. Completely equipped with ball valve rail, piping and thermal drives, pre-mounted on a mounting plate for an easy and quick installation in wall-mounted or flush-mounted cupboards. Filling, draining and venting is easily possible. The complete set with floor distribution manifolds is available from a 2-fold version up to a 8-fold version. Connections: ball valves: ¾" int. thread / ext. thread floor distribution manifold: ¾" ext. thread Eurokonus	
	Floor distribution manifold 2-fold	**1285002103**
	Floor distribution manifold 3-fold	**1285003103**
	Floor distribution manifold 4-fold	**1285004103**
	Floor distribution manifold 5-fold	**1285005103**
	Floor distribution manifold 6-fold	**1285006103**
	Floor distribution manifold 7-fold	**1285007103**
	Floor distribution manifold 8-fold	**1285008103**
	**Supplementary set for floor distribution manifold for the conversion of type WR to type WRF** With injection-type circuit, allows the connection of a floor distribution manifold and a radiator circuit. Injection-type circuit complete with pump, injection valve and temperature sensor. The PAW heating distribution manifold for radiant floor heating ensures a steady and comfortable heat distribution in the flat. Completely equipped with ball valve rail, piping and thermal drives, pre-mounted on a mounting plate for an easy and quick installation in wall-mounted or flush-mounted cupboards. Filling, draining and venting is easily possible. The complete set with floor distribution manifolds is available from a 2-fold version up to a 8-fold version. Connections: ball valves: ¾" int. thread / ext. thread floor distribution manifold: ¾" ext. thread Eurokonus	
	Floor distribution manifold 2-fold	**1285002102**
	Floor distribution manifold 3-fold	**1285003102**
	Floor distribution manifold 4-fold	**1285004102**
	Floor distribution manifold 5-fold	**1285005102**
	Floor distribution manifold 6-fold	**1285006102**
	Floor distribution manifold 7-fold	**1285007102**
	Floor distribution manifold 8-fold	**1285008102**

Illustration		Item no.
	**Floor distribution manifold** The PAW heating distribution manifold for radiant floor heating ensures a steady and comfortable heat distribution in the flat. Filling, draining and venting is easily possible. The heating distribution manifold can be mounted in a flush-mounted or a wall-mounted cupboard. The floor distribution manifold is available from a 2-fold version up to a 8-fold version. The connection piping to a HomeBloC® must be carried out on site. These floor distribution manifolds are particularly appropriate if there is distance between the HomeBloC® and the floor distribution manifold. **For the WRF version, the injection-type circuit is mandatory.** Connections: ¾" ext. thread Eurokonus, 1" ext. thread, flat sealing	
	Floor distribution manifold 2-fold	**1285002101**
	Floor distribution manifold 3-fold	**1285003101**
	Floor distribution manifold 4-fold	**1285004101**
	Floor distribution manifold 5-fold	**1285005101**
	Floor distribution manifold 6-fold	**1285006101**
	Floor distribution manifold 7-fold	**1285007101**
	Floor distribution manifold 8-fold	**1285008101**
	**Injection-type circuit for the floor distribution manifold with connection for radiator circuits**	**1285501301**
	Connections: 2x G1" ext. thread x 2x G¾" ext. thread x 2x G¾" int. thread with Grundfos UPM3 Auto L 15-70 **For the WRF version, this injection-type circuit is mandatory for the connection of the floor distribution manifold - if the HomeBloC® is supposed to be connected on site.** **For a quick and uncomplicated installation below the HomeBloC®s, we recommend the above mentioned complete sets or supplementary sets.**	

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