



Smart systems for modern heating technology, domestic hot water technology, solar thermal systems & flat stations



Valid for the EU



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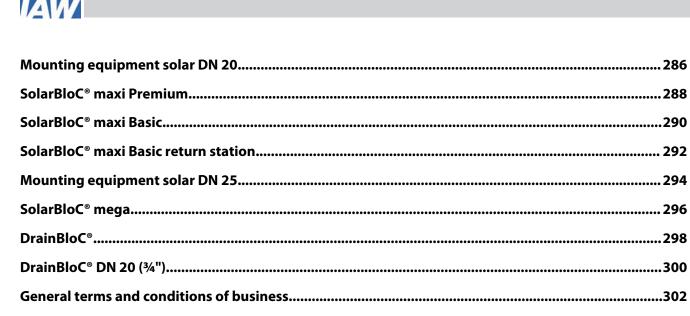
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PRODUCTION at the head office in Hamelin



Plant I Administration / development department / product exhibition

Main warehouse

Block storage / fixture construction / laboratory / production / steel components



Plant II Domestic hot water modules Flat stations Solar transfer stations for large systems Heat pump post-heating module

Plant III Heating circuits Heating and cooling circuits Solar stations





PAW HEAD OFFICE AND PLANT

PAW GmbH & Co. KG

Böcklerstraße 11 31789 Hameln Germany ⑦ +49-5151-9856-0 ➡ +49-5151-9856-98 @ info@paw.eu ● www.paw.eu

PAW SUBSIDIARY:

PAW VertriebsGmbH

Badgasse 413 8962 Gröbming Austria ⑦ +43-3685-23189-3 ⊟ +43-3685-23189-4 @ office@paw.eu

PAW SUBSIDIARY:

PAW VertriebsGmbH

German Office Berg 26a 83527 Kirchdorf Germany ⓒ +49-8072-958732 ➡ +49-8072-958734 @ office@paw.eu

PAW SUBSIDIARY WITH WAREHOUSE:

PAW sarl

PAW SUBSIDIARY:

PAW Polska

RW

PAW CONNECTIVITY YOUR CONNECTION TO SMART HOME







PAW CONNECT APP YOUR CONTROL OF PAW PRODUCTS



PAW Connect App – all information available at any time

Heating technology – HeatBloC[®]

- distribution manifold and radiator balancing: Hydraulic balancing of distribution manifold and radiator valves is easy and convenient!
- eligible for BAFA and KFW subsidies: Certificate directly from the app!
- efficient heating control
- quick installation without IT knowledge
- no time-consuming calculations required!

Domestic hot water technology – Friwa

 display and adjustment of all installation parameters in the app: domestic hot water nominal temperature, circulation times, data logger, ECO and comfort operation

Flat stations – HomeBloC®

- display and adjustment of all installation parameters in the app: domestic hot water nominal temperature, circulation times, data logger, ECO and comfort operation
- supply station: Line balancing with certificate (dependent on the station)
- radiator balancing with certificate

Solar thermal systems – Solex | SolarBloC®

- display and adjustment of all installation parameters in the app: operation parameters, switching thresholds, data logger
- linking to the overview of the installation data

Bownload the PAW Connect App:





OUR APPLICATION RANGES



SET UP





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Heat pump

post-heating module









PAW heating systems - Dimensioning tables HeatBloC[®] MCom series

Max. output / application range HeatBloC[®] MCom series



3-way mixing valve



MC43 3-way mixing valve with bypass



MC44



MC45



MC46 - Boiler charging set with 3-way mixing valve



MV

Modular distribution manifold



Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		50 kW	65 kW	150 kW	250 kW
10 K		25 kW	32.5 kW	75 kW	125 kW
7.5 K		19 kW	24.5 kW	56 kW	94 kW
5 K		13 kW	16 kW	37.5 kW	62.5 kW
Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		40 kW	51 kW	125 kW	230 kW
10 K		20 kW	25.5 kW	62.5 kW	115 kW
7.5 K		15 kW	19 kW	47 kW	86 kW
5 K		10 kW	13 kW	31 kW	57.5 kW
Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		45.5 kW	64 kW	125 kW	
10 K		23 kW	32 kW	62.5 kW	
7.5 K		17 kW	24 kW	47 kW	
5 K		12 kW	16 kW	31 kW	
Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		45.5 kW	64 kW		
10 K		23 kW	32 kW		
7.5 K		17 kW	24 kW		
5 K		12 kW	16 kW		
Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		32.5 kW			
10 K		16 kW			
7.5 K		12 kW			
5 K		8 kW			
Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		45.5 kW	64 kW	125 kW	
10 K		23 kW	32 kW	62.5 kW	
7.5 K		17 kW	24 kW	47 kW	
5 K		12 kW	16 kW	31 kW	
Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
20 K		80 kW	150 kW	250 kW	400 kW
10 K		40 kW	75 kW	125 kW	200 kW
7.5 K		30 kW	56.3 kW	93.8 kW	150 kW
5 K		20 kW	37.5 kW	62.5 kW	100 kW

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Max. output / application range CoolBloC series

-						
C31 direct	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K		46.5 kW	50 kW		
	10 K		23 kW	25 kW		
	7.5 K		17 kW	19 kW		
	5 K		11.5 kW	12.5 kW		
C34 3-way mixing valve	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K		43 kW	48 kW		
	10 K		21.5 kW	24 kW		
	7.5 K		16.5 kW	18 kW		
	5 K		10 kW	12 kW		
MV Modular distribution manifold	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K		80 kW	150 kW		
a free free free free free	10 K		40 kW	75 kW		
	7.5 K		30 kW	56.3 kW		
	5 K		20 kW	37.5 kW		



PAW heating systems - Dimensioning tables HeatBloC[®] - Standard series

Max. output / application range HeatBloC® standard series

	-	cubioc stan				
K31 direct	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K	30 kW	50 kW	65 kW	150 kW	250 kW
T	10 K	15 kW	25 kW	32 kW	75 kW	125 kW
1 ar	7.5 K	11 kW	18.5 kW	24 kW	56 kW	93.5 kW
	5 K	7.5 kW	12.5 kW	16 kW	37.5 kW	62.5 kW
K32	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
3-way mixing valve	20 K	21 kW	3.5 kW	51 kW	125 kW	230 kW
	10 K	10.5 kW	15.5 kW	25.5 kW	62.5 kW	115 kW
	7.5 K	7.5 kW	12 kW	19 kW	46.5 kW	86 kW
	5 K	5 kW	8 kW	12.5 kW	31 kW	57.5 kW
K33 - Controlled circuit with constant value	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K	10 kW	20 kW			
	10 K	5 kW	10 kW			
	7.5 K	3.5 kW	7.5 kW			
8	5 K	2,5 kW	5 kW			
K33R - Controlled circuit with constant value	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
V	20 K		45.5 kW	64 kW		
	10 K		22.5 kW	32 kW		
	7.5 K		17 kW	24 kW		
	5 K		11 kW	16 kW		
K34 3-way mixing valve with bypass	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K	21 kW	45.5 kW	64 kW		
	10 K	10.5 kW	22.5 kW	32 kW		
	7.5 K	7.5 kW	17 kW	24 kW		
	5 K	5 kW	11 kW	16 kW		



PAW heating systems - Dimensioning tables HeatBloC[®] - Standard series

Max. output / application range HeatBloC® standard series

viax. output / applicatio	n range H	leatBloC° stan	dard series			
K35 3-temperature mixing valve	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K		32.5 kW			
Ĩ	10 K		16 kW			
	7.5 K		12 kW			
	5 K		8 kW			
K36(E) - Boiler charging set with 3-way mixing valve	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
I.I.	20 K	20 kW	40 kW	60 kW		
	10 K	10 kW	20 kW	30 kW		
	7.5 K	7.5 kW	15 kW	22.5 kW		
	5 K	5 kW	10 kW	15 kW		
K38						
4-way mixing valve	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K		33 kW	52 kW		
	10 K		16.5 kW	26 kW		
	7.5 K		12 kW	19.5 kW		
	5 K		8 kW	13 kW		
System separation	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
÷	20 K		25 kW			
	10 K		12.5 kW			
	7.5 K		9 kW			
	5 K		6 kW			
MV Modular distribution manifold	Δt	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")	DN 40 (1½")	DN 50 (2")
	20 K	50 kW	80 kW	150 kW	250 kW	400 kW
and the second se	10 K	25 kW	40 kW	75 kW	125 kW	200 kW
	7.5 K	18.5 kW	30 kW	56 kW	94 kW	150 kW
	5 K	12.5 kW	20 kW	37.5 kW	62.5 kW	100 kW







PAW-Flat stations HomeBloC® Digital

Catalogue 04/2025

Fully electronic flat stations - Efficiency redefined

Valid for the EU







Advantages HomeBloC[®] Digital:



Energy-optimised operation

State-of-the-art technology with integrated automatic hydraulic balancing – completely without components that cause pressure loss, the system ensures optimum operation



Minimised maintenance effort

Thanks to comprehensive data availability (BMS connection), maintenance work is extremely efficient. Predictive maintenance can be realised effortlessly.



Maximum comfort

The electronically tuned system of the HomeBloC® Digital ensures even heat distribution.





Demand-led consumption

Integrated balancing of the floor distribution manifold, no supply pump with high power consumption required.



Maximum customer satisfaction

The continuously developed and proven PAW domestic hot water control system is designed for optimum convenience. No waiting times thanks to intelligent heat retention.



Minimised planning effort

Adaptive and self-learning, which makes planning much easier. No line balancing/differential pressure valves required!





Save energy conveniently now!

The PAW HomeBloC[®] Digital is a highly efficient, fully electronically controlled home transfer station for decentralised domestic hot water heating and heat supply.

The integrated differential pressure control in conjunction with a speed-controlled pump enables energy-optimised and hydraulically balanced operation. Components that cause pressure loss, such as differential pressure controllers, are no longer required. Domestic hot water is heated as required in the high-performance heat exchanger in the station. The temperature is regulated to the exact degree. The generously dimensioned heat exchangers enable operation with an extremely low primary flow temperature. The HomeBloC[®] Digital is therefore ideally suited for optimum operation with a heat pump.

As in the PAW domestic hot water stations, domestic hot water is heated using the instantaneous water heater principle. No energy is stored in the drinking water, which ensures fast, efficient and above all hygienic heating of drinking water.

The self-learning control algorithm specially developed by PAW ensures fast and degreeaccurate domestic hot water heating. Here, too, no pressure loss-causing components are required, which means that high output capacities of up to 25 l/min can be achieved.

Adjustable time programmes and operation modes (e.g. holiday, party etc) allow a very individual and optimally adapted operation.

The controller is operated and set via one or more room control units and/or an app.

The room control unit is available in both wired and wireless versions. The controller can conveniently control five independent zones.

Various standard interfaces/protocols are already available in the basic controller for simple integration into a building management system. 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. Predictive maintenance is also possible thanks to the information available. Heat quantity and cold water meters with an installation length of 110 mm can be easily integrated into the installation sections provided for this purpose.

The PAW HomeBloC[®] Digital is available in the three basic versions WR, WF and WRF-E 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-E** is a combination of hot water, radiator und radiant floor circuit.

What are you waiting for? Start saving energy now without sacrificing the comfort you are used to.

HomeBloC[®] Digital Versions WR, WF, WRF-E



HomeBloC[®] Digital WR

- drinking water heater
- radiator connection





HomeBloC[®] Digital WF

- drinking water heater
- connection floor distribution manifold



HomeBloC[®] Digital WRF-E

- drinking water heater
- radiator connection and connection floor distribution manifold
- injection-type circuit





Legend for versions:

- W: hot water preparation, controlled according to demand, fully electronically regulated with degree accuracy
- F: fully electronic and differential pressure controlled connection for radiant floor / panel heating circuits incl. mixing unit
- **R:** fully electronic and differential pressure controlled radiator connection

Legend for connections:

- 🕇 Cold water inlet
- 📥 Domestic cold water
- 📥 Domestic hot water
- Heat generation return
- Heat generation flow
- 때 Radiator circuit return
- m Radiator circuit flow
- Radiant floor circuit return
- Radiant floor circuit flow





Improve the efficiency of your overall system even further - with a DHW postheating system!

The PAW HomeBloC[®] Digital with instantaneous water heater (DLE) unlocks additional potential for system optimisation.

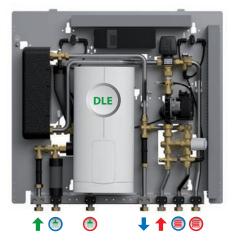
The drinking water is preheated in the highperformance heat exchanger and reheated to the desired outlet temperature to the exact degree with the help of the instantaneous water heater.

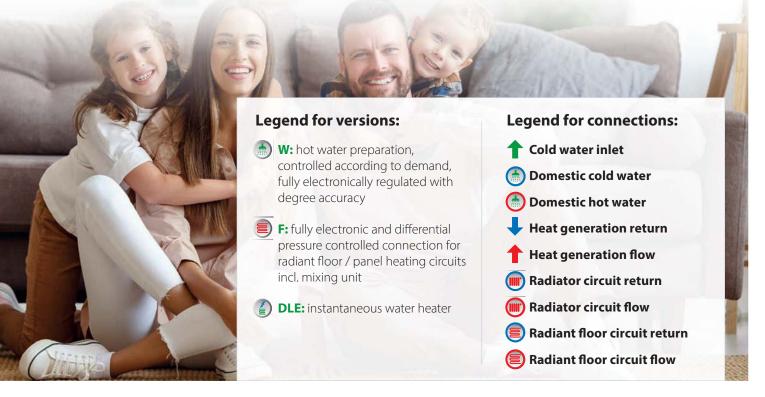
The integrated instantaneous water heater enables extremely low heating flow temperatures, which would not be sufficient for domestic hot water heating.

The principle of DHW postheating using the electric instantaneous water heater enables resource-saving operation of a heat pump. Optimised COP values can be achieved.

HomeBloC[®] Digital WF + DLE

- drinking water heater
- connection floor distribution manifold
- instantaneous water heater









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	specific to equipment

Materials	
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet
Cover frame, door, plinth panel	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 drinking water
Ball valves, fittings: heating circuit	brass
Pipes	stainless steel (1.4401), approved for drinking water
Seals	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 bar
Operating pressure: heating system	max. 3 bar
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 $\Delta T = 10$ K)

Instantaneous 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 WR Radiator circuit (unmixed)





Application range	for residential properties with one or v	arious radiator circuits
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
	Operating pressure: heating system	max. 3 bar
Operating temperature	Operating temperature: domestic hot water	max. 60 °C
	Operating temperature: heating system	max. 70 °C
Output	Output capacity (10 ->45°C)	16 l/min; 20-25 l/min
	Heating capacity	up to 9 kW (at $\Delta T = 10$ K)
Equipment	Pump	Grundfos UPM4 15-75

Technical data			
Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 670 mm, H = 750 mm, D = 105 mm; W = 806 mm, H = 758 mm, D = 150 mm
Heat supply	2 x 34 " int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 885 mm, D = 120 mm; W = 906 mm, H = 1.457 mm, D = 135-205 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 906 mm, H = 927 mm, D = 120-190 mm
Materials		Wall-mounted cupboard	W = 880 mm, H = 973 mm, D = 130 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1.440 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC[®] Digital WR - Radiator circuit (unmixed)

Heat exchanger	Volume flow limiter*	ltem no.
50 plates, copper solder	16 l/min	125437101
70 plates, copper solder	20-25 l/min	125537101



HomeBloC® Digital WR + DLE Radiator circuit (unmixed)





Application range	for residential properties with one or v	arious radiator circuits
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
	Operating pressure: heating system	max. 3 bar
Operating temperature	Operating temperature: domestic hot water	max. 60 °C
	Operating temperature: heating system	max. 70 °C
Output	Output capacity (10 ->45°C)	16 l/min; 20-25 l/min
	Heating capacity	up to 9 kW (at ΔT = 10 K)
Equipment	Pump	Grundfos UPM4 15-75

Technical data			
Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 670 mm, H = 750 mm, D = 135 mm; W = 806 mm, H = 1.333 mm, D = 150 mm
Heat supply	2 x ¾" int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 885 mm, D = 150 mm; W = 906 mm, H = 1.457 mm, D = 135-205 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 906 mm, H = 927 mm, D = 120-190 mm
Materials		Wall-mounted cupboard	W = 880 mm, H = 973 mm, D = 130 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1.440 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC[®] Digital WR + DLE - Radiator circuit (unmixed)

Heat exchanger	Volume flow limiter*	ltem no.
50 plates, copper solder	16 l/min	126417101
70 plates, copper solder	20-25 l/min	126517101



HomeBloC[®] Digital WF Radiant floor circuit (mixed)





Application range	for residential properties with one or va circuits	rious radiant floor
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
	Operating pressure: heating system	max. 3 bar
Operating temperature	Operating temperature: domestic hot water	max. 60 °C
	Operating temperature: heating system	max. 70 °C
Output	Output capacity (10 ->45°C)	16 l/min; 20-25 l/min
	Heating capacity	up to 9 kW (at ΔT = 10 K)
Equipment	Pump	Grundfos UPM4 15-75

Technical data			
Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 670 mm, H = 750 mm, D = 105 mm; W = 806 mm, H = 758 mm, D = 150 mm
Heat supply	2 x 3 [™] int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 885 mm, D = 120 mm; W = 906 mm, H = 1.457 mm, D = 135-205 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 906 mm, H = 1457 mm, D = 135-205 mm
Materials		Wall-mounted cupboard	W = 880 mm, H = 1440 mm, D = 190 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1.440 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC[®] Digital WF - Radiant floor circuit (mixed)

Heat exchanger	Volume flow limiter*	ltem no.
50 plates, copper solder	16 l/min	125439101
70 plates, copper solder	20-25 l/min	125539101



HomeBloC® Digital WF + DLE Radiant floor circuit (mixed)





Application range	for residential properties with one or v circuits	arious radiant floor
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
	Operating pressure: heating system	max. 3 bar
Operating temperature	Operating temperature: domestic hot water	max. 60 °C
	Operating temperature: heating system	max. 70 °C
Output	Output capacity (10 ->45°C)	16 l/min; 20-25 l/min
	Heating capacity	up to 9 kW (at ΔT = 10 K)
Equipment	Pump	Grundfos UPM4 15-75

Technical data			
Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 806 mm, H = 758 mm, D = 150 mm; W = 806 mm, H = 1.333 mm, D = 150 mm
Heat supply	2 x 34 " int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 885 mm, D = 150 mm; W = 906 mm, H = 1.457 mm, D = 135-205 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 906 mm, H = 1457 mm, D = 135-205 mm
Materials		Wall-mounted cupboard	W = 880 mm, H = 1440 mm, D = 190 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1.440 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC[®] Digital WF + DLE - Radiant floor circuit (mixed)

Heat exchanger	Volume flow limiter*	ltem no.
50 plates, copper solder	16 l/min	126419101
70 plates, copper solder	20-25 l/min	126519101



Technical data





Application range	for residential properties with radiator circuits or the radiant floor circuits operated at the same time		
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar	
	Operating pressure: heating system	max. 3 bar	
Operating temperature	Operating temperature: domestic hot water	max. 60 °C	
	Operating temperature: heating system	max. 70 °C	
Output	Output capacity (10 ->45°C)	16 l/min; 20-25 l/min	
	Heating capacity	up to 9 kW (at $\Delta T = 10$ K)	
Equipment	Pump	Grundfos UPM4 15-75	

Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 806 mm, H = 758 mm, D = 150 mm
Heat supply	2 x ¾" int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 906 mm, H = 1.457 mm, D = 135-205 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 906 mm, H = 1457 mm, D = 135-205 mm
Materials		Wall-mounted cupboard	W = 880 mm, H = 1440 mm, D = 190 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1.440 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC® Digital WRF-E - Radiator circuit and radiant floor circuit (mixed + unmixed)

Heat exchanger	Volume flow limiter*	ltem no.
50 plates, copper solder	16 l/min	125438102
70 plates, copper solder	20-25 l/min	125538102



HomeBloC[®] Digital WRF + DLE Radiator circuit and radiant floor circuit (mixed + unmixed)





Application range	for residential properties with radiator circuits or the radiant floor circuits operated at the same time	
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
	Operating pressure: heating system	max. 3 bar
Operating temperature	Operating temperature: domestic hot water	max. 60 °C
	Operating temperature: heating system	max. 70 °C
Output	Output capacity (10 ->45°C)	16 l/min; 20-25 l/min
	Heating capacity	up to 9 kW (at ΔT = 10 K)
Equipment	Pump	Grundfos UPM4 15-75

Technical data			
Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 670 mm, H = 1.340 mm, D = 135 mm; W = 806 mm, H = 1.333 mm, D = 150 mm
Heat supply	2 x ¾" int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 1.440 mm, D = 150 mm; W = 906 mm, H = 1.457 mm, D = 135-205 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 906 mm, H = 1457 mm, D = 135-205 mm
Materials		Wall-mounted cupboard	W = 880 mm, H = 1440 mm, D = 190 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1.440 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC® Digital WRF + DLE - Radiator circuit and radiant floor circuit (mixed + unmixed)

Heat exchanger	Volume flow limiter*	ltem no.
50 plates, copper solder	16 l/min	126418101
70 plates, copper solder	20-25 l/min	126518101





	7 ball valves without mounting rail	1280107101
-	7 ball valves with mounting rail	1280207201
44-4-4444	To shut off the lines during commissioning and maintenance. Marked in colour for easy assignment, DVGW approved, connection side G^{4} " 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 - the station can be installed very quickly and easily.	
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 4-fold	1285004102
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 5-fold	1285005102
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 6-fold	1285006102
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 7-fold	1285007102
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 8-fold	1285008102
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 9-fold	1285009102
	Floor distribution manifold for HomeBloC [®] Digital, type WRF + DLE, 10-fold	1285010102
	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 home. 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 4-fold version up to a 10-fold version. Connections: Ball valves: ¾" int. thread / ext. thread Floor distribution manifold: ¾" ext. thread Eurocone	
	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 4-fold	1285004103
	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 5-fold	1285005103
	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 6-fold	1285006103
	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 7-fold	1285007103
	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 8-fold	1285008103
P TITTITI	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 9-fold	1285009103
	Floor distribution manifold, complete set for all HomeBloC® Digital types, except WRF + DLE, 10-fold	1285010103
	The PAW heating distribution manifold for radiant floor heating ensures a steady and comfortable heat distribution in the home. 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 4-fold version up to a 10-fold version. Connections: Ball valves: ¾" int. thread / ext. thread	



Equipment HomeBloC[®] Digital



Thermoelectric actuator NC, 230 V, with connecting adapter for PAW injection-type circuit 1288601105 Thermoelectric actuator NC, 230 V. The actuator is controlled by a 230 V standard room temperature controller with a 2-point output or a pulse width modulation. Flush-mounted cupboard, short, for stations WR, WF, WRF-E, WR + DLE and WF + DLE, 1282002101 without floor distribution manifolds Suitable for stations of the type WR, WF, WRF-E, WR + DLE and WF + DLE, without floor distribution manifold Consisting of: • Built-in body made of zinc-galvanised sheet steel, installation dimensions W = 856 mm x H = 898 mm x D = 109-179 mm, with height-adjustable feet (can be extended up to 160 mm) • Plinth panel and cover frame made of zinc-galvanised sheet steel, white powder-coated (RAL9016), cover frame W x H x D 906 x 927 x 120-190 mm · Door to hang in, with rotary lock, made of zinc-galvanised sheet steel, white powder-coated (RAL9016), with ventilation slots Other colours or printing on request, Lock interchangeable Flush-mounted cupboard, high, for stations AND floor distribution manifolds 1282602101 Suitable for stations AND floor distribution manifolds, also with instantaneous water heater consisting of: • Built-in body made of zinc-galvanised sheet steel, dimensions W = 885 mm x H = 1,432 mm x D =124-192 mm, with height-adjustable feet (can be extended up to 160 mm) • Plinth panel and cover frame made of zinc-galvanised sheet steel, white powder-coated (RAL9016), cover frame W x H x D 907 x 1,457 x 135-205 mm · Door to hang in, with rotary lock, made of zinc-galvanised sheet steel, white powder-coated (RAL9016), with ventilation slots Other colours or printing on request, Lock interchangeable





	Wall-mounted cupboard, short, for stations WR, WF and WRF-E, without instantaneous water heater	1282102101
	 Suitable for stations of the type WR, WF and WRF-E, without floor distribution manifold, without instantaneous water heater Consisting of: Frame with plinth panel made of zinc-galvanised sheet steel, white powder-coated (RAL9016), dimensions: W = 880 mm x H = 973 mm x D = 130 mm 	
	• Door to hang in, with rotary lock, made of zinc-galvanised sheet steel, white powder-coated (RAL9016), with ventilation slots Other colours or printing on request,	
	Lock interchangeable	
ø	Wall-mounted cupboard, short, for stations WR + DLE and WF + DLE, without floor distribution manifold	1282102102
	Suitable for stations of the type WR + DLE and WF + DLE, without floor distribution manifold Consisting of: • Frame with plinth panel made of zinc-galvanised sheet steel, white powder-coated (RAL9016), dimensions: W = 880 mm x H = 972 mm x D = 190 mm	
	• Door to hang in, with rotary lock, made of zinc-galvanised sheet steel, white powder-coated (RAL9016), with ventilation slots	
	Other colours or printing on request, Lock interchangeable	
	Wall-mounted cupboard, high, for stations AND floor distribution manifold	1282702101
	 Suitable for stations AND floor distribution manifolds, also with instantaneous water heater Consisting of: Frame with plinth panel made of zinc-galvanised sheet steel, white powder-coated (RAL9016), dimensions: W = 880 mm x H = 1440 mm x D = 190 mm Door to hang in, with rotary lock, made of zinc-galvanised sheet steel, white powder-coated (RAL9016), with ventilation slots 	
	Other colours or printing on request, Lock interchangeable	
	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.	
	ONLY SUITABLE FOR TYPES WR AND WF!	
NECHON	Room control unit	13676100
°255°	For commissioning the station and setting the hot water nominal temperature. A room control unit is already included in the scope of delivery of the stations. Up to 4 additional room control units per station (controller) can be added.	
+ =:		









PAW flat stations HomeBloC® Basic

Catalogue 04/2025

Decentralised domestic hot water preparation and comfortable heat supply

Valid for the EU





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

Choose your individual station!

Flat stations - refined versatility

- For optimal distribution of energy for heating
- Concurrent or dedicated hot water preparation and/or heat according to your need
- Billing proportional to the consumption of each flat due to installation of your cold water and heat flowmeter

Flat stations - flexible and individual

- Modular system allows you to make adjustments to the station according to need
- Flexibility in planning and dimensioning
- Flat station fine-tuned to your needs
- Perfect integration into your living ambience

Flat stations - installation and comfort

- Completely premounted and pressure tested station
- Can be mounted quickly and with minimal effort
- Low costs due to quick and error-free mounting on site



Special features flat stations:

- ✓ Optimal energy utilisation due to powerful heat exchangers
- \checkmark For low-temperature systems, e.g. heat pumps
- ✓ Large withdrawal flow rate
- \checkmark Minimal pressure losses
- ✓ Premounted and pressure tested unit
- ✓ Construction depth (110 mm) ideally suitable for the installation in partition walls

- ✓ Fully equipped for connecting measurement technology
- \checkmark Comfortable and fast installation
- ✓ For new building or restructuring
- Individual adjustment to your demands is possible!
- ✓ Optimally combined with a PAW HeatBloC[®] MCom





For further information see www.paw.eu

Or simply scan the code!





PAW flat stations HomeBloC[®] Basic – great diversity according to your needs

The PAW HomeBloC[®] Basic is offered in **three basic versions WR, WF and WRF** which differ in their equipment features for the heating circuits to supply. **WR** stands for hot water and radiator circuit, **WF** stands for hot water and floor heating and **WRF** combines hot water, radiator and floor heating.

You may find a corresponding symbol for each version on the corresponding page and in the legend (see below). All stations are operated with a hydromechanical-thermal control by means of a proportional quantity controller. The DHW temperature can be reduced via a service water mixing valve to a user-defined temperature. Each module can be adjusted either to the version of the heat exchanger or to the heating and output capacity.



Connection example full equipment:

- a Domestic hot water
 b Domestic cold water
 c Cold water inlet
 d Heating water return
 e Heating water flow
 f Radiator circuit return
 g Radiator circuit flow
 - Radiant floor circuit return (opt.)
 - i Radiant floor circuit flow (opt.)

HomeBloC[®] Basic WR: Radiator circuit (unmixed)

The HomeBloC[®] Basic version **WR** is designed to supply an unmixed circuit.

The temperature in the flow is heated via the mixed heating circuit in the basement to the desired level and directly provided to the circuit of the HomeBloC[®] Basic.

This temperature can be directly used for space heating without being reduced by the flat station. A differential pressure valve avoids whistling noises and hydraulic problems.

Application example:

A property has one or various radiator circuits. The HomeBloC[®] Basic **WR** version suits perfectly for this application. The flow temperature can be provided directly from the radiator to the space heating. Improper differential pressure for thermostatic valves can be reduced easily by means of the differential pressure valve.

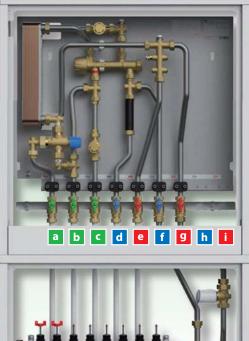
Legend:

WR: Hot water + radiator circuit

WF: Hot water + radiant floor circuit

WRF: Hot water + radiator and radiant floor circuit









The HomeBloC[®] Basic version **WF** is designed to supply a mixed heating circuit.

The temperature in the flow is provided via the mixed or unmixed heating circuit in the basement to the the HomeBloC[®] Basic. The temperature there is reduced by means of an injection-type circuit and is provided to the radiant floor circuit. The injection-type circuit can be ordered separately.

Application example:

A residential property has one or various radiant floor circuits. The HomeBloC® Basic **WF** version is perfectly suited for this application. By means of an injectiontype circuit, the flow temperature can be mixed precisely to the temperature level required for the radiant floor heating.

This temperature is provided to the corresponding rooms via a floor distribution manifold.



The HomeBloC[®] Basic **WRF** combines both heating circuits of the WR and WF versions.

This allows either the radiator circuit or the radiant floor circuit to be operated at the same time. Both functionalities are thus combined in one module.





HomeBloC[®] Basic WR Radiator circuit (unmixed)





Technical data

NE -	Application range	for residential properties with one or v	arious radiator circuits
	Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
		Operating pressure: heating system	max. 2.5 bar
	Operating temperature	Operating temperature: domestic hot water	max. 65 °C
		Operating temperature: heating system	max. 85 °C
	Output	Output capacity (10 ->45°C)	12 l/min (≙ 30 kW); 16 l/min (≙ 40 kW); 20 l/min (≙ 49 kW)
		Heating capacity	8.5 kW (when ΔT = 15 K)

Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 660 mm, H = 555 mm, D = 100 mm
Heat supply	2 x ¾" int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 685 mm, D = 10 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 750 mm, H = 555 mm, D = 110 mm
Materials		Wall-mounted cupboard	W = 750 mm, H = 555 mm, D = 150 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1,436 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC[®] Basic WR - Radiator circuit (unmixed)

Heat exchanger	Volume flow limiter*	ltem no.
24 plates, copper solder	12 l/min	120317101
24 plates, coated	12 l/min	120347101
32 plates, copper solder	16 l/min	120427101
32 plates, coated	16 l/min	120457101
50 plates, copper solder	20 l/min	120537101
50 plates, full stainless steel	20 l/min	120567101



Technical data





Application range	for residential properties with one or vacing the second	arious radiant floor
Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
	Operating pressure: heating system	max. 2.5 bar
Operating temperature	Operating temperature: heating system	max. 85 °C
	Operating temperature: domestic hot water	max. 65 °C
Output	Output capacity (10 ->45°C)	12 l/min (≏ 30 kW); 16 l/min (≏ 40 kW); 20 l/min (≏ 49 kW)
	Heating capacity	8.5 kW (when ΔT = 15 K)

Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 660 mm, H = 555 mm, D = 100 mm
Heat supply	2 x ¾" int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 685 mm, D = 10 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 750 mm, H = 555 mm, D = 110 mm
Materials		Wall-mounted cupboard	W = 750 mm, H = 555 mm, D = 150 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1,436 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC® Basic WF - Radiant floor circuit (mixed)

Heat exchanger	Volume flow limiter*	ltem no.
24 plates, copper solder	12 l/min	120319101
24 plates, coated	12 l/min	120349101
32 plates, copper solder	16 l/min	120429101
32 plates, coated	16 l/min	120459101
50 plates, copper solder	20 l/min	120539101
50 plates, full stainless steel	20 l/min	120569101

Inj	ection-type circuit for the radiant floor circuit	1285501102
Co	nnections: 2x 1"int. thread x 2x ¾"ext.thread, GF UPM3 Auto L 15-70, manda	itory for floor distribution manifold

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Technical data



	Application range	for residential properties with radiator floor circuits operated at the same time	
	Max. operating pressure	Operating pressure: domestic hot water	max. 10 bar
		Operating pressure: heating system	max. 2.5 bar
	Operating temperature	Operating temperature: heating system	max. 85 °C
Summer		Operating temperature: domestic hot water	max. 65 °C
X	Output	Output capacity (10 ->45°C)	12 I/min (≙ 30 kW); 16 I/min (≙ 40 kW); 20 I/min (≙ 49 kW)
(*		Heating capacity	8.5 kW (when ΔT = 15 K)

Connections		Dimensions	
Domestic hot water supply	3 x ¾" int. thread (flat– sealing and self–sealing)	Base plate station	W = 660 mm, H = 555 mm, D = 100 mm
Heat supply	2 x ¾" int. thread (flat– sealing and self–sealing)	Flush-mounted cupboard	W = 750 mm, H = 685 mm, D = 10 mm
Heating circuit outlets	2 x ¾" int. thread (flat– sealing and self–sealing)	Cover frame (flush-mounted cupboard)	W = 750 mm, H = 555 mm, D = 110 mm
Materials		Wall-mounted cupboard	W = 750 mm, H = 555 mm, D = 150 mm
Base plate / Flush-mounted cupboard	zinc-galvanised steel sheet	Total dimensions cupboard for station + floor distribution manifold	W = 750 mm, H = 1,436 mm
Cover frame, door, base cover	Steel sheets, powder-coated, white (RAL 9016)	Adjustment range of the base	0 - 80 mm
Ball valves, valves and fittings: Domestic hot water circuit	Brass, approved for potable water		
Ball valves, valves and fittings: Heating circuit	Brass, approved for potable water		
Pipes	Stainless steel (1.4401), approved for potable water		
Gaskets	Fibre composite / EPDM / Teflon		
Heat exchanger	Standard: Stainless steel plates; Copper solder more heat exchanger designs: see order table		

PAW-HomeBloC® Basic WRF - Radiator circuit and radiant floor circuit (mixed + unmixed)

Heat exchanger	Volume flow limiter*	ltem no.
24 plates, copper solder	12 l/min	120318101
24 plates, coated	12 l/min	120348101
32 plates, copper solder	16 l/min	120428101
32 plates, coated	16 l/min	120458101
50 plates, copper solder	20 l/min	120538101
50 plates, full stainless steel	20 l/min	120568101

Injection-type circuit for the radiant floor circuit	1285501102
Connections: 2x 1"int. thread x 2x ¾"ext.thread, GF UPM3 Auto L 15-70, mar	ndatory for floor distribution manifold

	7 ball valves without mounting rail	1280107101
	9 ball valves without mounting rail	1280109101
	7 ball valves with mounting rail	1280207101
	9 ball valves with mounting rail	1280209101
44-4-4888	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.	
	Floor distribution manifold 2-fold	1285002101
	Floor distribution manifold 3-fold	1285003101
	Floor distribution manifold 4-fold	1285004101
	Floor distribution manifold 5-fold	1285005101
REFERENCE	Floor distribution manifold 6-fold	1285006101
	Floor distribution manifold 7-fold	1285007101
5 5 5 5 5 5 5 5 5 F	Floor distribution manifold 8-fold 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. For the versions WF and WRF, the injection-type circuit is mandatory. Connections: ¾" ext. thread Eurocone	1285008101
	Thermal heat retention	1280301102
	By using the thermal heat retaining, it is possible to achieve a higher hot water convenience during summer operation (no heating operation). The bypass between the heating flow and return maintains the line of the HomeBloC [®] Basic warm, hot domestic water can thus be quickly prepared.	1280301102
	Pressure-dependent heat retention	1280303101
	Pressure-depending heat retaining for the installation in a HomeBloC [®] for a higher water convenience during summer operation	
Į	Pipe set ¾" union nut overflow valve 350 mbar polyamide hose 6 mm, up to 6.5 bar	
\bigcirc	Thermostatic head for radiant floor circuit	1288602101
	Thermostatic head with immersion sensor, for assembly with PAW injection-type circuits for floor distribution manifolds, constant temperature control 10 °C - 40 °C, without auxiliary energy	







Equipment HomeBloC® Basic



	Injection-type circuit for radiant floor circuit To control the flow temperature and to ensure the supply and heat distribution in the (floor) heating circuits. For the versions WF and WRF, this injection-type circuit is mandatory for the floor distribution manifold.	1285501102
	Injection-type circuit for radiant floor circuit To control the flow temperature and to ensure the supply and heat distribution in the (floor) heating circuits. For the versions WF and WRF, this injection-type circuit is mandatory for the floor distribution manifold.	1285501201
	Injection-type circuit for radiant floor circuit To control the flow temperature and to ensure the supply and heat distribution in the (floor) heating circuits. For the versions WF and WRF, this injection-type circuit is mandatory for the floor distribution manifold.	1285501301
	Controller Alpha Basis STD Plus	13526001
	 Controller Alpha Basis Comfort Connection unit for single room controls of heating and cooling systems in combination with surface temperature regulation. The power supply of the components is provided directly via the controller; minimised wiring effort. Controller Alpha Basis STD Plus: Designated for the connection of up to 6 room operating units and up to 15 actuators with 230 V~ operating voltage. Controller Alpha Basis Comfort: Designated for the connection of up to 10 room operating units and up to 18 actuators with 230 V~ operating voltage. 	13536001
	Thermoelectric actuator NC, 230 V, with connecting adapter for PAW injection-type circuit Thermoelectric actuator NC, 230 V. The actuator is controlled by a 230 V standard room temperature controller with a 2-point output or a pulse width modulation.	1288601105
· · · · · · · · · · · · · · · · · · ·	Flush-mounted cupboard station	1282001101
	Wall-mounted cupboard station For mounting the station, powder-coated in RAL 9016, rotary lock for opening the cover. Flush-mounted version with 110 mm installation depth, height-adjustable, ideal for partition walls. Wall-mounted version with 150 mm installation depth, also height-adjustable. Insulation on request.	1282101101

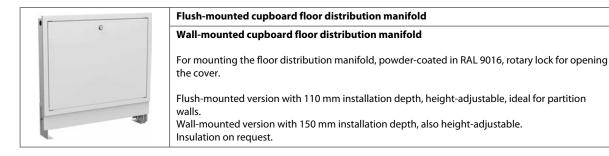


Equipment HomeBloC[®] Basic



1282601101

1286101101







HeatBloC[®] MCom DN 25 - 50

Catalogue 04/2025

Automatic, dynamic balancing of distribution manifolds

Valid for the EU









HeatBloC[®] MCom - the heating circuit 4.0 Innovative system technology for modern heating

Whether it's about Smart Home in a single-family house or as Direct Digital Control (DDC) in a central building control system – the HeatBloC[®] MCom upgrades your heating system to level 4.0.

The **HeatBloC**[®] **MCom** combines high-quality and durable components of a PAW standard heating circuit with the latest sensor technology, actuator technology and control technology. As a result, numerous installation values (data points) are immediately provided and must not be additionally integrated. **System monitoring is thus as easy as never before!**

The heating circuits of the **HeatBloC® MCom** series can be connected to a multitude of **Smart Home centrals**. The connection is usually established via system-specific gateways. It is therefore compatible **with all common Smart Home systems**, but can also be established directly via **Modbus**.

With the optional communication set and the free PAW app, the HeatBloC[®] MCom can be easily:

- ✓ installed
- 🗸 optimised
- ✓ documented



The advantages of the app at a glance:

Fully equipped heating circuit including sensor technology and actuator technology

 no subsequent installation of additional components (differential pressure controller), no hidden cost

Easy integration into Smart Home environments

- ✓ compatible with all common Smart Home systems
- ✓ compatible with Modbus











Quick commissioning of every heating line

- ✓ hydraulic balancing of distribution manifold happens automatically
- ✓ no time-consuming adjustment of regulating valve or overflow valve
- ✓ radiator balancing is possible with the free PAW app

BAFA-listed components

- ✓ quick processing of subsidy requests
- ✓ subsidizable heating circuits and communication sets

Measuring and visualising all system parameters

- optimisation of the energy distribution: minimisation of operating costs
 – without any loss of comfort
- ✓ increase of the reliability

HeatBloC[®] MCom: Easy commissioning and high living comfort included!

The **HeatBloC**[®] **MCom** guarantees **easy commissioning and high reliability** for high comfort demands. Time-consuming adjustments can be left out and additional visits of your craftsman are not required.

The HeatBloC[®] **MCom automatically adapts to any operating condition.** The heat is transferred to where it is needed. With our HeatBloC[®]s MC you can save **pump energy** compared to mechanical differential pressure controllers.



HeatBloC[®] MCom: Dynamic hydraulic balancing included!

Installation – adjustment – comfort: The plug & play solution!

Not only does the **HeatBloC® MCom** save you a lot of pump energy and money - combined with the **communication set** and the free **PAW Connect app**, it also makes **hydraulic balancing of your radiators possible** – hydraulic balancing certificate included:

- ✓ System data: heating loads, thermal output, heating circuits
- ✓ Heating parameters: flow temperature, flow rate, differential pressure
- ✓ **Documentation** (VdZ form for hydraulic balancing, compliant with KFW/BAFA)

With this easy hydraulic balancing, you and your craftsman are on the safe side and you will receive subsidies in no time!





HeatBloC[®] MCom: Important data included!



In contrast to other systems, the **HeatBloC**[®] **MCom** does not require any additional hardware installations. You will not have any hidden retrofitting cost for upgrades of your sensor technology or actuator technology.

The **HeatBloC**[®] **MCom** allows to display and adjust the following values in your **Smart Home system**:

Temperature

✓ TFL-AC, TFL-NOM✓ TRT-AC

- Differential pressure
 - 🗸 ΔρΑС , ΔρΝΟΜ
- Flow rate
 - 🗸 FRAC

Status messages / balance values

- ✓ Sensors: min./max. values, error messages
- ✓ Mixing valves: control (0-10 V), current rotation angle
- ✓ Pumps: control (PWM), calculated flow rate, error messages

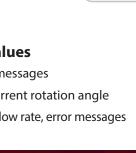
HeatBloC[®] MCom: CO₂- and cost reduction included!

Thanks to the integration into Smart Home, the **HeatBloC**[®] **MCom** operates at the lowest flow temperature. Space-time-user profiles of electronic thermostatic valves that used to be rigid can be combined with window contacts, motion detectors, weather reports and user profiles.

This way, Smart Homes equipped with a HeatBloC[®] MCom pay off considerably faster and have a substantially lower carbon footprint.









Product range HeatBloC[®] MC - DN 25 Heating circuits for the balancing of distribution manifolds











All HeatBloC[®]s MCom offer the following advantages:

Preassembled group of fittings for heating circuits

Automatic, dynamic balancing of distribution manifolds

Security of supply, high comfort, avoids mutual influence at the distribution manifold, no flow rate variation due to the mixing valve position any more, necessary condition for a hydraulic balancing of the heating circuits

Replaces mechanical differential pressure controllers and hydraulic separators

High efficiency thanks to the low return temperature, energy-saving operation of the pumps, energy saving thanks to the pumps of approx. 50 % compared to mechanical differential pressure controllers in each line

Electronic controller

Electronic regulation of the differential pressure, temperature measurement and temperature regulation if necessary (HeatBloC® MC43), display of the flow rate and the heat quantity with Grundfos pump

High flexibility during assembly

modules can be used in nearly any combination

Check valve in the return pipe

avoids gravity circulation, can be opened, 200 mm wc, spring-loaded

Non-return valve in the mixing valve

avoids unwanted circulation at the distribution manifold, can be opened, 50 mm wc, spring-loaded

Flow on the right = standard

The flow and return line can be easily changed on site (also for heating circuits with mixing valve)

All water-carrying parts are made of brass

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of the valves and fittings with sealing lips, ventilation opening to cool the pump

PAW heating pumps with high-efficiency technology

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, ErP READY

Pump can be isolated

so that it can be replaced without draining

Optional integration in a Smart Home environment

At the end of the chapter, you will find the complete mounting equipment for the modular system DN 25.





MC41 direct / unmixed



up to 50 kW*

MC42 3-way mixing valve MC43 Controlled circuit with constant value, 3-way mixing valve with bypass 0-50%



up to 40 kW*



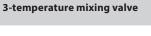
up to 45.5 kW*

MC44 3-way mixing valve with bypass 0-50%



up to 45.5 kW*

MCom communication set



MC45

MC46 Boiler charging set with 3-way mixing valve



up to 32.5 kW*



up to 50 kW*

Connection set for MCom controller (mandatory) HeatBloC* MCom:



*Temperature difference = 20 K



HeatBloC[®] MC41 DN 25 (1") direct / unmixed





Application range

- Boiler charging ٠
- modulating temperature heating system •

Operating data

Range of performance	up to 50 kW
Temperature difference	20 K up to 2150 l/h
Kvs value	7.2
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC41 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set .

EPDM

EPP

the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Gaskets

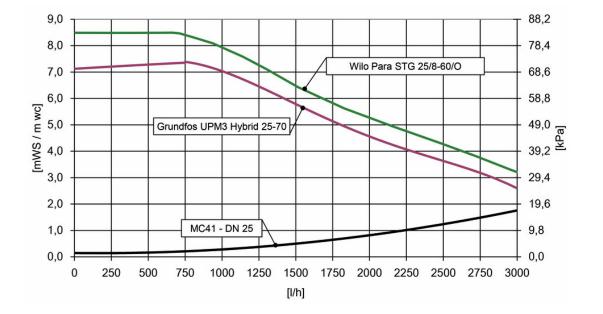
Insulation

Equipment		Dimensions	
Controller MCom 3.4	Interface: Modbus RTU (integration nto building control and martHome systems)Connection generator connection consumer1½" ext. thread, flat sealing 1" int. threadx Pt1000 in the flow and return -600 mbarHeight500 mm-600 mbar - 120 °CInstallation length340 mm		
	. 5	Connection generator	1 ¹ / ₂ " ext. thread, flat sealing
	SmartHome systems)	Connection consumer	1" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	500 mm
Differential pressure sensors	0-600 mbar	Installation length	340 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Materials			
Valves and fittings	Brass		

HeatBloC[®] MC41 DN 25 (1") direct / unmixed

Rw





HeatBloC [®] MC41 DN 25 (1")		EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 25-70, flow rate signal		۵	4536013GU7
	Wilo Para STG 25/8/-60/O		۲	4536013WS08

= with pump

 Θ = without pump

M =with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] MC42 DN 25 (1") 3-way H-type mixing valve







Application range

• Heating systems controlled by a mixing valve

Operating data

Range of performance	up to 40 kW
Temperature difference	20 K up to 1750 l/h
Kvs value	5.2
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC42 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set •
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

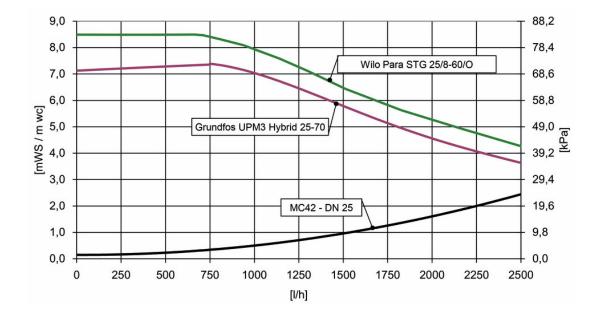
Technical data

Equipment		Dimensions	
Controller MCom 3.4	,	Nominal diameterDN 25 (1")I (integration ndConnection generator1½" ext. thread, flat sealing 1" int. thread	DN 25 (1")
	Interface: Modbus RTU (integration into building control and	Connection generator	1½" ext. thread, flat sealing
	SmartHome systems)	Connection consumer	1" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	500 mm
Differential pressure sensors	0-600 mbar	Installation length	340 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR5	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		

HeatBloC[®] MC42 DN 25 (1") 3-way H-type mixing valve

Rw





HeatBloC [®] MC42 DN 25 (1")		EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 25-70, flow rate signal		۵Ø	4536053MGU7
	Wilo Para STG 25/8/-60/O		٩	4536053MWS08

= with pump

 Θ = without pump

 \bigcirc =with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] MC43 DN 25 (1") Controlled circuit, const. value, 3-way mixing valve with bypass







Application range

- For low-temperature heating systems controlled by a mixing valve
- constant value control circuit or indication of the nominal temperature via Smart Home environment

Operating data

Range of performance	up to 45 kW
Temperature difference	20 K up to 1940 l/h
Kvs value	6
Max. operating pressure	6 bar
Operating temperature	110 °C

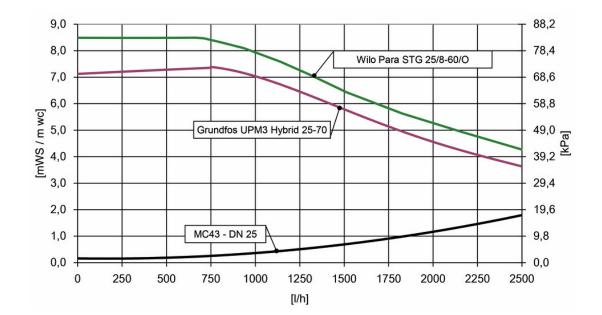
Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold
- for hydraulic balancing of the radiators, the HeatBloC® MC43 as well as the PAW Connect App are necessary
- the connection of 1-8 controllers to the power supply requires a connection set
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA	Nominal diameter	DN 25 (1")
	Interface: Modbus RTU (integration into building control and	Connection generator	11/2" ext. thread, flat sealing
	SmartHome systems)	Connection consumer	1" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	500 mm
Differential pressure sensors	0-600 mbar	Installation length	340 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR10	24 V AC/DC		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		

HeatBloC[®] MC43 DN 25 (1") Controlled circuit, const. value, 3-way mixing valve with bypass



HeatBloC® MC43 DN 25 (1")	EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 25-70, flow rate signal			4536073MGU7
	Wilo Para STG 25/8/-60/O			4536073MWS08

= with pump

Rw

 Θ = without pump

M =with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] MC44 DN 25 (1") 3-way bypass mixing valve







Application range

Operating temperature

• for low-temperature heating systems controlled by a mixing valve

Operating data Range of performance up to 45 kW Temperature difference 20 K up to 1940 l/h Kvs value 6 6 bar Max. operating pressure 110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC44 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set .

EPP

the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

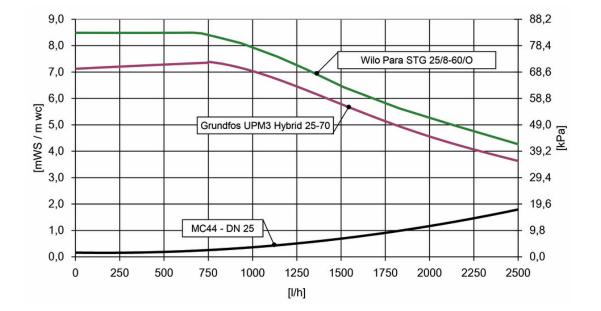
Insulation

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA	Nominal diameter	DN 25 (1")
	Interface: Modbus RTU (integration into building control and	Connection generator	1½" ext. thread, flat sealing
	SmartHome systems)	Connection consumer	1" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	500 mm
Differential pressure sensors	0-600 mbar	Installation length	340 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR5	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		

HeatBloC[®] MC44 DN 25 (1") 3-way bypass mixing valve

Aw





HeatBloC [®] MC44 DN 25 (1")		EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 25-70, flow rate signal		۵M	4536063MGU7
	Wilo Para STG 25/8/-60/O		٩	4536063MWS08

= with pump

 Θ = without pump

 \bigcirc =with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] MC45 DN 25 (1") 3-temperatures mixing valve







Application range

- Heating installations with buffer tank and solar heating support
- control of radiant floor and panel heating systems

Operating data

Range of performance	up to 32 kW
Temperature difference	20 K up to 1400 l/h
Kvs value	4.7
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

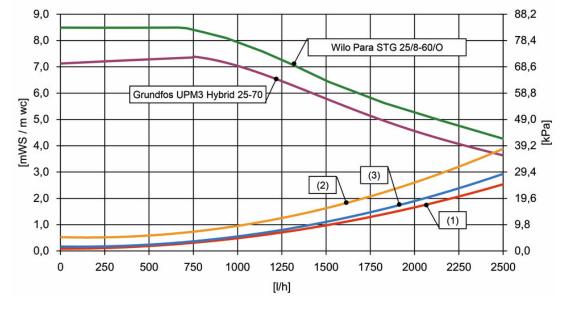
- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold
- for hydraulic balancing of the radiators, the HeatBloC® MC45 as well as the PAW Connect App are necessary
- the connection of 1-8 controllers to the power supply requires a connection set
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)	Nominal diameter	DN 25 (1")
		Connection generator	11/2" ext. thread, flat sealing
		Connection consumer	1" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	500 mm
Differential pressure sensors	0-600 mbar	Installation length	340 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR5	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		

HeatBloC[®] MC45 DN 25 (1") 3-temperatures mixing valve





(1) 100% return, Kvs value = 5.1

Rw

(2) low temperature flow, Kvs value = 4.1

(3) 100% high temperature flow, Kvs value = 4.7

HeatBloC® MC45 DN 25 (1")		EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 25-70, flow rate signal		۵M	4536093MGU7
	Wilo Para STG 25/8/-60/O			4536093MWS08

= with pump

 \bigcirc = without pump

 \bigcirc =with actuator

*EEI = Energy Efficiency Index



Product range HeatBloC[®] MC - DN 32 Heating circuits for the balancing of distribution manifolds











All HeatBloC[®]s MCom offer the following advantages:

Preassembled group of fittings for heating circuits

Automatic, dynamic balancing of distribution manifolds

Security of supply, high comfort, avoids mutual influence at the distribution manifold, no flow rate variation due to the mixing valve position any more, necessary condition for a hydraulic balancing of the heating circuits

Replaces mechanical differential pressure controllers and hydraulic separators

High efficiency thanks to the low return temperature, energy-saving operation of the pumps, energy saving thanks to the pumps of approx. 50 % compared to mechanical differential pressure controllers in each line

Electronic controller

Electronic regulation of the differential pressure, temperature measurement and temperature regulation if necessary (HeatBloC® MC43), display of the flow rate and the heat quantity with Grundfos pump

High flexibility during assembly

modules can be used in nearly any combination

Check valve in the return pipe

avoids gravity circulation, can be opened, 200 mm wc, spring-loaded

Non-return valve in the mixing valve

avoids unwanted circulation at the distribution manifold, can be opened, 50 mm wc, spring-loaded

Flow on the right = standard

The flow and return line can be easily changed on site (also for heating circuits with mixing valve)

All water-carrying parts are made of brass

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of the valves and fittings with sealing lips, ventilation opening to cool the pump

PAW heating pumps with high-efficiency technology

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, ErP READY

Pump can be isolated

so that it can be replaced without draining

Optional integration in a Smart Home environment

At the end of the chapter, you will find the complete mounting equipment for the modular system DN 32.







(mandatory)



HeatBloC[®] MCom:



DN 32

*Temperature difference = 20 K



HeatBloC[®] MC41 DN 32 (1¹/₄") direct / unmixed







Application range

- Boiler charging •
- modulating temperature heating system •

Operating data

Range of performance	up to 65 kW
Temperature difference	20 K up to 2800 l/h
Kvs value	15.1
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC41 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set •

EPP

the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

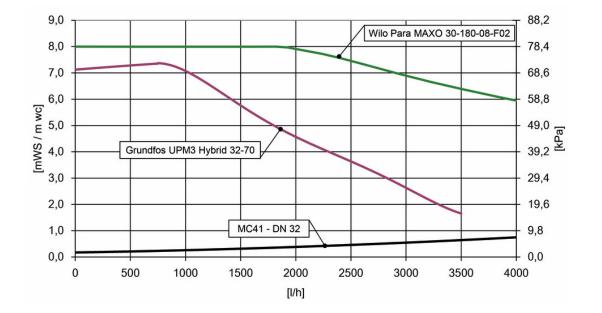
Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)	Nominal diameter	DN 32 (1¼")
		Connection generator	2" ext. thread, flat sealing
		Connection consumer	1¼" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	557 mm
Differential pressure sensors	0-600 mbar	Installation length	400 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		

Insulation

HeatBloC[®] MC41 DN 32 (1¼") direct / unmixed





HeatBloC [®] MC41 DN 32 (1 ¹ / ₄	u))	EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 32-70, flow rate signal		۵	4539013GU7
	Wilo Para MAXO 30-180-08-F02		۲	4539013WM08

= with pump

 \bigcirc = without pump

 \bigcirc =with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] MC42 DN 32 (1¼") 3-way H-type mixing valve







Application range

• Heating systems controlled by a mixing valve

Operating data	
Range of performance	up to 51 kW
Temperature difference	20 K up to 2200 l/h
Kvs value	9.6
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

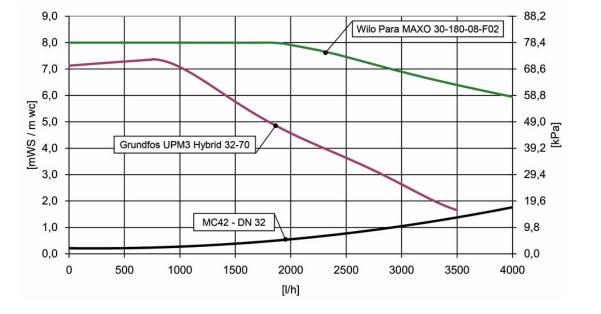
- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold
- for hydraulic balancing of the radiators, the HeatBloC® MC42 as well as the PAW Connect App are necessary
- the connection of 1-8 controllers to the power supply requires a connection set
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)	Nominal diameter	DN 32 (1¼")
		Connection generator	2" ext. thread, flat sealing
		Connection consumer	1¼" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	557 mm
Differential pressure sensors	0-600 mbar	Installation length	400 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR5	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		

HeatBloC[®] MC42 DN 32 (1¼") 3-way H-type mixing valve





HeatBloC [®] MC42 DN 32 (1 ¹ / ₄	.")	EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 32-70, flow rate signal		ø	4539053MGU7
	Wilo Para MAXO 30-180-08-F02		۲	4539053MWM08

= with pump

Rw

 \bigcirc = without pump

 \bigcirc =with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] MC43 DN 32 (1¼") Controlled circuit with constant temperature, electronically







Application range

- For low-temperature heating systems controlled by a mixing valve
- constant value control circuit or indication of the nominal temperature via Smart Home environment

Operating data

Range of performance	up to 64 kW
Temperature difference	20 K up to 2760 l/h
Kvs value	10.1
Max. operating pressure	6 bar
Operating temperature	110 °C

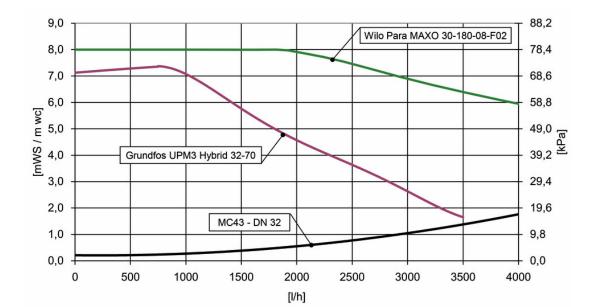
Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold
- for hydraulic balancing of the radiators, the HeatBloC® MC43 as well as the PAW Connect App are necessary
- the connection of 1-8 controllers to the power supply requires a connection set
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)	Nominal diameter	DN 32 (1¼")
		Connection generator	2" ext. thread, flat sealing
		Connection consumer	1¼" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	557 mm
Differential pressure sensors	0-600 mbar	Installation length	400 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR10	24 V AC/DC		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		

HeatBloC[®] MC43 DN 32 (1¼") Controlled circuit with constant temperature, electronically



HeatBloC [®] MC43 DN 32 (1)	'/4")	EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 32-70, flow rate signal		۵Ø	4539073MGU7
	Wilo Para MAXO 30-180-08-F02			4539073MWM08

= with pump

Rw

 Θ = without pump

 \bigcirc =with actuator



HeatBloC[®] MC44 DN 32 (1¼") 3-way bypass mixing valve







Application range

• for low-temperature heating systems controlled by a mixing valve

Operating data	
Range of performance	up to 64 kW
Temperature difference	20 K up to 2760 l/h
Kvs value	10.1
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

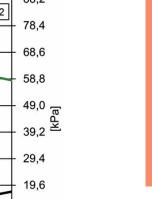
- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold
- for hydraulic balancing of the radiators, the HeatBloC® MC44 as well as the PAW Connect App are necessary
- the connection of 1-8 controllers to the power supply requires a connection set
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

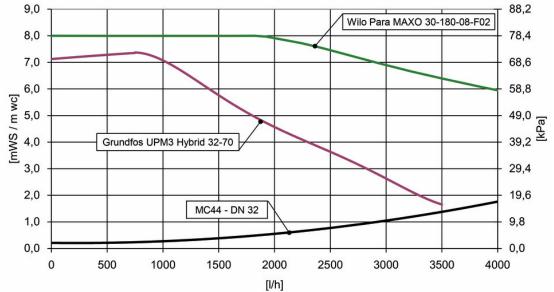
Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)	Nominal diameter	DN 32 (1¼")
		Connection generator	2" ext. thread, flat sealing
		Connection consumer	1¼" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	557 mm
Differential pressure sensors	0-600 mbar	Installation length	400 mm
Thermometer	0 - 120 °C	Centre distance	125 mm
Check valves	1 x 200 mm wc	Width	250 mm
Actuator SR5	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		

HeatBloC[®] MC44 DN 32 (1¼") 3-way bypass mixing valve





HeatBloC[®] MC44 DN 32 (1¹/4")



HeatBloC [®] MC44 DN 32 (1½	4")	EEI*	with	ltem no.
	Grundfos UPM3 Hybrid 32-70, flow rate signal		۵M	4539063MGU7
	Wilo Para MAXO 30-180-08-F02			4539063MWM08

= with pump

Rw

 Θ = without pump

 \bigcirc =with actuator



Product range HeatBloC[®] MC - DN 40/50 Heating circuits for the balancing of distribution manifolds











All HeatBloC[®]s MCom offer the following advantages:

Preassembled group of fittings for heating circuits

Automatic, dynamic balancing of distribution manifolds

Security of supply, high comfort, avoids mutual influence at the distribution manifold, no flow rate variation due to the mixing valve position any more, necessary condition for a hydraulic balancing of the heating circuits

Replaces mechanical differential pressure controllers and hydraulic separators

High efficiency thanks to the low return temperature, energy-saving operation of the pumps, energy saving thanks to the pumps of approx. 50 % compared to mechanical differential pressure controllers in each line

Electronic controller

Electronic regulation of the differential pressure and temperature measurement

High flexibility during assembly

modules can be used in nearly any combination

Check valve in the return pipe

avoids gravity circulation, can be opened, 200 mm wc, spring-loaded

Flow on the right = standard

The flow and return line can be easily changed on site (also for heating circuits with mixing valve)

All water-carrying parts are made of brass

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of the valves and fittings with sealing lips, ventilation opening to cool the pump

PAW heating pumps with high-efficiency technology

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, ErP READY

Pump can be isolated so that it can be replaced without draining

Optional integration in a Smart Home environment

At the end of the chapter, you will find the complete mounting equipment for the modular system DN 40 / 50.







*Temperature difference = 20 K

Bedienkomfort Funktionalität Ökologie www.plusxaward.de



HeatBloC[®] MC41 DN 40 (1½") direct / unmixed







Application range

- Boiler charging •
- modulating temperature heating system •

Operating data

Range of performance	up to 150 kW
Temperature difference	20 K up to 6500 l/h
Kvs value	28.3
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC41 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set •
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

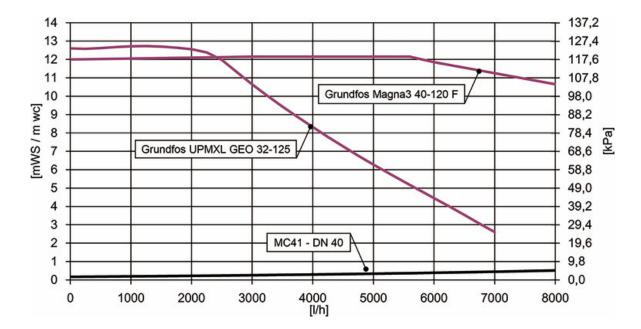
Insulation

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and	Nominal diameter	DN 40 (1½")
		Connection generator	Flange DN 40 / PN 6
	SmartHome systems)	Connection consumer	1½" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	790 mm
Differential pressure sensors	0-600 mbar	Installation length	560 mm
Thermometer	0 - 120 °C	Centre distance	160 mm
Check valves	1 x 250 mm wc	Width	320 mm
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		

EPP

HeatBloC[®] MC41 DN 40 (1½") direct / unmixed





HeatBloC [®] MC41 DN 40 (1½	2")	EEI*	with	ltem no.
	Grundfos MAGNA3 40-120 F	< 0.18	۲	4541011GH12
	Grundfos UPMXL GEO 32-125, flow estimation	< 0.23	۲	4541011GX12

= with pump

Rw

 Θ = without pump

M =with actuator



HeatBloC[®] MC42 DN 40 (1¹/₂") 3-way H-type mixing valve







Application range

• Heating systems controlled by a mixing valve

Operating data	
Range of performance	up to 125 kW
Temperature difference	20 K up to 5400 l/h
Kvs value	17.7
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC42 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set •
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

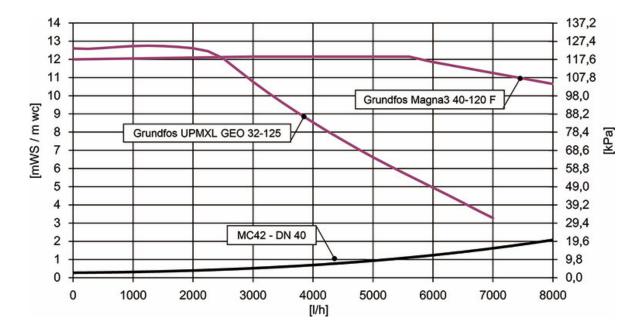
Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA	Nominal diameter	DN 40 (1½")
	Interface: Modbus RTU (integration into building control and	Connection generator	Flange DN 40 / PN 6
	SmartHome systems)	Connection consumer	1½" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	790 mm
Differential pressure sensors	0-600 mbar	Installation length	560 mm
Thermometer	0 - 120 °C	Centre distance	160 mm
Check valves	1 x 250 mm wc	Width	320 mm
Actuator SR10	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		



HeatBloC[®] MC42 DN 40 (1½") 3-way H-type mixing valve





HeatBloC [®] MC42 DN 40 (1½	2")	EEI*	with	ltem no.
	Grundfos MAGNA3 40-120 F	< 0.18	ø	4541051MGH12
	Grundfos UPMXL GEO 32-125, flow estimation	< 0.23	۲	4541051MGX12

= with pump

 Θ = without pump

M =with actuator



HeatBloC[®] MC43 DN 40 (11/2") Controlled circuit with constant value, 3-way mixing valve







Application range

- Radiant floor heating systems from 3.5 kW •
- low-temperature heating systems •

Operating data

Range of performance	up to 125 kW
Temperature difference	20 K up to 5400 l/h
Kvs value	17.7
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

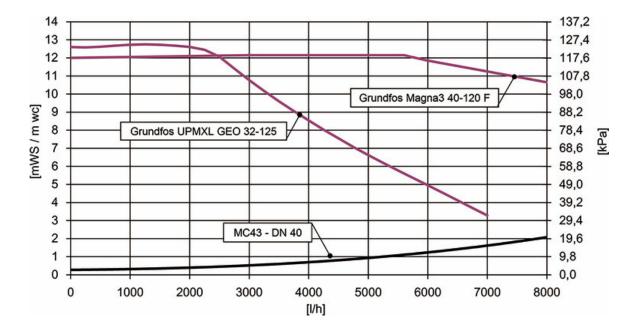
- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC43 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set .
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and	Nominal diameter	DN 40 (1½")
		Connection generator	Flange DN 40 / PN 6
	SmartHome systems)	Connection consumer	1½" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	790 mm
Differential pressure sensors	0-600 mbar	Installation length	560 mm
Thermometer	0 - 120 °C	Centre distance	160 mm
Check valves	1 x 250 mm wc	Width	320 mm
Actuator SR10	24 V AC/DC		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		



HeatBloC[®] MC43 DN 40 (1½") Controlled circuit with constant value, 3-way mixing valve



HeatBloC® MC43 DN 40 (1)	/2")	EEI*	with	ltem no.
	Grundfos MAGNA3 40-120 F	< 0.18	<u>م</u>	4541071MGH12
	Grundfos UPMXL GEO 32-125, flow estimation	< 0.23		4541071MGX12

= with pump

 Θ = without pump

M = with actuator



HeatBloC[®] MC41 DN 50 (2") direct / unmixed







Application range

- Boiler charging •
- modulating temperature heating system •

Operating data

Range of performance	up to 250 kW
Temperature difference	20 K up to 10800 l/h
Kvs value	31.2
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC41 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set •

EPDM

EPP

the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731) •

Technical data

Gaskets

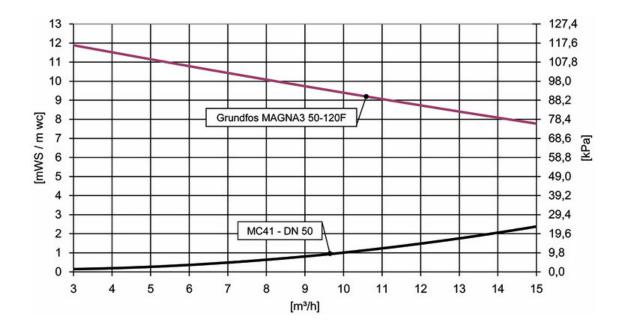
Insulation

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA	Nominal diameter	DN 50 (2")
	Interface: Modbus RTU (integration into building control and	Connection generator	Flange DN 50 / PN 6
	SmartHome systems)	Connection consumer	2" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	850 mm
Differential pressure sensors	0-600 mbar	Installation length	630 mm
Thermometer	0 - 120 °C	Centre distance	180 mm
Check valves	1 x 250 mm wc	Width	320 mm
Materials			
Valves and fittings	Brass		

HeatBloC[®] MC41 DN 50 (2") direct / unmixed

Rw





HeatBloC [®] MC41 DN 50 (2")		EEI*	with	ltem no.
	Grundfos MAGNA3 50-120 F	< 0.18	۲	4551011GH12

 \bigcirc = without pump

M =with actuator



HeatBloC[®] MC42 DN 50 (2") 3-way H-type mixing valve







Application range

• Heating systems controlled by a mixing valve

Operating data	
Range of performance	up to 230 kW
Temperature difference	20 K up to 9980 l/h
Kvs value	25.7
Max. operating pressure	6 bar
Operating temperature	110 °C

Functions

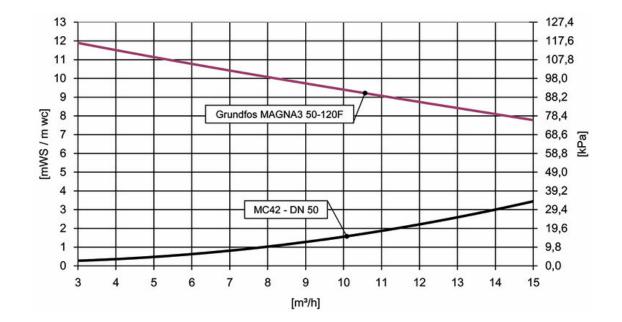
- differential pressure controlled, for the automatic, dynamic balancing of the distribution manifold •
- for hydraulic balancing of the radiators, the HeatBloC® MC42 as well as the PAW Connect App are necessary •
- the connection of 1-8 controllers to the power supply requires a connection set •
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment		Dimensions	
Controller MCom 3.4	24 Vdc, max. 200 mA	Nominal diameter	DN 50 (2")
	Interface: Modbus RTU (integration into building control and	Connection generator	Flange DN 50 / PN 6
	SmartHome systems)	Connection consumer	2" int. thread
Temperature sensors	1x Pt1000 in the flow and return	Height	850 mm
Differential pressure sensors	0-600 mbar	Installation length	630 mm
Thermometer	0 - 120 °C	Centre distance	180 mm
Check valves	1 x 250 mm wc	Width	360 mm
Actuator SR10	230 V - 50 Hz		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM		
Insulation	EPP		







HeatBloC [®] MC42 DN 50 (2")		EEI*	with	ltem no.
	Grundfos MAGNA3 50-120 F	< 0.18	۲	4551051MGH12

 \bigcirc = without pump

M =with actuator





	Modular distribution manifold DN 25, 2-fold	34123
	Modular distribution manifold DN 25, 3-fold	34133
	Modular distribution manifold DN 25, 4-fold	34143
	Modular distribution manifold DN 25, 5-fold	34153
	Modular distribution manifold DN 25, 6-fold	34163
	completely made of brass ; completely premounted entirely insulated with EPP half-shells	
	extremely low resistance, free passage d = 36 mm	
	up to 6 groups, premounted, extendable several boiler connections possible, for higher outputs	
	Modular distribution manifold DN 32, 2-fold	37123
	Modular distribution manifold DN 32, 3-fold	37133
	Modular distribution manifold DN 32, 4-fold	37143
	Modular distribution manifold DN 32, 5-fold	37153
	Modular distribution manifold DN 32, 6-fold	37163
	completely made of brass; completely premounted	
	entirely insulated with EPP half-shells	
	extremely low resistance, free passage d = 50 mm	
	up to 6 groups, premounted, extendable several boiler connections possible, for higher outputs	
	Modular distribution manifold DN 40, 2-fold	4112
	Modular distribution manifold DN 40, 3-fold	4113
	Modular distribution manifold DN 40, 4-fold	4114
	modular distribution manifold made of brass connecting flanges as slip-on flanges made of steel seals and screws for boiler connection DN 50 included completely premounted; entirely insulated with EPP shells extremely low resistance, free passage d = 64 mm up to 4 groups, premounted, extendable boiler connections DN 50	
	Modular distribution manifold DN 50, 2-fold	5112
	Modular distribution manifold DN 50, 3-fold	5113
	Modular distribution manifold DN 50, 4-fold	5114
	modular distribution manifold made of brass connecting flanges as slip-on flanges made of steel gaskets and screws for boiler connection DN 65 included completely premounted; entirely insulated with EPP shells extremely low resistance, free passage d = 84 mm up to 4 groups, premounted, extendable boiler connections DN 65	
	Manifold DN 25 (1"), 2- / 3-fold	433413
	The distribution manifold V23 - DN 25 is a completely insulated brass manifold for hydronic heating. Depending on the size, two or three HeatBloC [®] s can be connected to the manifold. The HeatBloC [®] s DN 25 can be directly mounted onto or under the distribution manifolds V23 - DN 25 without any other accessories.	
	MCom communication set	1398731
29	For WiFi communication with an Apple or Android terminal. The communication module is the condition for for the automatic hydraulic balancing of the radiators via the PAW app. You can get the corresponding app in the App Store or Google Play Store by searching for "PAW MCom".	
	With insulation and device for the installation on the modular distribution manifold Communication module Raspberry Pi with Modbus cable WLAN adapter 802.11n nano Wall power supply 5 V DC	



Equipment HeatBloC[®] MCom DN 25 up to DN 50



	Connection set for MCom	1398700
	Mains cable (24 V DC, RJ12, RS485) for the connection of the MCom controllers to the power	
	supply.	
is a second seco	Please note: For the function of a MC system with up to 8 controllers, one connection set is necessary.	
	PowerLine Case	1398736
	for extending the reach of the WiFi radio network during the hydraulic balancing	
	Plug adapter	1398710
	RJ12 adapter, for connecting the MCom system as Modbus-RTU-Slave (GLT, Loxone) to external systems	
	KM2 Interface adapter	1309001
	Modbus-IP client for visualising the system parameters in the Modbus-IP network or for system integration into VBus.NET. - Optional accessory for SC5.14 - Optional accessory for FC4.13	
0	Maintenance set DPS - DN 25 / DN 32 (1"/1¼")	N00257
	1x sealing cap 2x strainer	
	Wall bracket for HeatBloC® DN 25 - DN 32	34722
	Consisting of: wall bracket (galvanised steel), mounting equipment DN 25 / DN 32: Possible wall distance: 155 mm	
-	Not required for installation with a PAW modular distribution manifold	
	Wall bracket for modular distribution manifold - DN 25 (1") - DN 32 (1¼")	34721
	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	
-	Wall bracket set for module heating circuit - DN 25 (1")	3422SET
A CONTRACT	Components: 2 x 1½" nut, mounting plate, wall bracket possible wall distance: 155 mm	
×€	Wall bracket set for module heating circuit - DN 32	3722SET
	Components: 2 x 2" nut, mounting plate, wall bracket possible wall distance: 142.5-167.5 mm	
	Wall bracket for HeatBloC® DN 40 (1½")	41641
	Components: Wall bracket, 2 gaskets, mounting equipment, distance of the pipe axis to the wall $A = 270$ mm	



Equipment HeatBloC[®] MCom DN 25 up to DN 50



	Wall bracket for HeatBloC®s - DN 50 (2") Components: Wall bracket (galvanised steel), 2 gaskets, mounting equipment, distance of the pipe axis to the wall A = 400 mm	41642
	Wall bracket set for modular distribution manifold - DN 40 (1½") Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	41651
1	Wall bracket set for modular distribution manifold - DN 50 (2") Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	41652
	Floor bracket set for modular distribution manifold - DN 40 / 50 (1½"/ 2") Components: 2 floor brackets (galvanized steel), 4 wall plugs, 4 screws, 2 screws for fixing the distribution manifold onto the floor brackets Height = adjustable 1,050 - 1,080 mm, for shortening simply cut off	41671
	Extension set HeatBloC [®] MCom - DN 25 / 32 Required extension set for operating MCom heating circuits DN 25/32 when used in building cooling and heating. With the extension set, the thermal separation of electronic components is achieved in order to avoid damage caused by condensate. The thermometers are replaced by condensate-proof thermometers.	4537023
	Extension set HeatBloC [®] MCom - DN 40 / 50 Required extension set for operating MCom heating circuits DN 40/50 when used in building cooling and heating. With the extension set, the thermal separation of electronic components is achieved in order to avoid damage caused by condensate. The thermometers are replaced by condensate-proof thermometers.	4546021







HeatBloC[®] Standard series DN 20-50

Catalogue 04/2025

Systems, valves and fittings for the use in hot water heating systems

Valid for the EU





100% Qualit

nE





Product range HeatBloC[®] Heating circuits DN 20







All HeatBloC[®]s offer the following advantages:

Preassembled group of fittings for heating circuits

High flexibility during assembly modules can be used in nearly any combination

Ball valve with full port, gaskets of the spindle can be replaced during operation

Flat-sealing connections, 1" external thread

including 1" union nut for assembly on a PAW distribution manifold. With PAW mounting equipment, the HeatBloC[®] can be installed on wall brackets.

Large ball valve handles,

easy handling, visible closing position

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of valves and fittings, ventilation opening to cool the pump. The insulation for the distribution manifold is integrated in the heating circuit insulation.

Free access to the pump head

Check valve in the return pipe

can be opened, 200 mm wc, spring-loaded, and thus also suited for horizontal and overhead installation

Flow on the right = standard

The HeatBloC[®]s can be delivered with flow on the left against additional charge.

Flow and return line can be changed on site,

also for heating circuits with mixing valve

All water-carrying parts are made of brass

Full metal thermometer

can be pulled off, with immersion sleeve, integrated in the ball valve

PAW heating pumps with high-efficiency technology (ECM technology)

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, EuP/ErP READY



so that it can be replaced without draining

At the end of the chapter, you will find the complete mounting equipment for the modular system DN 20.







Product range HeatBloC[®] Heating circuits DN 20 - types

K31 direct / unmixed K32 with 3-way mixing valve K33 Controlled circuit with constant value, 3-way mixing valve with bypass 0-50%



up to 30 kW*

K34 3-way mixing valve with bypass 0-50%



up to 21 kW*



up to 5 kW*

K36 Boiler charging set with thermal control valve



up to 21 kW*



up to 10 kW*

*Temperature difference = 20 K



HeatBloC[®] K31 DN 20 (¾") direct / unmixed

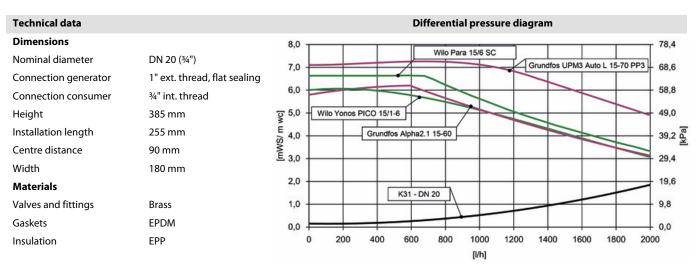






Application range

Boiler charging	
Recommended application range	
• up to 30 kW	
• 20 K up to 1300 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	4.7



HeatBloC [®] K31 DN 20 (¾")		EEI*	with	ltem no.
	Wilo Para SC 15/6-43	< 0.20	۲	32013WP6
	Wilo Yonos PICO 15/1-6	< 0.20	۲	32013WN06
	Grundfos ALPHA2.1 15-60	< 0.17	۲	32013GH6
	Grundfos UPM3 Auto 15-70	< 0.20	۵	32013GM6
	without pump - for pumps with 1" ext. thread x 130 mm		Θ	32013

= with pump \bigcirc = without pump

 \bigcirc = with actuator



HeatBloC[®] K32 DN 20 (³/₄") 3-way H-type mixing valve



3.7



Technical data



Application range

Kvs value

Heating systems controlled by a mixing valve	
Recommended application range	
• up to 20 kW	
• 20 K up to 905 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C

Differential pressure diagram

Dimensions			
Nominal diameter	DN 20 (¾")	8,0 Wilo Para 15/6 SC Grundfos UPM3 Auto L 15-70 PP3	78,4
Connection generator	1" ext. thread, flat sealing		68,6
Connection consumer	¾" int. thread	6.0 54	58,8
Height	385 mm	2 5,0 Wilo Yonos PICO 15/1-6 44	19,0
Installation length	255 mm		
Centre distance	90 mm	39 4,0 Grundfos Alpha2.1 15-60 31	89,2 E
Width	180 mm	Ē 3,0	29,4
Materials		2,0	19,6
Valves and fittings	Brass	1,0 K32 - DN 20 9,	9,8
Gaskets	EPDM		
Insulation	EPP	0,0 0 200 400 600 800 1000 1200 1400 1600 1800 2000	0,0
Equipment		[/h]	
Actuator SR2	230 V - 50 Hz		

HeatBloC® K32 DN 20 (¾")		EEI*	with	ltem no.
	Wilo Para SC 15/6-43	< 0.20	۵¢	32053MWP6
	Wilo Yonos PICO 15/1-6	< 0.20		32053MWN06
	Grundfos ALPHA2.1 15-60	< 0.17		32053MGH6
	Grundfos UPM3 Auto 15-70	< 0.20		32053MGM6
	without pump - for pumps with 1" ext. thread x 130 mm		Θ	32053M
	Wilo Para SC 15/6-43	< 0.20	۵	32053WP6
161	Wilo Yonos PICO 15/1-6	< 0.20	۵	32053WN06
	Grundfos ALPHA2.1 15-60	< 0.17	۵	32053GH6
	Grundfos UPM3 Auto 15-70	< 0.20	۵	32053GM6
	without pump - for pumps with 1" ext. thread x 130 mm		Θ	32053

= conversion to flow left (it.no. 999300)

 \bigcirc = without pump

 \bigcirc = with actuator *EEI = Energy Efficiency Index



HeatBloC[®] K33 DN 20 (¾") Constant-value mixing valve







Application range

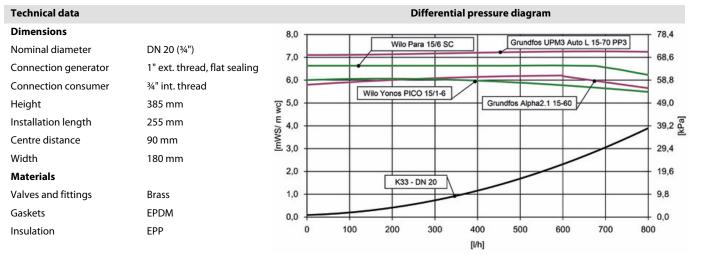
• For low-temperature heating systems controlled by a mixing valve **Recommended application range**

• up to 5 kW

• 20 K up to 430 l/h

Operating data

operating auta	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	1.3
Adjustment range bypass	0 - 50 %
Adjusting range contact thermostat	20-60 °C



HeatBloC[®] K33 DN 20 (¾")

í III.	Wilo Para SC 15/6-43	< 0.20	۲	32073WP6
. 📼	Wilo Yonos PICO 15/1-6	< 0.20	۵	32073WN06
	Grundfos ALPHA2.1 15-60	< 0.17	۵	32073GH6
	Grundfos UPM3 Auto 15-70	< 0.20	۵	32073GM6
	without pump - for pumps with 1" ext. thread x 130 mm		Θ	32073

= conversion to flow left (it.no. 999300)

= with pump

= without pump

mp 🛛 🕅 🛛 = with actuator

EEI*

with

ltem no.



Technical data

HeatBloC[®] K34 DN 20 (3/4") 3-way bypass mixing valve





Application range

• for low-temperature heating systems controlled by a mixing valve **Recommended application range**

	enaca application range	
● u	o to 20 kW	
• 20) K up to 905 l/h	
Operatin	g data	
Max. ope	rating pressure	6 bar
Max. ope	rating temperature	110 °C
Kvs value		3.7
Adjustme	nt range bypass	0 - 50 %

Differential pressure diagram

Dimensions 8,0 78,4 Nominal diameter DN 20 (¾") Wilo Para 15/6 SC Grundfos UPM3 Auto L 15-70 PP3 Connection generator 1" ext. thread, flat sealing 7,0 68,6 Connection consumer 34" int. thread 6,0 58,8 Height 385 mm Wilo Yonos PICO 15/1-6 [5,0 [200 m 4,0 [200 m 3,0] 49,0 Installation length 255 mm 39,2 🖉 Grundfos Alpha2.1 15-60 Centre distance 90 mm Width 180 mm 29,4 Materials 2,0 19,6 Valves and fittings Brass K34 - DN 20 1,0 9,8 Gaskets EPDM 0,0 Insulation EPP 0.0 0 200 400 600 800 1000 1200 1400 1600 1800 2000 Equipment [l/h] Actuator SR2 230 V - 50 Hz

HeatBloC [®] K34 DN 20 (¾")		EEI*	with	ltem no.
	Wilo Para SC 15/6-43	< 0.20	۵Ø	32063MWP6
	Wilo Yonos PICO 15/1-6	< 0.20		32063MWN06
	Grundfos ALPHA2.1 15-60	< 0.17		32063MGH6
	Grundfos UPM3 Auto 15-70	< 0.20		32063MGM6
	without pump - for pumps with 1" ext. thread x 130 mm		$\Theta \otimes$	32063M
	Wilo Para SC 15/6-43	< 0.20	۲	32063WP6
191	Wilo Yonos PICO 15/1-6	< 0.20	۵	32063WN06
	Grundfos ALPHA2.1 15-60	< 0.17	۵	32063GH6
	Grundfos UPM3 Auto 15-70	< 0.20	۵	32063GM6
	without pump - for pumps with 1" ext. thread x 130 mm		Θ	32063

= conversion to flow left (it.no. 999300)

= with pump

 \bigcirc = without pump

 \bigcirc = with actuator *EEI = Energy Efficiency Index



HeatBloC[®] K36 DN 20 (¾") Boiler charging set with thermal control valve







Application range

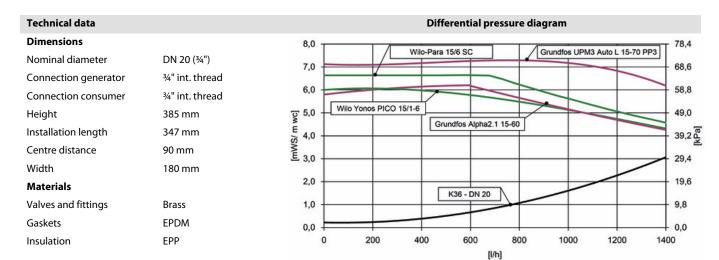
• Return flow temperature maintenance for solid fuel boilers, wood firing and stove heating systems

Recommended application range

• up to 10 kW

• 10 K up to 860 l/h

Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	2.5



HeatBloC® K36 DI	N 20 (¾")		EEI*	with	ltem no.
	Wilo Para SC 15/6-43	Opening temperature: 45 °C	< 0.20	۵	320353WP6
	Wilo Yonos PICO 15/1-6	Opening temperature: 45 °C	< 0.20		320353WN06
9	Grundfos ALPHA2.1 15-60	Opening temperature: 45 °C	< 0.17		320353GH6
	Grundfos UPM3 Auto 15-70	Opening temperature: 45 °C	< 0.20	۲	320353GM6
	without pump - for pumps with 1" ext. thread x 130 mm	Opening temperature: 45 °C		(I)	320353
	Wilo Para SC 15/6-43	Opening temperature: 60 °C	< 0.20		320373WP6
	Wilo Yonos PICO 15/1-6	Opening temperature: 60 °C	< 0.20		320373WN06
	Grundfos ALPHA2.1 15-60	Opening temperature: 60 °C	< 0.17		320373GH6
a 63 a	Grundfos UPM3 Auto 15-70	Opening temperature: 60 °C	< 0.20	۲	320373GM6
	without pump - for pumps with 1" ext. thread x 130 mm	Opening temperature: 60 °C		(I)	320373

a with pump

 \bigcirc = without pump

 \bigcirc = with actuator





	Union nut DN 20 (¾")	2055
	Brass, to screw insertion pieces for soldering below distribution manifolds DN 20 (¾")	
	Sealing for nut - DN 20 (¾")	2057
	asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	
	Conversion kit DN 20 (¾") from flow on the left to flow on the right	31071
000	Conversion kit DN 20 (¾") from flow on the right to flow on the left	31072
	The conversion kit for changing the flow line is mandatory for mixing valves K33 with bypass at the front.	
	Modular distribution manifold DN 20, 2-fold	3112
	Modular distribution manifold DN 20, 3-fold	3113
	Modular distribution manifold DN 20, 4-fold	3114
	Modular distribution manifold DN 20, 5-fold	3115
	Modular distribution manifold DN 20, 6-fold	3116
	completely made of brass; completely premounted flow and return chamber 95 % thermally separated manifolds are delivered with insulation caps, the insulation for the manifold is integrated into the insulation of the HeatBloC [*] s extremely low resistance, free passage d = 25 mm up to 6 groups, premounted, extendable several boiler connections possible, for higher outputs	
	Wall bracket for HeatBloC® DN 20 (¾")	3121
	Components: 2 wall bracket sets, mounting equipment Possible wall distance: 70-100 mm, distance: 15 mm For 5-fold modular distribution manifolds, we recommend to use two wall bracket sets.	
-	Wall bracket set for module heating circuit - DN 20	3122SET
	Components: mounting plate, wall bracket, 2 x 1" nut, possible centre distance: 55-115 mm distance: 15 mm	
99	Coupling piece for overhead installation - DN 20 (¾")	31241
	Coupling piece for installation of a HeatBloC [®] below a distribution manifold with flat sealing.	
	Please note: When you use wall brackets, an additional mounting plate is necessary for installing a 2-fold distribution manifold MV2.	
	Mounting plate DN 20 (¾")	3125
	Components: mounting plate, 2 gaskets, 2 x 1" nut, 2 x reducing nipple 1" ext. thread x ¾" ext.thread for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	





	Overflow set DN 20 (¾")	31301
	For hydronic heating installations with standard circulation pumps and thermostatic or zone valves. The PAW differential pressure overflow valve reduces noises due to circulation and keeps the pump pressure constant, even when the flow in the radiators is reduced (particularly when thermostatic valves are used). The valve controls the flow rate in proportion to the thermostatic or zone valves. The return temperature is increased as soon as the valve opens. For weather compensated control we recommend to mount the sensor to the flow line directly behind the circulation pump. The higher return temperature guarantees that the boiler does not corrode.	
	Connection set DN 20 (¾")	3131
88	Consisting of 2 adapter pieces with 1" nut and $\frac{3}{4}$ " internal thread for connecting pipes with $\frac{3}{4}$ " external thread under modular distribution manifolds DN 20 ($\frac{3}{4}$ ")	
Ľ.	Piping group DN 20 Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and seals, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the left or on the right.	3142KS1
	Extension set for low-loss header - DN 20 (¾")	3143
	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 950 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
	Fitting for for heat flowmeter - DN 20 (¾")	3145
	 - for HeatBloC*s DN 20 - for heat flowmeters with the dimensions ¾" external thread x 110 mm - to be mounted above the insulation Scope of delivery: - Thermo ball valve - Screw-in fittings - Union nuts - Adapter pipe - Flange fitting - T-piece with counter nut and immersion sleeve - Seals 	
M R	Flush and drain set DN 20 (¾") 2 x counter-T-pieces ¾" with fill and drain valve, each equipped with an extension piece, permits to flush and drain individual HeatBloC*s.	3161
- D	Set extension pieces DN 20 - DN 25	34352
ĨĬ	Set of adaptor pieces for the overhead installation of HeatBloC [®] s DN 25 below distribution manifolds DN 20, centre distance changed from 90 mm to 125 mm, connections 1" nut x 1" flange (for nut 1½"), flat sealing.	
	Safety set DN 20 (¾"), up to 50 kW for distribution manifolds DN 20, with self-sealing counter T-piece ¾" x ½", outlet ¾" with cap for expansion tank, pressure relief valve ½" x ¾", 3 bar, up to 50 kW, pressure gauge 0-4 bar	5257





	Cutting-ring compression fitting DN 20 (¾"), d = 15 mm	561215
	Cutting-ring compression fitting DN 20 (¾"), d = 18 mm	561218
	Cutting-ring compression fitting DN 20 (¾"), d = 22 mm ¾" external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 °C.	561222
	Immersion sleeve ½" ext. thread x T = 30 mm	566001
	Immersion sleeve ¼" ext. thread x T = 60 mm	566002
	Immersion sleeve $\frac{1}{2}$ ext. thread x T = 60 mm	5660021
	Immersion sleeve $\frac{1}{2}$ ext. thread x T = 100 mm	566003
	Immersion sleeve $\frac{1}{2}$ ext. thread x T = 150 mm	566004
T	For all immersion sleeves: for the installation of the temperature sensors ($d = 6$ mm) in the storage tank, in the collector and the hydraulic separator.	
	Attention: suitable for ball valves until 2016!	
	PAW actuator SR2	705013
	Easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, due to the removable scale it is suited for flow on the right or left side, change-over switch for manual / automatic operation	
	Electrical connection: 230 V - 50 Hz Input power: 1 W Torque: min. 2 Nm Setting time for 90°: 105 s	
	Connection set for diaphragm expansion tank - DN 20 (¾")	7509
	for assembly to distribution manifolds DN 20, with tank connector $\frac{3}{4}$ ", wall bracket and mounting equipment, armoured hose with bend $\frac{3}{4}$ " x 700 mm, maximum tank diameter = 440 mm	
	Contact thermostat 20-60 °C	N00083
	Contact thermostat for limiting the flow temperature, adjustable from 20 - 60 °C	



Product range HeatBloC® Heating circuits DN 25







All HeatBloC[®]s offer the following advantages:

Preassembled group of fittings for heating circuits

High flexibility during assembly

modules can be used in nearly any combination

Ball valve with full port, gaskets of the spindle can be replaced during operation

Flat-sealing connections, 11/2" external thread

including 1¹/₂" union nut for assembly on a PAW distribution manifold. With PAW mounting equipment, the HeatBloC[®] can be installed on wall brackets.

Large ball valve handles,

easy handling, visible closing position

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of the valves and fittings with sealing lips, ventilation opening to cool the pump.

Free access to the pump head

Check valve in the return pipe

can be opened, 200 mm wc, spring-loaded, and thus also suited for horizontal and overhead installation

Flow on the right = standard

The HeatBloC[®]s can be delivered with flow on the left against additional charge.

Flow and return line can be changed on site

also for heating circuits with mixing valve

All water-carrying parts are made of brass

Full metal thermometer

can be pulled off, with immersion sleeve, integrated in the ball valve

PAW heating pumps with high-efficiency technology (ECM technology)

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, EuP/ErP READY

pump can be isolated

so that it can be replaced without draining



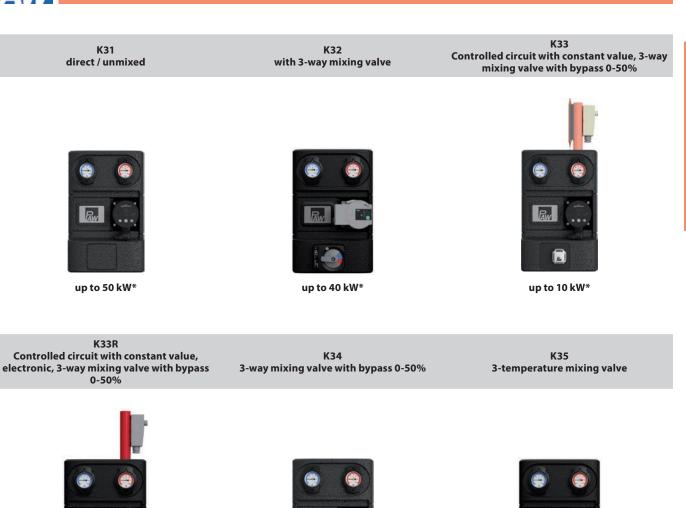
At the end of the chapter, you will find the complete mounting equipment for the modular system DN 25.



Product range HeatBloC® Heating circuits DN 25



DN 25





up to 22.5 kW* (radiant panel heating, $\Delta T = 10 \text{ K}$) up to 45 kW* (return flow temperature maintenance, $\Delta T = 20$ K)

K36E direct / unmixed



up to 45.5 kW*

K38

with 4-way mixing valve



up to 32.5 kW*

K34R, weather compensated controller 3-way mixing valve with bypass 0-50 %

up to 40 kW*



up to 33 kW*



up to 45.5 kW*

^{*}Temperature difference = 20 K



HeatBloC® K31 DN 25 (1") direct / unmixed







Application range

Boiler charging	
Recommended application range	
• up to 50 kW	
• 20 K up to 2150 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	7.2



Differential pressure diagram Dimensions 107,8 11,0 Nominal diameter DN 25 (1") 10,0 98,0 Grundfos UPML 25-105 Auto 11/2" ext. thread, flat sealing Wilo Para 25/8 SC Connection generator 9,0 88,2 Connection consumer 1" int. thread 78,4 8,0 Grundfos UPM3 Auto L 25-70 PP3 [วพ ธ,0 ธ,0 5,0 4,0 Height 383 mm 68,6 58,8 [e 49,0 뇌 Installation length 340 mm Wilo Para 25/6 SC Centre distance 125 mm 39,2 Wilo Yonos PICO 25/1-6 Width 250 mm 3,0 29,4 Materials Grundfos Alpha2.1 25-60 2,0 19,6 K31 - DN 25 Valves and fittings Brass 9,8 1,0 Gaskets EPDM 0,0 0,0 Insulation EPP 0 250 500 750 1000 1250 1500 1750 2000 2250 2500 [l/h]

HeatBloC [®] K31 DN 25 (1")		EEI*	with	ltem no.
	Grundfos ALPHA2.1 25-60	< 0.17	۲	36013GH6
	Grundfos UPM3 Auto 15-70	< 0.20	۲	36013GM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵	36013GL9
	Wilo Para SC 25/8-60/O	< 0.20	۵	36013WP8
	Wilo Para SC 25/6-43	< 0.20	۵	36013WP6
	Wilo Yonos PICO 25/1-6	< 0.20		36013WN06
	without pump - for pumps with $1\frac{1}{2}$ " ext. thread x 180 mm		Θ	36013

۵ = with pump Θ = without pump M = with actuator



HeatBloC[®] K32 DN 25 (1") 3-way H-type mixing valve





Technical data



Application range

Heating systems controlled by a mixing valve •

Recommended application range	
• up to 40 kW	
• 20 K up to 1750 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	5.7

Differential pressure diagram

Dimensions		
Nominal diameter	DN 25 (1")	11,0
Connection generator	1½" ext. thread, flat sealing	10,0 Grundfos UPML 25-105 Auto Wilo Para 25/8 SC
Connection consumer	1" int. thread	9,0
Height	383 mm	8,0 Grundfos UPM3 Auto L 25-70 PP3
Installation length	340 mm	
Centre distance	125 mm	Image: Wile Para 25/6 SC Image: Wile Para 25/6 SC
Width	250 mm	
Materials		3,0 Grundfos Alpha2.1 25-60 /
Valves and fittings	Brass	2,0 Wilo Yonos PICO 25/1-6 K32 - DN 25
Gaskets	EPDM	1,0
Insulation	EPP	
Equipment		0 250 500 750 1000 1250 1500 1750 2000 2250 2500 [//h]
Actuator SR5	230 V - 50 Hz	[wii]

HeatBloC [®] K32 DN 25 (1")		EEI*	with	ltem no.
	Wilo Para SC 25/6-43	< 0.20	۵¢	36053MWP6
	Wilo Para SC 25/8-60/O	< 0.20		36053MWP8
	Wilo Yonos PICO 25/1-6	< 0.20		36053MWN06
	Grundfos ALPHA2.1 25-60	< 0.17		36053MGH6
	Grundfos UPM3 Auto 15-70	< 0.20		36053MGM6
	Grundfos UPML 25-105 AUTO	< 0.23		36053MGL9
	without pump - for pumps with 1½" ext. thread x 180 mm		$\odot {\mathbb M}$	36053M
	Wilo Para SC 25/6-43	< 0.20		36053WP6
	Wilo Para SC 25/8-60/O	< 0.20	۵	36053WP8
	Wilo Yonos PICO 25/1-6	< 0.20	۲	36053WN06
	Grundfos ALPHA2.1 25-60	< 0.17	۲	36053GH6
	Grundfos UPM3 Auto 25-70	< 0.20	۲	36053GM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵	36053GL9
	without pump - for pumps with 1½" ext. thread x 180 mm		Θ	36053

= conversion to flow left (it.no. 999300)

a with pump

 \bigcirc = without pump

 \bigcirc = with actuator *EEI = Energy Efficiency Index



HeatBloC[®] K33 DN 25 (1") Controlled circuit with constant value, 3-way mixing valve





Technical data

Nominal diameter

Installation length

Valves and fittings

Centre distance

Connection generator

Connection consumer

Dimensions

Height

Width

Materials

Gaskets

Insulation



DN 25 (1")

1" int. thread

383 mm

340 mm

125 mm

250 mm

Brass

EPDM

EPP

Application range

Radiant floor heating systems from 3.5 kW / low-temperature heating • installations

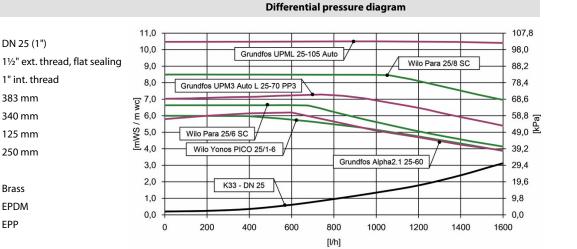
Recommended application range

up to 10 kW •

10 K up to 860 l/h

Operating d	ata

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	3
Adjustment range bypass	0 - 50 %
Adjusting range contact thermostat	20-60 °C



HeatBloC [®] K33 DN 25 (1")		EEI*	with	ltem no.
	Wilo Para SC 25/6-43	< 0.20	۵	36073WP6
	Wilo Para SC 25/8-60/O	< 0.20	۵	36073WP8
	Wilo Yonos PICO 25/1-6	< 0.20	۵	36073WN06
	Grundfos ALPHA2.1 25-60	< 0.17	۵	36073GH6
	Grundfos UPM3 Auto 25-70	< 0.20	۵	36073GM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵	36073GL9
	without pump - for pumps with $1\frac{1}{2}$ " ext. thread x 180 mm		Θ	36073

= conversion to flow left (it.no. 999300)

= with pump

 Θ = without pump

 \bigcirc = with actuator



HeatBloC[®] K33R DN 25 (1") Controlled circuit with constant temperature, electronically





Technical data



Application range

• for thermally controlled radiant heating systems, for low-temperature heating systems, as a return flow temperature maintenance for solid fuel boilers, wood firing and stove heating systems

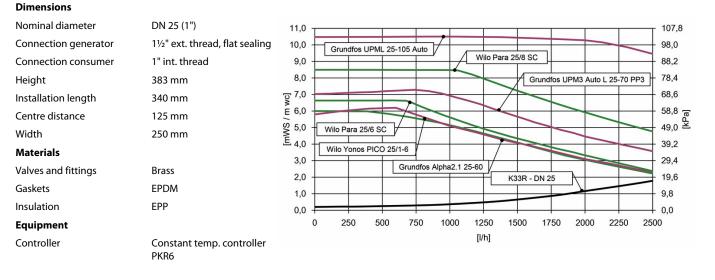
Recommended application range

- up to 22,5 / 45 kW
- 20 K up to 1940 l/h

Operating data

- p	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	6
Adjustment range bypass	0 - 50 %

Differential pressure diagram



HeatBloC [®] K33R DN 25 (1")		EEI*	with	ltem no.
	Wilo Para SC 25/6-43	< 0.20	۵	360463WP6
	Wilo Para SC 25/8-60/O	< 0.20	۲	360463WP8
	Wilo Yonos PICO 25/1-6	< 0.20	۵	360463WN06
	Grundfos ALPHA2.1 25-60	< 0.17	۵	360463GH6
	Grundfos UPM3 Auto 25-70	< 0.20	۵	360463GM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵	360463GL9
	without pump - for pumps with $1\frac{1}{2}$ " ext. thread x 180 mm		Θ	360463

= conversion to flow left (it.no. 999300)

a with pump

ump 😑 = without pump



HeatBloC[®] K34 DN 25 (1") 3-way bypass mixing valve







Application range

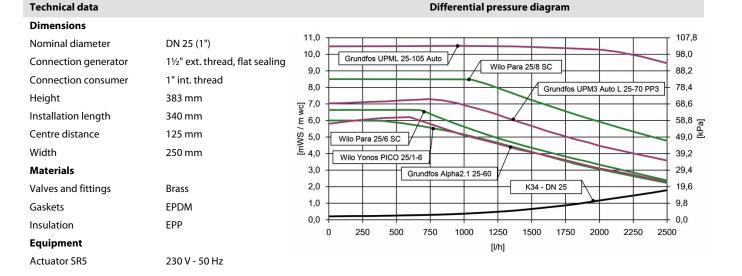
• for low-temperature heating systems controlled by a mixing valve **Recommended application range**

• up to 45 kW

• 20 K up to 1940 l/h

Operating data

operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	6
Adjustment range bypass	0 - 50 %



HeatBloC [®] K34 DN 25 (1")		EEI*	with	ltem no.
	Wilo Para SC 25/6-43	< 0.20	۵¢	36063MWP6
	Wilo Para SC 25/8-60/O	< 0.20	۵Ø	36063MWP8
	Wilo Yonos PICO 25/1-6	< 0.20	۵Ø	36063MWN06
in the second se	Grundfos ALPHA2.1 25-60	< 0.17	۵Ø	36063MGH6
) 🚑 i 🗖 i 🤤	Grundfos UPM3 Auto 25-70	< 0.20	۵Ø	36063MGM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵Ø	36063MGL9
	without pump - for pumps with $1\frac{1}{2}$ " ext. thread x 180 mm		$\Theta \otimes$	36063M
	Wilo Para SC 25/6-43	< 0.20	۲	36063WP6
	Wilo Para SC 25/8-60/O	< 0.20	۵	36063WP8
	Wilo Yonos PICO 25/1-6	< 0.20	۵	36063WN06
	Grundfos ALPHA2.1 25-60	< 0.17	۵	36063GH6
	Grundfos UPM3 Auto 25-70	< 0.20	۵	36063GM6
	Grundfos UPML 25-105 AUTO	< 0.23	۲	36063GL9
	without pump - for pumps with 1½" ext. thread x 180 mm		Θ	36063

= conversion to flow left (it.no. 999300)

= with pump

= without pump



HeatBloC[®] K34R DN 25 (1") weather-compensated





Technical data

Dimensions



Application range

for retrofitting of weather-compensated low-temperature heating systems • controlled by a mixing valve

Recommended application range

• up to 45 kW	
• 20 K up to 1940 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	6
Adjustment range bypass	0 - 50 %

Differential pressure diagram

Nominal diameter	DN 25 (1")	11,0 107,8
Connection generator	1½" ext. thread, flat sealing	Grunatos UPML 25-105 Auto // Company Compa
Connection consumer	1" int. thread	9,0 Wilo Para 25/8 SC 88,2
Height	383 mm	8,0 Grundfos UPM3 Auto L 25-70 PP3 78,4
Installation length	340 mm	§ 7,0 68,6
Centre distance	125 mm	€ 6,0 9 5,0 Wile Para 25/6 SC 49,0 ≚
Width	250 mm	
Materials		
Valves and fittings	Brass	3,0 Grundfos Alpha2.1 25-60 29,4 2,0 K34R - DN 25 19,6
Gaskets	EPDM	1,0 9,8
Insulation	EPP	0,0
Equipment		0 250 500 750 1000 1250 1500 1750 2000 2250 2500
Controller	Weather-comp. controller PWR6	[l/h]

< 0.20	۵¢	360663MWP6
< 0.20		360663MWP8
< 0.20		360663MWN06
< 0.17		360663MGH6
< 0.20		360663MGM6
< 0.23		360663MGL9
	Θ	360663M
_	< 0.20 < 0.17 < 0.20	< 0.20

= conversion to flow left (it.no. 999300)

a with pump

 \bigcirc = without pump



HeatBloC[®] K35 DN 25 (1") **3-temperatures mixing valve**







Application range

• Heating installations with buffer tank and solar heating support **Recommended application range**

up to 32 kW •

20 K up to 1400 l/h •

Operating data

6 bar
110 °C
4.1

Differential pressure diagram

Technical data

Dimensions 11,0 107,8 DN 25 (1") Nominal diameter 98,0 10,0 Grundfos UPML 25-105 Auto Connection generator 11/2" ext. thread, flat sealing 9,0 88,2 Wilo Para 25/8 SC Connection consumer 1" int. thread 8,0 78,4 Grundfos UPM3 Auto L 25-70 PP3 Height 383 mm [7,0 [7,0 [7,0 [7,0] [7, 68,6 Installation length 340 mm 58,8 [ed 49,0 뇌 Centre distance 125 mm Wilo Para 25/6 SC Width 250 mm Wilo Yonos PICO 25/1-6 39,2 Materials Grundfos Alpha2.1 25-60 3,0 29,4 (2) (3) Valves and fittings Brass 2,0 (1) 19,6 1,0 9,8 Gaskets EPDM 0,0 0,0 Insulation EPP 0 250 500 750 1000 1250 1750 2000 1500 Equipment [l/h] Actuator SR5 230 V - 50 Hz

(1) 100% return, Kvs value = 5.1

(2) low temperature flow, Kvs value = 4.1

(3) 100% high temperature flow, Kvs value = 4.7

HeatBloC [®] K35 DN 25 (1")		EEI*	with	ltem no.
	Wilo Para SC 25/6-43	< 0.20	۵Ø	36093MWP6
	Wilo Para SC 25/8-60/O	< 0.20	۵¢	36093MWP8
	Wilo Yonos PICO 25/1-6	< 0.20	۵Ø	36093MWN06
	Grundfos ALPHA2.1 25-60	< 0.17	۵Ø	36093MGH6
	Grundfos UPM3 Auto 25-70	< 0.20	۵Ø	36093MGM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵Ø	36093MGL9
	without pump - for pumps with 1½" ext. thread x 180 mm		Θ	36093M
	Wilo Para SC 25/6-43	< 0.20	۲	36093WP6
	Wilo Para SC 25/8-60/O	< 0.20	۵	36093WP8
	Wilo Yonos PICO 25/1-6	< 0.20	۵	36093WN06
	Grundfos ALPHA2.1 25-60	< 0.17	۵	36093GH6
	Grundfos UPM3 Auto 25-70	< 0.20	۵	36093GM6
	Grundfos UPML 25-105 AUTO	< 0.23	۵	36093GL9
	without pump - for pumps with 1½" ext. thread x 180 mm		Θ	36093

= conversion to flow left (it.no. 999300) ۲ = with pump

 Θ = without pump



HeatBloC[®] K36E DN 25 (1") Boiler charging set, with integrated overflow valve



Rw



Application range

Return flow temperature maintenance for solid fuel boilers, wood firing • and stove heating systems

Recommended application range

•	up to 40 kW		
•	20 K up to 1725 l/h		
Operating data			
Max. operating pressure			

Max. operating pressure	6 bar
Max. operating temperature	110 ℃
Kvs value	5.9

Differential pressure diagram **Technical data** Dimensions 11,0 107,8 Nominal diameter DN 25 (1") 10,0 98,0 Grundfos UPML 25-105 Auto 1" int. thread Wilo Para 25/8 SC Connection generator 9,0 88,2 Connection consumer 1½" int. thread 8,0 78,4 Grundfos UPM3 Auto L 25-70 PP3 []7,0 []2,0 []2,0 []2,0 Height 383 mm 68,6 58,8 [e 49,0 원 Installation length 408 mm / S,0 S,0 4,0 Wilo Para 25/6 SC Centre distance 125 mm 39,2 Wilo Yonos PICO 25/1-6 Width 250 mm 3,0 29,4 Materials Grundfos Alpha2.1 25-60 2,0 19,6 K36E - DN 25 Valves and fittings Brass 1,0 9,8 Gaskets EPDM 0,0 0,0 Insulation EPP 250 500 750 1000 1250 1500 1750 2000 2250 2500 0 [l/h]

HeatBloC [®] K36E DN	HeatBloC® K36E DN 25 (1")			with	ltem no.
	Wilo Para SC 25/6-43	Opening temperature: 45 °C	< 0.20	۵	360343WP6
	Wilo Para SC 25/8-60/O	Opening temperature: 45 °C	< 0.20	۲	360343WP8
	Wilo Yonos PICO 25/1-6	Opening temperature: 45 °C	< 0.20	۲	360343WN06
	Grundfos ALPHA2.1 25-60	Opening temperature: 45 °C	< 0.17	۲	360343GH6
	Grundfos UPM3 Auto 25-70	Opening temperature: 45 °C	< 0.20	۲	360343GM6
	Grundfos UPML 25-105 AUTO	Opening temperature: 45 °C	< 0.23	۲	360343GL9
	without pump - for pumps with $1\frac{1}{2}$ " ext. thread x 180 mm	Opening temperature: 45 °C		\bigcirc	360343
	Wilo Para SC 25/6-43	Opening temperature: 60 °C	< 0.20	۲	360373WP6
	Wilo Para SC 25/8-60/O	Opening temperature: 60 °C	< 0.20	۲	360373WP8
	Wilo Yonos PICO 25/1-6	Opening temperature: 60 °C	< 0.20	۲	360373WN06
	Grundfos ALPHA2.1 25-60	Opening temperature: 60 °C	< 0.17	۲	360373GH6
	Grundfos UPM3 Auto 25-70	Opening temperature: 60 °C	< 0.20	۲	360373GM6
	Grundfos UPML 25-105 AUTO	Opening temperature: 60 °C	< 0.23	۲	360373GL9
	without pump - for pumps with $1\frac{1}{2}$ " ext. thread x 180 mm	Opening temperature: 60 °C		(I)	360373

= with pump Θ = without pump M = with actuator

*EEI = Energy Efficiency Index





	Fitting for heat flowmeter - DN 25 for unmixed HeatBloC®s	34453
	 - for unmixed HeatBloC*s DN 25 - for heat flowmeters with the dimensions ¾" x 110 mm and 1" x 130 mm Scope of delivery: - Pump ball valve with check valve, can be opened (200 mm wc) - Screw-in fittings - Union nuts - Adapter pipe - Flange fitting - Reducers for immersion sensor (¼" ext. thread, self-sealing x M10 x 1 int. thread and ¼" ext. thread, self-sealing x M10 x 1 int. thread and ¼" ext. thread, self-sealing x M12 x 1.5 ext. thread) 	5.4.55
	 Seals Fitting for heat flowmeter - DN 25 für mixed HeatBloC*s for HeatBloC*s DN 25 with 3-way or 4-wax mixing valve for heat flowmeters with the dimensions ¾" x 110 mm and 1" x 130 mm Scope of delivery: Screw-in fittings Union nuts Adapter pipe Reducers for immersion sensor (¼" ext. thread, self-sealing x M10 x 1 int. thread and ¼" ext. thread, self-sealing x M12 x 1.5 ext. thread) Non-return valve for mixing valve return Seals 	34463
	HeatBloC [®] K31 DN 25 with fitting for heat meter unmixed HeatBloC [®] K31 DN 25 (1"), but with preassembled fitting for heat flowmeter, without pump	36113
	HeatBloC [®] K32 DN 25 with fitting for heat meter mixed HeatBloC [®] K32 DN 25 (1"), but with preassembled fitting for heat flowmeter, without pump	36153
	HeatBloC [®] K34 DN 25 with fitting for heat meter HeatBloC [®] K34 DN 25 (1") with 3-way mixing valve and bypass, but with preassembled fitting for heat flowmeter	36163
M R	 Flush and drain set DN 25 (1") 2 x counter-T-pieces 1" ext. thread x 1" int. thread with fill and drain valve, each equipped with an extension piece, permits to flush and drain individual HeatBloC*s. Please note: Flush and drain set is not compatible with the HeatBloC* MC system! 	3461

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	Modular distribution manifold DN 25, 2-fold	34123
	Modular distribution manifold DN 25, 3-fold	34133
	Modular distribution manifold DN 25, 4-fold	34143
	Modular distribution manifold DN 25, 5-fold	34153
and some state parts with	Modular distribution manifold DN 25, 6-fold	34163
		54105
	completely made of brass ; completely premounted entirely insulated with EPP half-shells	
	extremely low resistance, free passage d = 36 mm	
	up to 6 groups, premounted, extendable	
	several boiler connections possible, for higher outputs Manifold DN 25 (1"), 2- / 3-fold	433413
	The distribution manifold V23 - DN 25 is a completely insulated brass manifold for hydronic heating. Depending on the size, two or three HeatBloC*s can be connected to the manifold. The HeatBloC*s DN 25 can be directly mounted onto or under the distribution manifolds V23 - DN 25 without any other accessories.	
No. of Concession, Name	Adapter pipe DN 25 (1")	3447
	2 x 1½" external thread, flat-sealing, length 180 mm, when an external circulation pump is used to bridge the pump connection.	
	Reducer set DN 25 - DN 20	34351
ĴĹ	for installation of HeatBloC [®] s DN 20 on modular distribution manifolds DN 25, adapter set 1½" external thread, flat-sealing with nut on ¾" PAW flange, reduction of the centre distance from 125 mm to 90 mm, distance pipe 1" internal thread x 1" external thread, flat sealing, brass, with sealing. The required union nuts 1" internal thread are part of the scope of delivery of the HeatBloC [®] s.	
0	Set extension pieces DN 25 - DN 32	3436
	for the assembly of HeatBloC [®] s DN 32 on distribution manifolds DN 25, set of distance rings for union nut 2" internal thread on 1" PAW flange, made of brass, with special sealing, flat-sealing	
-	Coupling piece for overhead installation - DN 25 (1")	34241
H H	Coupling piece for installation of a HeatBloC® below a distribution manifold with flat sealing. Please note: When you use wall brackets, an additional mounting plate is necessary for installing a 2-fold distribution manifold MV2.	
	Mounting plate DN 25 (1")	3425
	Components: mounting plate, 2 gaskets, $2 \times 1\frac{1}{2}$ " nut, $2 \times$ housing of coupling F 1" x $1\frac{1}{2}$ " ext. thread for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
° C	Wall bracket for HeatBloC [®] - DN 25 (1") / DN 32 (1¼")	34723
	Galvanised mounting bracket for wall assembly of HeatBloC®s. Mount HeatBloC®s on mounting bracket for an easy assembly.	
	Wall bracket for HeatBloC® DN 25 - DN 32	34722
	Consisting of: wall bracket (galvanised steel), mounting equipment DN 25 / DN 32: Possible wall distance: 155 mm	
-	Not required for installation with a PAW modular distribution manifold	





	Wall bracket for modular distribution manifold - DN 25 (1") - DN 32 (1¼")	34721
	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the	54721
1 1	distribution manifold onto the floor brackets	
	Distance of the pipe axis to the wall: $A = 400 \text{ mm}$	
	Wall bracket set for module heating circuit - DN 25 (1")	3422SET
	Components: 2 x 1½" nut, mounting plate, wall bracket possible wall distance: 155 mm	
	Immersion sleeve ½" ext. thread x T = 30 mm	566001
	Immersion sleeve ¼" ext. thread x T = 60 mm	566002
	Immersion sleeve ½" ext. thread x T = 60 mm	5660021
	Immersion sleeve ½" ext. thread x T = 100 mm	566003
	Immersion sleeve ½" ext. thread x T = 150 mm	566004
T T	For all immersion sleeves: for the installation of the temperature sensors (d = 6 mm) in the storage tank, in the collector and the hydraulic separator.	
	Attention: suitable for ball valves until 2016!	
	Union nut DN 25 (1")	2155
	Brass, to screw insertion pieces for soldering below distribution manifolds DN 25 (1")	
	Sealing for nut - DN 25 (1")	2157
	asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	
	Cutting-ring compression fitting DN 25 (1"), d = 15 mm	562915
	Cutting-ring compression fitting DN 25 (1"), d = 18 mm	562918
	Cutting-ring compression fitting DN 25 (1"), d = 22 mm	562922
	$1"$ external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 $^\circ\!\mathrm{C}.$	
	Connection set - DN 25 (1")	3431
	Consisting of 2 insertion pieces for connection of pipes with 1" external thread below HeatBloC [®] s or for the use of cutting-ring compression fittings.	
	Connection set DN 25 (1")	3432
	2 brass screw-in fittings $1\!\!\!/_2$ " external thread x 1" internal thread, for connection of pipes with 1" external thread	
	Non-return valve for the mixing valve return - DN 25 (1")	340112
	To be inserted into the PAW mixing valve. Prevents unwanted circulation for example when various mixing valves are connected to one distribution manifold. The shutoff valve can be simply inserted into the mixing valve. Not for HeatBloC [®] K38 DN 25.	





	Piping for two HeatBloC [®] s K35	36092KS2
	Pipe set DN 25 to connect the connections on the backside, for the assembly of two HeatBloC [®] s K35 on one distribution manifold.	
	Extension pipe set for three HeatBloC [®] s K35 For installation of three K35 HeatBloC [®] s the extension pipe set DN 25 is additionally required to extend 36092KS2.	36092KS3
	Piping for a single HeatBloC® K35 Pipe set DN 25 to connect a mixing valve to a HeatBloC® K35	36092KS4
L.	Piping group for hydraulic separator - DN 25 (1") Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and seals, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the left or on the right.	3442KS1
	Extension set for low-loss header - DN 25 (1") for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 1600 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	34431
	Contact thermostat 20-60 °C Contact thermostat for limiting the flow temperature, adjustable from 20 - 60 °C	N00083
	Safety set for distribution manifold - DN 25 (1") up to 50 kW For the installation on modular distribution manifolds DN 25 (as of 2017), with a connection of ¾" int. thread (sealed with plug) for the installation of the connection set for the expansion tank (item no. 7507), pressure relief valve ½" x ¾", 3 bar, up to 50 kW, pressure gauge 0-4 bar	52543





-	Safety set distribution manifold - DN 25 (1") up to 50 kW, counter elbow	5254
	For the installation on modular distribution manifolds DN 25, with self-sealing counter elbow ¾" x ½", outlet ¾" for expansion tank with cap pressure relief valve ½" x ¾", 3 bar, up to 50 kW, pressure gauge 0-4 bar	5257
	Connection set for diaphragm expansion tank DN 20 for assembly to safety group DN 25, with self-sealing double nipple ¾" and mounting equipment, tank connector ¾", armoured hose with bend ¾" x 700 mm, double nipple ¾", maximum tank diameter = 440 mm	7507
	Limit switch The limit switch is a micro switch. For the assembly in the actuators SR5 and SR10-24/3P.	705101
	Temperature sensor Pt1000-B Temperature sensor for the integration into the flow and return ball valve of products of the HeatBloC® range DN 25 and DN 32. • The temperature sensor Pt1000 with plug connection measures the temperature directly in the fluid. • ¼" external thread • including matching connection cable (2.9 m) with wire end ferrules	131934
	 PAW constant temperature controller PKR6 Easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 2 m cable and Schuko plug, incl. mounting set for snap-in assembly on the PAW mixing valve and PT1000 screw-in sensor G¼" for the flow ball valve, change-over switch for manual / automatic operation. Controller settings for direction of rotation, operation mode and nominal temperature can be adjusted at the display Power supply: 230 V - 50 Hz Power consumption: 3 W Torque: min. 6 Nm Setting time 90°: 120 s Weather compensated controller PWR6 Same type as the PAW constant temperature controller PKR6 (art.no. 703601), but for the use of a weather-compensated heating circuit. The package includes the outdoor sensor, the flow sensor as well as the source sensor. This ensures that the mixing valve or the heating circuit can be operated in an autarkic manner and without boiler control. In addition, it is possible to set the room temperature centrally in the flat via a room based remote 	703601 723681
	Room remote control RCD 2.0 for weather compensated controller PWR6	1359501





PAW actuator SR5 Change-over switch for manual / automatic operation, easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, thanks to the removable scale, it is suited for flow on the right or left side Electrical connection: 230 V / 50 Hz	705001
Input power: 2.5 W Torque: 5 Nm Setting time for 90°: 140 s	
PAW actuator SR10 Thanks to the removable scale, it is suited for flow on the right or left side, easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, change-over switch for manual / automatic operation Electrical connection: 230 V / 50 Hz Input power: 3.5 W Torque: 10 Nm Setting time for 90°: 140 s	705002
PAW actuator SR10 24/3P Like PAW actuator type SR10 (item no. 705002), but with: electrical connection/supply voltage: 24 VAC for control systems with 3-level-control	7054
PAW actuator SR10 24/ST Like PAW actuator SR10 (item no. 705002), but with: electrical connection/supply voltage: 24 VAC/DC control voltage direct: 0(2)10 VDC for continuous control systems with 010 V output Electrical connection: 230 V / 50 Hz Input power: 1.5 W Torque: 10 Nm Setting time for 90°: 140 s	70541



Product range HeatBloC® Heating circuits DN 32







All HeatBloC[®]s offer the following advantages:

Preassembled group of fittings for heating circuits

High flexibility during assembly

modules can be used in nearly any combination

Ball valve with full port, gaskets of the spindle can be replaced during operation

Flat-sealing connections, 2" external thread

including 2" union nut for assembly on a PAW distribution manifold. With PAW mounting equipment, the HeatBloC[®] can be installed on wall brackets.

Large ball valve handles,

easy handling, visible closing position

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of the valves and fittings with sealing lips, ventilation opening to cool the pump.

Free access to the pump head

Check valve in the return pipe

can be opened, 200 mm wc, spring-loaded, and thus also suited for horizontal and overhead installation

Flow on the right = standard

The HeatBloC[®]s can be delivered with flow on the left against additional charge.

Flow and return line can be changed on site

also for heating circuits with mixing valve

All water-carrying parts are made of brass

Full metal thermometer

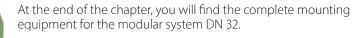
can be pulled off, with immersion sleeve, integrated in the ball valve

PAW heating pumps with high-efficiency technology (ECM technology)

fitted with 2 m cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, EuP/ErP READY

Pump can be isolated

so that it can be replaced without draining







Product range HeatBloC[®] Heating circuits DN 32



with 3-way mixing valve

K33R Controlled circuit with constant value, electronic, 3-way mixing valve with bypass 0-50%



up to 32 kW* (radiant panel heating, $\Delta T = 10 \text{ K}$) up to 64 kW* (return flow temperature maintenance, $\Delta T = 20 \text{ K}$)

K38 with 4-way mixing valve



K32

up to 51 kW*

K36E

Boiler charging set, with integrated

overflow valve



K31

direct / unmixed

up to 65 kW*

K34 3-way mixing valve with bypass 0-50%



up to 60 kW*



up to 52 kW*

K34R, weather compensated controller, 3-way mixing valve with bypass 0-50 %

up to 64 kW*

Rw



up to 64 kW*

*Temperature difference = 20 K



HeatBloC[®] K31 DN 32 (1¼") direct / unmixed

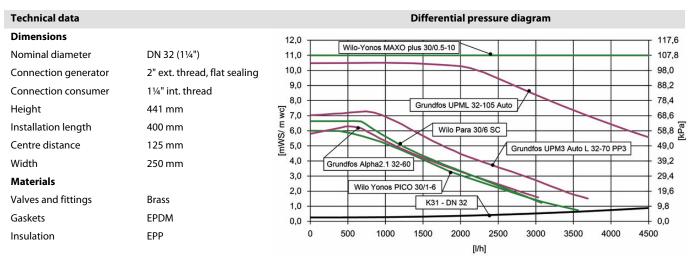






Application range

Boiler charging	
Recommended application range	
• up to 65 kW	
• 20 K up to 2800 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	15.1



HeatBloC [®] K31 DN 32 (1¼")		EEI*	with	ltem no.
	Wilo Para SC 30/6-43	< 0.20	۲	39013WP6
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	۲	39013WY10
	Wilo Yonos PICO 30/1-6	< 0.20	۲	39013WN06
	Grundfos ALPHA2.1 32-60	< 0.17	۲	39013GH6
	Grundfos UPM3 Auto 32-70	< 0.20	۲	39013GM6
	Grundfos UPML 32-105 AUTO	< 0.23	۲	39013GL9
	without pump - for pumps with 2" ext. thread x 180 mm		Θ	39013

= with pump

 Θ = without pump

M = with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] K32 DN 32 (1¹/₄") 3-way H-type mixing valve



Technical data

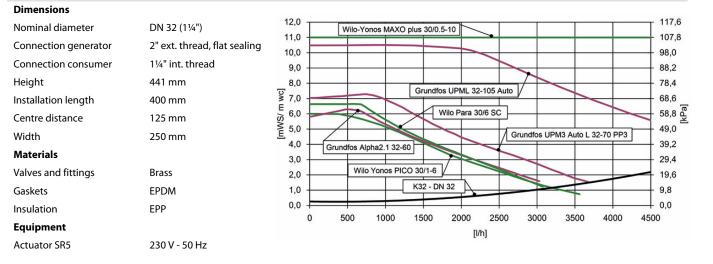


Application range

• Heating systems controlled by a mixing valve **Recommended application range** • up to 51 kW 20 K up to 2200 l/h • **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	9.6

Differential pressure diagram



HeatBloC® K32 DN 32 (1¼")		EEI*	with	ltem no.
	Wilo Para SC 30/6-43	< 0.20	<u>م</u>	39053MWP6
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20		39053MWY10
	Wilo Yonos PICO 30/1-6	< 0.20		39053MWN06
	Grundfos ALPHA2.1 32-60	< 0.17		39053MGH6
	Grundfos UPM3 Auto 32-70	< 0.20		39053MGM6
	Grundfos UPML 32-105 AUTO	< 0.23		39053MGL9
	without pump - for pumps with 2" ext. thread x 180 mm		$\Theta $	39053M
	Wilo Para SC 30/6-43	< 0.20		39053WP6
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	۲	39053WY10
	Wilo Yonos PICO 30/1-6	< 0.20		39053WN06
	Grundfos ALPHA2.1 32-60	< 0.17	۲	39053GH6
	Grundfos UPM3 Auto 32-70	< 0.20	۲	39053GM6
	Grundfos UPML 32-105 AUTO	< 0.23	۲	39053GL9
	without pump - for pumps with 2" ext. thread x 180 mm		Θ	39053

= conversion to flow left (it.no. 999300)

Θ = with pump

۵

= without pump



HeatBloC[®] K33R DN 32 (1¼") Controlled circuit with constant temperature, electronically





Technical data



Application range

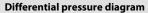
• for thermally controlled radiant heating systems, for low-temperature heating systems, as a return flow temperature maintenance for solid fuel boilers, wood firing and stove heating systems

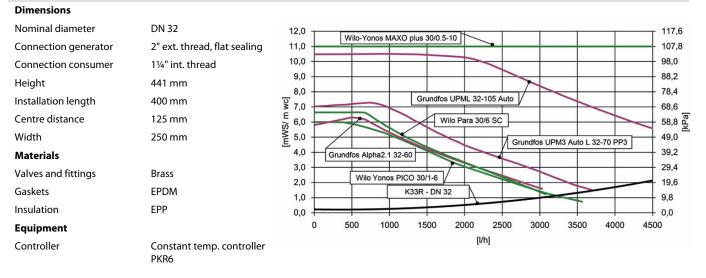
Recommended application range

- up to 15 kW
- 20 K up to 2760 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	10.1
Adjustment range bypass	0 - 50 %





HeatBloC [®] K33R DN 32 (1¼")		EEI*	with	ltem no.
	Wilo Para SC 30/6-43	< 0.20	۲	390463WP6
T	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	۲	390463WY10
	Wilo Yonos PICO 30/1-6	< 0.20	۵	390463WN06
	Grundfos ALPHA2.1 32-60	< 0.17	۵	390463GH6
1.00	Grundfos UPM3 Auto 32-70	< 0.20	۵	390463GM6
	Grundfos UPML 32-105 AUTO	< 0.23	۵	390463GL9
	without pump - for pumps with 2" ext. thread x 180 mm		Θ	390463

= conversion to flow left (it.no. 999300)

a with pump

= without pump

M = with actuator

or *EEI = Energy Efficiency Index



HeatBloC[®] K34 DN 32 (1¹/₄") 3-way bypass mixing valve



R

Technical data



Application range

• for low-temperature heating systems controlled by a mixing valve **Recommended application range**

•	up to	
•	20 K up to 2760 l/h	
Opera	ating data	
Max. operating pressure 6 ba		
Max. operating temperature		
Kvs va	lue	10.1
Adjust	tment range bypass	0 - 50 %

Differential pressure diagram

Dimensions 12,0 117,6 Nominal diameter DN 32 (1¼") Wilo-Yonos MAXO plus 30/0.5-10 11,0 107,8 Connection generator 2" ext. thread, flat sealing 10,0 98,0 Connection consumer 1¼" int. thread 9,0 88,2 Height 441 mm 8,0 78,4 Grundfos UPML 32-105 Auto [mWS/ m wc] 7,0 68,6 Installation length 400 mm 58,8 4 Wilo Para 30/6 SC 6,0 Centre distance 125 mm 5,0 49,0 Grundfos UPM3 Auto L 32-70 PP3 Width 250 mm 4,0 39,2 Grundfos Alpha2.1 32-60 Materials 3,0 29,4 Wilo Yonos PICO 30/1-6 Valves and fittings Brass 2,0 19,6 K34 - DN 32 1,0 9,8 Gaskets EPDM 0,0 0,0 Insulation EPP 0 500 1000 1500 2000 2500 3000 3500 4000 4500 Equipment [l/h] Actuator SR5 230 V - 50 Hz

eatBloC® K34 DN 32 (1¼")		EEI*	with	ltem no.
	Wilo Para SC 30/6-43	< 0.20	Ø	39063MWP6
	Wilo Yonos PICO 30/1-6	< 0.20		39063MWN06
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20		39063MWY10
	Grundfos ALPHA2.1 32-60	< 0.17		39063MGH6
	Grundfos UPM3 Auto 32-70	< 0.20		39063MGM6
	Grundfos UPML 32-105 AUTO	< 0.23		39063MGL9
	without pump - for pumps with 2" ext. thread x 180 mm		$\Theta \boxtimes$	39063M
	Wilo Para SC 30/6-43	< 0.20	۲	39063WP6
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	۲	39063WY10
	Wilo Yonos PICO 30/1-6		۲	39063WN06
	Grundfos ALPHA2.1 32-60	< 0.17	۲	39063GH6
	Grundfos UPM3 Auto 32-70	< 0.20	۲	39063GM6
	Grundfos UPML 32-105 AUTO	< 0.23	۵	39063GL9
	without pump - for pumps with 2" ext. thread x 180 mm		Θ	39063

= conversion to flow left (it.no. 999300)

۵ = with pump Θ M = with actuator = without pump

*EEI = Energy Efficiency Index



HeatBloC[®] K34R DN 32 (1¼") weather-compensated





Technical data



Application range

for retrofitting of weather-compensated low-temperature heating systems • controlled by a mixing valve

Recommended application range

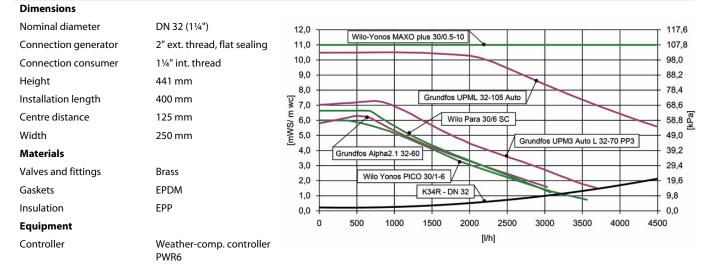
up to 64 kW •

20 K up to 2760 l/h

	•	
Operating	data	

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	10.1
Adjustment range bypass	0 - 50 %

Differential pressure diagram



HeatBloC[®] K34R DN 32 (1¹/₄")

	Wilo Para 30/6-43	< 0.20	\mathbb{A}	390663MWP6
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	\mathbb{A}	390663MWY10
	Wilo Yonos PICO 30/1-6	< 0.20	۵Ø	390663MWN06
	Grundfos ALPHA2.1 32-60	< 0.17	۵Ø	390663MGH6
	Grundfos UPM3 Auto 32-70	< 0.20	۵Ø	390663MGM6
7	Grundfos UPML 32-105 AUTO	< 0.23	\mathbb{A}	390663MGL9
	without pump - for pumps with 2" ext. thread x 180 mm		Θ	390663M

= conversion to flow left (it.no. 999300)

۲ = with pump \bigcirc = without pump

EEI*

with

Item no.



HeatBloC[®] K36E DN 32 (1¹/₄") Boiler charging set, with integrated overflow valve







Application range

Return flow temperature maintenance for solid fuel boilers, wood firing • and stove heating systems

Recommended application range

٠	up to 60 kW			
٠	20 K up to 2600 l/h			
Operating data				
Max. o	perating pressure	6 bar		
Max. o	perating temperature	110 °C		
Kvs va	lue	9.7		

Technical data Differential pressure diagram Dimensions 12,0 117,6 Wilo-Yonos MAXO plus 30/0.5-10 Nominal diameter DN 32 (11/4") 11,0 107,8 10,0 98,0 Connection generator 1¼" int. thread 9,0 88,2 Connection consumer 2" int. thread 8,0 78,4 Height 441 mm [) 7,0 6,0 5,0 Grundfos UPML 32-105 Auto 68,6 Installation length 465 mm Wilo Para 30/6 SC 58,8 4 Centre distance 125 mm 49,0 Grundfos UPM3 Auto L 32-70 PP3 4,0 39,2 Width 250 mm Grundfos Alpha2.1 32-60 3,0 29,4 Materials Wilo Yonos PICO 30/1-6 2,0 19,6 Valves and fittings Brass K36E - DN 32 1,0 9,8 Gaskets EPDM 0,0 0,0 500 2000 4500 Insulation EPP 0 1000 1500 2500 3000 3500 4000 [l/h]

HeatBloC [®] K36E D	DN 32 (1¼")		EEI*	with	ltem no.
	Wilo Para SC 30/6-43	Opening temperature: 45 °C	< 0.20	۲	390343WP6
	Wilo Yonos PICO 25/1-6	Opening temperature: 45 °C	< 0.20	۲	390343WN06
	Wilo Yonos MAXO plus 30/0.5-10	Opening temperature: 45 °C	< 0.20	۲	390343WY10
	Grundfos ALPHA2.1 32-60	Opening temperature: 45 °C	< 0.17	۲	390343GH6
diam'r.	Grundfos UPM3 Auto 32-70	Opening temperature: 45 °C	< 0.20	۲	390343GM6
	Grundfos UPML 32-105 AUTO	Opening temperature: 45 °C	< 0.23	۲	390343GL9
	without pump - for pumps with 2" ext. thread x 180 mm	Opening temperature: 45 °C		Θ	390343
	Wilo Para SC 30/6-43	Opening temperature: 60 °C	< 0.20	۲	390373WP6
4	Wilo Yonos PICO 30/1-6	Opening temperature: 60 °C	< 0.20	۲	390373WN06
	Wilo Yonos MAXO plus 30/0.5-10	Opening temperature: 60 °C	< 0.20	۲	390373WY10
	Grundfos ALPHA2.1 32-60	Opening temperature: 60 °C	< 0.17	۲	390373GH6
	Grundfos UPM3 Auto 32-70	Opening temperature: 60 °C	< 0.20	۲	390373GM6
	Grundfos UPML 32-105 AUTO	Opening temperature: 60 °C	< 0.23	۵	390373GL9
	without pump - for pumps with 2" ext. thread x 180 mm	Opening temperature: 60 °C		Θ	390373

= with pump Θ = without pump M = with actuator

*EEI = Energy Efficiency Index





- for unmixed HeatBloC°s DN 32 - for heat flowmeters with the dimensions 1" x 130 mm	
Scope of delivery: - Pump ball valve with check valve, can be opened (200 mm wc) - Screw-in fittings, flat sealing - Union nut - Adapter pipe - Reducers for immersion sensor (¼" ext. thread, self-sealing x M10 x 1" int. thread and '4" ext. thread, self-sealing x M12 x 1.5" ext. thread) - Seals	
Fitting for heat flowmeter - DN 32 for mixed HeatBloC®s	37463
- for HeatBloC [®] s DN 32 with 3-way or 4-wax mixing valve - for heat flowmeters with the dimensions 1" ext. thread x 130 mm	
Scope of delivery: - Screw-in fittings flat sealing - Adapter pipe - Reducers for immersion sensor (¼" ext. thread, self-sealing x M10 x 1" int. thread and ¼" ext. thread, self-sealing x M12 x 1.5" ext. thread) - Non-return valve for mixing valve return - Seals	
Immersion sleeve ½" ext. thread x T = 30 mm	566001
Immersion sleeve ¼" ext. thread x T = 60 mm	566002
Immersion sleeve ½" ext. thread x T = 60 mm	5660021
Immersion sleeve ½" ext. thread x T = 100 mm	566003
T Immersion sleeve ½" ext. thread x T = 150 mm For all immersion sleeves: for the installation of the temperature sensors (d = 6 mm) in the storage tank, in the collector and the hydraulic separator.	566004
Attention: suitable for ball valves until 2016!	
Adapter pipe DN 32 (1¼") Brass, 2 x 2" external thread, flat-sealing, length 180 mm, when an external circulation pump is used to bridge the pump connection.	3747
Flush and drain set DN 32 (¼")	3761
2 x counter-T-pieces 1¼" with fill and drain valve, each equipped with an extension piece, permits to flush and drain individual HeatBloC®s.	
Please note: The flush and drain set is not compatible with the HeatBloC® MC system!	
Union nut DN 32 (1¼")	2156
Brass, to screw insertion pieces for soldering below distribution manifolds DN 32 (11/4")	
Sealing for nut - DN 32 (1¼") asbestos-free, outside diameter: 50 mm, inside diameter: 38 mm, height: 2 mm	2158

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	Connection set DN 32 (1¼")	3731
	Consisting of 2 insertion pieces for connection of pipes w/ 1¼" external thread below HeatBloC®s	
	Connection set DN 32 (1¼")	3732
	Connection set for DN 32 (1¼"), consists of 2 screw-in fittings with 2" external thread and 1¼" internal thread for the connection of pipes 1¼" external thread.	
	Non-return valve DN 32 (1¼")	37011
	To be inserted into the PAW mixing valve. Prevents unwanted circulation for example when various mixing valves are connected to one distribution manifold. The shutoff valve can be simply inserted into the mixing valve.	
	Coupling piece for overhead installation - DN 32 (1¼")	3724
	Coupling piece for installation of a HeatBloC [®] below a distribution manifold with flat sealing. Please note: When you use wall brackets, an additional mounting plate is necessary for installing a 2-fold distribution manifold MV2.	
	Mounting plate DN 32 (1¼")	3725
	Components: mounting plate, 2 gaskets, 2 x 2" nut for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
W 0	Wall bracket for HeatBloC [®] - DN 25 (1") / DN 32 (1¼")	34723
	Galvanised mounting bracket for wall assembly of HeatBloC®s. Mount HeatBloC®s on mounting bracket for an easy assembly.	
	Wall bracket for HeatBloC [®] DN 25 - DN 32	34722
	Consisting of: wall bracket (galvanised steel), mounting equipment DN 25 / DN 32: Possible wall distance: 155 mm Not required for installation with a PAW modular distribution manifold	
	Wall bracket for modular distribution manifold - DN 25 (1") - DN 32 (1¼")	34721
	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	34721
_	Wall bracket set for module heating circuit - DN 32	3722SET
	Components: 2 x 2" nut, mounting plate, wall bracket possible wall distance: 142.5-167.5 mm	
	Reducer set DN 32 - DN 25	37351
	for the installalation of DN 25 HeatBloC®s on DN 32 distribution manifolds, adapter set 2" external thread, flat-sealing with nut on 1½" internal thread, flat-sealing, made of brass, with gaskets, 2 types	
0	Reducer set DN 32 - DN 25	3735
	for installation of modular heating circuits DN 20 on modular distribution manifolds DN 25, adapter set $1\frac{1}{2}$ " external thread, flat-sealing with nut on $\frac{3}{4}$ " PAW flange, reduction of the centre distance from 125 mm to 90 mm, distance pipe 1" internal thread x 1" external thread, flat sealing, brass, with sealing. The required union nuts 1" internal thread are dismounted from the heating circuit.	





	Piping group for hydraulic separator - DN 32 (1¼")	34742KS1
L.	Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and seals, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the left or on the right.	
	Extension set for low-loss header - DN 32 (1¼")	37431
	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 2600 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
	Modular distribution manifold DN 32, 2-fold	37123
	Modular distribution manifold DN 32, 3-fold	37133
	Modular distribution manifold DN 32, 4-fold	37143
	Modular distribution manifold DN 32, 5-fold	37153
and have been been been	Modular distribution manifold DN 32, 6-fold	37163
	completely made of brass; completely premounted entirely insulated with EPP half-shells extremely low resistance, free passage d = 50 mm up to 6 groups, premounted, extendable several boiler connections possible, for higher outputs	
	Contact thermostat 20-60 °C	N00083
	Contact thermostat for limiting the flow temperature, adjustable from 20 - 60 $^\circ$ C	
	Safety set for distribution manifold - DN 32 (1¼") up to 100 kW	52553
	For the installation on modular distribution manifolds DN 32 (as of 2017), with a connection of 1" int. thread (sealed with plug) for the installation of the connection set for the expansion tank (item no. 7508), pressure relief valve ¾" x 1", 3 bar, up to 100 kW, pressure gauge 0-4 bar	
	Connection set DN 25 for diaphragm expansion tank	7508
	for assembly to a safety group DN 32, with self-sealing double nipple 1", cap valve 1", armoured hose with bend 1" x 700 mm.	
	Temperature sensor Pt1000-B	131934
	Temperature sensor for the integration into the flow and return ball valve of products of the HeatBloC® range DN 25 and DN 32. • The temperature sensor Pt1000 with plug connection measures the temperature directly in the fluid. • ¼" external thread • including matching connection cable (2.9 m) with wire end ferrules	





	PAW constant temperature controller PKR6	703601
	Easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 2 m cable and Schuko plug, incl. mounting set for snap-in assembly on the PAW mixing valve and PT1000 screw- in sensor G ¹ / ₄ " for the flow ball valve, change-over switch for manual / automatic operation. Controller settings for direction of rotation, operation mode and nominal temperature can be adjusted at the display	
	Power supply: 230 V - 50 Hz Power consumption: 3 W Torque: min. 6 Nm Setting time 90°: 120 s	
	Weather compensated controller PWR6	723681
	Same type as the PAW constant temperature controller PKR6 (art.no. 703601), but for the use of a weather-compensated heating circuit. The package includes the outdoor sensor, the flow sensor as well as the source sensor. This ensures that the mixing valve or the heating circuit can be operated in an autarkic manner and without boiler control. In addition, it is possible to set the room temperature centrally in the flat via a room based remote control (art.no. 1359501).	
9	Room remote control RCD 2.0	1359501
	Room remote control RCD 2.0 for weather compensated controller PWR6	
	PAW actuator SR5	705001
	Change-over switch for manual / automatic operation, easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather- compensated control, thanks to the removable scale, it is suited for flow on the right or left side	
	Electrical connection: 230 V / 50 Hz Input power: 2.5 W Torque: 5 Nm Setting time for 90°: 140 s	
	PAW actuator SR10	705002
0	Thanks to the removable scale, it is suited for flow on the right or left side, easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, change-over switch for manual / automatic operation	
Demontage:	Electrical connection: 230 V / 50 Hz Input power: 3.5 W Torque: 10 Nm	
C P Sichen - Bull	Setting time for 90°: 140 s	
	PAW actuator SR10 24/3P	7054
	Like PAW actuator type SR10 (item no. 705002), but with: electrical connection/supply voltage: 24 VAC for control systems with 3-level-control	
	PAW actuator SR10 24/ST	70541
	Like PAW actuator SR10 (item no. 705002), but with: electrical connection/supply voltage: 24 VAC/DC control voltage direct: 0(2)10 VDC for continuous control systems with 010 V output	
	Electrical connection: 230 V / 50 Hz Input power: 1.5 W Torque: 10 Nm	
	Setting time for 90°: 140 s	



Product range HeatBloC[®] Heating circuits DN 40/50







All HeatBloC[®]s offer the following advantages:

Preassembled group of fittings for heating circuits

High flexibility during assembly

modules can be used in nearly any combination

Ball valve with full port, gaskets of the spindle can be replaced during operation

Connections

Flange connection DN 40/PN6 resp. DN 50/PN6 as slip-on flange and $1\!\!\!/2''$ / 2'' internal thread

incl. gaskets and screws, for installation on PAW modular distribution manifolds

With PAW mounting equipment the heating circuit can be installed on wall brackets.

Hand lever at the ball valve

easy handling from the front, even when the insulation is closed, visible closing position

EnEV-compliant functional insulation

made of durable elastic EPP, complete insulation of valves and fittings, ventilation opening to cool the pump.

Free access to the pump head

Check valve in the return pipe

can be opened, 200 mm wc, spring-loaded, and thus also suited for horizontal and overhead installation

Flow on the right = standard

The HeatBloC®s can be delivered with flow on the left against additional charge.

Flow and return line can be changed on site

also for heating circuits with mixing valve

Fill and drain valve

for flushing, filling and draining, integrated in the ball valve

Full metal thermometer

can be pulled off, with immersion sleeve, integrated in the ball valve

PAW heating pumps with high-efficiency technology (ECM technology)

fitted with cable, already installed, integrated in the insulation, pressure tested, serial number, perfectly designed system, pump characteristics, EuP/ErP READY



Pump can be isolated

so that it can be replaced without draining

At the end of the chapter, you will find the complete mounting equipment for the modular system DN 40 / 50.



Product range HeatBloC[®] Heating circuits DN 40/50 - types



K31 - DN 40 (1½") direct / unmixed



up to 150 kW*

K31 - DN 50 (2") direct / unmixed



up to 250 kW*

K32 - DN 40 (1½") with 3-way mixing valve



up to 125 kW*

K32 - DN 50 (2") with 3-way mixing valve



up to 230 kW*

*Temperature difference = 20 K



HeatBloC[®] K31 DN 40 (1¹/₂") direct / unmixed

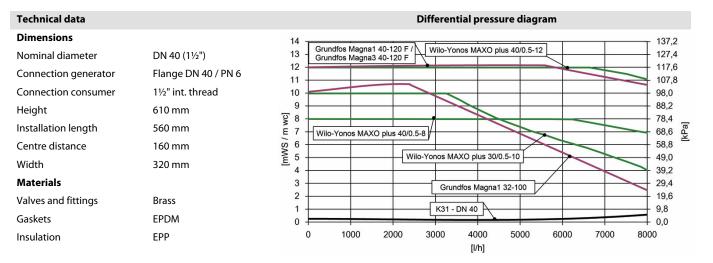






Application range

Boiler charging				
Recommended application range				
• up to 150 kW				
• 20 K up to 6500 l/h				
Operating data				
Max. operating pressure	6 bar			
Max. operating temperature	110 °C			
Kvs value	28.3			



HeatBloC[®] K31 DN 40 (1¹/₂")

	Wilo Yonos MAXO plus 40/0.5-8	< 0.20	۲	41211WY8
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	۵	41211WY10
	Wilo Yonos MAXO plus 40/0.5-12	< 0.20	۵	41211WY12
	Grundfos MAGNA1 32-100	< 0.21	۵	41211GL10
	Grundfos MAGNA1 40-120 F	< 0.21	۵	41211GL12
	Grundfos MAGNA3 40-120 F	< 0.18	۵	41211GH12
	without pump - for pumps with flange DN 40/PN6 x 250 mm Optionally available: Adapter pipe 30 mm, pump installation length 220 mm (item no.		Θ	41211
	12397)			

۵ = with pump Θ = without pump

 \bigotimes = with actuator

*EEI = Energy Efficiency Index

EEI*

with

ltem no.



HeatBloC[®] K32 DN 40 (1½") 3-way H-type mixing valve







Application range

• Heating systems controlled by a mixing valve

Recommended application range	
• up to 125 kW	
• 20 K up to 5400 l/h	
Operating data	
Max. operating pressure	
Max. operating temperature	110 °C
Kvs value	17.7

HeatBloC[®] K32 DN 40 (1¹/₂")

Technical data

Dimensions

Dimensions		
Nominal diameter	DN 40 (1½")	14 13 14 14 14 14 14 14 14 14 14 14
Connection generator	Flange DN 40 / PN 6	13 Grundfos Magna3 40-120 F 12 117,6
Connection consumer	1½" int. thread	11 107,8
Height	610 mm	10 98,0 9 Wilo Yonos MAXO plus 30/0.5-10 88,2
Installation length	560 mm	9 Wile Velos WAXO plus 30/0.5-10 88,2 8 7 7 6 Wile Yonos MAXO plus 40/0.5-8 58,8
Centre distance	160 mm	
Width	320 mm	ق 5 Wilo Yonos MAXO plus 40/0.5-8 49,0
Materials		4 39,2 3 Cruptice Marga1 32,100 29,4
Valves and fittings	Brass	
Gaskets	EPDM	1 K32 - DN 40 9,8
Insulation	EPP	0 1000 2000 3000 4000 5000 6000 7000 8000
Equipment		[//h]
Actuator SR10	230 V - 50 Hz	

HeatBloC [®] K32 DN 40 (1½")		EEI*	with	ltem no.
	Wilo Yonos MAXO plus 40/0.5-8	< 0.20	۵C	41221MWY8
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	۵Ø	41221MWY10
	Wilo Yonos MAXO plus 40/0.5-12	< 0.20	۵M	41221MWY12
	Grundfos MAGNA1 32-100	< 0.21	۵Ø	41221MGL10
· · · ·	Grundfos MAGNA1 40-120 F	< 0.21	۵M	41221MGL12
	Grundfos MAGNA3 40-120 F	< 0.18	۵Ø	41221MGH12
	without pump - for pumps with flange DN 40/PN6 x 250 mm Optionally available: Adapter pipe 30 mm, pump installation length 220 mm (item no. 12397)		©₫	41221M

= conversion to flow left (it.no. 999300)

a with pump

 \bigcirc = without pump



HeatBloC[®] K31 DN 50 (2") direct / unmixed

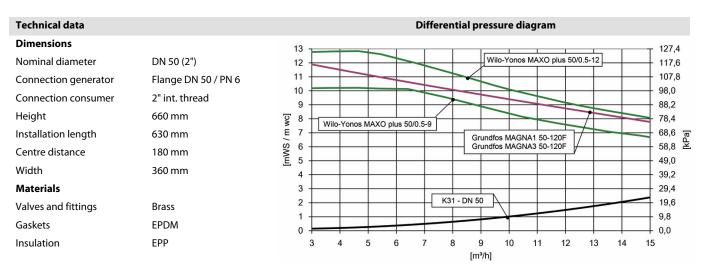






Application range

• Boiler charging **Recommended application range** • up to 250 kW • 20 K up to 10800 l/h **Operating data** Max. operating pressure 6 bar Max. operating temperature 110 °C Kvs value 31.2



HeatBloC [®] K31 DN 50 (2")		EEI*	with	ltem no.
ما د ماد	Wilo Yonos MAXO plus 50/0.5-12	< 0.23	۲	51211WM12
	Wilo Yonos MAXO plus 50/0.5-9	< 0.20	۲	51211WY9
	Grundfos MAGNA1 50-120 F	< 0.21	۲	51211GL12
	Grundfos MAGNA3 50-120 F	< 0.18	۲	51211GH12
	without pump - for pumps with flange DN 50/PN6 x 280 mm Optionally available: Adapter pipe 30 mm, pump installation length 250 mm (item no. 12395), 2x adapter pipe 20 mm, pump installation length 240 mm (item no. 12396)		Θ	51211

= with pump \bigcirc = without pump

 \bigcirc = with actuator

*EEI = Energy Efficiency Index



HeatBloC[®] K32 DN 50 (2") 3-way H-type mixing valve



Rw

Technical data



Application range

• Heating systems controlled by a mixing valve

Recommended application range	
• up to 230 kW	
• 20 K up to 9980 l/h	
Operating data	
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	25.7

Differential pressure diagram

Dimensions		
Nominal diameter	DN 50 (2")	13 12 Wilo-Yonos MAXO plus 50/0.5-12
Connection generator	Flange DN 50 / PN 6	
Connection consumer	2" int. thread	
Height	660 mm	
Installation length	630 mm	8 Wilo-Yonos MAXO plus 50/0.5-9 E 7 Grundfos MAGNA1 50-120F
Centre distance	180 mm	g 6 Grundfos MAGNA1 50-120F Grundfos MAGNA3 50-120F
Width	360 mm	97 6 Grundfos MAGNA3 50-120F 6 E 5 6 6 6
Materials		4 3 K32 - DN 50
Valves and fittings	Brass	
Gaskets	EPDM	
Insulation	EPP	0
Equipment		5 4 5 6 7 6 9 10 11 12 13 14 13 [m³/h]
Actuator SR10	230 V - 50 Hz	

HeatBloC [®] K32 DN 50 (2")		EEI*	with	ltem no.
	Wilo Yonos MAXO plus 50/0.5-12	< 0.23		51221MWM12
	Wilo Yonos MAXO plus 50/0.5-9	< 0.20		51221MWY9
	Grundfos MAGNA1 50-120 F	< 0.21		51221MGL12
	Grundfos MAGNA3 50-120 F	< 0.18		51221MGH12
	without pump - for pumps with flange DN 50/PN6 x 280 mm Optionally available: Adapter pipe 30 mm, pump installation length 250 mm (item no. 12395), 2x adapter pipe 20 mm, pump installation length 240 mm (item no. 12396)		OQ	51221M

= conversion to flow left (it.no. 999300)

= without pump





	Modular distribution manifold DN 40, 2-fold	4112
	Modular distribution manifold DN 40, 3-fold	4113
	Modular distribution manifold DN 40, 4-fold	4114
	modular distribution manifold made of brass connecting flanges as slip-on flanges made of steel seals and screws for boiler connection DN 50 included completely premounted; entirely insulated with EPP shells extremely low resistance, free passage d = 64 mm up to 4 groups, premounted, extendable boiler connections DN 50	
	Modular distribution manifold DN 50, 2-fold	5112
	Modular distribution manifold DN 50, 3-fold	5113
	Modular distribution manifold DN 50, 4-fold	5114
	modular distribution manifold made of brass connecting flanges as slip-on flanges made of steel gaskets and screws for boiler connection DN 65 included completely premounted; entirely insulated with EPP shells extremely low resistance, free passage d = 84 mm up to 4 groups, premounted, extendable boiler connections DN 65	
	Floor bracket set for modular distribution manifold - DN 40 / 50 (1½"/ 2") Components: 2 floor brackets (galvanized steel), 4 wall plugs, 4 screws, 2 screws for fixing the distribution manifold onto the floor brackets Height = adjustable 1,050 - 1,080 mm, for shortening simply cut off	41671
	Wall bracket set for modular distribution manifold - DN 40 (1½") Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	41651
	Wall bracket set for modular distribution manifold - DN 50 (2")	41652
11	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	
	Wall bracket for HeatBloC® DN 40 (11/2")	41641
	Components: Wall bracket, 2 gaskets, mounting equipment, distance of the pipe axis to the wall A = 270 mm	
50	Wall bracket for HeatBloC®s - DN 50 (2")	41642
1	Components: Wall bracket (galvanised steel), 2 gaskets, mounting equipment, distance of the pipe axis to the wall $A = 400 \text{ mm}$	
1		





	Extension module DN 40 (1 $\frac{1}{2}$ "), for the standard and MC series	4111
	Extension module DN 50 (2"), for the standard and MC series	5111
(management of the second second		
A	Completely made of brass Completely preassembled	
	Flow and return chamber 95 % thermally separated	
•	Blind flange DN 40 (1½") / PN 6	41611
	Blind flange 50 (2") / PN 6	51611
•••	PN 6, as per DIN 2527, with 1 gasket, 4 screws and 4 nuts	
	Screwed flange DN 40 (1½") / PN 6 on 1½" int. thread	41612
	Screwed flange DN 50 (2") / PN 6 on 2" int. thread	41613
	Screwed flange DN 65 (2½") / PN 6 on 2½" int. thread	51612
	PN 6, acc. to DIN 2565, steel, black	
	Weld neck flange DN 40 (1½") / PN 6	41614
	Weld neck flange DN 50 (2") / PN 6	41615
	Weld neck flange DN 65 (2½") / PN 6	51613
-	PN 6, acc. to DIN 2631, steel, black	
	Set reducer flanges DN 40 - DN 32 (1½" - 1¼")	41610
		41010
Mai .	Reducer flanges made of brass for the assembly of a pump DN 32* in HeatBloC®s DN 40 or for	
	connection of a single HeatBloC [®] DN 32 on a distribution manifold DN 40. One side flange DN 40 - PN 6, other side flange for 2" union nut, flat sealing.	
	Reduction of the centre distance from 160 mm to 125 mm, installation height = 35 mm.	
	*For the installation of a DN 32 pump 2x nut and seals are required additionally (2x N00121).	
	Set reducer flanges DN 50 - 32 (2" - 1¼")	5160
	Set reducer hanges DN 50 - 32 (2 - 1 1/4)	5162
	2 reducing flanges made of steel, zinced/brass for connecting a DN 32 HeatBloC® on a DN 50	
L LA A A	modular distribution manifold. One side DN 50 flange with PN 6, other side flange DN 32 - 1¼".	
- n	Reduction of the centre distance from 180 mm to 125 mm, with seals and screws for connection to	
	DN 50. Installation height = 48 mm	
	Set reducer flanges DN 50 - 40 (2" - 1½")	51610
	2 reducing flanges made of zinced steel for connecting a DN 40 HeatBloC® on a DN 50 modular	
9 . 7 . 1 .	distribution manifold.	
	For the assembly of a DN 40 pump, installation length 250 mm, in a DN 50 HeatBloC [®] . One side DN 50 flange (PN 6), other side DN 40 flange (PN 6).	
a a	Reduction of the centre distance from 180 mm to 160 mm, with seals and screws, installation	
	height = 13 mm	
	Use only with slip-on flanges!	
	Extension set for low-loss header - DN 40 (1½")	4143
	Extension set for low-loss header DN 50 (2")	5143
	for conversion into a distribution manifold with integrated hydraulic separator (low-loss header).	
	Consisting of: 1 distance ring for a resistance-free connection of flow and return chamber, incl.	
	screws and o-rings.	705002
	PAW actuator SR10	/03002
	Thanks to the removable scale, it is suited for flow on the right or left side, easy assembly and	
0	disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, change-over switch	
	for manual / automatic operation	
	Electrical connection: 230 V / 50 Hz Input power: 3.5 W	
Demontage;	Torque: 10 Nm	
- tirer	loique. loinn	





Adapter pipe DN 40 (1½") for flange pumps DN 40 DN 40 x 30 mm Installation length from 220 to 250 mm	12397
Adapter pipe DN 50 (2") for flange pumps DN 50 DN 50 x 30 mm Installation length from 250 to 280 mm	12395
Adaptor pieces DN 50 (2") for flange pumps DN 50 DN 50 x 20 mm Installation length from 240 to 280 mm	12396







Modular distribution manifolds / hydraulic separators

Catalogue 04/2025

Systems, valves and fittings for the use in hot water heating systems

Valid for the EU



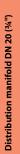






Distribution manifold DN 20 (3/4")







Application range

- modular design
- for outputs up to 50 kW (for each boiler connection) at a temperature difference of 20 K

with thermal separation of flow and return chamber

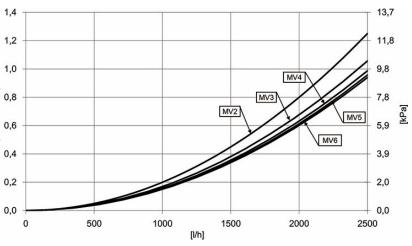
Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C

Technical data Dimensions

Dimensions	
Nominal diameter	DN 20 (¾")
Height	80 mm
Height insulation	85 mm
Centre distance	90 mm
Connection generator	¾" int. thread x 1" ext. thread, flat-sealing (bottom), 2 x for boiler connection, others plugged ¾" PAW flagge for put 1"
Connection consumer	¾" PAW flange for nut 1" 匡 (top)
Lateral connection	¾" int. thread, sealed with plug, for safety group and diaphragm expansion tank
Materials	
Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP

Differential pressure diagram



Distribution manifold DN 20	Execution	Kvs value	Width	Connections for HeatBloC®s	ltem no.
	2-fold	7.1	440 mm	3	3112
	3-fold	7.8	620 mm	5	3113
	4-fold	8	800 mm	7	3114
	5-fold	8.2	980 mm	9	3115
	6-fold	8.2	1 160 mm	11	3116



Dimensions





Application range

• for outputs up to 80 kW (for each boiler connection) at a temperature difference of 20 K

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C

Differential pressure diagram

Nominal diameter	DN 25 (1")	1000 9,8
Height	104 mm	
Height insulation	85 mm	900
Centre distance	125 mm	800 7,8
Connection generator	1½" external thread, flat- sealing / 1" internal thread	700 6,9 § 600 5,9
Connection consumer	1" flange for 1½" nut, flat- sealing	00 5,9 00 0 00 0 00 0 00 0 00 0 00 0
Materials		300 V23 - 3-fach 2,9
Valves and fittings	Brass	200 2.0
Gaskets	EPDM/NBR	100 1.0
Insulation	EPP	0 0,0
		0 500 1000 1500 2000 2500 3000 3500 4000
		[l/h]

Manifold DN 25	Execution	Kvs value	Width	Connections for HeatBloC®s	ltem no.
	2- / 3-fold	13.3	490 mm	3	433413



Distribution manifold DN 25 (1")





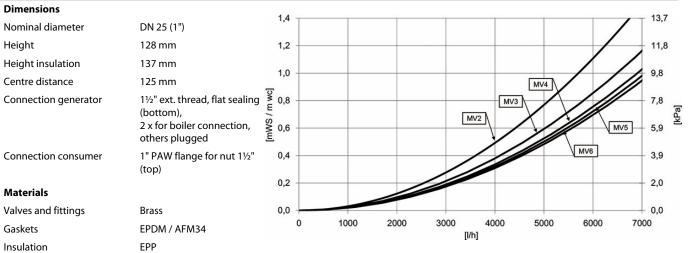
Application range

- modular design
- for outputs up to 80 kW (for each boiler connection) at a temperature difference of 20 K

Operating data

Max. operating pressure	6 bar
-------------------------	-------

Max. operating temperature	110 °C
max operating temperature	110 C



Distribution manifold DN 25	Execution	Kvs value	Width	Connections for HeatBloC®s	ltem no.
	2-fold	16	625 mm	3	34123
	3-fold	18	875 mm	5	34133
	4-fold	18.5	1 125 mm	7	34143
	5-fold	19	1 375 mm	9	34153
	6-fold	19	1 625 mm	11	34163

Differential pressure diagram





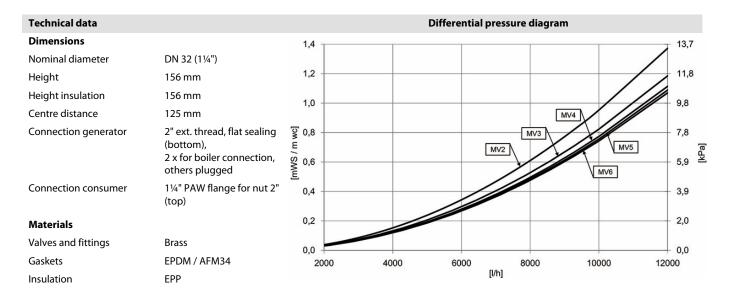


Application range

- modular design
- for outputs up to 150 kW (for each boiler connection) at a temperature difference of 20 K

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C



Distribution manifold DN 32	Execution	Kvs value	Width	Connections for HeatBloC®s	ltem no.
	2-fold	34	625 mm	3	37123
	3-fold	37	875 mm	5	37133
	4-fold	38	1 125 mm	7	37143
	5-fold	38	1 375 mm	9	37153
	6-fold	38	1 625 mm	11	37163



Distribution manifold DN 40 (1¹/₂")







Application range

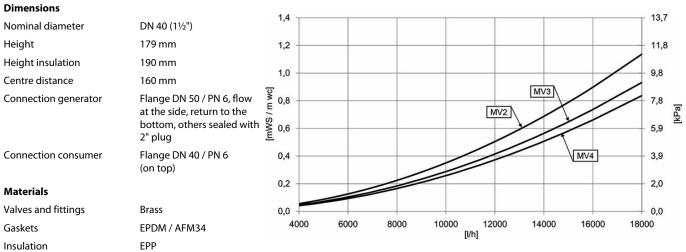
- modular design
- for outputs up to 250 kW (for each boiler connection) at a temperature difference of 20 K

Operating data

Max. operating pressure	6 bar
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Differential pressure diagram

Max. operating temperature	110 °C
Max. Operating temperature	110



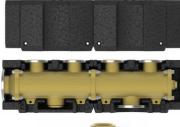
Distribution manifold DN 40	Execution	Kvs value	Width	Connections for HeatBloC®s	ltem no.
	2-fold	53.9	740 mm	2	4112
	3-fold	59.6	1 060 mm	3	4113
	4-fold	62.9	1 380 mm	4	4114



Dimensions

Distribution manifold DN 50 (2")







Application range

- modular design
- for outputs up to 400 kW (for each boiler connection) at a temperature difference of 20 K

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C

Distribution manifold DN 50 (2")

Differential pressure diagram

Nominal diameter	DN 50 (2")	
Height	225 mm	1,6
Height insulation	220 mm	1,4
Centre distance	180 mm	
Connection generator	Flange DN 65 / PN 6, flow at the side, return to the bottom, others sealed with 2" plug	1,2 1,0 1,0 1,0 0,8 0,8 MV3 - DN 50 MV3 - DN 50
Connection consumer	Flange DN 50 / PN 6 (on top)	© 0,6 MV2 - DN 50 MV2 - DN 50
Lateral connection	1¼" int. thread, sealed with plug, for safety group and expansion tank	
Materials		5 6 7 8 9 10 11 12 13 14 15 16 17 18
Valves and fittings	Brass	[m³ / h]
Gaskets	EPDM / AFM34	
Insulation	EPP	

Distribution manifold DN 50	Execution	Kvs value	Width	Connections for HeatBloC®s	ltem no.
	2-fold	70.4	840 mm	2	5112
	3-fold	74.7	1 200 mm	3	5113
میں اور ایک میں اور اور ا یک م ار اور اور ایک میں اور اور ایک میں اور اور ایک میں اور اور ایک میں اور اور اور ا	4-fold	85.6	1 560 mm	4	5114



Mounting equipment modular distribution manifold DN 20-50

Mounting equipment modular distribution manifold DN 20-50



	MCom communication set	1398731
and the second s	 For WiFi communication with an Apple or Android terminal. The communication module is the condition for for the automatic hydraulic balancing of the radiators via the PAW app. You can get the corresponding app in the App Store or Google Play Store by searching for "PAW MCom". With insulation and device for the installation on the modular distribution manifold Communication module Raspberry Pi with Modbus cable WLAN adapter 802.11n nano Wall power supply 5 V DC 	
	Connection set for diaphragm expansion tank - DN 20 (¾") for assembly to distribution manifolds DN 20, with tank connector ¾", wall bracket and mounting equipment, armoured hose with bend ¾" x 700 mm, maximum tank diameter = 440 mm	7509
	Union nut DN 20 (¾") Brass, to screw insertion pieces for soldering below distribution manifolds DN 20 (¾")	2055
	Sealing for nut - DN 20 (¾") asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	2057
	Wall bracket for HeatBloC® DN 20 (¾") Components: 2 wall bracket sets, mounting equipment Possible wall distance: 70-100 mm, distance: 15 mm For 5-fold modular distribution manifolds, we recommend to use two wall bracket sets.	3121
	Wall bracket for HeatBloC [®] DN 40 (1½") Components: Wall bracket, 2 gaskets, mounting equipment, distance of the pipe axis to the wall A = 270 mm	41641
	Coupling piece for overhead installation - DN 20 (¾") Coupling piece for installation of a HeatBloC® below a distribution manifold with flat sealing. Please note: When you use wall brackets, an additional mounting plate is necessary for installing a 2-fold distribution manifold MV2.	31241
88	Connection set DN 20 (¾") Consisting of 2 adapter pieces with 1" nut and ¾" internal thread for connecting pipes with ¾" external thread under modular distribution manifolds DN 20 (¾")	3131
i	Set extension pieces DN 20 - DN 25 Set of adaptor pieces for the overhead installation of HeatBloC®s DN 25 below distribution manifolds DN 20, centre distance changed from 90 mm to 125 mm, connections 1" nut x 1" flange (for nut 1½"), flat sealing.	34352



Mounting equipment modular distribution manifold DN 20-50



0	Set extension pieces DN 25 - DN 32	3436
	for the assembly of HeatBloC [®] s DN 32 on distribution manifolds DN 25,	
0	set of distance rings for union nut 2" internal thread on 1" PAW flange,	
•	made of brass, with special sealing, flat-sealing	
	Coupling piece for overhead installation - DN 25 (1")	34241
H H	Coupling piece for installation of a HeatBloC [®] below a distribution manifold with flat sealing. Please note: When you use wall brackets, an additional mounting plate is necessary for installing a 2-fold distribution manifold MV2.	
	Mounting plate DN 20 (¾")	3125
	Components: mounting plate, 2 gaskets, 2 x 1" nut, 2 x reducing nipple 1" ext. thread x ¾" ext.thread for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
	Mounting plate DN 25 (1")	3425
	Components: mounting plate, 2 gaskets, 2 x 1½" nut, 2 x housing of coupling F 1" x 1½" ext. thread for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
	Mounting plate DN 32 (1¼")	3725
	Components: mounting plate, 2 gaskets, 2 x 2" nut for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
	Extension module DN 20	3111
	Completely made of brass Completely preassembled Flow and return chamber 95 % thermally separated	
	Extension module DN 25 for modular distribution manifold until 12/2016	3411
	Extension module DN 25 for modular distribution manifold as of 01/2017	34113
	Number of connections for HeatBloC [*] s = 1 Width: 251 mm Completely made of brass Completely preassembled Flow and return chamber 95 % thermally separated For the extension of already existing modular distribution manifolds DN 25. The installation may only be made by qualified experts!	
	Extension module DN 32 for modular distribution manifold until 12/2016	3711
	Extension module DN 32 for modular distribution manifold as of 01/2017 Number of connections for HeatBloC [®] s = 1 Width: 251 mm Completely made of brass Completely preassembled	37113
	Flow and return chamber 95 % thermally separated For the extension of already existing modular distribution manifolds DN 32. The installation may only be made by qualified experts!	
	Extension module DN 40 (1½"), for the standard and MC series	4111
	Extension module DN 50 (2"), for the standard and MC series Completely made of brass Completely preassembled Flow and return chamber 95 % thermally separated	5111





	Extension set for low-loss header - DN 25 (1")	34431
1111 😤 1[1]	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 1600 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
IIII 🔮 IIII	Extension set for low-loss header - DN 32 (1¼")	37431
	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 2600 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
	Extension set for low-loss header - DN 40 (1½")	4143
	Extension set for low-loss header DN 50 (2")	5143
	for conversion into a distribution manifold with integrated hydraulic separator (low-loss header). Consisting of: 1 distance ring for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
•	Blind flange DN 40 (1½") / PN 6	41611
	Blind flange 50 (2") / PN 6	51611
•	PN 6, as per DIN 2527, with 1 gasket, 4 screws and 4 nuts	
	Screwed flange DN 40 (1½") / PN 6 on 1½" int. thread	41612
	Screwed flange DN 50 (2") / PN 6 on 2" int. thread	41613
	Screwed flange DN 65 (2½") / PN 6 on 2½" int. thread	51612
	PN 6, acc. to DIN 2565, steel, black	
	Weld neck flange DN 40 (1½") / PN 6	41614
	Weld neck flange DN 50 (2") / PN 6	41615
-	Weld neck flange DN 65 (2½") / PN 6 PN 6, acc. to DIN 2631, steel, black	51613
	Wall bracket set for modular distribution manifold - DN 40 (1½")	41651
	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	41031
NO NO 19	Wall bracket set for modular distribution manifold - DN 50 (2")	41652
11	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	
B B	Floor bracket set for modular distribution manifold - DN 40 / 50 (1½"/ 2")	41671
	Components: 2 floor brackets (galvanized steel), 4 wall plugs, 4 screws, 2 screws for fixing the distribution manifold onto the floor brackets Height = adjustable 1,050 - 1,080 mm, for shortening simply cut off	



Mounting equipment modular distribution manifold DN 20-50



	Reducer set DN 25 - DN 20	34351
	for installation of HeatBloC [®] s DN 20 on modular distribution manifolds DN 25, adapter set 1½" external thread, flat-sealing with nut on ¾" PAW flange, reduction of the centre distance from 125 mm to 90 mm,	
2 2	distance pipe 1" internal thread x 1" external thread, flat sealing, brass, with sealing.	
	The required union nuts 1" internal thread are part of the scope of delivery of the HeatBloC®s.	
	Wall bracket for modular distribution manifold - DN 25 (1") - DN 32 (1¼") Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	34721
	Safety set DN 20 (¾"), up to 50 kW for distribution manifolds DN 20, with self-sealing counter T-piece ¾" x ½", outlet ¾" with cap for expansion tank, pressure relief valve ½" x ¾", 3 bar, up to 50 kW, pressure gauge 0-4 bar	5257
	Safety set for distribution manifold - DN 25 (1") up to 50 kWFor the installation on modular distribution manifolds DN 25 (as of 2017), with a connection of ¾" int. thread (sealed with plug) for the installation of the connection set for the expansion tank (item no. 7507), pressure relief valve ½" x ¾", 3 bar, up to 50 kW, pressure gauge 0-4 bar	52543
	Safety set for distribution manifold - DN 32 (1¼") up to 100 kW For the installation on modular distribution manifolds DN 32 (as of 2017), with a connection of 1" int. thread (sealed with plug) for the installation of the connection set for the expansion tank (item no. 7508), pressure relief valve ¾" x 1", 3 bar, up to 100 kW, pressure gauge 0-4 bar	52553
	Coupling piece for overhead installation - DN 32 (1¼") Coupling piece for installation of a HeatBloC [®] below a distribution manifold with flat sealing. Please note: When you use wall brackets, an additional mounting plate is necessary for installing a 2-fold distribution manifold MV2.	3724
) H	Adapter pipe DN 40 (11/2") for flange pumps DN 40 DN 40 x 30 mm Installation length from 220 to 250 mm	12397
	Adapter pipe DN 50 (2") for flange pumps DN 50 DN 50 x 30 mm Installation length from 250 to 280 mm	12395



Mounting equipment modular distribution manifold DN 20-50



	Adaptor pieces DN 50 (2") for flange pumps DN 50 DN 50 x 20 mm Installation length from 240 to 280 mm	12396
	Reducer set DN 32 - DN 25 for installation of modular heating circuits DN 20 on modular distribution manifolds DN 25, adapter set 1½" external thread, flat-sealing with nut on ¾" PAW flange, reduction of the centre distance from 125 mm to 90 mm, distance pipe 1" internal thread x 1" external thread, flat sealing, brass, with sealing. The required union nuts 1" internal thread are dismounted from the heating circuit.	3735
•••	Reducer set DN 32 - DN 25 for the installalation of DN 25 HeatBloC [®] s on DN 32 distribution manifolds, adapter set 2" external thread, flat-sealing with nut on 1½" internal thread, flat-sealing, made of brass, with gaskets, 2 types	37351
	Set reducer flanges DN 40 - DN 32 (1 ¹ / ₂ " - 1 ¹ / ₄ ") Reducer flanges made of brass for the assembly of a pump DN 32* in HeatBloC*s DN 40 or for connection of a single HeatBloC* DN 32 on a distribution manifold DN 40. One side flange DN 40 - PN 6, other side flange for 2" union nut, flat sealing. Reduction of the centre distance from 160 mm to 125 mm, installation height = 35 mm. *For the installation of a DN 32 pump 2x nut and seals are required additionally (2x N00121).	41610
	Set reducer flanges DN 50 - 32 (2" - 1¼") 2 reducing flanges made of steel, zinced/brass for connecting a DN 32 HeatBloC [®] on a DN 50 modular distribution manifold. One side DN 50 flange with PN 6, other side flange DN 32 - 1¼". Reduction of the centre distance from 180 mm to 125 mm, with seals and screws for connection to DN 50. Installation height = 48 mm	5162
	Set reducer flanges DN 50 - 40 (2" - 1 ¹ / ₂ ") 2 reducing flanges made of zinced steel for connecting a DN 40 HeatBloC [®] on a DN 50 modular distribution manifold. For the assembly of a DN 40 pump, installation length 250 mm, in a DN 50 HeatBloC [®] . One side DN 50 flange (PN 6), other side DN 40 flange (PN 6). Reduction of the centre distance from 180 mm to 160 mm, with seals and screws, installation height = 13 mm Use only with slip-on flanges!	51610

Description

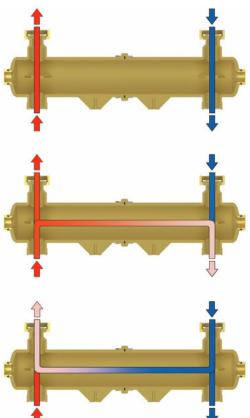
Hydraulic separators are used when there are simultaneously one or more heat generator circuits/primary circuits with an own pump and one or more consumer/secondary circuits with a distribution pump in an installation. The hydraulic separator causes a hydraulic separation of the connected circuits. It is thus possible to make the connected primary and secondary circuits work independently in terms of the hydraulics. The flow in one circuit does not cause a flow in the other circuit when the pressure drop in the hydraulic separator is insignificant.

When a hydraulic separator is used, each circuit (the primary and the secondary one) must be equipped with a pump. Thus, a heat generation circuit/primary circuit can be provided with constant throughput and a consumer circuit/ secondary circuit can be provided with variable flow. These are the typical functioning conditions for modern heating and air conditioning systems. The figures on the adjoining side show three possible conditions of hydraulic stability.

	The figures on the adjoining side show three stability.
Л	

Hvdraulic	separator DN 20	0 (¾")

Hydraulic separator DN 20 (¾")		ltem no.
	 Flow rate: 2200 l/h Completely made of brass, completely insulated with EPP insulation, for the installation under a modular distribution manifold DN 20 or separately (vertically or horizontally) to the wall. Connections: ³/₄" PAW flange for nut 1" nut (top), ³/₄" internal thread x 1" external thread flat-sealing (bottom), 2 x for boiler connection, others closed with plug, 2 × ½" internal thread for immersion sleeve and fill and drain valve width = 435 mm, installation height = 120 mm, centre distance = 270 mm 	31421
	Flow rate: 950 l/h Completely made of brass, with separate flow and return line, for the installation under an individual HeatBloC® DN 20. The EPP insulation is integrated into the HeatBloC®. Can also be installed under a modular distribution manifold DN 20 (with mounting plate item no. 3125) or separately (in the pipe). When installing separately two additional union nuts item no. 2055 are necessary and the insulation must be produced on site. Connections: ¾" PAW flange for nut 1" nut (top), ¾" internal thread x 1" external thread flat-sealing (bottom), 2 x ¾" internal thread, closed with plug (on the side), width = 260 mm, installation height = 80 mm, centre distance = 90 mm	3142



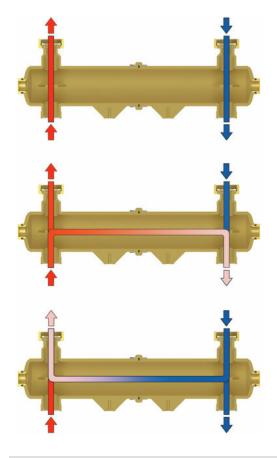
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Hydraulic separator DN 25 (1")

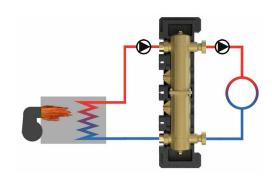




Description

Hydraulic separators are used when there are simultaneously one or more heat generator circuits/primary circuits with an own pump and one or more consumer/secondary circuits with a distribution pump in an installation. The hydraulic separator causes a hydraulic separation of the connected circuits. It is thus possible to make the connected primary and secondary circuits work independently in terms of the hydraulics. The flow in one circuit does not cause a flow in the other circuit when the pressure drop in the hydraulic separator is insignificant.

When a hydraulic separator is used, each circuit (the primary and the secondary one) must be equipped with a pump. Thus, a heat generation circuit/primary circuit can be provided with constant throughput and a consumer circuit/ secondary circuit can be provided with variable flow. These are the typical functioning conditions for modern heating and air conditioning systems. The figures on the adjoining side show three possible conditions of hydraulic stability.



Hydraulic separator DN 25 (1") ltem no. Flow rate: 3500 l/h 344213 Completely made of brass, completely insulated with EPP insulation, for the installation under a modular distribution manifold DN 25 or separately (vertically or horizontally) to the wall. Connections: 1" PAW flange for 11/2" nut (top), 11/2" external thread / 1" internal thread, flat-sealing with fitting, 2 x 1/2" internal thread for immersion sleeve and fill and drain valve, width = 625 mm, installation height = 180 mm centre distance = 375 mm Flow rate: 1600 /h 344203 Completely made of brass, with separate flow and return line, for the installation under an individual HeatBloC® DN 25. With EPP insulation. Can also be installed under a modular distribution manifold DN 25 (with mounting plate item no. 3425) or separately (in the pipe). In case of separate installation you need two connection sets item no. 2151. Connections: 1" PAW flange for 1¹/₂" nut (top), 11/2" external thread, flat-sealing with fitting, width = 375 mm installation height = 128 mm centre distance = 125 mm



Hydraulic separators are used when there are simultaneously one or more heat generator circuits/primary circuits with an own pump and one or more consumer/secondary circuits with a distribution pump in an installation. The hydraulic separator causes a hydraulic separation of the connected circuits. It is thus possible to make the connected primary and secondary circuits work independently in terms of the hydraulics. The flow in one circuit does not cause a flow in the other circuit when the pressure drop in the hydraulic separator is insignificant.

When a hydraulic separator is used, each circuit (the primary and the secondary nary al aulic

one) must be equipped with a pump. Thus, a heat generation circuit/prime
circuit can be provided with constant throughput and a consumer circuit/
secondary circuit can be provided with variable flow. These are the typical
functioning conditions for modern heating and air conditioning systems.
The figures on the adjoining side show three possible conditions of hydrar
stability.

	Flow rate: 4800 l/h
	Completely made of brass, completely insulated with EPP insulation, for the installation under a

7	ŀ





	modular distribution manifold DN 32 or separately (vertically or horizontally) to the wall.	
J	Connections: $1\frac{1}{4}$ " PAW flange for 2" nut (top), $1\frac{1}{4}$ " internal thread / 2" external thread, flat-sealing (bottom) with fitting, $2 \times \frac{1}{2}$ " internal thread for immersion sleeve and fill and drain valve, width = 600 mm installation height = 200 mm centre distance = 375 mm	
	Flow rate: 2600 l/h Completely made of brass, with separate flow and return line, for the installation under an individual HeatBloC [®] DN 32. With EPP insulation. Can also be installed under a modular distribution manifold DN 32 (with mounting plate item no. 3725) or separately (in the pipe). In case of separate installation you need two connection sets item no. 2152.	374203
	Connections: 1¼" PAW flange for 2" nut (top), 2" external thread, flat-sealing with fitting, width = 330 mm installation height = 125 mm centre distance = 125 mm	



ltem no. 374213





Т	Immersion sleeve ¼" ext. thread x T = 60 mm	566002
	Wall bracket for HeatBloC® DN 20 (¾")	3121
	Components: 2 wall bracket sets, mounting equipment Possible wall distance: 70-100 mm, distance: 15 mm For 5-fold modular distribution manifolds, we recommend to use two wall bracket sets.	
	Wall bracket for modular distribution manifold - DN 25 (1") - DN 32 (1¼")	34721
	Components: 2 floor brackets (galvanized steel), 8 wall plugs, 8 screws, 2 screws for fixing the distribution manifold onto the floor brackets Distance of the pipe axis to the wall: A = 400 mm	
	Mounting plate DN 20 (¾")	3125
	Components: mounting plate, 2 gaskets, 2 x 1" nut, 2 x reducing nipple 1" ext. thread x 34 " ext.thread	
	for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
	Mounting plate DN 25 (1")	3425
	Components: mounting plate, 2 gaskets, $2 \times 1\frac{1}{2}$ " nut, $2 \times$ housing of coupling F 1" x $1\frac{1}{2}$ " ext. thread for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
	Mounting plate DN 32 (1¼")	3725
	Components: mounting plate, 2 gaskets, 2 x 2" nut for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	
	Fill and drain valve - DN 15 (1/2")	2260
	solid design, with hose connector and cap, completely made of brass, $\frac{1}{2}$ with self-sealing counter nut	
	Union nut DN 20 (¾")	2055
	Brass, to screw insertion pieces for soldering below distribution manifolds DN 20 (¾")	
	Union nut DN 25 (1")	2155
	Brass, to screw insertion pieces for soldering below distribution manifolds DN 25 (1")	
	Union nut DN 32 (1¼")	2156
	Brass, to screw insertion pieces for soldering below distribution manifolds DN 32 (1¼")	
	Sealing for nut - DN 20 (¾")	2057
	asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	
	Sealing for nut - DN 25 (1")	2157
	asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	
	Sealing for nut - DN 32 (1¼")	2158
	asbestos-free, outside diameter: 50 mm, inside diameter: 38 mm, height: 2 mm	
	Low-loss header DN 20, 2-fold	31422
	Number of connections for HeatBloC [®] s = 3 Width = 440 mm	





	Low-loss header DN 20, 3-fold	31423
	Number of connections for HeatBloC ^{\circ} s = 5 Width = 620 mm	51425
	Low-loss header DN 25, 2-fold	344223
	Number of connections for HeatBloC [®] s = 3 Width = 580 mm	
	Low-loss header DN 25, 3-fold	344233
	Number of connections for HeatBloC [®] s = 5 Width = 830 mm	
	Low-loss header DN 32, 2-fold	374223
	Number of connections for HeatBloC [®] s = 3 Width = 600 mm	
	Low-loss header DN 32, 3-fold	374233
	Number of connections for HeatBloC [®] s = 5 Width = 850 mm	
	for boilers with integrated pump	
	By means of the conversion kit (item no. 3143 / 34431 / 37431), the modular distribution manifolds get a bypass which connects the flow and return line without causing any resistance (low-loss header). It must be considered that the pump of the boiler circuit must deliver a higher flow rate than the consumer pumps need in total. Otherwise, unwanted circulations occur on the right or left end of the low-loss header. In that case a hydraulic separator must be installed below a distribution manifold.	
	For all low-loss headers, please note: When you plan the system you must already check whether a low-loss header can be used. In combination with central heating boilers, hydraulic separators must be installed below / upstream of a distribution manifold as the boiler delivers a flow rate with a high temperature difference (leads to unwanted circulation in low-loss headers).	
	Extension set for low-loss header - DN 20 (¾")	3143
	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 950 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
	Extension set for low-loss header - DN 25 (1")	34431
1111 📚 1111	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 1600 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	
	Extension set for low-loss header - DN 32 (1¼")	37431
	for a subsequent conversion into a distribution manifold with integrated hydraulic separator (low- loss header). Range of application up to 2600 l/h, max. up to a 3-fold distribution manifold MV3. Consisting of two distance rings for a resistance-free connection of flow and return chamber, incl. screws and o-rings.	



Mounting equipment hydraulic separators DN 20-32



		Piping group DN 20	3142KS1
		Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and seals, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the left or on the right.	
		Piping group for hydraulic separator - DN 25 (1")	3442KS1
Ľ	0	Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and seals, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the left or on the right.	
(Ø	Piping group for hydraulic separator - DN 32 (1¼")	34742KS1
		Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and seals, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the left or on the right.	









CoolBloC DN 25 / DN 32

Catalogue 04/2025

Systems, valves and fittings for modern heating and cooling

Valid for the EU











All CoolBloCs offer the following advantages:



Pump group for heating and cooling

Condensation-resistant valves and fittings: high-quality components to avoid oxidation

Special pumps with additional insulating element for the use in special ambient conditions, such as dewing or condensate formation

Thermal separation of the actuator and the mixing valve to avoid condensate formation

Sealing lips protected by the utility model in the insulation to reduce condensate formation

CoolBloCs are ideally suitable for the use in combination with heat pumps.

Cooling – application during the summer:



- 1. A heat sink (e.g. a heat pump) provides cooled fluid.
- 2. The cooling circuit transports the cooled fluid to the interior spaces.
- 3. There, a heat transfer takes place and the fluid is heated.
- 4. The heated fluid is cooled down again in the heat sink.

Heating – application during the winter:

1.



- A heat source (e.g. a heat pump) provides heated fluid.
- 2. The cooling circuit transports the heated fluid to the interior spaces.
- 3. There, a heat transfer takes place and the fluid is cooled down.
- 4. The cooled fluid is heated again in the heat source.





Product range CoolBloC Combined heating and cooling circuits - types





C31 - DN 25 (1")

direct / unmixed

up to 46.5 kW*

C34 - DN 25 (1") 3-way mixing valve with bypass 0-50%



up to 43 kW*

C31 - DN 32 (1¼") direct / unmixed



up to 50 kW*

C34 - DN 32 (1¼") 3-way mixing valve with bypass 0-50%



up to 48 kW*

*Temperature difference = 20 K



CoolBloC C31 DN 25 (1") direct / unmixed







Application range

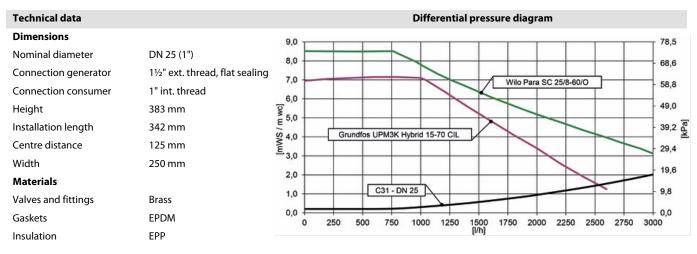
• For boiler charging / for modulating temperature heating system

Recommended application range

up to 46 kW • 20 K up to 2000 l/h •

ina data

Operating data	
Max. operating pressure	6 bar
Max. operating temperature	95 °C
Kvs value	7.2



CoolBloC C31 DN 25 (1")

CoolBloC C31 DN 25 (1")		EEI*	with	ltem no.
	Grundfos UPM3K Hybrid 15-70 CIL	< 0.20	۲	4236013GK7
	Wilo Para SC 25/8-60/O	< 0.20	۲	4236013WP8

= with pump Θ = without pump \bigcirc = with actuator

*EEI = Energy Efficiency Index



CoolBloC C34 DN 25 (1") 3-way bypass mixing valve



Technical data

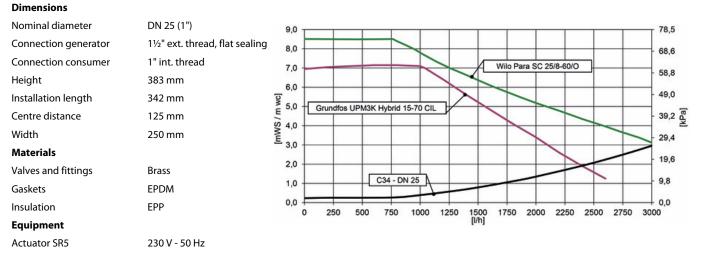


Application range

• for heating and cooling systems controlled by a mixing valve **Recommended application range**

		-	
•	up to 43 kW		
•	20 K up to 1850 l/h		
Opera	ating data		
Max.	operating pressure		6 bar
Max.	operating temperature		95 °C
Kvs va	alue		6
Adjus	tment range bypass		0 - 50 %

Differential pressure diagram



Grundfos UPM3K Hybrid 15-70 CIL < 0.20	CoolBloC C34 DN 25 (1")		EEI*	with	ltem no.
		Grundfos UPM3K Hybrid 15-70 CIL	< 0.20	۵Ø	4236063MGK7
		Wilo Para SC 25/8-60/O	< 0.20		4236063MWP8

a with pump

 \bigcirc = without pump

 \bigcirc = with actuator



CoolBloC C31 DN 32 (1¼") direct / unmixed







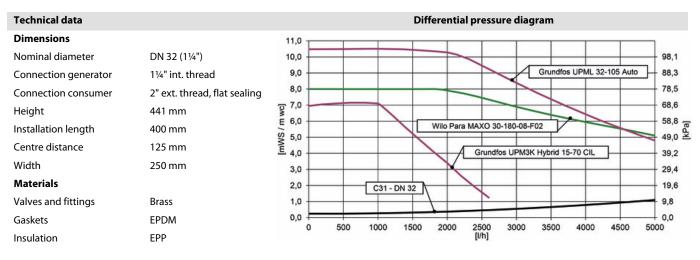
Application range

• For boiler charging / for modulating temperature heating system **Recommended application range**

up to 50 kW • 20 K up to 2150 l/h •

.....

Operating data	
Max. operating pressure	6 bar
Max. operating temperature	95 °C
Kvs value	15.1



CoolBloC C31 DN 32 (11/4")

CoolBloC C31 DN 32 (1¼")		EEI*	with	ltem no.
	Grundfos UPM3K Hybrid 15-70 CIL	< 0.20	۵	4239013GK7
	Grundfos UPML 32-105 AUTO	< 0.23	۵	4239013GL9
	Wilo Para MAXO 30/1-8	< 0.20	۲	4239013WM08

= with pump Θ = without pump \bigcirc = with actuator



CoolBloC C34 DN 32 (1¼") 3-way bypass mixing valve



Technical data

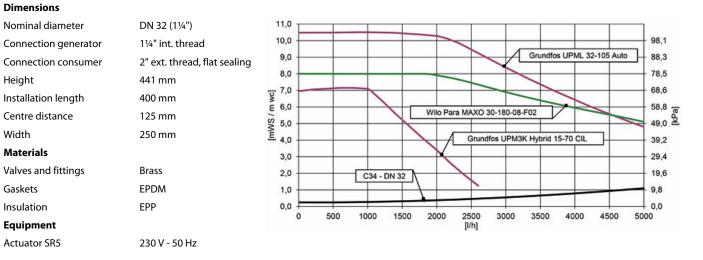


Application range

• for heating and cooling systems controlled by a mixing valve **Recommended application range**

6 bar
95 ℃
10.1
0 - 50 %

Differential pressure diagram



CoolBloC C34 DN 32 (1¼")		EEI*	with	ltem no.
	Grundfos UPM3K Hybrid 15-70 CIL	< 0.20	۵Ø	4239063MGK7
	Grundfos UPML 32-105 AUTO	< 0.23		4239063MGL9
	Wilo Para MAXO 30/1-8	< 0.20	Ð	4239063MWM08

a with pump

 \bigcirc = without pump

 \bigcirc = with actuator





Wall-mounting set for stair bolts Components: 2 x clip spring, 2 x acoustic decoupling	Z3445
Connection set - DN 25 (1") Consisting of 2 insertion pieces for connection of pipes with 1" external thread below HeatBloC [®] s or for the use of cutting-ring compression fittings.	3431
Connection set DN 32 (1¼") Consisting of 2 insertion pieces for connection of pipes w/ 1¼" external thread below HeatBloC®s	3731
Connection set DN 32 (1¼") Connection set for DN 32 (1¼"), consists of 2 screw-in fittings with 2" external thread and 1¼" internal thread for the connection of pipes 1¼" external thread.	3732









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Electronic post-heating for heat pump applications and comfortable heat supply

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Application range

- Comfort maintenance through post-heating via mains power
- Stratification option: integrated switch valve

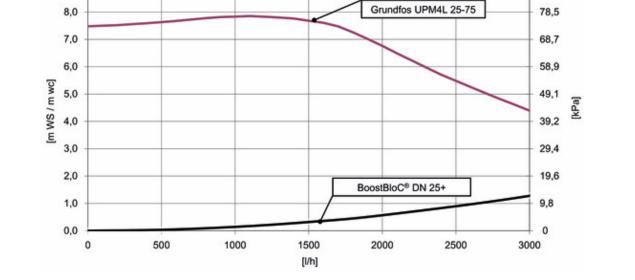
Operating data Μperatin

Max. operating pressure	3 bar
Mindestvolumenstrom	500 l/h
Safety valve	3 bar
Kvs value	8.4
Restförderhöhe	60,8 kPa
Nenninhalt	0.8
Medium	Heating water

i cenincui uutu			
Electrical data		Hydraulic connections	
Heating cartridge		Flow / return consumer	1½" int. thread
Connection	400 V 3N 50 Hz	Flow / return heat pump	1½" int. thread
Nominal output level 1	P1 = 2600 W		
Nominal output level 2	P2 = 3000 W	Dimensions	
Nominal output level 3	P3 = 3200 W	Nominal diameter	DN 25 (1")
Cable cross-section	2,5 - 6 mm ²	Width	406 mm
Control	3x relay (230 VAC, 50 Hz, < 5 VA); External control required	Height	711 mm
		Depth	200 mm
Station	Protection class: IP 20, Protection class: I	Installation length	661 mm
Safety temperature limiter		Materials	
Voltage	400 V	Valves and fittings	Copper; Brass
Switch-off temperature	85 °C - 8K	Gaskets	EPDM
Pump	Grundfos UPM4L 25-75 230 VAC/50 Hz, 0,58 A PWM interface with feedback signal for volume flow rate determination		
Actuator	PS5-230-2P 5 Nm, 2-Punkt-Ansteuerung 230 V, 50 Hz, <5 VA 13 s/90°, 60 % EDmax; Protection category: IP42, protection class II Actuator - protection category: IP 42, Actuator - protection class: II		
Sensors	1x Pt1000		

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Rw



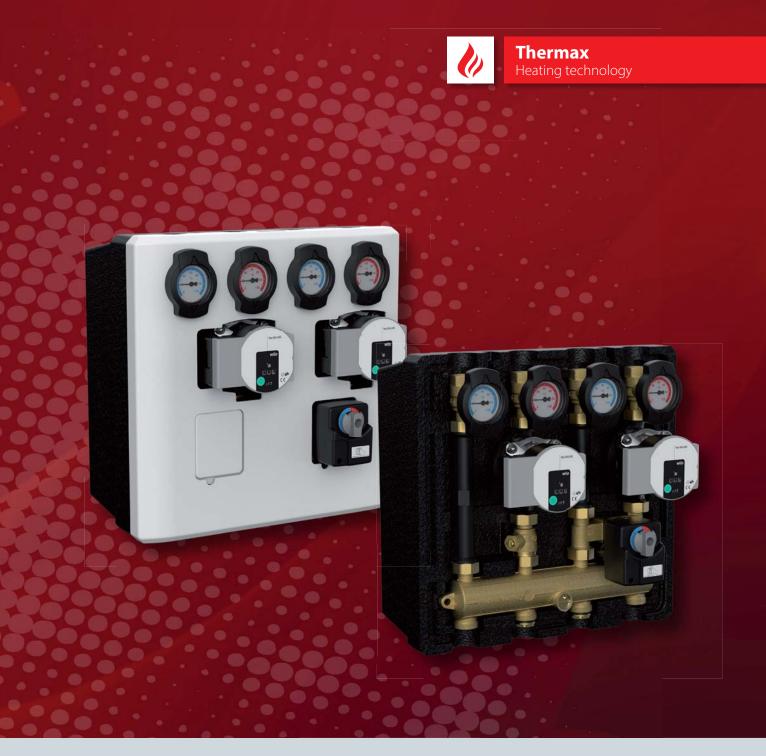
BoostBloC [®] DN 25+		ltem no.
	Grundfos UPM4L 25-75	6743093





88,3





Distribution system Thermax





Catalogue 04/2025

Systems, valves and fittings for the use in hot water heating systems

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Distribution system Thermax DN 20 K31 direct / K32 mixed







Application range

• for wall-mounted boilers

Recommended application range

- K31: up to 23 kW, 20 K up to 1000 l/h •
- K32: up to 19 kW, 20 K up to 820 l/h •

Operating data

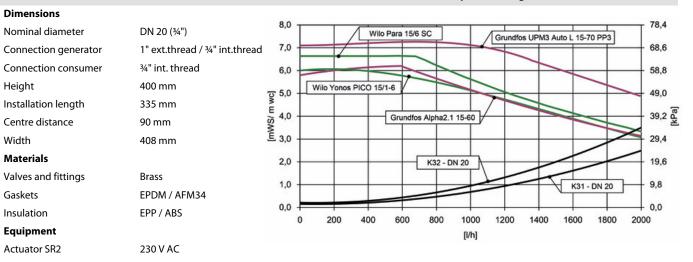
Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value unmixed	4,7
Kvs value mixed	3,7
Kvs value Thermax distribution manifold	7,8

EEI*

with

Item no.

Differential pressure diagram



Distribution system Thermax DN 20

1	1	1	1
K31-K32, 2x Wilo Yonos PICO 15/1-6	< 0.20	\mathbf{A}	323621WN06
K31-K32, 2x Wilo Para SC 15/6-43	< 0.20	\mathbf{A}	323621WP6
K31-K32, 2x Grundfos ALPHA2.1 15-60	< 0.17	\mathbf{A}	323621GH6
K31-K32, 2x Grundfos UPM3 Auto 15-70	< 0.20		323621GM6
K32-K32, 2x Wilo Para SC 15/6-43	< 0.20	\mathbf{A}	323622WP6
K32-K32, 2x Wilo Yonos PICO 15/1-6	< 0.20	\mathbf{A}	323622WN06
K32-K32, 2x Grundfos ALPHA2.1 15-60	< 0.17	\mathbf{A}	323622GH6
K32-K32, 2x Grundfos UPM3 Auto 15-70	< 0.20		323622GM6

= with pump

M =with actuator

Description of function Thermax DN 20 (³/₄")







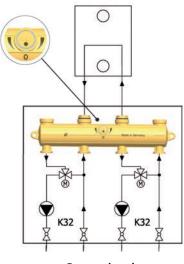
Installation beside the boiler:

Thermax is directly mounted to the wall without distance pieces

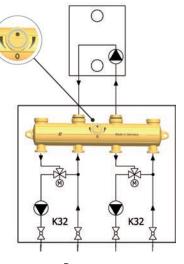
Installation below the boiler:

The pipes are installed between the Thermax (with distance pieces) and the wall

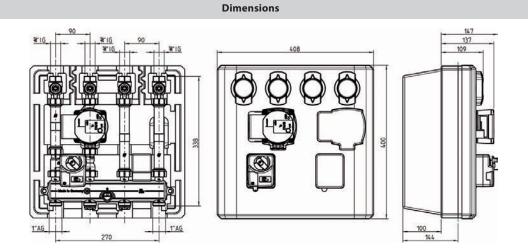
The Thermax system has been designed for applications with two different temperature levels. An application example: It can be connected to a consumer with a high flow temperature (such as a radiant floor heating). The Thermax distribution manifold is equipped with an integrated, adjustable bypass. This bypass can be closed (distribution manifold is pressure tight - for applications with boilers without internal pump) or it can be opened (in this case a low-loss bypass is activated in the Thermax distribution manifold - for applications with an internal pump).



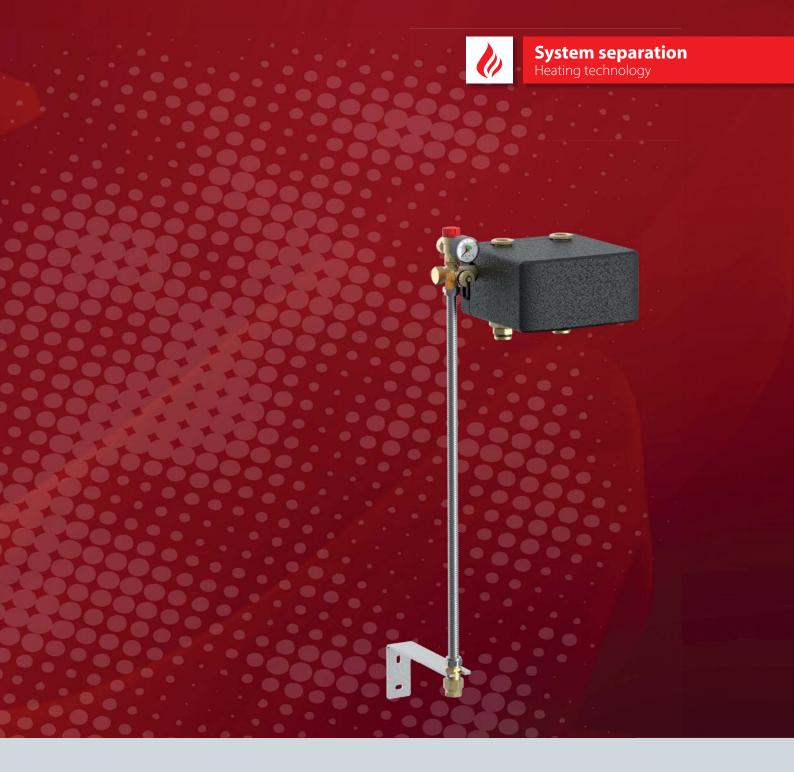
Bypass closed



Bypass open







System separation DN 25

Catalogue 04/2025

Systems, valves and fittings for the use in hot water heating systems

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System separation DN 25 (1") for HeatBloC®s





Application range

Separation of the boiler circuit and the consumer circuit

- for the protection of new boilers in older heating installations
- for radiant panel heating systems with plastic pipes

Recommended application range

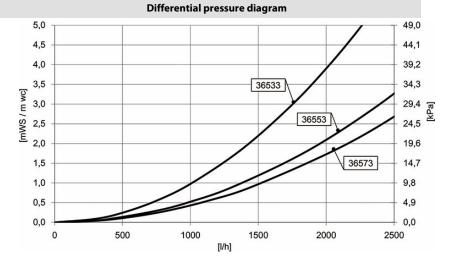
- depending on the heat exchanger and the pump used
- in the case of a pressure loss of 1.5 m wc up to 25 kW 10 K
- up to 2150 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Equipment	
Safety valve	3 bar, 50 kW
Pressure gauge	0-4 bar
Tank connection coupling	Stainless-steel corrugated hose: I = 700 mm; Wall bracket: for tanks with a max. diameter of 430 mm
Fill and drain valve	$\ensuremath{\mathscr{Y}}\xspace^*$ ext. thread, self-sealing, with counter nut and hose connector
Immersion sleeve	for sensor d = 6 mm
Vent plug	³ / ₄ " ext. thread, self-sealing

Technical data Dimensions

Dimensions	
Nominal diameter	DN 25 (1")
Connection generator	1" ext. thread / 1½" int. thread (nut)
Connection consumer	1" PAW flange
Height	176 mm
Installation length	176 mm
Centre distance	125 mm
Width	380 mm
Materials	
Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP



System separation HeatBloC®s DN 25	Heat exchanger	Kvs value	Range of performance (in the case of a pressure loss of 1.5 m wc up to 25 kW 10 K)	ltem no.
	16 plates	3.3	20 kW at 60-50 °C to 35-45 °C	36533
	30 plates	4.4	23 kW at 60-50 °C to 35-45 °C	36553
	40 plates	4.9	25 kW at 60-50 °C to 35-45 °C	36573



System separation DN 25 (1") for HeatBloC®s Application examples



The heating circuits recommended for combination with the system separations (36533, 36553, 36573) are listed on this page. Equipment and prices of the heating circuits can be found on pages K31, K32 and K34.

Note: the heating circuits have to be ordered seperately. The assembly must be carried out on-site!

Application 1:

Extension of already existing heating circuits / installations with a temperature control on the primary side (mixed heating circuit with controlled flow temperature or modulating boiler with boiler circuit pump).

Mounting example	Heating circuit	Pump	EEI*	System separation	Range of performance**
S	36013WP6	Wilo Para 25/6-43		36533	1580 l/h = 18.3 kW
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			≤ 0.2	36553	1830 l/h = 21.2 kW
				36573	1930 l/h = 22.4 kW
		36013GH6 Grundfos ALPHA2.1 25-60		36533	1480 l/h = 17.2 kW
Rw	36013GH6		≤ 0.17	36553	1710 l/h = 19.9 kW
				36573	1790 l/h = 20.8 kW
				36533	1720 l/h = 20.0 kW
K31				36553	2020 l/h = 23.5 kW
	36013GM6	Grundfps UPM3 Auto L 25-70 PP3	≤ 0.2	36573	2120 l/h = 24.6 kW

Application 2:

Extension of already existing heating circuits / installations with a pump on the primary side and high flow temperatures (bypass operation in addition to the radiator circuits or operation with solid fuel boiler and boiler circuit pump).

Mounting example	Heatin	ng circuit	Pump	EEI*	System separation	Range of performance**
ā				≤ 0.2	36533	1540 l/h = 17.9 kW
	1 360	63WP6	Wilo Para 25/6-43		36553	1780 l/h = 20.7 kW
					36573	1860 l/h = 21.6 kW
Rev Cart			Grundfos ALPHA2.1 25-60		36533	1450 l/h = 16.8 kW
	360	36063GH6		≤ 0.17	36553	1650 l/h = 19.2 kW
					36573	1730 l/h = 20.1 kW
					36533	1690 l/h = 19.6 kW
K34			Cruis dfae LIDNA2 Auto L		36553	1950 l/h = 22.6 kW
1	3600	36063GM6	Grundfos UPM3 Auto L 25-70 PP3	≤ 0.2	36573	2030 l/h = 23.6 kW

Application 3:

Complete system separation with mixing valve control on the primary side. Ensures low return temperatures of the boiler and allows the operation of several parallel heating circuits, f. ex. on a distribution manifold.

Mounting example	Heating circuit	Pump	EEI*	System separation	Range of performance**
				36533	1540 l/h = 17.9 kW
	prim. 36053MWP6	14/1 D 25/6 42		36553	1750 l/h = 20.3 kW
	sec. 36013WP6	Wilo Para 25/6-43	≤ 0.2	36573	1830 l/h = 21.2 kW
				36533	1440 l/h = 16.7 kW
	prim. 36053MGH6	Grundfos ALPHA2.1		36553	1630 l/h = 18.9 kW
К31 +	sec. 36013GH6		≤ 0.17	36573	1710 l/h = 19.9 kW
٠				36533	1670 l/h = 19.4 kW
				36553	1930 l/h = 22.4 kW
K32	prim. 36053MGM6 sec. 36013GM6	Grundfps UPM3 Auto L 25-70 PP3	≤ 0.2	36573	2000 l/h = 23.2 kW
** At a prim	ary temperature of 60 - 50 °	I C, a secondary temperatu	ıre of 35	- 45 °C and a secondarv	residual head of 1.5 m wo





Return flow temperature maintenance



Catalogue 04/2025

Valves and fittings for the use in hot water heating systems

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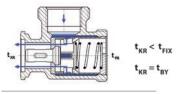


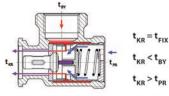


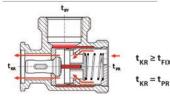
Return flow temperature maintenance with thermal control valve DN 20 (34") / DN 25 (1")











Temperatures

- t_{By} = Bypass
- t_{kr} = Boiler return
- t_{PR}^{m} = return buffer tank
- t_{FIX} = opening temperature





Application range

Heating systems with return flow temperature maintenance
Solid fuel boilers, wood firing / stove heating systems

The pump sets for the return flow temperature maintenance are groups of fittings for pumps that can be isolated. They consist of:

Mounting version 1:

- high-efficiency pump
- control valve with opening temperature 45 °C or 60 °C
- 1 thermometer ball valve with red thermometer integrated in the handle, can be pulled off
- 2 thermometer ball valves with blue thermometer integrated in the handle, can be pulled off
- connections DN 20: 3/4" int. thread
- connections DN 25: 1" int. thread

Mounting version 2 - Additionally required:

- 1 x sealing: DN 20 item no. 2057, DN 25 item no. 2157
- 1 x screw-in fitting: DN 20 item no. 2053, DN 25 item no. 2153
- 1 x pump fitting DN 20 item no. 2049, DN 25 item no. 2149

Thermal control valve with automatic bypass

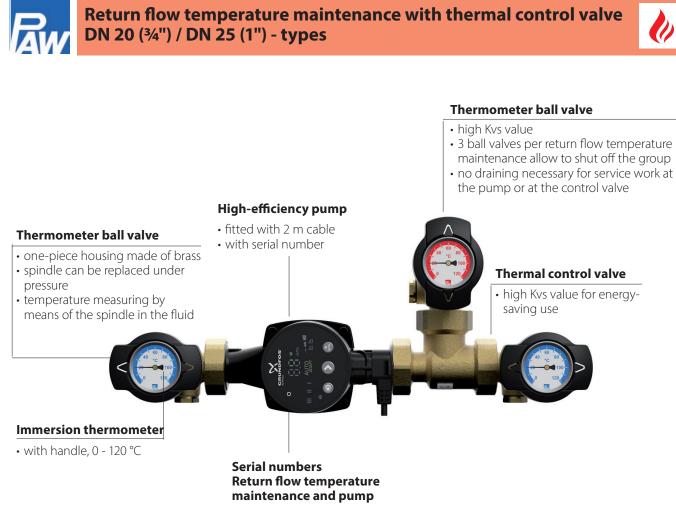
- 1. The thermal valve shuts off the connection to the buffer tank, as long as the water in the boiler circuit is colder than the opening temperature of the thermal control valve. The pump circulates the water in the boiler circuit through the bypass. The small quantity of water in the boiler circuit can now heat up quickly.
- 2. When the boiler circuit reaches the opening temperature of the control valve, the valve reduces the bypass flow rate and opens the buffer tank circuit. The cold water from the buffer tank return is mixed with the hot boiler circuit water in the control valve. This leads to an increase of the return temperature in the boiler circuit to the desired level and avoids condensation in the boiler.
- 3. When the buffer tank return temperature is higher than the opening temperature, the control valve completely shuts off the bypass. Thus, the water from the buffer tank flows directly into the boiler circuit.

Please note:

If the boiler output is controlled by the boiler temperature the boiler must heat up 20 °C above the opening temperature of the return flow temperature maintenance. Otherwise, the boiler might reduce the output even before the thermal control valve is completely open.

Mounting versions 1 and 2:

Separate assembly of the group of fittings in the flow and return. This version permits an easy isolation of the heat generator without further shut-off valves. Consider the position of the safety group before mounting.



• reliable identification, fast service

Mounting version 1



Mounting version 2



DN 25



Return flow temperature maintenance RHT with thermal control valve DN 20 (¾")





Application range

- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems •

Recommended application range

up to 11 kW •

•	10 K	up to	950 l/h
-	1010	up to	2201/11

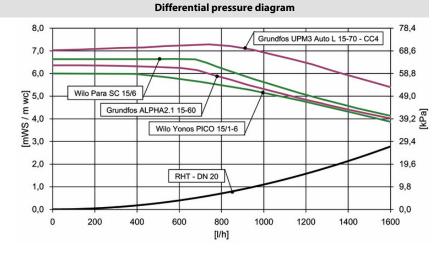
Operating data

Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	4.7

Technical data Equipment

red and blue dial thermometer, integrated into black plastic handles (0-120°C)

Dimensions	
Nominal diameter	DN 20 (¾")
Connection generator	¾" int. thread
Connection consumer	¾" int. thread
Installation height	112 mm
Installation length	336 mm
Materials	
Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP



Return flow temperature maintenance with thermal control valve - DN 20 (¾")

	Opening temperature: 45 °C	Wilo Para SC 15/6-43	< 0.20	960250WP6
	Opening temperature: 45 °C	Wilo Yonos PICO 15/1-6	< 0.20	960250WN06
	Opening temperature: 45 °C	Grundfos UPM3 Auto 15-70	< 0.20	960250GM6
	Opening temperature: 45 °C	Grundfos ALPHA2.1 15-60	< 0.17	960250GH6
	Opening temperature: 45 °C	without pump - for pumps with 1" ext. thread		960250
	Opening temperature: 60 °C	Wilo Para SC 15/6-43	< 0.20	960260WP6
	Opening temperature: 60 °C	Wilo Yonos PICO 15/1-6	< 0.20	960260WN06
	Opening temperature: 60 °C	Grundfos UPM3 Auto 15-70	< 0.20	960260GM6
	Opening temperature: 60 °C	Grundfos ALPHA2.1 15-60	< 0.17	960260GH6
	Opening temperature: 60 °C	without pump - for pumps with 1" ext. thread		960260

* EEI = Energy Efficiency Index

EEI*

Item no.



Return flow temperature maintenance RHT with thermal control valve DN 25 (1")





Application range

- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems •

Recommended application range

٠	up to 26 kW	
٠	10 K up to 2250 l/h	
Opera	ting data	
Max. o	perating pressure	6 bar
Opera	ting temperature	110 °C
Kvs va	lue	7.2

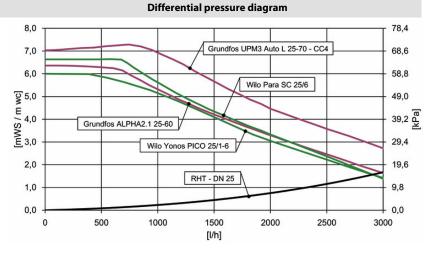
Technical data

Equipment

red and blue dial thermometer, integrated into black plastic handles (0-120°C)

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1" int. thread
Connection consumer	1" int. thread
Installation height	128 mm
Installation length	428 mm
Materials	
Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP



EEI*

ltem no.

Return flow temperature maintenance with thermal control valve - DN 25 (1")

-				
	Opening temperature: 45 °C	Wilo Para SC 25/6-43	< 0.20	961250WP6
	Opening temperature: 45 °C	Wilo Yonos PICO 25/1-6	< 0.20	961250WN06
	Opening temperature: 45 °C	Grundfos UPM3 Auto 25-70	< 0.20	961250GM6
	Opening temperature: 45 °C	Grundfos ALPHA2.1 25-60	< 0.17	961250GH6
	Opening temperature: 45 °C	without pump - for pumps with 1½" ext. thread		961250
	Opening temperature: 60 °C	Wilo Para SC 25/6-43	< 0.20	961260WP6
	Opening temperature: 60 °C	Wilo Yonos PICO 25/1-6	< 0.20	961260WN06
	Opening temperature: 60 °C	Grundfos UPM3 Auto 25-70	< 0.20	961260GM6
	Opening temperature: 60 °C	Grundfos ALPHA2.1 25-60	< 0.17	961260GH6
	Opening temperature: 60 °C	without pump - for pumps with 1½" ext. thread		961260



Return flow temperature maintenance RHT with thermal control valve DN 25 (1") - 32 (1¼")





Application range

- for heating installations with return flow temperature maintenance
- for solid fuel boilers, wood-fired and stove heating systems

Recommended application range

- up to 26 kW
- 10 K up to 2250 l/h

Operating data

Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	7.2

Technical data Equipment

red and blue dial thermometer, integrated into black plastic handles (0-120°C)

•	
Dimensions	
Nominal diameter	DN 25 (1") - DN 32 (1¼")
Connection generator	1¼" int. thread
Connection consumer	1¼" int. thread
Installation height	116 mm
Installation length	274 mm
Materials	
Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

107,9 11,0 10,0 98,1 9,0 88.3 8,0 78,5 Grundfos UPM3 Flex AS 15-75 7,0 68,7 7,0 5,0 5,0 4,0 58,9 [kPa] 49,1 39,2 3,0 29,4 19,6 2,0 1,0 9,8 RHT 96604xGF7, DN 25-32 0,0 0 0 500 1000 2000 1500 2500 3000 [l/h]

Differential pressure diagram

Return flow temperature maintenance with thermal control valve (60 °C) - DN 25 (1") - 32 (1¼")		EEI*	ltem no.	
	Opening temperature: 45 °C	Grundfos UPM3 Flex AS 15-75 GGES3	< 0.20	966041GF7
	Opening temperature: 60 °C	Grundfos UPM3 Flex AS 15-75 GGES3	< 0.20	966042GF7



Pump sets for return flow temperature maintenance with actuator DN 20 (3/4") - DN 50 (2")





DN 20 (¾")



DN 25 (1")



DN 32 (11/4")

Application range

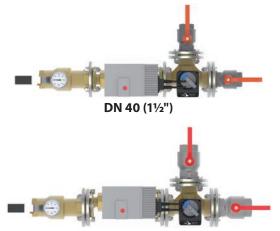
- Heating systems with return flow temperature maintenance
- Solid fuel boilers, wood firing / stove heating systems

Product description:

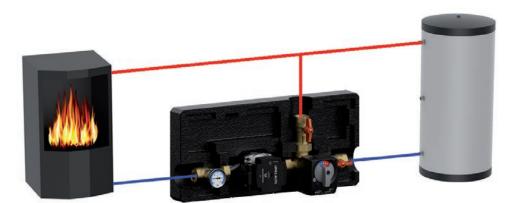
The return flow temperature maintenance with actuator is a preassembled fitting group for heating circuits. The pump and the mixing valve can be isolated by means of the ball valves. The pump can thus be maintained without draining the heating circuit.

Description of function:

The pump set prevents the temperature in the boiler from falling under the dew point, thus reducing contamination of the boiler. The pump set is mounted between the buffer tank and the boiler. The actuator is controlled by an external controller. The actuator opens the 3-way valve only when the boiler circuit has reached the opening temperature set. By means of the mixing valve, the return flow temperature in the boiler is kept at a constant level and the maximum amount of energy for the storage tank charging is provided.



DN 50 (2")



Mounting example return flow temperature maintenance with actuator DN 25







- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems •

Recommended application range

up to 19,5 kW •

•	10 K up to 1650 l/h
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Operating data

Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	5.45

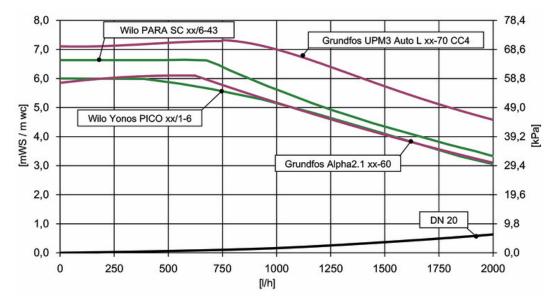
DN 20 (¾")

¾" int. thread ¾" int. thread 134 mm 359 mm

Technical data

Actuator	
Equipment	Actuator SR2
Electrical data	230 V / 50 Hz
Power consumption	19,5 kW
Torque	2 Nm
Setting time 90°	105 s
Materials	
Valves and fittings	Brass
Gaskets	AFM 34
Insulation	

Dimensions	
Nominal diameter	
Connection generator	
Connection consumer	
Installation height	
Installation length	



Return flow temperature maintenance with actuator -	DN 20 (¾")	EEI*	ltem no.
	Wilo Para SC 15/6-43	< 0.20	96083WP6
	Wilo Yonos PICO 15/1-6	< 0.20	96083WN06
	Grundfos UPM3 Auto 15-70	< 0.20	96083GM6
	Grundfos ALPHA2.1 15-60	< 0.17	96083GH6







- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems •

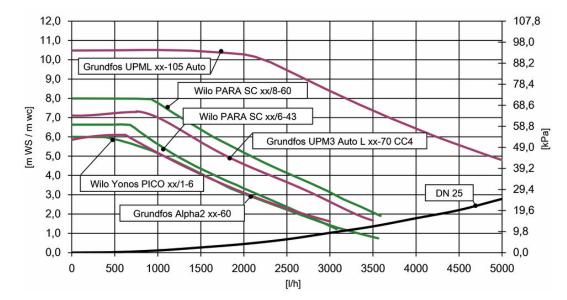
Recommended application range

• up to 31 kW	
• 10 K up to 2670 l/h	
Operating data	
Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	10

Technical data	
Actuator	
Equipment	Actuator SR5
Electrical data	230 V / 50 Hz
Power consumption	31 kW
Torque	5 Nm
Setting time 90°	140 s
Materials	
Valves and fittings	Brass
Gaskets	AFM 34
Insulation	EPP

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1" int. thread
Connection consumer	1" int. thread
Installation height	187 mm
Installation length	437 mm



EEI* Return flow temperature maintenance with actuator - DN 25 (1") ltem no. Wilo Para SC 25/6-43 < 0.20 960841WP6 Wilo Para SC 25/8-60/O 960841WP8 < 0.20 Wilo Yonos PICO 25/1-6 < 0.20 960841WN06 Grundfos UPM3 Auto 25-70 < 0.20 960841GM6 Grundfos ALPHA2.1 25-60 960841GH6 < 0.17 Grundfos UPML 25-105 AUTO < 0.23 960841GL9







- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems

Recommended application range

up to 50 kW •

•	10 K up to 4310 l/h
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Operating data

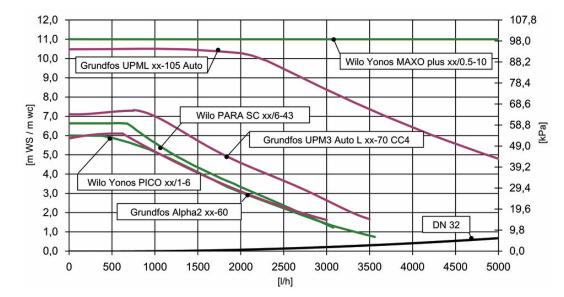
Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	16

DN 32 (11/4")

1¼" int. thread 1¼" int. thread 217 mm 497 mm

Technical data

Actuator	
Equipment	Actuator SR5
Electrical data	230 V / 50 Hz
Power consumption	50 kW
Torque	5 Nm
Setting time 90°	140 s
Materials	
Valves and fittings	Brass
Gaskets	AFM 34
Insulation	EPP



Return flow temperature maintenance with actuator - DN 32 (11/4")

Return flow temperature maintenance with actuato	r - DN 32 (1¼")	EEI*	ltem no.
	Wilo Para SC 30/6-43	< 0.20	960851WP6
The second distance of	Wilo Yonos PICO 30/1-6	< 0.20	960851WN06
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	960851WY10
	Grundfos UPM3 Auto 32-70	< 0.20	960851GM6
	Grundfos ALPHA2.1 32-60	< 0.20	960851GH6
	Grundfos UPML 32-105 AUTO	< 0.23	960851GL9







- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems •

Recommended application range

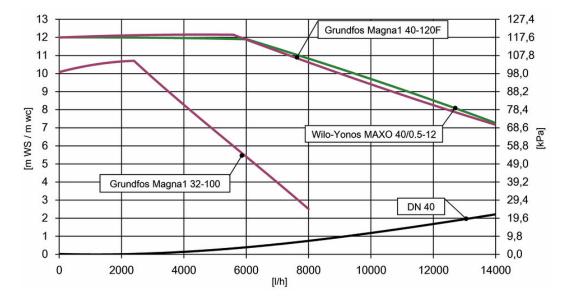
٠	up to 80 kW	
٠	10 K up to 6890 l/h	
Opera	ting data	
Max. o	perating pressure	6 bar
Operat	ting temperature	110 °C
Kvs va	lue	23

Technical data

Actuator	
Equipment	Actuator SR5
Electrical data	230 V / 50 Hz
Power consumption	80 kW
Torque	5 Nm
Setting time 90°	140 s
Materials	
Valves and fittings	Brass
Gaskets	AFM 34
Insulation	

Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	1½" int. thread
Connection consumer	1½" int. thread
Installation height	266 mm
Installation length	735 mm



Return flow temperature maintenance with actuator - DN 40 (1½")		EEI*	ltem no.
	Wilo Yonos MAXO plus 40/0,5-12	< 0.20	960861WY12
	Grundfos MAGNA1 32-100	< 0.21	960861GL10
	Grundfos MAGNA1 40-120 F	< 0.21	960861GL12







- for heating installations with return flow temperature maintenance •
- for solid fuel boilers, wood-fired and stove heating systems

Recommended application range

- up to 120 kW •
- 10 K up to 10340 l/h •

Operating data

Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	25

DN 50 (2") 2" int. thread

2" int. thread 296 mm 792 mm

Technical data

Actuator	
Equipment	Actuator SR5
Electrical data	230 V / 50 Hz
Power consumption	120 kW
Torque	5 Nm
Setting time 90°	140 s
Materials	
Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	

Dimensions	
Nominal diameter	
Connection generator	
Connection consumer	
Installation height	
Installation length	

13 127,4 12 117,6 Grundfos Magna1 50-120F 11 107,8 10 98,0 9 88,2 8 78,4 [m WS / m wc] 7 68,6 Wilo-Yonos MAXO 50/0.5-9 [kPa] 6 58,8 5 49,0 4 Grundfos Magna1 32-100 39,2 3 29,4 2 19,6 1 9,8 DN 50 0 0,0 0 2000 4000 6000 8000 10000 14000 12000 [l/h]

Return flow temperature maintenance with actuator - DN 50 (2") EEI* ltem no. Wilo Yonos MAXO plus 50/0.5-9 < 0.20 960871WY9 960871GL10 Grundfos MAGNA1 32-100 < 0.21 Grundfos MAGNA1 50-120 F < 0.21 960871GL12



Equipment for return flow temperature maintenance



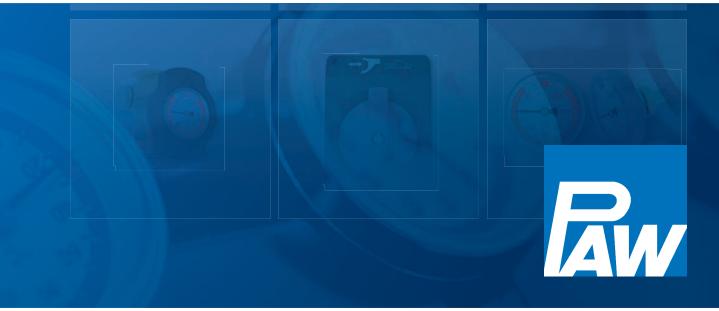
Sealing for nut - DN 20 (¾")	2057
asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	
Sealing for nut - DN 25 (1")	2157
asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	
Screw-in fitting DN 20 (¾")	2053
1" external thread, flat-sealing x ¾" internal thread	
Screw-in fitting 25 (1")	2153
1½" external thread, flat-sealing x 1" internal thread	
Pump fitting DN 20 (¾")	2049
with union nut, insert fitting and gasket, length: 30 mm	
Pump fitting 25 (1") with union nut, insert fitting and gasket, length: 28 mm	2149
Cutting-ring compression fitting DN 20 (¾"), d = 15 mm	561215
Cutting-ring compression fitting DN 20 (¾"), d = 18 mm	561218
Cutting-ring compression fitting DN 20 (¾"), d = 22 mm	561222
$34^{"}$ external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 °C.	
Cutting-ring compression fitting DN 25 (1"), d = 15 mm	562915
Cutting-ring compression fitting DN 25 (1"), d = 18 mm	562918
	1
Cutting-ring compression fitting DN 25 (1"), d = 22 mm	562922





VALVES, FITTINGS & ACCESSORIES FOR HYDRONIC HEATING INSTALLATIONS







AB-

PAW 3-way valve PV3

- for demanding application conditions
- simple installation thanks to stop bolts
- flexible application areas: return stratification in the buffer tank
- switch valve for zone/storage tank charging
- management of various heat generators (switching or activating)
- possible ambient temperatures up to 70 °C (medium temperature up to 85 °C)



Advantages PV3:

- change of direction of rotation —> flexibility
- actuator with snap-in assembly —> quick installation
- · leakage rate A according to DIN EN 12266-1
- ambient temperatures up to 70 ℃
- short switching time and high Kvs values

Simple change of direction of rotation

The direction of rotation of the actuator can be easily changed

- 1.) pull off the cover
- 2.) shift the jumper





PAW 3-way valve PV3 – DN 25 Technical data

Valve	
Nominal diameter	DN 25
Pressure rating	PN 16
Kvs value	15.5 m³/h
Material	CW612N (CuZn39Pb2)
O-rings	EPDM; Viton; PTFE
Туре	L-type ball

Туре	L-type ball
Installation of actuator	Rotation lock with spring element holder
Actuator	

Actuator	
Control signal	2-level control
Protection class	IP42 (IP54, if required)
Medium temperature, consecutive	0-95 ℃
Medium temperature, temporary	0-110 °C
Ambient temperature, temporary	0-70 °C
Operating temperature	max. 110 °C
Cable length	1–3 m (pluggable version)
Torque	5 Nm
Switching time	13 s
Power supply	230 V AC; (on request 24 V DC)

W 3-way valve PV3 – DN 25		ltem no.
	3-way valve PV3 – DN 25 (1")	5675431
	3-way valve PV3 with union nut – DN 25 (1")	5675432
HER A	Can be used in solar and heating installations, to switch between different zones or to connect and disconnect different parts of the system. The actuator is equipped with a relay which is actuated by a 2-point signal, if needed, it can also be manually operated. The 3-way valve PV3 can be operated in both directions.	
	Torque: 5 Nm Setting time: 90°: 13 s Kvs value: 15.5	



Conversion kit from K31 to K32 DN 25 (1")	N00064
1x return pipe DN 25 (1"), with check valve 200 mm wc	
1x 3-way mixing valve DN 25 (1")	
1x union nut G 1½"	
1x actuator with stop bolt and rotation lock	
Conversion kit from K31 to K32 DN 32 (1¼")	N00065
1x return pipe DN 32 (1¼"), with check valve 200 mm wc	
1x actuator with stop bolt and rotation lock	
Conversion kit from K31 to K32 DN 40 (1½")	N00066
1x return pipe DN 40 (1½"), with check valve (200 mm wc, can be opened)	
1x 3-way mixing valve	
1x actuator with stop bolt and rotation lock	
Extension set for 3-way mixing valve DN 20 (¾") / DN 25 (1")	34012
Reference mining value K22 (with humans on the hash) DN 20/DN 25	
Extension set for 3-way mixing valve DN 25 (1") / DN 32 (1¼")	37012
Before: mixing valve K33 (with bypass on the front) DN 25	
After: K34 - DN 25 (with bypass on the front), flow on the right + left	
3-way mixing valve for HeatBloC [®] K32 - DN 20 (¾")	N00043
3-way mixing valve for HeatBloC [®] K32 - DN 25 (1")	N00014
3-way mixing valve for HeatBloC [®] K32 - DN 32 (1¼")	N00037
4x gaskets	
2x union nuts	
5	
2x union nuts 1x coupling piece for mixing valve shaft	N00020
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator	N00020 N00038
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC® K34 - DN 25 (1")	
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC* K34 - DN 25 (1") 3-way mixing valve for HeatBloC* K34 - DN 32 (1¼") 4x gaskets 2x union nuts	
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC* K34 - DN 25 (1") 3-way mixing valve for HeatBloC* K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft	
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC* K34 - DN 25 (1") 3-way mixing valve for HeatBloC* K34 - DN 32 (1¼") 4x gaskets 2x union nuts	
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC* K34 - DN 25 (1") 3-way mixing valve for HeatBloC* K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator Conversion kit from K33/34 to K33 flow right, bypass on the front,	
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC* K34 - DN 25 (1") 3-way mixing valve for HeatBloC* K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator	N00038
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC* K34 - DN 25 (1") 3-way mixing valve for HeatBloC* K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator Conversion kit from K33/34 to K33 flow right, bypass on the front,	N00038
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC° K34 - DN 25 (1") 3-way mixing valve for HeatBloC° K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator Conversion kit from K33/34 to K33 flow right, bypass on the front, for PAW mixing valve DN 25	N00038
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC® K34 - DN 25 (1") 3-way mixing valve for HeatBloC® K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator Conversion kit from K33/34 to K33 flow right, bypass on the front, for PAW mixing valve DN 25 Before: mixing valve K33 (with bypass on the front), DN 25, flow on the left After: mixing valve K33 (with bypass on the front), DN 25, flow on the right Conversion kit from K33/34 to K33 flow left, bypass on the front,	N00038
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC® K34 - DN 25 (1") 3-way mixing valve for HeatBloC® K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator Conversion kit from K33/34 to K33 flow right, bypass on the front, for PAW mixing valve DN 25 Before: mixing valve K33 (with bypass on the front), DN 25, flow on the left After: mixing valve K33 (with bypass on the front), DN 25, flow on the right	N00038
2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator 3-way mixing valve for HeatBloC® K34 - DN 25 (1") 3-way mixing valve for HeatBloC® K34 - DN 32 (1¼") 4x gaskets 2x union nuts 1x coupling piece for mixing valve shaft 1x rotation lock for actuator Conversion kit from K33/34 to K33 flow right, bypass on the front, for PAW mixing valve DN 25 Before: mixing valve K33 (with bypass on the front), DN 25, flow on the left After: mixing valve K33 (with bypass on the front), DN 25, flow on the right Conversion kit from K33/34 to K33 flow left, bypass on the front,	N00038
_	1x return pipe DN 25 (1"), with check valve 200 mm wc 1x 3-way mixing valve DN 25 (1") 1x union nut G 1½" 1x gasket 1", for thread connection 1½" 1x actuator with stop bolt and rotation lock Conversion kit from K31 to K32 DN 32 (1¼") 1x return pipe DN 32 (1¼"), with check valve 200 mm wc 1x 3-way mixing valve DN 32 (1¼") 1x union nut G2" 1x gasket 1¼", for thread connection 2" 1x gasket 1¼", for thread connection 2" 1x actuator with stop bolt and rotation lock Conversion kit from K31 to K32 DN 40 (1½") 1x return pipe DN 40 (1½"), with check valve (200 mm wc, can be opened) 1x 3-way mixing valve 1x union nut 1x actuator with stop bolt and rotation lock Extension set for 3-way mixing valve DN 20 (¾") / DN 25 (1") Before: mixing valve K33 (with bypass on the back), DN 20/DN 25 After: mixing valve K33 (with bypass on the front), DN 25 After: mixing valve K33 (with bypass on the front), DN 25 After: K34 - DN 25 (with bypass on the front), flow on the right + left 3-way mixing valve for HeatBloC° K32 - DN 20 (¾") 3-way mixing valve for HeatBloC° K32 - DN 25 (1")



Spare parts



	Take off the thermometer handles (solar)	N00134
	Dial thermometer (red, blue);	
	measuring range 0-160 °C,	
	immersion shaft 25 mm, d = 50 mm; field of application: Solar	
	Thermometer handles (heating)	N00128
	Dial thermometer (red, blue); measuring range 0 - 120 °C,	
	immersion shaft 25 mm, with self-sealing immersion sleeve,	
	d = 50 mm ; field of application: Heating	
	Set of gaskets for distribution manifold DN 20	31131
	Set of gaskets for distribution manifold - DN 25	34131
11111 0 0	Set of gaskets for distribution manifold - DN 32	37131
	Set of gaskets for distribution manifold - DN 40	N00061
	Set of gaskets for distribution manifold - DN 50	N00062
	Seals (EPDM)	
	O-rings (EPDM)	
01	Hexagon socket head cap screw Spring washer	
	Hexagon nut	
	Tube of grease for o-rings (Synteso Glep1)	
	Sets of gaskets for mixing valve - DN 20-32 (¾" - 1¼")	37013
	may only be used in:	
and the second second	- 3- and 4-way mixing valves DN 20, 25, 32	
0000	- mixing valves with bypass DN 25	
000	Sets of gaskets for mixing valve - DN 32-40 (1¼" - 1½")	41013
()())	may only be used in:	
	- mixing valves DN 40	
0000	- mixing valves with bypass DN 32	51012
	Sets of gaskets for mixing valve - DN 50 (2")	51013
	Components: o-rings, flat head screws with cross recess, tube of grease for o-rings (Synteso Glep1)	
	Flat sealing ¼", for thread connection ¾"	N00030
00000	Flat sealing ½", for thread connection 1"	N00024
00000	Flat sealing 1", for thread connection 1½"	N00036
00000	Flat sealing 1¼", for thread connection 2"	N00047
	Material: AFM34	
	Flat sealing ¼", for thread connection ¾", 24.0 x 17.0 x 2.0 mm	N00127
~~~~	Flat sealing ½", for thread connection 1", 30.0 x 21.0 x 2.0 mm	N00129
00000	Flat sealing 1", for thread connection 1½", 44.0 x 32.0 x 2.0 mm	N00131
00000	Flat sealing 1¼", for thread connection 2", 55.0 x 42.0 x 2.0 mm	N00133
00000		
	Material: EPDM	
	Rotary knob for mixing valve	N00068
FO	1 x rotary knob	
	1 x lens head screw	
CCC.	For mixing valves until 2010. For converting to a current actuator.	
	Spindle for ball valve DN 20/25, with o-rings DN 20 (¾") - DN 25 (1")	N00007
	Replaceable spindle for thermometer ball valve	





	Deducer est fer immersion esteer	2444
	Reducer set for immersion sensor	3444
Sugar and a sugar	1 x ¼" external thread (self-sealing) x M10 x 1" internal thread	
	1 x ¼" external thread (self-sealing) x M12 x 1.5" external thread	
	Control valve input for K33 DN 20/25	N00011
	Control valve input for the HeatBloC [®] K33 DN 20 and K33 DN 25 (until 2005).	
	Thermostatic head 20-50 °C	N00042
	Thermostatic head 20 - 50 °C, with contact sensor spare part for K33	
	Thermostatic head 40-70 °C	N00044
Rw	Thermostatic head 40 - 70 °C, with contact sensor spare part for K33	
	Contact thermostat 20-60 °C	N00083
Ĵ	Contact thermostat for limiting the flow temperature, adjustable from 20 - 60 $^\circ$ C	
	Thermo ball valve TK - DN 25 (1"), F1" x 1" int. thread, ½", sleeve right	N00015
	1x PAW flange (with nut)	
	1x seal 1"	
	1x internal thread ½" 1x sleeve	
	For heating circuits DN 25 until 2017!	
	Thermo ball valve TK - DN 25 (1"), F1" x 1" int. thread, ½", sleeve left	N00013
	1x PAW flange (with nut)	
	1x seal 1"	
	1x internal thread ½" 1x sleeve	
	For heating circuits DN 25 until 2017!	
0	Return pipe - DN 20 (¾"), L = 130 mm	N00141
	Return pipe - DN 20 (¾"), L = 188 mm	N00142
	Return pipe - DN 25 (1"), L = 180 mm	N00018
	Return pipe - DN 25 (1"), L = 262 mm	N00021
	Return pipe - DN 32 (1¼"), L = 180 mm	N00139
	Return pipe - DN 32 (1¼"), L = 292 mm	N00140
	1 x Brass pipe with check valve (200 mm wc, can be opened) for the return 2 x seal (EPDM)	





	Charging pump set K1 - DN 25 (1")	2701
	Charging pump set K1- DN 32 (1¼")	2702
1	Pressure side:	
	<ul> <li>PAW pump ball valve, with red butterfly handle</li> <li>Check valve, can be opened manually</li> </ul>	
	- Automatic air passage	
	- With 2 nuts and 2 gaskets for a pump DN 25 (without pump)	
14		
<b>1</b>	Suction side:	
	- PAW pump ball valve, with red butterfly handle	
	Flow set K2 - DN 25 (1")	2705
	Flow set K2 - DN 32 (1¼")	2706
	can be completely isolated	
(I) ·	Pressure side:	
STOR	- PAW multivalve, with red butterfly handle	
	- Check valve, can be opened	
T	- Automatic air passage	
14	- With 2 nuts and gaskets for a pump DN 25 (without pump, without dial thermometer)	
100 B	Suction side:	
	- PAW pump ball valve, with red butterfly handle	
	Thermometer available as accessory, item number 21711 (red)	
	Return set K3 - DN 25 (1")	2708
	Return set K3 - DN 32 (1¼")	2710
100 B	consisting of	
<b>-</b>	consisting of: PAW multivalve with red butterfly handle and thread connection (without dial thermometer)	
	Thermometer available as accessory, item number 21721 (blue)	
-		
		2712
	Pump set K5 - DN 25 (1")	2712
	Pump set K5 - DN 32 (1¼")	2714
<b>N</b> N	can be completely isolated	
	Pressure side:	
	- PAW multifunctional valve, with red butterfly handle	
(P	- Check valve, can be opened	
I. I	- Automatic air passage	
	- With 2 nuts and gaskets for a pump	
	(without pump, without dial thermometer)	
	Suction side:	
	- PAW pump ball valve, with red butterfly handle	
	F . F	
∎ <b>r</b>	Return:	
ť	- PAW multifunctional valve, with red butterfly handle	
ť		



	Bypass set K7 - DN 25	2801
	pump can be isolated	
	Pressure side: - PAW multifunctional valve, with red butterfly handle - Check valve, can be opened manually - Automatic air passage - With 2 nuts and 2 gaskets for a pump DN 25 (without pump, without dial thermometer) Suction side:	
0	- PAW pump ball valve, with red butterfly handle	
	Return: - PAW multifunctional valve, with red butterfly handle - Thread connection	
U.	Bypass: - Differential pressure overflow valve ¾" with scale and thread connection - Zinced bypass pipe with elbow gland	
	A min = 80 mm A max = 200 mm for 1": H = 360 mm for 1¼": H = 395 mm	
	Thermometer available as accessory, item number 21711 (red), 21721 (blue)	
	Dial thermometer 0-120 °C, with red scale	21711
	Dial thermometer 0-120 °C, with blue scale	21721
	- Measuring range 0-120 °C, - immersion shaft 25 mm, with self-sealing immersion sleeve, - d = 50 mm	
	Flow set TK2 - DN 20 (¾")	9621
	Pressure side: - Thermometer ball valve with red scale thermometer integrated in the handle (d = 50 mm, red scale) - integrated check valve, can be opened manually	
	Suction side: - pump ball valve, key-actuated	
Ţ	Delivery with 2 nuts and 2 gaskets for a pump (without pump)	
	Flow set TK2 - DN 25 (1")	9622
_	Flow set TK2 - DN 32 (1¼")	9623
	Pressure side: - Thermometer ball valve with red scale thermometer integrated in the handle (d = 50 mm, red scale) - integrated check valve, can be opened manually - connection to the left with ½" internal thread for overflow valve or sensor, plugged	
t i i i i i i i i i i i i i i i i i i i	Suction side: - pump ball valve with butterfly handle	
10000 <b>4</b> 100	Delivery with 2 nuts and 2 gaskets for a pump (without pump)	



Pump sets

	Return set TK3 - DN 20 (¾")	9611
	Return set TK3 - DN 25 (1")	9612
	Return set TK3 - DN 32 (1¼")	9613
	consisting of: - Thermometer valve with dial thermometer (d = 50 mm, blue scale), can be pulled off, integrated in the handle - DN 25 and DN 32: connection to the left with ½" internal thread for overflow valve or sensor,	
	plugged Delivery with thread connection	
	Pump set TK5 - DN 20	9631
0	Pressure side: - thermometer valve with red scale, dial thermometer (d = 50 mm) integrated in handle, can be pulled off - integrated check valve, can be opened manually Suction side:	
	<ul> <li>- pump ball valve, key-actuated</li> <li>Return: <ul> <li>- thermometer valve with blue scale, dial thermometer (d = 50 mm) integrated in the handle, can be pulled off <ul> <li>- thread connection</li> </ul> </li> </ul></li></ul>	
	Delivery with 2 nuts and 2 gaskets for a pump (without pump)	
	Pump set TK5 - DN 25	9632
	Pump set TK5 - DN 32	9633
<b>è</b>	Pressure side: - thermometer valve with red scale, dial thermometer (d = 50 mm) integrated in handle, can be pulled off - integrated check valve, can be opened manually - with connection to the left, ½" internal thread for overflow valve or sensor connection, plugged	
	Suction side: - pump ball valve, with butterfly handle	
ť	Return: - thermometer valve with blue scale, dial thermometer (d = 50 mm) integrated in the handle, can be pulled off	
	- with connection to the right, ½" internal thread for overflow valve or sensor connection, plugged - thread connection	
	Delivery with 2 nuts and 2 gaskets for a pump (without pump)	
	Overflow set DN 20 (centre distance: 200 mm)	2850
	Overflow set DN 20 (centre distance: 125 mm)	2851
	Overflow set DN 20 (centre distance: 200 mm)	2853
- <b>4</b> 09	For hydronic heating installations with standard circulation pumps and thermostatic or zone valves. The PAW differential pressure overflow valve reduces noises due to circulation and keeps the pump pressure constant, even when the flow in the radiators is reduced (particularly when thermostatic valves are used). The valve controls the flow rate in proportion to the thermostatic or zone valves. The return temperature is increased as soon as the valve opens.	
	For weather compensated control we recommend to mount the sensor to the flow line directly behind the circulation pump. The higher return temperature guarantees that the boiler does not corrode.	



### Actuators and accessories



	PAW actuator SR2	705013
	Easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, due to the removable scale it is suited for flow on the right or left side, change-over switch for manual / automatic operation	
Consider the state of the	Electrical connection: 230 V - 50 Hz Input power: 1 W Torque: min. 2 Nm Setting time for 90°: 105 s	
	PAW actuator SR5	705001
	Change-over switch for manual / automatic operation, easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather- compensated control, thanks to the removable scale, it is suited for flow on the right or left side Electrical connection: 230 V / 50 Hz Input power: 2.5 W Torque: 5 Nm Setting time for 90°: 140 s	
	PAW actuator SR10	705002
	Thanks to the removable scale, it is suited for flow on the right or left side, easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 1.5 m cable and mounting set for halting assembly on the PAW mixing valve, for weather-compensated control, change-over switch for manual / automatic operation	
Demonstrage Swinger	Electrical connection: 230 V / 50 Hz Input power: 3.5 W Torque: 10 Nm Setting time for 90°: 140 s	
	PAW actuator SR10 24/3P	7054
	Like PAW actuator type SR10 (item no. 705002), but with: electrical connection/supply voltage: 24 VAC for control systems with 3-level-control	
	PAW actuator SR10 24/ST	70541
	Like PAW actuator SR10 (item no. 705002), but with: electrical connection/supply voltage: 24 VAC/DC control voltage direct: 0(2)10 VDC for continuous control systems with 010 V output	
	Electrical connection: 230 V / 50 Hz Input power: 1.5 W Torque: 10 Nm Setting time for 90°: 140 s	
120	Accessory kit for Viessmann actuators	705610
Contra	Accessory kit for PAW actuators with 3-point suspension (Dekamatik and Vitotronic) to PAW mixing valves DN 20 - DN 50 with short shaft. Please consider the width of the actuator when mounting it to the HeatBloC [®] s DN 20. Not to be mounted to transfer systems TE3.	

P	Actuators and accessories
IAW	

	PAW constant temperature controller PKR6	703601
	Easy assembly and disassembly thanks to the smart PAW snap-in mechanism, with 2 m cable and Schuko plug, incl. mounting set for snap-in assembly on the PAW mixing valve and PT1000 screw- in sensor G1/4" for the flow ball valve, change-over switch for manual / automatic operation. Controller settings for direction of rotation, operation mode and nominal temperature can be adjusted at the display	
	Power supply: 230 V - 50 Hz Power consumption: 3 W Torque: min. 6 Nm	
	Setting time 90°: 120 s	
	Weather compensated controller PWR6 Same type as the PAW constant temperature controller PKR6 (art.no. 703601), but for the use of a weather-compensated heating circuit. The package includes the outdoor sensor, the flow sensor as well as the source sensor. This ensures that the mixing valve or the heating circuit can be operated in an autarkic manner and without boiler control. In addition, it is possible to set the room temperature centrally in the flat via a room based remote control (art.no. 1359501).	723681
	Limit switch	705101
	The limit switch is a micro switch. For the assembly in the actuators SR5 and SR10-24/3P.	
	Adapter set for mixing valve shaft	705580
	Adapter piece to extend the shaft of PAW mixing valves, for the assembly of actuators of other manufacturers	
	2-way zone valve - DN 20 (¾")	563532
	for connecting and disconnecting single storage tanks, DN 20, $\frac{3}{4}$ " int. thread, setting time for 90°: 30 sec., Kvs value = 41	
T FEC UV2 Ministration C C C	2-way zone valve - DN 25 (1") for tank heat transfer module Midi	563542
	for connecting and disconnecting single storage tanks, DN 25, 1" int. thread, setting time for 90°: 30 sec., Kvs value = 68	
Constant of the second	2-way zone valve - DN 32 (1¼") for tank heat transfer module Maxi	563552
	for connecting and disconnecting single storage tanks, DN 32, 1¼" internal thread, setting time for 90°: 30 sec., Kvs value = 123	
	3-way zone valve - DN 20 (¾")	563533
Rev Notes	for switching between single storage tanks, DN 20, $\frac{3}{4}$ " int. thread, setting time for 90°: 18 sec., Kvs value = 7	
	3-way valve PV3 - DN 25 (1")	5675431
	3-way valve PV3 with union nut - DN 25 (1")	5675432
	Can be used in solar and heating installations, to switch between different zones or to connect and disconnect different parts of the system. The actuator is equipped with a relay which is actuated by a 2-point signal, if needed, it can also be manually operated. The 3-way zone PV3 valve can be operated in both directions.	
	Power supply: 230 V - 50 Hz Power consumption: 5 Nm Setting time 90°: 13 s Kvs value: 15.5	



Thread connection for PAW flange DN 20 (¾")	2051
Thread connection for PAW flange DN 25 (1")	2151
Thread connection for PAW flange DN 32 (1¼")	2152
Thread connection for PAW flange with union nut, screw-in fitting and gasket	
Pump fitting DN 20 (¾")	2049
with union nut, insert fitting and gasket, length: 30 mm	
Pump fitting 25 (1")	2149
with union nut, insert fitting and gasket, length: 28 mm	
Pump fitting DN 32 (1¼")	2150
with union nut, insert fitting and gasket, length: 31 mm	
Screw-in fitting DN 20 (¾")	2053
1" external thread, flat-sealing x ¾" internal thread	
Screw-in fitting 25 (1")	2153
1½" external thread, flat-sealing x 1" internal thread	
Screw-in fitting DN 32 (1¼")	2154
2" external thread flat-sealing x 1¼" internal thread	
Insert fitting DN 25 (1")	2159
Insert fitting - DN 32 (1¼")	2160
For the connection of pipes with external thread	
Union nut DN 20 (¾")	2055
Brass, to screw insertion pieces for soldering below distribution manifolds DN 20 (¾")	
Union nut DN 25 (1")	2155
Brass, to screw insertion pieces for soldering below distribution manifolds DN 25 (1")	
Union nut DN 32 (1¼")	2156
Brass, to screw insertion pieces for soldering below distribution manifolds DN 32 (11/4")	
Sealing for nut - DN 20 (¾")	2057
asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	
Sealing for nut - DN 25 (1")	2157
asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	
Sealing for nut - DN 32 (1¼")	2158
asbestos-free, outside diameter: 50 mm, inside diameter: 38 mm, height: 2 mm	

Rw



		Connection	Length	ltem no
	Check valve SBA - DN 25 (1")	ext.: 1½" Flange (w/ nut): 1"	48 mm (IL)	1003
	Check valve SBA with automatic air passage - DN 25 (1") Check valve, can be opened, with union nut, gasket and PAW flange for warm water central heating, PN 10, 120 °C, suited for horizontal and vertical installation, to be screwed directly on the pump. Opening pressure 200 mm wc IL = Installation length	ext.: 1½" Flange (w/ nut): 1"	24 mm (IL)	1103
	Check valve SBM - DN 20 (¾")	int.: 1" ext.: 1"	26 mm (IL)	1016
		int.: 1¼" ext.: 1¼"		
	Check valve SBM - DN 20 (34")		28 mm (IL)	1015
	Check valve SBM with automatic air passage - DN 20 (¾")	int.: 1" ext.: 1"	26 mm (IL)	1116
	Check valve SBM - DN 25 (1")	int.: 1½" ext.: 1½"	28 mm (IL)	1055
	Check valve SBM - DN 25 (1")	int.: 1½" ext.: 1½"	37 mm (IL)	1005
	Check valve SBM with automatic air passage - DN 25 (1")	int.: 1½" ext.: 1½"	28 mm (IL)	1155
D A	Check valve SBM with automatic air passage - DN 25 (1")	int.: 1½" ext.: 1½"	37 mm (IL)	1105
D	Check valve SBM - DN 32 (1¼")	int.: 2" ext.: 2"	38 mm (IL)	1006
	Check valve, can be opened, with gasket for warm water central heating, PN 10, 120 °C, suited for horizontal and vertical installation, to be screwed directly to the pump. Opening pressure 200 mm wc IL = Installation length			
	Check valve SBE - int. thread DN 20 (¾")	int.: ¾" Flange: 1"	41 mm	1019
	Check valve SBE - int. thread DN 25 (1")	int.: 1" Flange: 1"	45 mm	1017
	Check valve SBE - int. thread DN 25 (1")	int.: 1" Flange: 1"	57 mm	1007
TT	Check valve SBE with automatic air passage - int. thread DN 25 (1")	int.: 1" Flange: 1"	45 mm	1117
	Check valve SBE with automatic air passage - int. thread DN 25 (1") Check valve, can be opened, with automatic air passage, with internal thread and PAW flange for warm water central heating, PN 10, 120 °C. Suited for horizontal and vertical installation. Can also be used as non return valve. To be directly screwed to the pump. Opening pressure 200 mm wc	int.: 1" Flange: 1"	57 mm	1107
ř	Check valve SBE - ext. thread DN 25 (1")	ext.: 1" Flange: 1"	57 mm	1010
	Check valve SBE with automatic air passage - ext. thread DN 25 (1") Check valve, can be opened, with automatic air passage, with external thread and PAW flange for warm water central heating, PN 10, 120 °C. Suited for horizontal and vertical installation. Can also be used as non return valve. To be directly screwed to the pump. Opening pressure 200 mm wc	ext.: 1" Flange: 1"	57 mm	1110



**Check valves** 

		Connection	Length	ltem no
	Elbow check valve - DN 25 (1") - with check valve, can be opened manually, automatic air passage - with connection for automatic air vent (½" sleeve) - opening pressure 200 mm wc	int.: ½" Flange: 1"	50 mm	7610
	Non return valve ES - DN 20 (¾")	Flange: ½"	2 mm	10122
	Non-return valve ES - DN 25 (1")	Flange: 1"	2 mm	1013
	Non-return valve ES - DN 32 (1¼")	Flange: 1¼"	2 mm	1014
	Non-return valve with automatic air passage ES - DN 32 (1¼") The PAW non-return valve is directly inserted into the thread connection of the circulation pump.	Flange: 1¼"	2 mm	1114
	Socket check valve MR - DN 15 (½")	int.: ½"	48 mm	1082
	Socket check valve MR - DN 20 (¾")	int.: ¾"	53 mm	1083
	Socket check valve MR - DN 25 (1")	int.: 1"	59 mm	1084
	Socket check valve MR - DN 32 (1¼")	int.: 1¼"	66 mm	1085
	Socket check valve MR - DN 40 (1½")	int.: 1½"	71 mm	1086
	Socket check valve MR - DN 50 (2") Flow direction according to marking	int.: 2"	80 mm	1087
	PAW socket check valve MA - type 1 - DN 15 (1/2")	int.: ½" ext.: ½"	53 mm	1096
	PAW socket check valve MA - type 1 - DN 20 (¾")	int.: ¾" ext.: ¾"	58 mm	1097
	PAW socket check valve MA - type 1 - DN 25 (1") Flow in the direction of the external thread	int.: 1" ext.: 1"	65 mm	1098
	PAW socket check valve MA - type 2 - DN 15 (½")	int.: ½" ext.: ½"	54 mm	1092
	PAW socket check valve MA - type 2 - DN 20 (¾")	int.: ¾" ext.: ¾"	59 mm	1093
	PAW socket check valve MA - type 2 - DN 25 (1")	int.: 1" ext.: 1"	67 mm	1094
	PAW socket check valve MA - type 2 - DN 32 (1¼") Flow in the direction of the internal thread	int.: 1¼" ext.: 1¼"	74 mm	10941
DM	Solar check valve RSS - DN 20 ( $34$ ")	int.: ¾"	50 mm	1211
	can be opened, up to 150 °C Solar check valve RSS - DN 20 (¾") without possibility for manual opening, up to 220 °C with brass valve plate, all installation positions possible, opening pressure 200 mm wc, ¾" internal thread, length = 50 mm	int.: ¾"	50 mm	12111



**Ball valves** 

		Connection	Length	ltem no.
	Multivalve MK - DN 25	int.: 1"	94 mm	2301
2	Multivalve MK - DN 32 2 x sleeves ½" (on the side) 1 x self-sealing blind plug ½" 1 x PAW flange 1" (DN 25) / 1¼" (DN 32) (without nut)	int.: 1¼"	115 mm	2302
1.1	1 x 1" int thread (DN 25) / 11/4" int. thread (DN 32) with red butterfly handle			
	Multivalve with check valve MKS - DN 25	int.: 1"	94 mm	2309
	Multivalve with check valve MKS - DN 32         2 x sleeves ½" (on the side)         1 x self-sealing blind plug ½"         1 x 1" (DN 25) / 1¼" (DN 32) PAW flange (without nut)         1 x 1" (DN 25) / 1¼" (DN 32) int. thread         with automatic air passage and check valve (can be opened)         with red butterfly handle	int.: 1¼"	115 mm	2310
	Pump ball valve PK - DN 25	int.: 1"	78 mm	2101
	Pump ball valve PK - DN 32 1 x PAW flange (without nut) 1 x internal thread material: brass, with red butterfly handle	int.: 1¼"	100 mm	2102
	Pump ball valve with check valve PKS - DN 25	int.: 1"	78 mm	2129
	Pump ball valve with check valve PKS - DN 32 1 x PAW flange (without nut) 1" (DN 25) / 1¼" (DN 32) 1 x internat thread 1" (DN 25) / 1¼" (DN 32) with automatic air passage and check valve (can be opened) with red butterfly handle	int.: 1¼"	100 mm	2130
	Pump ball valve PKA - DN 25 1 x 1" PAW flange (without nut) 1 x 1" external thread material: brass with red butterfly handle	ext.: 1"	93 mm	2105
	Pump ball valve with check valve PKAS - DN 25 1 x 1" PAW flange (without nut) 1 x 1" external thread with automatic air passage and check valve (can be opened) with red butterfly handle	ext.: 1"	93 mm	2107
	Pump ball valve PKV - DN 25	ext.: 1½"	80 mm	2109
	Pump ball valve PKV - DN 32 1 x PAW flange (without nut) 1½" (DN 25) / 2" (DN 32) 1 x external thread 1" (DN 25) / 1¼" (DN 32) material: brass with red butterfly handle	ext.: 2"	110 mm	2110
	Pump ball valve with check valve PKVS - DN 25	ext.: 1"	80 mm	2111
	Pump ball valve with check valve PKVS - DN 32         1 x PAW flange (without nut) 1½" (DN 25) / 2" (DN 32)         1 x 1" F (DN 25) / 1¼" external thread (DN 32)         with automatic air passage and check valve (can be opened)         with red butterfly handle	ext.: 1¼"	110 mm	2112



	Connection	Length	ltem no.
Thermo ball valve TK - DN 20         1 x ¾" PAW flange (without nut)         1 x ¾" internal thread         diameter thermometer = 50 mm         dial thermometer with blue scale in the handle, handle can be pulled off with thermometer	int.: ¾"	66 mm	96501
Thermo ball valve TK - DN 25	int.: 1"	81 mm	96511
Thermo ball valve TK - DN 32         1 x PAW flange (without nut)         1 x internal thread         1 x sleeve (on the side) ½", for overflow valve         1 x self-sealing blind plug ½"         diameter thermometer = 50 mm         dial thermometer with blue scale in the handle,         handle can be pulled off with thermometer	int.: 1¼"	104 mm	96521
Thermometer valve with flow check valve TKS - DN 20         1 x ¾" PAW flange (without nut)         1 x ¾" internal thread         diameter thermometer = 50 mm         dial thermometer with red scale in the handle,         handle with thermometer can be pulled off,         check valve 200 mm wc, can be opened	int.: ¾"	65 mm	96541
Thermometer valve with flow check valve TKS - DN 25	int.: 1"	81 mm	96551
Thermometer valve with flow check valve TKS - DN 32 1 x PAW flange (without nut) 1" (DN 25) / 1¼" (DN 32) 1 x internal thread 1" (DN 25) / 1¼" (DN 32) 1 x sleeve (on the side) ½", for overflow valve or immersion sleeve/ sensor connection 1 x self-sealing blind plug ½" diameter thermometer = 50 mm dial thermometer with red scale in the handle, handle can be pulled off with thermometer, check valve 200 mm wc, can be opened	int.: 1¼"	104 mm	96561
Ball valve - DN 25 1 x external thread 1 x nut G = 1" key actuated, ideal to shut off armoured hoses as it is flat-sealing	ext.: 1"	50 mm	905003
Elbow ball valve DN 25 1 x 1" external thread 1 x nut G = 1" key actuated, ideal to shut off armoured hoses as it is flat-sealing	ext.: 1"	87 mm	905002
Handle extension for ball valve - DN 25/32		88 mm	2162
Handle extension for ball valve - DN 40/50 Function: for thick insulation of the ball valve Material: Brass, chromed Can be replaced under pressure when the ball valve is closed. available for: MK, PK, TK, KMM, KMV. nominal diameter: DN 20, 25, 32, 40, 50 Please state the type of ball valve and the nominal diameter when ordering!		95 mm	2165

**Ball valves** 

Ball valves

**Ball valves** 

		Connection	Length	ltem no.
	Full port ball valve KMA - DN 15	int.: ½" ext.: ½"	48,5 mm	2218
	1 x ½" external thread 1 x ½" internal thread	CAL. 72		
	Full port ball valve KMA - DN 20	int.: ¾" ext.: ¾"	64 mm	2219
	1 x $\frac{3}{4}$ " external thread 1 x $\frac{3}{4}$ " internal thread			
- Co	Full port ball valve KMA - DN 25	int.: 1" ext.: 1"	66 mm	2220
	1 x 1" external thread 1 x 1" internal thread			
	Material: Brass, nickel-plated, Max. operating temperature = 100 °C with red butterfly handle			
	Full port ball valve KMM - DN 12	int.: %"	48 mm	2207
	2 x %" internal thread			
	Full port ball valve KMM - DN 15	int.: ½"	48 mm	2208
	2 x ½" internal thread			
	Full port ball valve KMM - DN 20	int.: ¾"	65 mm	2209
	2 x ¾" internal thread			
	Full port ball valve KMM - DN 25	int.: 1"	67 mm	2210
	2 x 1" internal thread Full port ball valve KMM - DN 32	int.: 1¼"	81 mm	2211
	$2 \times 114$ " internal thread	1111 174	0111111	2211
	Full port ball valve KMM - DN 40	int.: 1½"	93 mm	2212
-	$2 \times 1\frac{1}{2}$ " internal thread			
	Full port ball valve KMM - DN 50	int.: 2"	113 mm	2213
	2 x 2" internal thread			
	Material: Brass, nickel-plated Max. operating temperature = 100 °C			
	Full port ball valve with connection KMV - DN 15	int.: ½" ext.: ½"	73,5 mm	2228
	Full port ball valve with connection KMV - DN 20	int.: ¾" ext.: ¾"	88 mm	2229
	Full port ball valve with connection KMV - DN 25	int.: 1" ext.: 1"	98 mm	2230
	Full port ball valve with connection KMV - DN 32	int.: 1¼"	113 mm	2231
	1 x external thread			
	1 x internal thread material: brass, nickel-plated			
	with red butterfly handle			
	max. operating temperature = 100 °C			



Safety sets and heating equipment

### Safety sets and heating equipment



	Boiler safety group KSG - DN 25 (1") up to 50 kW	5201
	Boiler safety group KSG - DN 25 (1") up to 100 kW	52021
	Boiler safety group KSG - DN 25 (1") up to 200 kW	5203
	Boiler safety group KSG - DN 32 (1¼") up to 300 kW completely mounted, consisting of: 1 wall bracket 1 heating manometer d = 63 mm, 0-4 bar with automatic isolation	5204
	1 pressure relief valve 3 bar, firmly sealed 1 automatic air vent %", with automatic isolation 1 EPS insulation	
	5201: pressure relief valve ½", brass bracket, 1" int. thread 52021: pressure relief valve ¾", brass bracket, 1" int. thread 5203: pressure relief valve 1", steel bracket, 1" int. thread 5204: pressure relief valve 1¼", steel bracket, 1¼" int. thread	
	Tank connection group ¾" GAG/heating	5205
	completely mounted, consisting of: 1 steel bracket ¾" 1 heating pressure gauge d = 63 mm, 0-4 bar with automatic isolation 1 pressure relief valve ½", 3 bar, 1 automatic air vent ¾", with automatic isolation 1 tank connector ¾", 2 screws and wall plugs	
	Safety group SID - DN 25 up to 50 kW for straight piping - with pressure relief valve ½", opening pressure 3 bar - with pressure gauge 0 - 4 bar, with shut-off valve	5208
	Safety set for distribution manifold - DN 25 (1") up to 50 kWFor the installation on modular distribution manifolds DN 25 (as of 2017), with a connection of ¾" int. thread (sealed with plug) for the installation of the connection set for the expansion tank (item no. 7507), pressure relief valve ½" x ¾", 3 bar, up to 50 kW, pressure gauge 0-4 bar	52543
	Safety set for distribution manifold - DN 32 (1¼") up to 100 kW For the installation on modular distribution manifolds DN 32 (as of 2017), with a connection of 1" int. thread (sealed with plug) for the installation of the connection set for the expansion tank (item no. 7508), pressure relief valve ¾" x 1", 3 bar, up to 100 kW, pressure gauge 0-4 bar	52553
	Pressure relief valve ½" x ¾", up to 50 kW	523103
R	<b>Pressure relief valve ¾" x 1", up to 100 kW</b> The diaphragm pressure relief valve is only activated when the thermostats of the boiler have failed. In this case the pressure relief valve can let the entire heating capacity of the boiler escape in the form of hot water and vapour.	523113
	Pressure relief valve with pressure gauge up to 50 kW	5241
	The diaphragm pressure relief valve is only activated when the thermostats of the boiler have failed. In this case the pressure relief valve can let the entire heating capacity of the boiler escape in the form of hot water and vapour.	



## Safety sets and heating equipment



	Flush and drain set DN 20 (¾")	3161
	2 x counter-T-pieces ¾" with fill and drain valve, each equipped with an extension piece, permits to flush and drain individual HeatBloC [®] s.	
	Flush and drain set DN 25 (1")	3461
	2 x counter-T-pieces 1" ext. thread x 1" int. thread with fill and drain valve, each equipped with an extension piece, permits to flush and drain individual HeatBloC [*] s.	
	Please note: Flush and drain set is not compatible with the HeatBloC® MC system!	
	Flush and drain set DN 32 (¼")	3761
	2 x counter-T-pieces 1 ¹ / ₄ " with fill and drain valve, each equipped with an extension piece, permits to flush and drain individual HeatBloC [®] s.	
	Please note: The flush and drain set is not compatible with the HeatBloC® MC system!	
	Automatic air vent %" external thread	5234
	Automatic air vent ½" external thread	5235
Ţ	Automatic air vent, vertical, with automatic shut-off valve The automatic air vent eliminates air residues in the circuit of heating installations without that any manual operation is necessary. Undesired effects such as noises, wear of hydraulic components and reduced performance of radiators are thus prevented.	
1	Microbubble resorber 1¼"	52375
	with automatic air vent completely made of brass, stainless steel grid and drain connection ½" for sludge removal, for the use in heating systems, connections = internal thread, max. speed through the microbubble resorber 1.2 m/s	
T	52374: L = 110 mm, up to 35.3 l/min or 2.12 m ³ /h 52375: L = 124 mm; up to 57.8 l/min or 3.47 m ³ /h	
	Connection set for diaphragm expansion tank DN 20 for assembly to safety group DN 25,	7507
	with self-sealing double nipple $\frac{3}{1}$ and mounting equipment, tank connector $\frac{3}{1}$ , armoured hose with bend $\frac{3}{1}$ x 700 mm, double nipple $\frac{3}{1}$ , maximum tank diameter = 440 mm	
	<b>Connection set DN 25 for diaphragm expansion tank</b> for assembly to a safety group DN 32, with self-sealing double nipple 1", cap valve 1", armoured hose with bend 1" x 700 mm.	7508
	Counter cross DN 25 (1")	5251
	Connection top: 1" external thread, self-sealing with o-ring and counter nut Connection bottom: 1" internal thread Connections side: ¾" internal thread Connection front: %" internal thread	
	<b>Counter elbow</b> ³ ⁄ ₄ " external thread, self-sealing with O-ring and counter nut ³ ⁄ ₂ " external thread, self-sealing with O-ring and counter nut	5252



## Safety sets and heating equipment

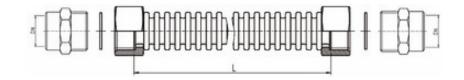


	Tank connection coupling DN 20 (¾"), max. operating temperature 100 °C	5300
	Tank connection coupling DN 20 ( $34^{\prime\prime}$ ), max. operating temperature 130 °C	5310
<b>U</b>	Tank connection coupling $\frac{3}{4}$ " with automatic shut-off valve for expansion tank, allows the expansion tank to be easily dismounted and separated from the heating installation during servicing or replacement, max. pressure 10 bar	
_	Tank connection coupling with cap valve - DN 20 (¾")	5302
	Tank connection coupling with cap valve - DN 25 (1")	5301
	allows the expansion tank to be easily dismounted and separated from the heating installation during servicing or replacement, max. operating temperature 120 °C, max. pressure 6 bar	
	Fill and drain valve - DN 15 (½")         solid design, with hose connector and cap, completely made of brass, ½" with self-sealing counter nut	2260
10	Dial thermometer 0-120 °C, with red scale	21711
	Dial thermometer 0-120 °C, with blue scale         - Measuring range 0-120 °C,         - immersion shaft 25 mm, with self-sealing immersion sleeve,         - d = 50 mm	21721
	Pressure gauge %" d = 50 mm	523204
	Pressure gauge with automatic isolation, measuring range: 0-4 bar diameter: d = 50 mm shut-off valve: ½" x %"	



## Stainless-steel corrugated hose





The elastic pipe for a flexible connection. Material corrugated hose: 1.4404 (DIN 17440) Material fittings and union nuts: brass

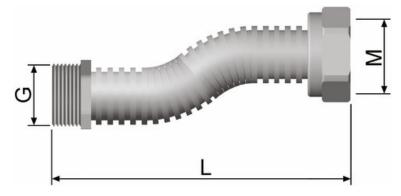
Minimum length 5 m per roll

Nominal diameter	Inside diameter	Outside diameter	Wall width	Nominal pressure	Burst pressure	Operating temperature	Bending radius (min)
DN 15 (½")	16 mm	22 mm	0.25 mm	12 bar	120	-30 °C - 180 °C	45 mm
DN 20 (¾")	20 mm	26.8 mm	0.25 mm	10 bar	80	-30 °C - 180 °C	60 mm
DN 25 (1")	25 mm	32.3 mm	0.3 mm	8 bar	70	-30 °C - 180 °C	75 mm
DN 32 (1¼")	32 mm	41.5 mm	0.3 mm	6 bar	65	-30 °C - 180 °C	100 mm

	Stainless-steel corrugated hose - DN 15 (½")	801210
	Stainless-steel corrugated hose - DN 20 (¾")	803410
	Stainless-steel corrugated hose - DN 25 (1")	804410
	Stainless-steel corrugated hose - DN 32 (1¼")	805410
	Material 1.4404	
	Minimum length 5 m per roll more than 50 m per roll on request	
	When ordering by metre, please indicate: rolls with metres per roll	
	Connection for stainless-steel corrugated hose - DN 15 (½") int. thread	811201
	Connection for stainless-steel corrugated hose - DN 20 (¾") int. thread	813401
	Connection for stainless-steel corrugated hose - DN 25 (1") int. thread	814401
	Connection for stainless-steel corrugated hose - DN 32 (11/4") int. thread	815401
	Scope of delivery: 1 stainless-steel holding ring, 1 screw-in fitting, 1 union nut, 1 seal	
	Connection for stainless-steel corrugated hose - DN 15 (½") ext. thread	821201
	Connection for stainless-steel corrugated hose - DN 20 (¾") ext. thread	823401
_ <	Connection for stainless-steel corrugated hose - DN 25 (1") ext. thread	824401
	Connection for stainless-steel corrugated hose - DN 32 (1¼") ext. thread	825401
	Scope of delivery: 1 stainless-steel holding ring, 1 screw-in fitting, 1 union nut, 1 seal	







Flexan is a fitting system for flexible connections, it permits to quickly compensate length differences and offsets, for example for the assembly or exchange of radiators. Stretchable by 75 %. Not suited for dynamic loads!

In compliance with the Italian norms

- UNI-CIG 7129/72
- UNI-CIG 8041/85
- UNI-CIG 8042/85

Materials		Technical data		
Hose	Stainless steel 1.4404	Operating temperature	-30 °C - 180 °C	
nut	Brass, nickel-plated	Nominal pressure	16 bar	
		Burst pressure	60	

	Nominal diameter	Connection 1	Connection 2	Length	ltem no.
	DN 10 (%")	%" ext. thread	%" nut	80 - 120 mm	8511
	DN 15 (½")	1⁄2" ext. thread	½" nut	80 - 120 mm	8512
<b>***</b>	DN 20 (¾")	¾" ext. thread	¾" nut	80 - 120 mm	8514
	DN 25 (1")	1" ext. thread	1" nut	80 - 120 mm	8515
	DN 10 (%")	%" ext. thread	%" nut	105 - 185 mm	8521
	DN 15 (½")	1⁄2" ext. thread	1⁄2" nut	105 - 185 mm	8522
	DN 20 (¾")	¾" ext. thread	¾" nut	105 - 185 mm	8524
	DN 25 (1")	1" ext. thread	1" nut	105 - 185 mm	8525
	DN 32 (1¼")	1¼" ext. thread	1¼" nut	105 - 185 mm	8526
	DN 15 (½")	1⁄2" ext. thread	½" nut	180 - 300 mm	8532
THE SECOND	DN 20 (¾")	¾" ext. thread	¾" nut	180 - 300 mm	8534
and the second se	DN 25 (1")	1" ext. thread	1" nut	180 - 300 mm	8535
	DN 32 (1¼")	1¼" ext. thread	1¼" nut	180 - 300 mm	8536







## Domestic hot water modules DN 15-32

Rw

## Catalogue 04/2025

Solutions for domestic hot water technology

Valid for the EU









Friwa

## Overview product range Friwa Domestic hot water technology



**Primary required** flow temperature



Set hot water temperature			ransmission erformance	Primary required flow temperature	
45 °C	20 l/min		49 kW	60 °C (LK 1)*	
45 °C	23 l/min		57 kW	70 °C	
60 °C	14 l/min		48 kW	70 °C (LK 2)*	
	Modules				
4h	6400010				
thermally controlled	6400030		(coated heat exchanger)		

Design data FriwaMicro - DN 15 (1/2") - up to 20 l/min (acc. to SPF LK 1)*, cold water entry temperature = 10 °C

Design data FriwaMini - DN 15 (1/2") - up to 28 l/min (acc. to SPF LK 1)*, cold water entry temperature = 10 °C

0. 0. 0	Set hot water temperature	Withdrawal of hot water with 45 °C at the preset hot water temperature		ansmission erformance	Primary require flow temperatu
	45 °C	28 l/min		69 kW	60 °C (LK 1)*
	45 C	38 l/min		93 kW	70 °C
YA TI	60 °C	20 l/min		69 kW	70 °C (LK 2)*
			Mod	ules	
8 8	without circulation	6401511		6401531 (coat	ted heat exchanger)
	with circulation**	6401516		6401536 (coat	ted heat exchanger)

Design data FriwaMidi - DN	20 (¾") - up to 50 l/min (acc. to SPF Lk	( 1)*, co	old water entry tem	nperature = 10 °C	
Set hot water temperature	Withdrawal of hot water with 45 °C at the preset hot water temperature		ransmission erformance	Primary required flow temperature	
45 °C	50 l/min		121 kW	60 °C (LK 1)*	
45 C	63 l/min		155 kW	70 °C	
60 °C	37 l/min 13		130 kW	70 °C (LK 2)*	
	Modules				
without circulation	6405511 6405531 (coated heat exchanger)				
with circulation (internal)**	6405516 6405536 (coated heat exchanger)			ted heat exchanger)	

Single-family house (up to two showers) LK 1 = performance indicator 1 at a set hot water temperature of 45 °C at a primary flow temperature of 60 °C

LK 2 = performance indicator 2 at a set hot water temperature of 60  $^{\circ}\mathrm{C}$ at a primary flow temperature of 70 °C

 $** Friwa\ modules\ can\ be\ equipped\ subsequently\ with\ internal\ circulation\ sets\ -\ see\ equipment$ 





4	
6	
without	8.8
with cir	
Design data	
Set h	







Set hot water temperature	Withdrawal of hot water with 45 °C at the preset hot water temperature	Transmission performance	Primary required flow temperature		
45 °C	77 l/min	187 kW	60 °C (LK 1)*		
45 C	88 l/min	215 kW	70 °C		
60 °C	58 l/min 201 kW		70 °C (LK 2)*		
	Modules				
without circulation	6406511 6406531 (coated heat excha				
with circulation (internal)**	6406516 6406536 (coated heat exchange				

### Design data FriwaMaxi - DN 25 (1") - up to 77 l/min (acc. to SPF LK 1)*, cold water entry temperature = 10 °C

Design data FriwaMega - DN 32 (1¼") - up to 123 l/min (acc. to SPF LK 1)*. cold water entry temperature = 10 °C
Design data Friwalvieda - DN 52 (1%) - UD to 125 I/min (acc. to SPF LK 1)°, cold water entry temperature = 10 °C



Set hot water temperature	Withdrawal of hot water with 45 °C at the preset hot water temperature	Transmission performance	Primary required flow temperature
45 °C	123 l/min	300 kW	60 °C (LK 1)*
45 C	130 l/min	317 kW	70 °C
60 °C	93 l/min	324 kW	70 °C (LK 2)*
		Modules	
without circulation	6407511	6407530 (coa	ated heat exchanger)
with circulation (internal)**	6407517	6407535 (coa	ated heat exchanger)

Single-family house (up to two showers) LK 1 = performance indicator 1 at a set hot water temperature of 45 °C at a primary flow temperature of 60 °C LK 2 = performance indicator 2 at a set hot water temperature of 60 °C at a primary flow temperature of 70 °C

**Friwa modules can be equipped subsequently with internal circulation sets - see equipment



Example: FriwaMini combined with a mixed CoolBloC C34 and a heat pump



### Dimensioning Friwa Mounting example FriwaMini



### **Dimensioning Friwa**

The performance of the Friwa primarily depends on the temperature in the buffer tank which delivers the energy to heat up the domestic hot water module.

The demand of domestic hot water depends on the flow and the number of consumers. In larger apartment buildings, a certain statistic distribution of withdrawals can be observed. The following table gives a general overview of the application range of the different Friwa modules.

Housing unit	70 °C / 60 °C / 10 °C	70 °C / 45 °C / 10 °C ***	60 °C / 50 °C / 10 °C ***
Single-family house (up to two showers)	FriwaMicro	FriwaMicro	FriwaMicro
Single-family house (three or more showers)	FriwaMini	FriwaMini	FriwaMini
Two-family house	FriwaMidi	FriwaMidi	FriwaMidi
3	FriwaMidi	FriwaMidi	FriwaMidi
5	FriwaMidi	FriwaMidi	FriwaMidi
10	FriwaMidi	FriwaMidi	FriwaMidi
15	FriwaMaxi	FriwaMidi	FriwaMaxi
20	FriwaMaxi	FriwaMidi	FriwaMaxi
30	2x FriwaMidi	FriwaMaxi	2x FriwaMidi
50	FriwaMega	2x FriwaMidi	FriwaMega
70	2x FriwaMaxi	FriwaMega	2x FriwaMaxi
100	2x FriwaMega	2x FriwaMaxi	2x FriwaMega

***A DHW temperature below 60 °C during operation does not comply with DVGW 551 (German association for gas and water). The compliance with water quality standards must be observed.

70 °C / 60 °C / 10 °C flow temperature 70 °C / Hot water temperature 60 °C / Cold water temperature 10 °C

The DHW demand of max. 12 I/min and the simultaneity factor according to DIN 4708 represent the basis of calculation.



### Optional accessories - WiFi3.10 Internet Gateway module - item no. 1339003

- ✓ For the connection of DHW modules to an Internet platform with the controller FC3.10
- $\checkmark$  System monitoring and parametrisation
- ✓ Display of the activated functions and graphic overview of the nominal values
- ✓ E-mail notification in case of error messages
- ✓ Display of the alarms history



### Optional accessories - MB3.10 Modbus RTU module - item no. 1339002

- ✓ Connection of a cascade to a BMS
- ✓ The controller FC3.10 offers 2500 registers that can be processed by means of the MB3.10
- ✓ Communication status visible via LED codification
- ✓ Modbus RTU protocol
- ✓ Modbus specific parameters can be set at the controller high flexibility and possibility to adapt to an existing BMS



Friwa

Re	equired module and pi	pe set for double casca	de*** - example Friwa	Mini
Example:	2x	+	+ 🍟 +	<b>R</b>
	Basic module	Pipe set for cascade	Return distribution set	Circulation line
	FriwaMini			
Basic modules	2x 6401510 2x 6401530 (coated heat exchanger)			
Pipe set for cascade	64042933			
Return distribution set	5675431			
Optional: circulation line	6404111			
	Optional accessories: WiFi3	3.10 Internet Gateway modu	le and MB3.10 Modbus RTU	module
Re	equired module and pi	pe set for double casca	de*** - example Friwa	Midi
Example:	2x		+ 👕 +	<del>Ŗ.</del> ŢŶŢ
Example:	2x Basic module		+ 1 +	Circulation line
Example:	2x Easic module	Pipe set for cascade	+ 1 + Return distribution set	Circulation line
	2x Easic module		+ * + Return distribution set FriwaMaxi 2x 6406511	Circulation line FriwaMega 2x 6407511
	2x Easic module	Pipe set for cascade FriwaMidi	FriwaMaxi	FriwaMega
Basic modules	2x Easic module	Pipe set for cascade FriwaMidi 2x 6405511 2x 6405531 (coated heat exchanger)	FriwaMaxi2x 64065112x 6406531(coated heat exchanger)	FriwaMega           2x 6407511           2x 6407530           (coated heat exchanger)
Basic modules Pipe set for cascade	2x Easic module	Pipe set for cascade FriwaMidi 2x 6405511 2x 6405531 (coated heat exchanger) 64042943	FriwaMaxi           2x 6406511           2x 6406531           (coated heat exchanger)           64042953	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963
Basic modules Pipe set for cascade Return distribution set	2x Easic module	Pipe set for cascade Pipe set for cascade 2x 6405511 2x 6405531 (coated heat exchanger) 64042943 5675431	FriwaMaxi           2x 6406511           2x 6406531           (coated heat exchanger)           64042953           6404242	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244
Basic modules Pipe set for cascade Return distribution set	2x Easic module	Fipe set for cascade           Pipe set for cascade           2x 6405511           2x 6405531           (coated heat exchanger)           64042943           5675431           6404136GM7	FriwaMaxi           2x 6406511           2x 6406531 (coated heat exchanger)           64042953           6404242           6404136GM7	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7
Basic modules Pipe set for cascade Return distribution set	22x Easic module	FriwaMidi           2x         6405511           2x         6405531           (coated heat exchanger)         64042943           5675431         6404136GM7           6404136GH10         6404136GH10	FriwaMaxi           2x 6406511           2x 6406531 (coated heat exchanger)           64042953           6404242           6404136GM7           6404136GH10	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7           6404136GH10
Basic modules Pipe set for cascade Return distribution set		Pipe set for cascade           FriwaMidi           2x 6405511           2x 6405531           (coated heat exchanger)           64042943           5675431           6404136GM7           6404136GH10           6404136GH12	FriwaMaxi           2x 6406511           2x 6406531 (coated heat exchanger)           64042953           6404242           6404136GM7           6404136GH10           6404136GH12	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7           6404136GH10           6404136GH12
Basic modules Pipe set for cascade Return distribution set		Pipe set for cascade           FriwaMidi           2x 6405511           2x 6405531           (coated heat exchanger)           64042943           5675431           6404136GM7           6404136GH10           6404136GH12	FriwaMaxi           2x 6406511           2x 6406531 (coated heat exchanger)           64042953           6404242           6404136GM7           6404136GH10	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7           6404136GH10           6404136GH12
Basic modules Pipe set for cascade Return distribution set Optional: circulation line	Optional accessories: WiFi	Pipe set for cascade           FriwaMidi           2x 6405511           2x 6405531           (coated heat exchanger)           64042943           5675431           6404136GM7           6404136GH10           6404136GH12           3.10 Internet Gateway modu	FriwaMaxi           2x 6406511           2x 6406531           (coated heat exchanger)           64042953           6404242           6404136GM7           6404136GH10           6404136GH12           le and MB3.10 Modbus RTU	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7           6404136GH10           6404136GH12
Basic modules Pipe set for cascade Return distribution set Optional: circulation line	Optional accessories: WiFi	Pipe set for cascade           FriwaMidi           2x 6405511           2x 6405531           (coated heat exchanger)           64042943           5675431           6404136GM7           6404136GH10           6404136GH12           3.10 Internet Gateway modu	FriwaMaxi           2x 6406511           2x 6406531 (coated heat exchanger)           64042953           6404242           6404136GM7           6404136GH10           6404136GH12	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7           6404136GH10           6404136GH12
Example: Basic modules Pipe set for cascade Return distribution set Optional: circulation line Return line	Optional accessories: WiFi	Pipe set for cascade           FriwaMidi           2x 6405511           2x 6405531           (coated heat exchanger)           64042943           5675431           6404136GM7           6404136GH10           6404136GH12           3.10 Internet Gateway modu	FriwaMaxi           2x 6406511           2x 6406531           (coated heat exchanger)           64042953           6404242           6404136GM7           6404136GH10           6404136GH12           le and MB3.10 Modbus RTU	FriwaMega           2x 6407511           2x 6407530 (coated heat exchanger)           1x 64042963           6404244           6404136GM7           6404136GH10           6404136GH12

Basic module Accessory kit for cascade Return distribution set

Circulation line

	basic module	Accessory kit for cascade	Retuin distribution set	Circulation line
		FriwaMidi	FriwaMaxi	FriwaMega
Basic modules		3x or 4x 6405511	3x or 4x 6406511	3x or 4x 6407511
		3x or 4x 6405531 (coated heat exchanger)	3x or 4x 6406531 (coated heat exchanger)	3x or 4x 6407530 (coated heat exchanger)
Accessory set for Friwa cascade		64042622 (2-fold) 64042632 (3-fold) 64042642 (4-fold)	64042722 (2-fold) 64042732 (3-fold) 64042742 (4-fold)	64042820 (2-fold) 64042830 (3-fold) 64042840 (4-fold)
Return distribution set		6404242	6404242	6404244
Optional: circulation line		6404136GM7	6404136GM7	6404136GM7
		6404136GH10	6404136GH10	6404136GH10
		6404136GH12	6404136GH12	6404136GH12
	Optional accessories: WiFi3	.10 Internet Gateway module	and MB3.10 Modbus RTU r	nodule

*** The cascade solution is available on request; / = not possible



## FriwaMicro, thermally controlled up to 20 l/min (as per SPF LK1)*







#### **Application range**

Domestic hot water preparation operating on the principle of a flow-type • water heater

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### **Application range**

- in solar thermal systems
- in systems with solid fuel boilers, oil or gas boilers
- connection to a buffer tank •

### **Operating data**

Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	80 °C
Min. flow rate as per SPF LK 1*	2 l/min
Max. flow rate as per SPF LK 1*as per SPF LK1*	20 l/min
Transmission performanceas per SPF LK1*	48 kW

*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

### **Technical data**

Equipment Heat exchanger Cartridge sensor Flow switch

### Materials

Valves and fittings Gaskets Insulation Cartridge sensor Flow switch Thermostatic valve Heat exchanger

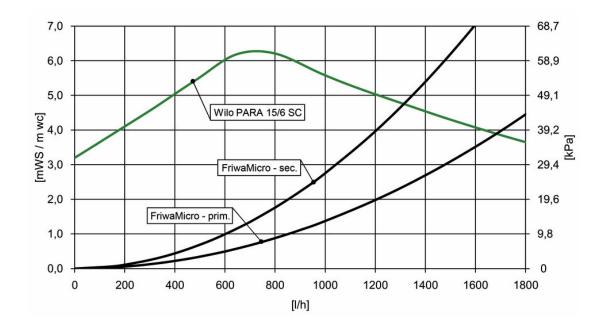
E8ASH, 24 plates 30-60 °C Type 1.3 l/min

Brass EPDM / AFM34 EPP Stainless steel Noryl Housing / valve plate: brass coating (optional): based on silica; Solder: copper; Plates + connecting pieces: stainless steel

#### Dimensions Height 420 mm Width 282 mm 265 mm Depth Installation length 418 mm Centre distance 65 mm Centre distance sec. 65 mm Nominal diameter DN 15 (1/2") Connections 3/4" int. thread







FriwaMicro - DN 15 (1/2")		ltem no.
	FriwaMicro, thermally controlled Wilo Para SC 15/6-43	6400010
	FriwaMicro, thermally controlled, coated heat exchanger Wilo Para SC 15/6-43	6400030

## FriwaMini up to 28 l/min (as per SPF LK1)*







### **Application range**

Domestic hot water preparation operating on the principle of a flow-type • water heater

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### **Application range**

- in solar thermal systems
  - in systems with solid fuel boilers, oil or gas boilers •
- connection to a buffer tank ٠

### **Operating data**

Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	95 °C
Min. flow rate as per SPF LK 1*	2 l/min
Max. flow rate as per SPF LK 1* as per SPF LK1*	28 l/min
Transmission performance as per SPF LK1*	69 kW
Kvs value	primary: 3,1 secondary: 2.4

*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

### **Technical data**

Equipment		Dimensions	
Check valves	primary: 1 x 200 mm wc	Height	539 mm
Controller	FC3.10	Width	309 mm
Sensors	2 x Pt1000	Depth	314 mm
Heat exchanger	E8ASW-N, 32 plates	Installation length	494 mm
Circulation line	optional	Centre distance prim.	90 mm
Communication module (WiFi3.10/ MB3.10)	optional	Centre distance sec.	90 mm
		Nominal diameter	DN 15 (½")
Materials		Connections	primary: ¾" int. thread

### Materials

Valves and fittings	Brass	Connection circulation line
Gaskets	EPDM / AFM34	
Insulation	EPP	
Heat exchanger	coating (optional): based on silica; Solder: copper; Plates + connecting pieces:	

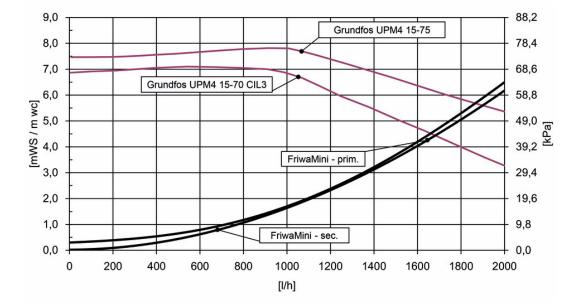
stainless steel

secondary: 3/4" ext. thread

1" ext. thread







FriwaMini - DN 15 (½")		ltem no.
	FriwaMini, without circulation Primary pump: Grundfos UPM4 15-75	6401510
	FriwaMini, with circulation Primary pump: Grundfos UPM4 15-75 Secondary pump: Grundfos UPM4 15-70 CIL3	6401515
	FriwaMini, without circulation, coated heat exchanger Primary pump: Grundfos UPM4 15-75	6401530
	<b>FriwaMini, with circulation, coated heat exchanger</b> Primary pump: Grundfos UPM4 15-75 Secondary pump: Grundfos UPM4 15-70 CIL3	6401535

## FriwaMidi up to 50 l/min (as per SPF LK1)*







### **Application range**

Domestic hot water preparation operating on the principle of a flow-type water heater

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### Application range

- in solar thermal systems
  - in systems with a heat pump, a solid fuel boiler, oil or gas boiler
- connection to a buffer tank
- as a quadruple cascade up to 200 l/min (as per SPF LK 1)*

### **Operating data**

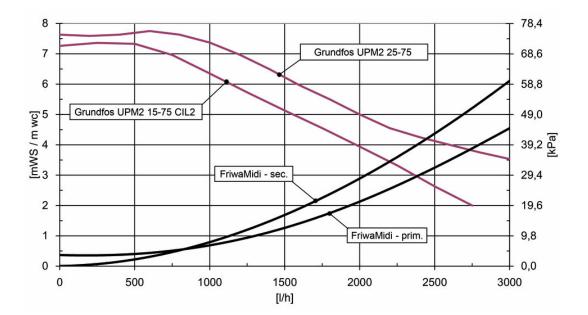
Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	95 °C
Min. flow rate as per SPF LK 1*	2 l/min
Max. flow rate as per SPF LK 1* as per SPF LK1*	50 l/min
Transmission performance as per SPF LK1*	129 kW
Kvs value	primary: 4,5 secondary: 3.9

*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

l'echnical data			
Equipment		Dimensions	
Check valves	primary: 2 x 190 mm wc	Height	795 mm
Heat exchanger	40 plates, copper solder/coated	Width	602 mm
Sensors	primary: 1 x Pt1000 / secondary: 2 x Pt1000 / 1 x flow meter	Depth	298 mm
Controller	FC3.10	Installation length	757 mm
Circulation line	optional	Centre distance prim.	120 mm
Communication module (WiFi3.10/ MB3.10)	optional	Centre distance sec.	100 mm
		Nominal diameter	DN 20 (¾")
Materials		Connections	primary: 1½" ext. thread secondary: 1" ext. thread
Valves and fittings	Brass	Connection circulation line	1" ext. thread
Gaskets	EPDM / AFM34		
Insulation	EPP		
Heat exchanger	coating (optional): based on silica; Solder: copper; Plates + connecting pieces: stainless steel		







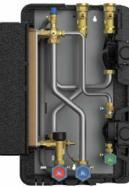
FriwaMidi - DN 20 (¾")		ltem no.
	FriwaMidi, without circulation Primary pump: Grundfos UPM2 25-75 LowFlow	6405511
	<b>FriwaMidi, with circulation</b> Primary pump: Grundfos UPM2 25-75 LowFlow Secondary pump: Grundfos UPM2 15-75 CIL2	6405516
	<b>FriwaMidi, without circulation, coated heat exchanger</b> Primary pump: Grundfos UPM2 25-75 LowFlow	6405531
	FriwaMidi, with circulation, coated heat exchanger Primary pump: Grundfos UPM2 25-75 LowFlow Secondary pump: Grundfos UPM2 15-75 CIL2	6405536

FriwaMidi

## FriwaMaxi up to 77 l/min (as per SPF LK1)*







### **Application range**

Domestic hot water preparation operating on the principle of a flow-type water heater

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### Application range

- in solar thermal systems
  - in systems with a heat pump, a solid fuel boiler, oil or gas boiler
- connection to a buffer tank
- as a quadruple cascade up to 308 l/min (as per SPF LK 1)*

### **Operating data**

Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	95 °C
Min. flow rate as per SPF LK 1*	2 l/min
Max. flow rate as per SPF LK 1* as per SPF LK1*	77 l/min
Transmission performance as per SPF LK1*	187 kW
Kvs value	primary: 5,6 secondary: 5.2

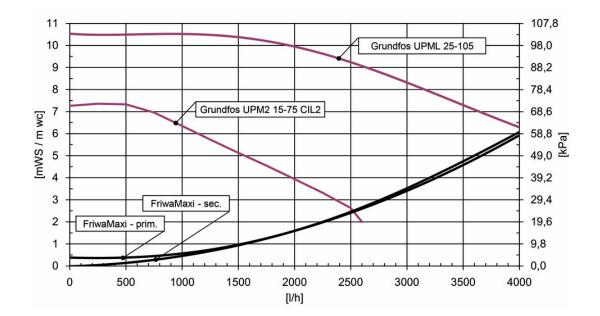
*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

### **Technical data**

Equipment		Dimensions	
Check valves	primary: 2 x 400 mm wc	Height	795 mm
Heat exchanger	60 plates, copper solder/coated	Width	602 mm
Sensors	primary: 1 x Pt1000 / secondary: 2 x Pt1000 / 1 x flow meter	Depth	298 mm
Controller	FC3.10	Installation length	769 mm
Circulation line	optional	Centre distance prim.	120 mm
Communication module (WiFi3.10/ MB3.10)	optional	Centre distance sec.	100 mm
		Nominal diameter	DN 25 (1")
Materials		Connections	primary: 2" ext. thread secondary: 1 ¼" ext. thread
Valves and fittings	Brass	Connection circulation line	1" ext. thread
Gaskets	EPDM / AFM34		
Insulation	EPP		
Heat exchanger	coating (optional): based on silica; Solder: copper; Plates + connecting pieces: stainless steel		







iwaMaxi - DN 25 (1")		ltem no.
	FriwaMaxi, without circulation Primary pump: Grundfos UPML 25-105	6406511
	<b>FriwaMaxi, with circulation</b> Primary pump: Grundfos UPML 25-105 Secondary pump: Grundfos UPM2 15-75 CIL2	6406516
	FriwaMaxi, without circulation, coated heat exchanger Primary pump: Grundfos UPML 25-105	6406531
	<b>FriwaMaxi, with circulation, coated heat exchanger</b> Primary pump: Grundfos UPML 25-105 Secondary pump: Grundfos UPM2 15-75 CIL2	6406536







### **Application range**

• Domestic hot water preparation operating on the principle of a flow-type water heater

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### Application range

- in solar thermal systems
- in systems with a heat pump, a solid fuel boiler, oil or gas boiler
- connection to a buffer tank
- as a quadruple cascade up to 492 l/min (as per SPF LK 1)*

### **Operating data**

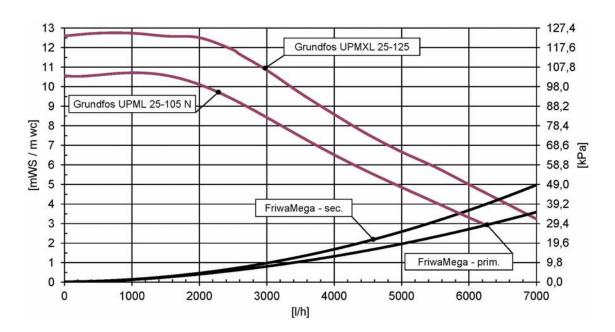
Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	95 °C
Min. flow rate as per SPF LK 1*	4 l/min
Max. flow rate as per SPF LK 1* as per SPF LK1*	123 l/min
Transmission performance as per SPF LK1*	300 kW
Kvs value	primary: 11,8 secondary: 10

*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

Technical data			
Equipment		Dimensions	
Check valves	primary: 2 x 450 mm wc	Height	1 423 mm
Heat exchanger	2x 60 plates, copper solder/coated	Width	710 mm
Sensors	primary: 1 x Pt1000 / secondary: 2 x Pt1000 / 2 x flow meter	Depth	920 mm
Controller	FC3.10	Installation length	1 205 mm
Circulation line	optional	Centre distance prim.	158 mm
Communication module (WiFi3.10/ MB3.10)	optional	Centre distance sec.	158 mm
		Nominal diameter	DN 32 (1¼")
Materials		Connections	primary: 1½" int. thread secondary: 1½" ext. thread
Valves and fittings	Brass	Connection circulation line	thread / 1¼" ext. thread
Gaskets	EPDM / AFM34		
Insulation	EPP		
Heat exchanger	coating (optional): based on silica; Solder: copper; Plates + connecting pieces: stainless steel		

FriwaMega up to 123 l/min (as per SPF LK1)*





FriwaMega - DN 32 (1¼")		ltem no.
	FriwaMega, without circulation Primary pump: Grundfos UPMXL GEO 25-125	6407511
	<b>FriwaMega, with circulation</b> Primary pump: Grundfos UPMXL GEO 25-125 Secondary pump: Grundfos UPML 25-105 N	6407517
	<b>FriwaMega, without circulation, coated heat exchanger</b> Primary pump: Grundfos UPMXL GEO 25-125	6407530
	<b>FriwaMega, with circulation (internal), coated heat exchanger</b> Primary pump: Grundfos UPMXL GEO 25-125 Secondary pump: Grundfos UPML 25-105 N	6407535







# Tank heat transfer modules DN 20-25

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## Catalogue 04/2025

Solutions for domestic hot water technology

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## Tank heat transfer module Midi up to 33 l/min (as per SPF LK1)*







### **Application range**

for charging/preheating domestic hot water tanks via large buffer tank • systems with high tap performances

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### **Application range**

- in solar thermal systems
  - in systems with solid fuel boilers, oil or gas boilers •
- connection to a buffer tank .
- up to 33 l/min •

### **Operating data**

Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	95 ℃
Min. flow rate as per SPF LK 1*	2 l/min
Max. flow rate as per SPF LK 1* as per SPF LK1*	33 l/min
Transmission performance as per SPF LK1*	92 kW
Kvs value	primary: 4,1 secondary: 3.4

*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

### **Technical data**

Equipment Dimensions 795 mm Check valves primary: 2 x 190 mm wc Height Heat exchanger B25TH, 40 plates Width Sensors 3 x Pt1000 (integrated) / 3 x Pt1000 Depth (enclosed) Controller FC4.13 Installa Centre Centre

### Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pie

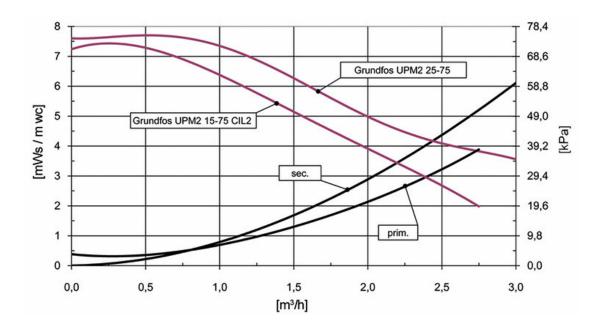
ieces: stainless steel

Width	602 mm
Depth	298 mm
Installation length	757 mm
Centre distance prim.	120 mm
Centre distance sec.	220 mm
Nominal diameter	DN 20 (¾")
Connections	primary: 1½" ext. thread secondary: 1" ext. thread



## Tank heat transfer module Midi up to 33 l/min (as per SPF LK1)*





Tank heat transfer module Midi - DN 20 (¾")		ltem no.
	Tank heat transfer module Midi up to 33 l/min Primary pump: Grundfos UPM2 25-75 LowFlow Secondary pump: Grundfos UPM2 15-75 CIL2	6435445



## Tank heat transfer module Maxi up to 63 l/min (as per SPF LK1)*







### **Application range**

for charging/preheating domestic hot water tanks via large buffer tank • systems with high tap performances

The CE-conformity of the module has been certified according to DIN EN 60335 and SVGW.

### **Application range**

- in solar thermal systems •
  - in systems with solid fuel boilers, oil or gas boilers •
- connection to a buffer tank .
- up to 63 l/min •

### **Operating data**

Max. operating pressure	primary: 3 bar secondary: 10 bar
Operating temperature	95 ℃
Min. flow rate as per SPF LK 1*	2 l/min
Max. flow rate as per SPF LK 1* as per SPF LK1*	63 l/min
Transmission performance as per SPF LK1*	175 kW
Kvs value	primary: 5,5 secondary: 5.1

*For information on design data, see "Product range Friwa"; You will find the equipment at the end for the product family "Domestic hot water technology".

### **Technical data**

Equipment Check valves primary: 2 x 400 mm wc Heat exchanger B25TH, 60 plates Sensors 3 x Pt1000 (integrated) / 3 x Pt1000 (enclosed) Controller FC4.13

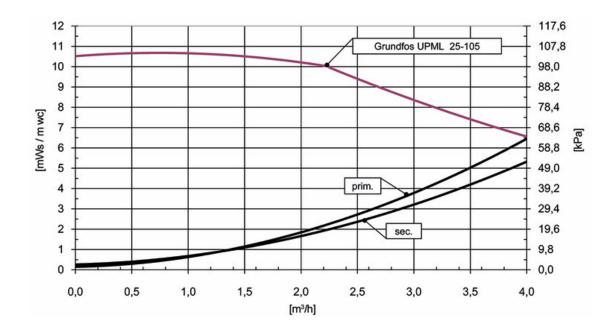
### Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pie

Brass
EPDM / AFM34
EPP
Solder: copper;
Plates + connecting pieces:
stainless steel

Dimensions	
Height	795 mm
Width	602 mm
Depth	298 mm
Installation length	769 mm
Centre distance prim.	120 mm
Centre distance sec.	220 mm
Nominal diameter	DN 25 (1")
Connections	primary: 2" ext. thread secondary: 1 ¼" ext. thread





Tank heat transfer module Maxi - DN	25 (1")	ltem no.		
	<b>Tank heat transfer module Maxi up to 63 l/min</b> Primary pump: Grundfos UPML 25-105 Secondary pump: Grundfos UPML 25-105 N	6436465		

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	Service water mixing valve - DN 20	56311
	The PAW service water mixing valve is used for setting a constant temperature of the water withdrawn from solar or buffer storage tanks between 30 °C and 70 °C. With this valve, the danger of scalding due to hot water from the storage tank is reduced considerably. A must-have for each correctly designed solar thermal system for service water.	
	Housing: Brass, insensitive to calcification, resistant to dezincification Precision of settings: +/- 2 $^{\circ}$ C	
T.	Max. operating temperature: 98 °C Max. operating pressure: PN 10 Range of setting: 30-70 °C Withdrawal: 39 l/min (DP = 1.5 bar) Connections: thread connection with $\frac{3}{4}$ " external thread	
	Domestic hot water safety group ¾"	563907
	Safety group for hot water storage tank, with shut-off valve and adjustable check valve. For horizontal installation. With seat made of stainless steel. Brass housing. Chromed. Certified in conformity to EN 1487. Opening pressure 7 bar, max. power 10 kW	
	Withdrawal valve	640422
	Flame-treated valves for sterile withdrawal of water. For the subsequent installation inside the Friwa module, on each piston valve of the domestic hot water circuit.	
	Accessory set FriwaMicro	64042001
1	3x ball valve DN 15 Authorisation according to DVGW Connection: ¾" ext. thread	
	Accessory set FriwaMidi-Kaskade 2-fold	64042622
ĪĪŢŢ	Accessory set FriwaMidi-Kaskade 3-fold	64042632
af af af af	Accessory set FriwaMidi-Kaskade 4-fold The accessory set is for cascading of two, three or four identically constructed Friwa modules. The two-way valves are prefitted and can be easily mounted in the cold water line. Due to the short opening time of the valve there is no loss of comfort when connecting or disconnecting of single cascade modules.	64042642
	Accessory set FriwaMaxi-Kaskade 2-fold	64042722
IIII	Accessory set FriwaMaxi-Kaskade 3-fold	64042732
ब ब ब ब	Accessory set FriwaMaxi-Kaskade 4-fold The accessory set is for cascading of two, three or four identically constructed Friwa modules. The two-way valves are prefitted and can be easily mounted in the cold water line. Due to the	64042742
1	short opening time of the valve there is no loss of comfort when connecting or disconnecting of single cascade modules.	
	Accessory set FriwaMega-Kaskade 2-fold	64042820
	Accessory set FriwaMega-Kaskade 3-fold	64042830
	Accessory set FriwaMega-Kaskade 4-fold The accessory set serves for cascading two, three or four identically constructed domestic hot	64042840
	water modules. The two-way valves are prefitted and can be easily mounted in the cold water line. Thanks to the short opening time of the valve, there is no loss of comfort when connecting or disconnecting of single cascade modules.	





6	Circulation set for FriwaMidi/Maxi	6404123
	- with high-efficiency pump Grundfos UPM3 15-70 CIL3 - with piston valve and non-return valve Connection: 1" ext. thread	
	Circulation set for internal retrofitting of FriwaMega - with high-efficiency pump Grundfos UPML 25-105 N - with piston valve and non-return valve Connection: 1¼" ext. thread	6404135GH10
	Circulation set for internal retrofitting for FriwaMini FC3.10 - with high-efficiency pump Grundfos UPM4 15-70 CIL3 - with piston valve and non-return valve Connection: 1" ext. thread	6404111
	Circulation set for Friwa-Kaskade (Midi, Maxi, Mega) and for tank heat transfer module Midi, Maxi - with high-efficiency pump Grundfos UPM4 15-70 CIL3 - with piston valves, non-return valve and draining Connection: 1" ext. thread	6404136GM7
	Circulation set for Friwa-Kaskade (Midi, Maxi, Mega) and for tank heat transfer module Midi, Maxi - with high-efficiency pump Grundfos UPML 25-105 N - with piston valves, non-return valve and draining Connection: 1½" ext. thread	6404136GH10

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1	Circulation set for Friwa-Kaskade (Maxi/Mega-Kaskade)	6404136GH12
	- with high-efficiency pump Grundfos UPMXL 25-125 N - with piston valves, non-return valve and draining Connection: 1½" ext. thread	
	Return distribution set for FriwaMaxi, tank heat transfer module Maxi - DN 32	640424
	3-way valve with actuator, setting time for 90°: 35 sec., Kvs value: 16 3 x 1½" int. thread	
	<b>Return distribution set for FriwaMidi/Maxi-Kaskade, FriwaMega, SolexMega HZ - DN 40</b> 3-way valve with actuator, setting time for 90°: 35 sec., Kvs value: 25	6404242
	3 x 1½" int. thread	
	Return distribution set 2" int. thread - DN 50 (2")	6404244
	3-way valve with actuator, setting time for 90°: 35 sec., Kvs value: 40 3 x 2" int. thread	
	Pipe set for FriwaMini-Kaskade	64042933
	Insulated pipe set for cascading of two Friwa modules (item no. 6401510) - with 2 two-way valves for switching - with mounting rail for an easy wall assembly	
	Pipe set for FriwaMidi-Kaskade Insulated pipe set for cascading of two Friwa modules (item no. 6405511) - with 2 two-way valves for switching - with mounting rail for an easy wall assembly	64042943
	Pipe set for FriwaMaxi-Kaskade	64042953
	Insulated pipe set for cascading of two Friwa modules (item no. 6406511) - with 2 two-way valves for switching - with mounting rail for an easy wall assembly	
004	Pipe set for FriwaMega-Kaskade	64042963
1 PAR	Insulated pipe set for cascading of two Friwa modules (item no. 6407511) - with two 2-way valves for switching	
-	WiFi3.10 Internet Gateway Module	1339003
	Communication module to connect PAW systems with domestic hot water controllers FC3.10 with the Internet visualisation platform emodul.eu. The communication module WiFi3.10 is connected to the FC3.10 master via the integrated RS interface. The system specific data points are transmitted wirelessly to the platform emodul.eu via a router provided by the customer. An Internet access is required. Exclusive integration into the network structure provided by the customer.	
	Consists of controller WiFi3.10, power supply unit, RS bus cable, instructions	





	MB3.10	1339002
Constant	Communication module to integrate PAW systems with domestic hot water controllers FC3.10 or solar controllers SC3.10 into superior systems with Modbus RTU interface. The communication module consists of two separate Modbus interfaces. The RS485 interface is connected with the master controller FC3.10 or SC3.10 of the PAW system. The communication module provides the superior Modbus server with the data via the Modbus RTU interface. All inputs and outputs of the connected controllers are available as readable data points.	
	2-way zone valve - DN 25 (1") for tank heat transfer module Midi	563542
Pro UP2 Marine and C C	for connecting and disconnecting single storage tanks, DN 25, 1" int. thread, setting time for 90°: 30 sec., Kvs value = 68	
	2-way zone valve - DN 32 (1¼") for tank heat transfer module Maxi for connecting and disconnecting single storage tanks, DN 32, 1¼" internal thread, setting time for 90°: 30 sec., Kvs value = 123	563552
	3-way valve PV3 - DN 25 (1")	5675431
	<ul> <li>3-way valve PV3 with union nut - DN 25 (1")</li> <li>Can be used in solar and heating installations, to switch between different zones or to connect and disconnect different parts of the system.</li> <li>The actuator is equipped with a relay which is actuated by a 2-point signal, if needed, it can also be manually operated.</li> <li>The 3-way zone PV3 valve can be operated in both directions.</li> </ul>	5675432
	Power supply: 230 V - 50 Hz Power consumption: 5 Nm Setting time 90°: 13 s	
	Kvs value: 15.5	







# Solar transfer stations DN 15-50

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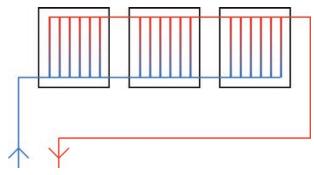


Solex

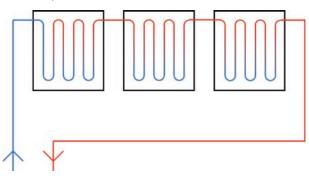
### Product range Solex Solar transfer stations



High-flow system with harp collectors



### Low-flow system with meander collectors



### **Dimensioning of a Solex module**

Different collector types with the same size of collector field need very different flow rates for an effective operation without interruption. The hydraulic connection of the collector field as well as the shape of the collector can also influence the optimal flow of the solar circuit. Corresponding values should be agreed with the manufacturer of the collectors. They can also be found in the technical documents of the collectors.

The solar systems are roughly divided into High-Flow systems and Low-Flow systems. High-Flow systems are operated with a higher flow rate and a smaller temperature difference between collector inlet and collector outlet.

Usually, these systems have less pressure drop than Low-flow systems. Accordingly, Low-Flow systems work with lower flow rates and a higher temperature difference.

The Solex transfer stations can be used for High-Flow solar thermal systems as well as for Low-Flow systems.

The values for the specific flow rate given below refer to the nominal flow rate. Depending on the control target and the basic conditions, the flow rate in the partial-load range is adapted by the controller and can be much smaller than the calculated nominal flow rate. **High-Flow systems** have a flow rate of 25 to 40 litres per square metre of collector surface and hour or 0.42 to 0.67 litre per square metre of collector surface and minute.

**Low-Flow systems** have a flow rate of 10 to 20 litres per square metre of collector surface and hour or 0.17-0.33 litre per square metre of collector surface and minute.

The total flow rate in a solar thermal system depends on:

- system operation mode (High-Flow/Low-Flow)
- collector surface
- performance of the heat exchanger (secondary)

### The circulation pump dimensioning depends on:

- flow rate
- pressure drop of heat exchanger, collector, piping system

For the selection table of the proper Solex, we assumed a minimum head of  $\sim$ 5 m wc ( $\sim$ 50 kPa). If the real collector field (including pipes) has a higher pressure drop, a detailed dimensioning is inevitable.

Selection table	e solar	transf	er stat	ions - S	Solex												
	Collector surface in m ²																
Specific flow rate in l/(m ² x h)	15	20	25	30	40	50	60	70	80	90/ 100	120	140/ 160	180/ 200	240	280	320	360/ 400
15	Mini	Mini	Mini	Midi	Midi	Midi	Maxi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	2x Mega
20	Mini	Mini	Mini	Midi	Midi	Midi	Maxi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	2x Mega
25	Mini	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	2x Mega	***
30	Mini	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	***	/	/
35	Mini	Mini	Midi	Midi	Maxi	Maxi	Maxi	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	***	/	/	/
40	Mini	Midi	Midi	Midi	Maxi	Maxi	Mega	Mega	Mega	Mega	2x Mega	2x Mega	2x Mega	***	/	/	/

*** precise dimensioning required



## Overview product range Solex Solar transfer stations

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<b>SolexMini</b> HZ	Operating mode	Collector surface	Output	Temperature difference (collector inlet/collector outlet		
	25 l/(m²xh)	36 m ²	18 kW	20 K		
	40 l/(m²xh)	30 m ²	15 kW	12 K		

Irradiation = 800 W/m²; efficiency ŋ_{0.05} = 65%





<b>SolexMidi</b> HZ/TW	Operating mode	Collector surface	Output	Temperature difference (collector inlet/collector outlet)
	15 l/(m²xh)	60 m ²	31 kW	33 K
	40 l/(m²xh)	30 m ²	15 kW	12 K

Irradiation = 800 W/m²; efficiency  $\eta_{0.05} = 65\%$ 

### SolexMaxi - for installations up to 100 m² of collector surface

<b>SolexMaxi</b> HZ/TW	Operating mode	Collector surface	Output	Temperature difference (collector inlet/collector outlet)
	15 l/(m²xh)	100 m ²	50 kW	33 K
	25 l/(m²xh)	80 m ²	25 kW	12 K

Irradiation = 800 W/m²; efficiency  $\eta_{0.05} = 65\%$ 



### SolexMega - for installations up to 200 m² of collector surface

SolexMega HZ/TW	Operating mode	Collector surface	Output	Temperature difference (collector inlet/collector outlet)	
	15 l/(m²xh)	200 m ²	100 kW	33 K	
	25 l/(m²xh)	160 m ²	50 kW	12 K	

Irradiation = 800 W/m²; efficiency  $\eta_{0.05} = 65\%$ 

<b>_</b>				
SolexMega Cascade HZ/TW	Operating mode	Collector surface	Output	Temperature difference (collector inlet/collector outlet)
	15 l/(m²xh)	400 m ²	200 kW	33 K
	25 l/(m²xh)	320 m ²	100 kW	12 K
	· · · · · · · · · · · · · · · · · · ·	·		

Irradiation = 800 W/m²; efficiency ŋ_{0.05} = 65%







## The PAW solution for replacing solar pumps and changeover to high-efficiency technology

Due to the requirements for the energy efficiency of heating and solar pumps, only high-efficiency pumps may be used in solar thermal systems.

However, the controllers of older solar systems are generally not compatible with the new high-efficiency technology. High-efficiency pumps always require constant mains voltage for operation, the speed control is carried out via separate/additional control signals (0-10 V or PWM signal).

Older controllers are not equipped with an appropriate control signal output.

In the case that an existing (asynchronous) pump has to be exchanged without replacing the controller, PAW offers the PAW replacement set for solar pumps, consisting of:

- High-efficiency pump
- Pumps control signal converter (PSW)*
- Connection cables
- ✓ Sealing material

The table at the right helps you to find the suitable replacement set for the solar installation.

*The PSW converts the controlled 230 V alternating voltage such as control via pulse packages, phase angle or trailing-edge phase into a PWM or 0-10 V control signal.



Solex

**Replacement set for solar pumps** 







#### How to replace the pump

- Dismount the asynchronous pump and replace it with a high-efficiency pump.
- Connect the PSW to the controller (to the same relay to which the previous pump was connected to).
- Connect the PSW to the pump plugs and plug the safety plug into a socket. The PSW is correctly preset for the pump.

Complex solar installations can thus be operated with the existing controller.

Whether it is the replacement of a faulty asynchonous pump or the increase of the efficiency of an installation: The PAW service team is happy to assist you in the selection of a high-efficiency pump with an appropriate characteristic curve.

Solar pump replacement set for solar installations					
DN 20 (¾")			DN 25 (1")	DN 32 (1¼")	
ltem no.	12187314	12387313	12187414	12187514	
Pump	Grundfos UPM3 Solar 15-145	Wilo Para ST 15/13	Grundfos Solar PML 25-145	Grundfos Solar PML 32-145	
		UP-13 Solar Martin Martin Page			

#### What is the situation with domestic hot water installations?

PAW domestic hot water modules are equipped with perfectly matched components such as heat exchanger, pumps, sensors and controllers. The pumps are usually designed as high-efficiency pumps. To ensure the usual temperature stability after replacing a component, please contact our service team and keep the serial number of the station at hand. The serial number is placed in the lower right corner of the retaining plate of the station. We will gladly submit you a specific recommendation for replacement.



## SolexMini HZ (heating system) up to 36 m² of collector surface





**Technical data** 



#### **Application range**

- for charging buffer storage tanks ٠
- incl. heat quantity measurement according to the BAFA promotion . directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 36 m² of collector surface

#### **Operating data**

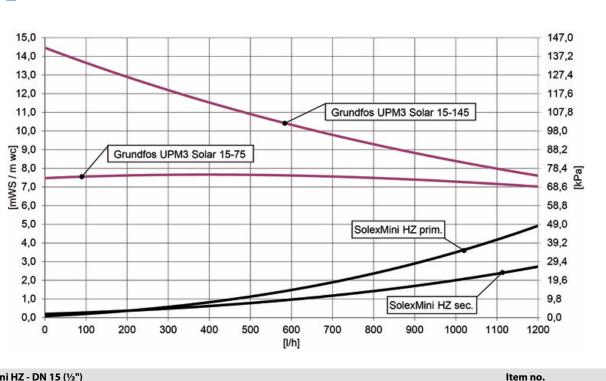
Max. operating pressure	primary: 6 bar secondary: 3 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	40 l/(m²xh)

For information on design data, see chapter "Product range Solex"

Equipment		Dimensions	
Check valves	primary: 2 x 200 mm wc / secondary: 1 x 200 mm wc	Height	658 mm
Controller	SC5.14	Width	427 mm
Sensors	2 x Pt1000 (integrated) / 3 x Pt1000 (enclosed)	Depth	313 mm
Heat exchanger	E8ASH, 24 plates	Installation length	595 mm
Safety valve	primary: 6 bar / secondary: 3 bar		
Pressure gauge	0-6 bar, resistant to high temperatures	Nominal diameter	DN 15 (½")
FlowRotor (primary)	0.5-15 l/min	Connections	primary: ¾" int. thread secondary: ¾" int. thread
Flow meter (secondary)	0.5-15 l/min		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	EPP		
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel		
Check valves	Brass		



## SolexMini HZ (heating system) up to 36 m² of collector surface



#### SolexMini HZ - DN 15 (1/2")

		item no.
	Primary pump <b>Grundfos UPM3 Solar 15-145</b> Secondary pump <b>Grundfos UPM3 Solar 15-75</b>	6091410



## SolexMidi HZ (heating system) up to 60 m² of collector surface





#### **Application range**

- for charging buffer storage tanks ٠
- incl. heat quantity measurement according to the BAFA promotion • directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 60 m² of collector surface

#### **Operating data**

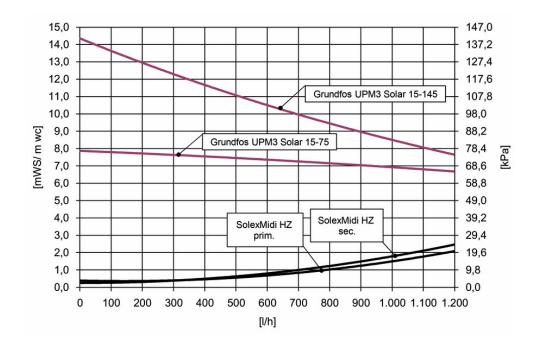
Max. operating pressure	primary: 6 bar secondary: 6 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	40 l/(m²xh)

For information on design data, see chapter "Product range Solex"

l'echnical data			
Equipment		Dimensions	
Check valves	primary: 2 x 200 mm wc / secondary: 2 x 200 mm wc	Height	795 mm
Controller	SC5.14	Width	662 mm
Sensors	2 x Pt1000 (integrated) / 3 x Pt1000 (enclosed)	Depth	298 mm
Heat exchanger	B25TH, 30 plates	Installation length	670 mm
Safety valve	primary: 6 bar / secondary: 6 bar	Centre distance	120 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Nominal diameter	DN 20 (¾")
FlowRotor (primary)	2-50 l/min	Connections	primary: ¾" int. thread secondary: ¾" int. thread
Flow meter (secondary)	3-22 l/min		
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	EPP		
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel		
Check valves	Brass		

#### SolexMidi HZ (heating system) up to 60 m² of collector surface





## SolexMidi HZ - DN 20 (¾") Item no. Image: Solex Midi HZ - DN 20 (¾") Primary pump Grundfos UPM3 Solar 15-145 Secondary pump Grundfos UPM3 Solar 15-75 6095430



#### SolexMaxi HZ (heating system) up to 100 m² of collector surface

Solder: copper;

stainless steel

Brass

Plates + connecting pieces:





#### Application range

- for charging buffer storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### Application range

• up to 100 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 6 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	25 l/(m²xh)

For information on design data, see chapter "Product range Solex"

#### **Technical data** Dimensions Equipment Check valves primary: 2 x 200 mm wc / Height 828 mm secondary: 1 x 200 mm wc Controller SC5.14 Width 664 mm 2 x Pt1000 (integrated) / Sensors Depth 298 mm 3 x Pt1000 (enclosed) Heat exchanger B25TH, 60 plates Installation length 707 mm Safety valve primary: 6 bar / secondary: 6 bar Centre distance 120 mm Nominal diameter Pressure gauge 0-6 bar, resistant to high DN 25 (1") temperatures FlowRotor (primary) 2-50 l/min Connections primary: 1" int. thread secondary: 1" int. thread Flow meter (secondary) 5-40 l/min Materials Valves and fittings Brass Gaskets EPDM / AFM34 Insulation EPP

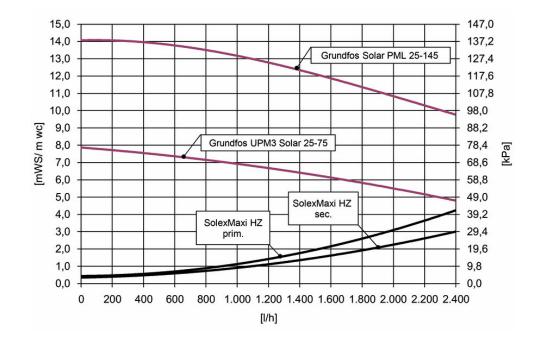
Check valves

Heat exchanger

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#### SolexMaxi HZ (heating system) up to 100 m² of collector surface





SolexMaxi HZ - DN 25 (1")		ltem no.
	Primary pump <b>Grundfos Solar PML 25-145</b> Secondary pump <b>Grundfos UPM3 Solar 25-75</b>	6096460



### SolexMega HZ (heating system) up to 200 m² of collector surface





**Technical data** 



#### **Application range**

- for charging buffer storage tanks •
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 200 m² of collector surface

#### Operating data

Max. operating pressure	primary: 6 bar secondary: 6 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	25 l/(m²xh)

For information on design data, see chapter "Product range Solex"

#### Dimensions Equipment Check valves Height primary: 2 x 250 mm wc / 1 654 mm secondary: 2 x 250 mm wc Controller SC5.14 Width 710 mm 2 x Pt1000 (integrated) Depth 920 mm Sensors XB37M-1, 2x 50 plates 1 205 mm Heat exchanger Installation length Safety valve primary: 6 bar / secondary: 6 bar Centre distance 158 mm Pressure gauge 0-6 bar, resistant to high Nominal diameter DN 32 (11/4") temperatures 5-100 l/min FlowRotor (primary) Connections primary: 11/2" int. thread secondary: 11/2" int. thread Materials Valves and

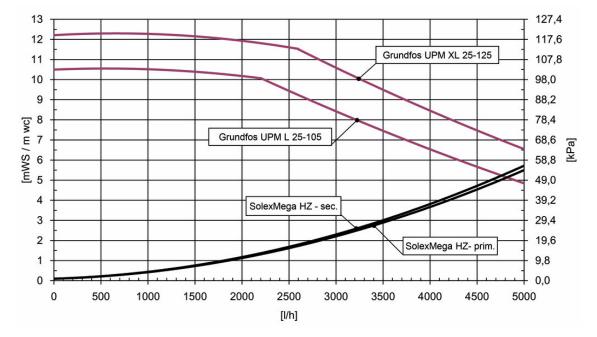
Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel
Check valves	Brass



## SolexMega HZ (heating system) up to 200 m² of collector surface



SolexMega HZ (heating system)



#### SolexMega HZ - DN 32 (11/4")

SolexMega HZ - DN 32 (1¼")		ltem no.
	Primary pump <b>Grundfos UPMXL GEO 25-125</b> Secondary pump <b>Grundfos UPML 25-105</b>	6097460



#### SolexMega-Kaskade HZ (heating system) up to 400 m² of collector surface







#### Technical data

Equipment Check valves

Controller Sensors Heat exchanger Safety valve Pressure gauge

FlowRotor (primary)

#### Materials

Valves and fittings Gaskets Insulation Heat exchanger

Check valves

#### Application range

- for charging buffer storage tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 400 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 6 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	25 l/(m²xh)

For information on design data, see chapter "Product range Solex"

primary: 4 x 250 mm wc /
secondary: 4 x 250 mm wc
SC5.14
4 x Pt1000 (integrated)
XB37M-1, 4x 50 plates
primary: 6 bar / secondary: 6 bar
0-6 bar, resistant to high
temperatures
2 x 5-100 l/min

Height
Width
Depth
Installation length
Centre distance
Nominal diameter

Connections

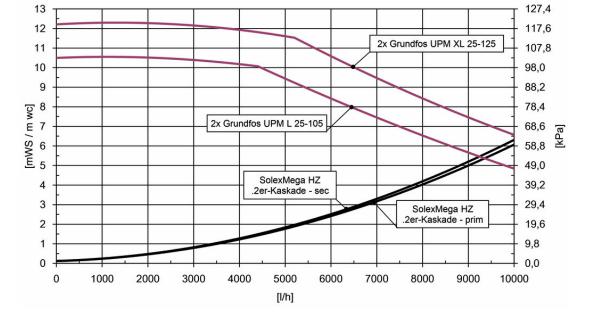
Dimensions

#### 1 705 mm 1 424 mm 920 mm 1 672 mm 158 mm DN 50 (2")

primary: 2" ext. thread / flange DN 50 secondary: 2" ext. thread / flange DN 50

Brass EPDM / AFM34 EPP Solder: copper; Plates + connecting pieces: stainless steel Brass





SolexMega-Kaskade HZ - DN 50 (2")		ltem no.
	Primary pump <b>Grundfos UPMXL GEO 25-125</b> Secondary pump <b>Grundfos UPML 25-105</b>	6098460





#### SolexMini TW (domestic hot water system) up to 36 m² of collector surface







#### Application range

- for charging domestic hot water tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 36 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 10 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	25 l/(m²xh)
Operating mode HighFlow	40 l/(m²xh)

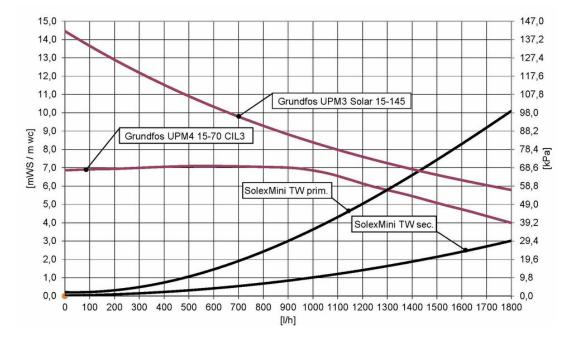
For information on design data, see chapter "Product range Solex"

#### Equipment Dimensions Check valves primary: 2 x 200 mm wc Height 681 mm Controller SC5.14 Width 417 mm 3 x Pt1000 (integrated) / Sensors Depth 249 mm 2 x Pt1000 (enclosed) E8ASH, 24 plates Heat exchanger Installation length 686 mm Safety valve primary: 6 bar / secondary: 10 bar 0-6 bar, resistant to high Pressure gauge Nominal diameter DN 15 (1/2") temperatures 0.5-15 l/min primary: ¾" int. thread FlowRotor (primary) Connections secondary: 3/4" int. thread

#### Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel
Check valves	Brass





# Item no. Frimary pump Grundfos UPM3 Solar 15-145 6091426 Secondary pump Grundfos UPM4 15-70 CIL3 6091426



## SolexMidi TW (domestic hot water system) up to 60 m² of collector surface





#### **Application range**

- for charging domestic hot water tanks ٠
- incl. heat quantity measurement according to the BAFA promotion • directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 60 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 10 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	40 l/(m²xh)

For information on design data, see chapter "Product range Solex"

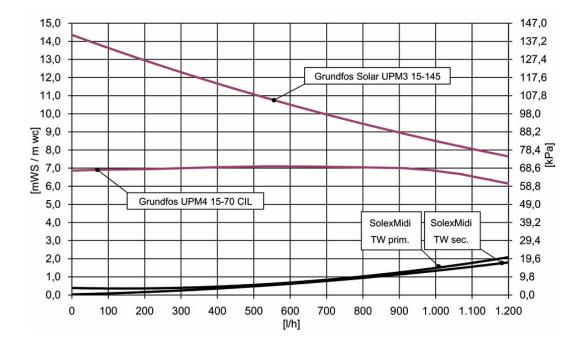
#### **Technical data**

Equipment		Dimensions	
Check valves	primary: 2 x 200 mm wc / secondary: 1 x 200 mm wc	Height	795 mm
Controller	SC5.14	Width	674 mm
Sensors	2 x Pt1000 (integrated) / 2 x Pt1000 (enclosed)	Depth	298 mm
Heat exchanger	B25TH, 30 plates	Installation length	678 mm
Safety valve	primary: 6 bar / secondary: 10 bar	Centre distance	120 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Nominal diameter	DN 20 (¾")
FlowRotor (primary)	2-50 l/min	Connections	primary: ¾" int. thread secondary: 1" ext. thread

#### Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel
Check valves	Brass





#### SolexMidi TW - DN 20 (¾")



	ltem no.
Primary pump <b>Grundfos UPM3 Solar 15-145</b> Secondary pump <b>Grundfos UPM4 15-70 CIL3</b>	6095436



## SolexMaxi TW (domestic hot water system) up to 100 m² of collector surface





#### **Application range**

- for charging domestic hot water tanks ٠
- incl. heat quantity measurement according to the BAFA promotion • directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 100 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 10 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	25 l/(m²xh)

For information on design data, see chapter "Product range Solex"

#### **Technical data**

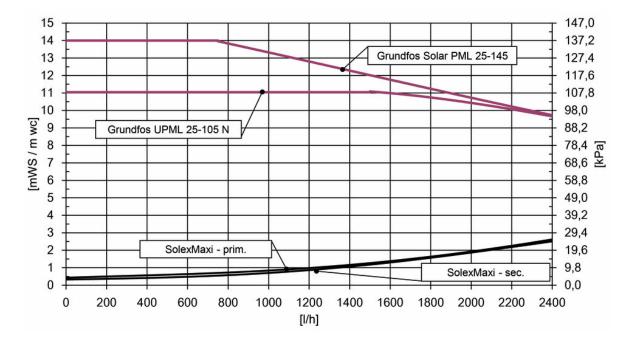
Equipment		Dimensions	
Check valves	primary: 2 x 200 mm wc / secondary: 1 x 150 mm wc	Height	829 mm
Controller	SC5.14	Width	662 mm
Sensors	2 x Pt1000 (integrated) / 2 x Pt1000 (enclosed)	Depth	298 mm
Heat exchanger	B25TH, 60 plates	Installation length	716 mm
Safety valve	primary: 6 bar / secondary: 10 bar	Centre distance	120 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Nominal diameter	DN 25 (1")
FlowRotor (primary)	2-50 l/min	Connections	primary: 1" int. thread secondary: 1 ¼" ext. thread

#### Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel
Check valves	Brass



#### SolexMaxi TW (domestic hot water system) up to 100 m² of collector surface



## SolexMaxi TW - DN 25 (1") Item no. Image: Primary pump Grundfos Solar PML 25-145 Secondary pump Grundfos UPML 25-105 N 6096465



#### SolexMega TW (domestic hot water system) up to 200 m² of collector surface







#### **Application range**

- for charging domestic hot water tanks
- incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### **Application range**

• up to 200 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 10 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	25 l/(m²xh)

For information on design data, see chapter "Product range Solex"

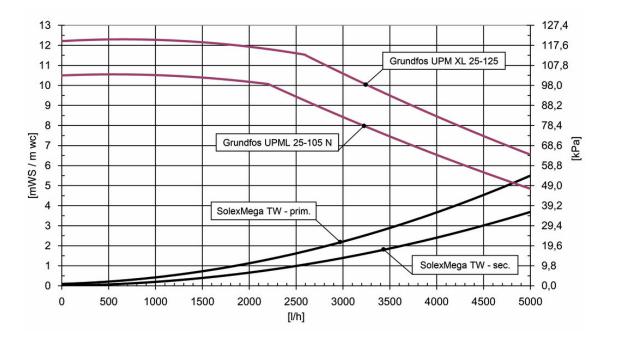
#### **Technical data** Dimensions Equipment Check valves primary: 2 x 250 mm wc / Height 1 654 mm secondary: 1 x 150 mm wc Controller SC5.14 Width 710 mm 2 x Pt1000 (integrated) / Depth 920 mm Sensors 2 x Pt1000 (enclosed) Heat exchanger XB37M-1, 2x 50 plates Installation length 1 175 mm Safety valve primary: 6 bar / secondary: 10 bar Centre distance 158 mm Nominal diameter Pressure gauge 0-6 bar, resistant to high DN 32 (11/4") temperatures FlowRotor (primary) 5-100 l/min Connections primary: 11/2" int. thread secondary: 1½" ext. thread

#### Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP
Heat exchanger	Solder: copper; Plates + connecting pieces: stainless steel
Check valves	Brass



#### SolexMega TW (domestic hot water system) up to 200 m² of collector surface



## Item no. Image: SolexMega TW - DN 32 (1¼") Primary pump Grundfos UPMXL GEO 25-125 Secondary pump Grundfos UPML 25-105 N 6097465



#### SolexMega-Kaskade TW (domestic hot water system) up to 400 m² of collector surface







#### Application range for charging domestic hot water tanks

• incl. heat quantity measurement according to the BAFA promotion directive for solar thermal systems

The CE-conformity of the module has been certified according to DIN EN 60335.

#### Application range

• up to 400 m² of collector surface

#### **Operating data**

Max. operating pressure	primary: 6 bar secondary: 10 bar
Operating temperature	primary: 120 °C secondary: 95 °C
Operating mode LowFlow	15 l/(m²xh)
Operating mode HighFlow	25 l/(m²xh)

For information on design data, see chapter "Product range Solex"

Equipment		Dimensions	
Check valves	primary: 4 x 250 mm wc / secondary: 2 x 150 mm wc	Height	1 672 mm
Controller	SC5.14	Width	1 424 mm
Sensors	2 x Pt1000 (integrated) / 4 x Pt1000 (enclosed))	Depth	920 mm
Heat exchanger	XB37M-1, 4x 50 plates	Installation length	1 672 mm
Safety valve	primary: 6 bar / secondary: 10 bar	Centre distance	158 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Nominal diameter	DN 50 (2")
FlowRotor (primary)	2 x 5-100 l/min	Connections	primary: 1½" int. thread secondary: 1½" ext. thread

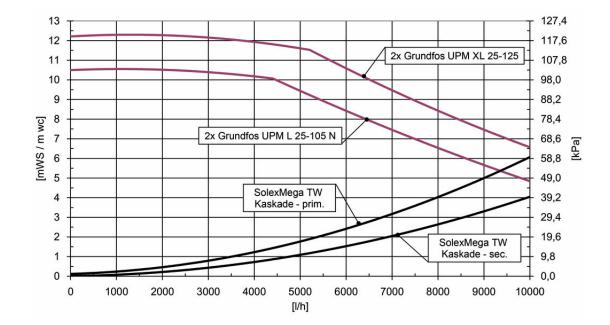
#### Materials

**Technical data** 

Valves and fittings Gaskets Insulation Heat exchanger Brass EPDM / AFM34 EPP Solder: copper; Plates + connecting pieces: stainless steel

Check valves





SolexMega-Kaskade TW - DN 50 (2")		ltem no.	
	Primary pump <b>Grundfos UPMXL GEO 25-125</b> Secondary pump <b>Grundfos UPML 25-105 N</b>	6098465	

Rw







#### Solar stations DN 20 - 32

#### Catalogue 04/2025

Solutions for solar thermal systems

Valid for the EU









#### Overview product range SolarBloC[®] Solar stations





Performance data	SolarBloC [®] midi Premium	SolarBloC [®] maxi Premium	SolarBloC [®] mega
Nominal diameter	DN 20 (¾")	DN 25 (1")	DN 32 (1¼")
Max. flow rate [l/h]	1200	2500	3500
Max. collector surface [m ² ] High-Flow (30 l/m ² h)	40	80	115
Max. collector surface [m ² ] Low-Flow (15 l/m ² h)	60	125	175

#### Selection table of available product versions: solar stations - SolarBloC®

	Cont	veller.	Pump		Sensor technology	
	Controller		Wilo	Grundfos	Basic	Premium
	without					$P_{FL} = digital sensor$
	(to be obtained	SC3.6	High-efficiency pump High-efficiency	High-efficiency pump	$P_{FL} = pressure gauge$	V॑ = impulse
	by the				V _{RET} = flowmeter	T _{FL} = digital sensor
	customer)				-	T = Thermometer
1-line return DN 20	•	_	PWM / iPWM	PWM	•	—
2-line Basic DN 20	•	٠	PWM / iPWM	PWM	•	-
2-line Premium DN 20	_	•	PWM / iPWM	PWM	—	•
3-line Basic DN 20	•	—	PWM / iPWM	PWM	•	-
1-line return DN 25	•	—	PWM / iPWM	PWM	•	-
2-line Basic DN 25	•	٠	PWM / iPWM	PWM	•	_
2-line Premium DN 25	_	٠	PWM / iPWM	PWM	_	•
2-line Basic DN 32	•	-	0 - 10 V	PWM	•	_

• = available, — = not available

#### Application range / collector surface depending on the operation mode

#### Flow types in the collector field

**Low-flow** = 0.25 l/minute per m² of collector surface

**High-flow** = 0.5 l/minute per m² of collector surface

#### **Please note:**

In order to guarantee a trouble-free function it is essential to carry out a hydraulic dimensioning/check of the solar installation.



#### Function overview controller - SC3.10 Solar thermal systems





#### **Controller for solar stations**

- Premium version: SC3.5 / SGC36HV Basic version: SC2.3 / SGC26H
- completely mounted and configured
- graphically animated LCD display
- the controller comprises 17 preset systems
- the controller can be used in solar installations with up to two collector fields or up to two domestic hot water or buffer storage tanks
- use of a solar transfer station with an external heat exchanger and a tank for potable water or a buffer tank with two loading areas is possible

#### **Function overview controller**

#### Optional accessories SC3.5 and SC2.3:

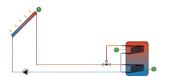
data logger (can be connected via VBus interface, DL2 Plus)

**Optional accessories SGC36HV and SGC26H:** communication interface GWD

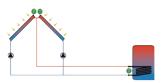
#### Preset systems:



Internal heat exchanger, pump logic



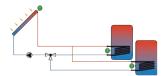
Internal heat exchanger, zone charging, valve logic (1 x E13170 additionally required)



2 collector fields, internal heat exchanger, pump logic (1 x E13170 additionally required)



External heat exchanger, pump logic (1 x E13170 additionally required)

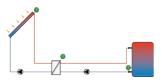


2 storage tanks, internal heat exchanger, valve logic (1 x E13170 additionally required)

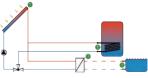


Internal heat exchanger, pump logic, return temperature maintenance (2 x E13170 additionally required)

Function overview control	ler
Display	graphic LCD display
Operation	4 (5) push buttons
Relay outputs	3 x 230 V, semiconductor relay 1 x 230 V, switching relay 1 x SELV (max. 24 V), potential-free relay 2 x PWM signal for rotation speed control
Inputs	4 x Pt1000
Flow rate sensor	yes
Heat quantity measurement	yes
Post-heating	yes
Alarm output	yes
circulation (depending on time / temperature)	yes
Holiday (storage tank recooling)	yes
Solid fuel boiler	yes
Reduction of stagnation	yes
Active cooling	yes
Quick tank charging	yes
Thermostat function	yes
Interval / tube collector	yes



Storage tank and pool, stand-alone operation of the external heat exchanger, pump logic (2 x E13170 additionally required)



Storage tank and pool, standalone operation of the external heat exchanger, valve logic (2 x E13170 additionally required)

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## SolarBloC[®] midi Premium up to a collector surface of 60 m²







#### Application range

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

•	up to a collector surface of 60 m ²
-	

#### **Operating data**

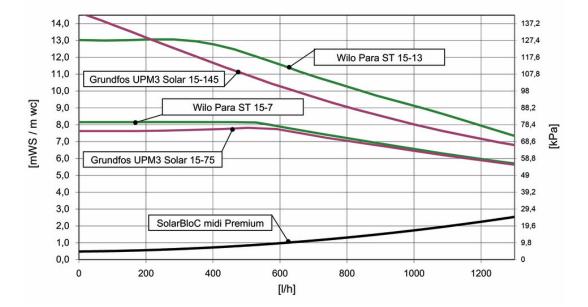
Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow = 0.25 l/min per m ² of collector surface	up to a collector surface of 60 m ²
High-flow = 0.5 l/min per m ² of collector surface	up to a collector surface of 40 m ²

For information on design data, see chapter "Product range SolarBloC®"

Equipment		Dimensions		
Check valves	2 x 200 mm wc	Height	560 mm	
Controller	SC3.5	Width	322 mm	
Sensors	2 x Pt1000 (integrated) / 3 x Pt1000 (enclosed)	Depth	150 mm	
Safety valve	6 bar	Installation length	302 mm	
Pressure gauge	0-6 bar, resistant to high temperatures	Centre distance	100 mm	
Airstop	yes	Nominal diameter	DN 20 (¾")	
FlowRotor	0.5-15 l/min	Connections	¾" int. thread	
Materials				
Valves and fittings	Brass			
Gaskets	EPDM / AFM34			
Insulation	EPP			
Check valves	Brass			







SolarBloC [®] midi Premium - DN 20	olarBloC® midi Premium - DN 20 (¾")		
	Wilo Para ST 15/7, controller SC3.5	773313WP7	
	Wilo Para ST 15/13, controller SC3.5	773313WP13	
•	Grundfos UPM3 Solar 15-75, controller SC3.5	773313GP7	
	Grundfos UPM3 Solar 15-145, controller SC3.5	773313GP14	



## SolarBloC[®] midi Basic up to a collector surface of 60 m²







#### Application range

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

• up to a collector surface of 60 m
-------------------------------------

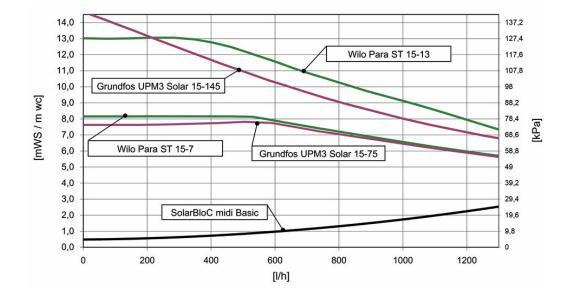
#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow	up to a collector
= 0.25 l/min per m ² of collector surface	surface of 60 m ²
High-flow	up to a collector
= 0.5 l/min per m ² of collector surface	surface of 40 m ²

For information on design data, see chapter "Product range SolarBloC®"

Equipment		Dimensions	
Check valves	2 x 200 mm wc	Height	560 mm
Controller	SC2.3	Width	322 mm
Sensors	2 x Pt1000 (enclosed, only for modules with controller)	Depth	150 mm
Safety valve	6 bar	Installation length	296 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Centre distance	100 mm
Airstop	yes	Nominal diameter	DN 20 (¾")
Flow meter (secondary)	3-22 l/min	Connections	¾" int. thread
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	EPP		
Check valves	Brass		





SolarBloC [®] midi Basic - DN 20 (¾"		ltem no.
	Wilo Para ST 15/7, controller SC2.3	775212WP7
	Wilo Para ST 15/13, controller SC2.3	775212WP13
	Grundfos UPM3 Solar 15-75, controller SC2.3	775212GP7
	Grundfos UPM3 Solar 15-145, controller SC2.3	775212GP14
	Wilo Para ST 15/7, controller on site	7655210WP7
	Wilo Para ST 15/13, controller on site	7655210WP13
	Grundfos UPM3 Solar 15-75, controller on site	7655210GP7
	Grundfos UPM3 Solar 15-145, controller on site	7655210GP14



#### SolarBloC[®] midi Basic, 3-line up to a collector surface of 60 m²







#### Application range

• SolarBloC[®] 3-line station for installations with 2 tanks and 2 roofs

#### Application range

•	up to a collector surface of 60 m ²
---	------------------------------------------------

#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow	up to a collector
= 0.25 l/min per m ² of collector surface	surface of 60 m ²
High-flow	up to a collector
= 0.5 l/min per m ² of collector surface	surface of 40 m ²

For information on design data, see chapter "Product range SolarBloC®"

|--|

EPDM / AFM34

EPP

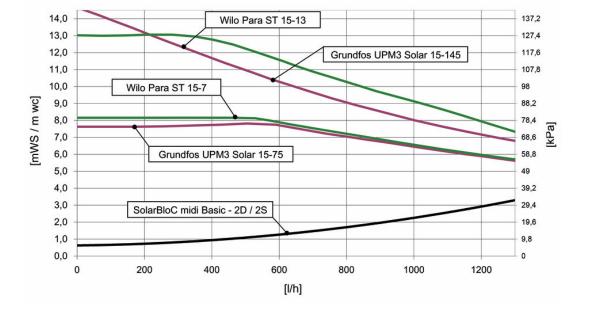
Brass

#### Equipment Dimensions Check valves 3 x 200 mm wc Height 429 mm Controller Width 572 mm on site Sensors Depth 150 mm no Safety valve 6 bar Installation length 418 mm Pressure gauge 0-6 bar, resistant to high Centre distance 100 mm; 250 mm temperatures Nominal diameter DN 20 (¾") Airstop yes Flow meter (secondary) 3-22 l/min Connections 34" int. thread Materials Brass

Valves and fittings Gaskets Insulation Check valves

#### SolarBloC[®] midi Basic, 3-line up to a collector surface of 60 m²





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SolarBloC [®] midi Basic, 3-line - DN 20 (¾")		ltem no.
	2x Wilo Para ST 15/7, controller on site	775810WP7
	2x Wilo Para ST 15/13, controller on site	775810WP13
	2x Grundfos UPM3 Solar 15-75, controller on site	775810GP7
	2x Grundfos UPM3 Solar 15-145, controller on site	775810GP14



## SolarBloC[®] midi Basic return station up to a collector surface of 60 m²





#### Application range

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

•	up to a collector surface of 60 m ²
---	------------------------------------------------

#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow = 0.25 l/min per m ² of collector surface	up to a collector surface of 60 m ²
High-flow = 0.5 l/min per m ² of collector surface	up to a collector surface of 40 m ²

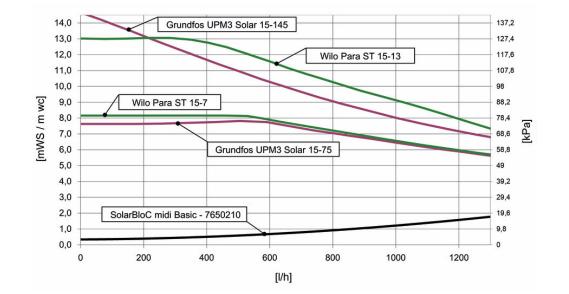
For information on design data, see chapter "Product range SolarBloC  $\ensuremath{\mathsf{SolarBloC}}\xspace$  "

Equipment		Dimensions		
Check valves	1 x 200 mm wc	Height	383 mm	
Controller	on site	Width	244 mm	
Sensors	no	Depth	150 mm	
Safety valve	6 bar	Installation length	296 mm	
Pressure gauge	0-6 bar, resistant to high temperatures			
Airstop	no	Nominal diameter	DN 20 (¾")	
Flow meter (secondary)	3-22 l/min	Connections	³ ⁄ ₄ " int. thread	
Materials				
Valves and fittings	Brass			
Gaskets	EPDM / AFM34			
Insulation	EPP			
Check valves	Brass			



#### SolarBloC[®] midi Basic return station up to a collector surface of 60 m²





SolarBloC® midi Basic return station - DN 20 (¾")		ltem no.	
	Wilo Para ST 15/7, controller on site	7650210WP7	
di Germanik 🐺	Wilo Para ST 15/13, controller on site	7650210WP13	
	Grundfos UPM3 Solar 15-75, controller on site	7650210GP7	
	Grundfos UPM3 Solar 15-145, controller on site	7650210GP14	



#### Mounting equipment solar DN 20



Mounting equipment solar DN 20

1	Connection set for diaphragm expansion tank - DN 20 (¾")	437509
	Connection set for diaphragm expansion tank DN 20 (¾") with cap valve ¾"	437510
	for connection to the safety set $\frac{3}{4}$ ",	
	for tank diameter up to 440 mm,	
	max. 35 kg,	
(	with stainless steel corrugated hose $\frac{3}{4}$ " internal thread - internal thread x 500 mm, wall bracket with mounting equipment,	
	solar tank connector ¾"	
1		
$\sim$	Connection piece for immersion sleeves	5660
	Connection piece for immersion sleeve with $\frac{1}{2}$ " external thread, for a length up to 45 mm 1" union nut with gasket, $\frac{3}{4}$ " internal thread, with sleeve	
	Immersion sleeve ½" ext. thread x T = 30 mm	566001
	Immersion sleeve ¼" ext. thread x T = 60 mm	566002
	Immersion sleeve ½" ext. thread x T = 60 mm	5660021
	Immersion sleeve ½" ext. thread x T = 100 mm	566003
	Immersion sleeve ½" ext. thread x T = 150 mm	566004
T	For all immersion sleeves: for the installation of the temperature sensors (d = 6 mm) in the storage	
	tank, in the collector and the hydraulic separator.	
	Attention: suitable for ball valves until 2016!	
	Accessory kit for storage tank installation DN 20 (¾")	172706201
	Accessory kit for storage tank instantion DN 20 (74 )	172700201
	Flange bracket made of brass with fill and drain valve and insulation for direct assembly of the return station to the storage tank	
	Solar check valve RSS - DN 20 (¾")	1211
	can be opened, up to 150 °C	
The second of the	Solar check valve RSS - DN 20 (¾")	12111
	without possibility for manual opening, up to 220 °C with brass valve plate,	
	all installation positions possible,	
	opening pressure 200 mm wc,	
	³ 4" internal thread, length = 50 mm	
	Hand filling pump	7061
	$\frac{1}{2}$ " external thread, 15 mm hose connection, attainable pressure up to approx. 4 bar, length 225 mm	
<b>P</b>		
U		
	Hand filling pump with fill and drain valve	7062
	$\frac{1}{2}$ " external thread, 15 mm hose connection, attainable pressure up to approx. 4 bar, length 225	
T	mm	
	Hose connector for hand filling and injection pump	70611
	Hose connector for hand filling and injection pump $\frac{1}{2}$ " x 15 mm	
Actioned		





1	Stainless-steel corrugated hose Solarflex, L=18-800 mm	840180
	Stainless-steel corrugated hose Solarflex, L=22-800 mmIdeal for the roof part leading to the collector.Two soldered connections for clamping-ring compression fittings, for diameters of 18 mm or 22 mm.Temperature: -30 °C 260 °C; max. admissible pressure: 12 bar; bursting pressure: 120 bar; bending radius: 45 mm; wall width: 0,2 mm; inside diameter: 12 mm or 16 mm; length: 500 mm or 800 mm	840280
Flush and drain unit DN 20 (¾")         Counter T-piece, self-sealing with fill and drain valve. For extending the solar station with a flush and drain connection, installation at the lowest point (drain unit).		31611
	Flush and fill unit DN 20 (¾")	56500
	Flush and fill unit DN 20 (¾") for 22 mm copper pipe         consisting of: Brass ball valve internal thread ¾", with red butterfly handle, with 2 fill and drain valves with hose connector 15 mm         565221: additionally with 2 cutting-ring compression fittings with support sleeve, premounted	565221
	Double nipple ¾" x ¾"	548310
	Double nipple 1 x 1         for assembly of corrugated stainless steel hoses         548310: ¾" ext. thread, self-sealing with o-ring x outlet ¾" ext. thread, flat-sealing         548340: ¾" ext. thread, self-sealing with o-ring x outlet 1" ext. thread, flat-sealing	548340
	Cutting-ring compression fitting DN 20 (¾"), d = 15 mm	561215
	Cutting-ring compression fitting DN 20 ( $\frac{3}{4}$ "), d = 18 mm	561218
	Cutting-ring compression fitting DN 20 (¾"), d = 22 mm         ¾" external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes.         For temperatures up to 150 °C.	561222
<b>2-way zone valve - DN 20 (¾")</b> for connecting and disconnecting single storage tanks,         DN 20, ¾" int. thread, setting time for 90°: 30 sec., Kvs value = 41		563532
	3-way zone valve - DN 20 (¾")         for switching between single storage tanks,         DN 20, ¾" int. thread, setting time for 90°: 18 sec., Kvs value = 7	563533



## SolarBloC[®] maxi Premium up to a collector surface of 125 m²







#### Application range

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

•	up to a collector surface of 125 m ²
---	-------------------------------------------------

#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow = 0.25 l/min per m ² of collector surface	up to a collector surface of 125 m ²
High-flow = 0.5 l/min per m ² of collector surface	up to a collector surface of 80 m ²

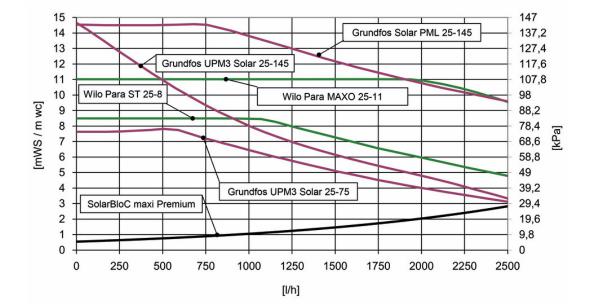
For information on design data, see chapter "Product range SolarBloC®"

Equipment		Dimensions	
Check valves	2 x 200 mm wc	Height	652 mm
Controller	SC3.5	Width	324 mm
Sensors	2 x Pt1000 (integrated) / 3 x Pt1000 (enclosed)	Depth	158 mm
Safety valve	6 bar	Installation length	394 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Centre distance	100 mm
Airstop	yes	Nominal diameter	DN 25 (1")
FlowRotor	1-35 l/min	Connections	1" int. thread
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	EPP		
Check valves	Brass		



# SolarBloC[®] maxi Premium up to a collector surface of 125 m²





SolarBloC [®] maxi Premium - DN 25 (1")		ltem no.
	Wilo Para ST 25/8, controller SC3.5	783313WP8
	Wilo Para MAXO 25-180-11-F02, controller SC3.5	783313WM11
	Grundfos UPM3 Solar 25-75, controller SC3.5	783313GP7
	Grundfos UPM3 Solar 25-145, controller SC3.5	783313GP14
	Grundfos Solar PML 25-145, controller SC3.5	783313GH14



# SolarBloC[®] maxi Basic up to a collector surface of 125 m²







#### Application range

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

• up to a collector	surface of 125 m ²
---------------------	-------------------------------

#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow = 0.25 l/min per m ² of collector surface	up to a collector surface of 125 m ²
High-flow = 0.5 l/min per m ² of collector surface	up to a collector surface of 80 m ²

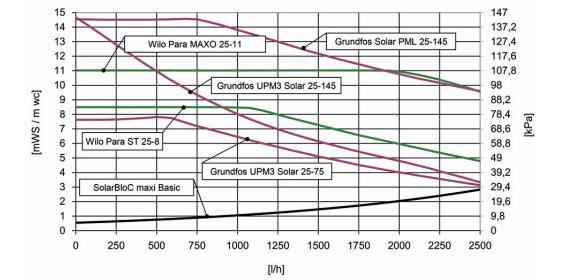
For information on design data, see chapter "Product range SolarBloC®"

#### **Technical data**

Equipment		Dimensions	
Check valves	2 x 200 mm wc	Height	653 mm
Controller	SC2.3	Width	324 mm
Sensors	2 x Pt1000 (enclosed, only for modules with controller)	Depth	158 mm
Safety valve	6 bar	Installation length	394 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Centre distance	100 mm
Airstop	yes	Nominal diameter	DN 25 (1")
Flow meter (secondary)	5-40 l/min	Connections	1" int. thread
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	EPP		
Check valves	Brass		





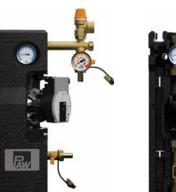


SolarBloC® maxi Basic - DN 25 (1")		ltem no.
	Wilo Para ST 25/8, controller SC2.3	782212WP8
	Wilo Para MAXO 25-180-11-F02, controller SC2.3	782212WM11
· · · ·	Grundfos UPM3 Solar 25-75, controller SC2.3	782212GP7
	Grundfos UPM3 Solar 25-145, controller SC2.3	782212GP14
	Grundfos Solar PML 25-145, controller SC2.3	782212GH14
	Wilo Para ST 25/8, controller on site	607052WP8
	Wilo Para MAXO 25-180-11-F02, controller on site	782210WM11
	Grundfos UPM3 Solar 25-75, controller on site	607052GP8
	Grundfos UPM3 Solar 25-145, controller on site	607052GP14
	Grundfos Solar PML 25-145, controller on site	607052GH14



# SolarBloC[®] maxi Basic return station up to a collector surface of 125 m²







#### **Application range**

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

<ul> <li>up to a collector surface of 125 m</li> </ul>
--------------------------------------------------------

#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow	up to a collector
= 0.25 l/min per m ² of collector surface	surface of 125 m ²
High-flow	up to a collector
= 0.5 I/min per m ² of collector surface	surface of 80 m ²

For information on design data, see chapter "Product range SolarBloC®"

#### **Technical data**

Equipment		Dimensions	
Check valves	1 x 200 mm wc	Height	474 mm
Controller	on site	Width	246 mm
Sensors	no	Depth	155 mm
Safety valve	6 bar	Installation length	394 mm
Pressure gauge	0-6 bar, resistant to high temperatures		
Airstop	no	Nominal diameter	DN 25 (1")
Flow meter (secondary)	5-40 l/min	Connections	1" int. thread
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	EPP		
Check valves	Brass		



147

137,2

127,4

117,6

107,8

98

88,2

78,4 [kPa]

68,6

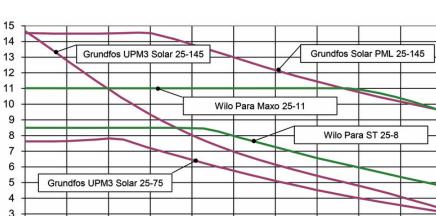
58,8

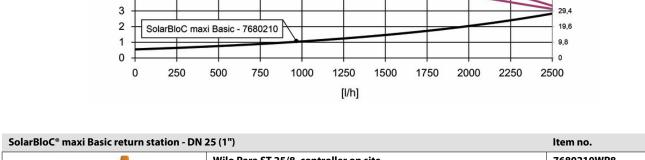
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39,2

# SolarBloC[®] maxi Basic return station up to a collector surface of 125 m²

[mWS / m wc]





SolarbioC* maxi basic return station - DN 25 (1)		item no.
	Wilo Para ST 25/8, controller on site	7680210WP8
	Wilo Para MAXO 25-180-11-F02, controller on site	780210WM11
	Grundfos UPM3 Solar 25-75, controller on site	7680210GP8
	Grundfos UPM3 Solar 25-145, controller on site	7680210GP14
	Grundfos Solar PML 25-145, controller on site	7680210GH14



# Mounting equipment solar DN 25



	Immersion sleeve ½" ext. thread x T = 30 mm	566001
	Immersion sleeve ¼" ext. thread x T = 60 mm	566002
	Immersion sleeve ½" ext. thread x T = 60 mm	5660021
	Immersion sleeve ½" ext. thread x T = 100 mm	566003
	Immersion sleeve ½" ext. thread x T = 150 mm	566004
T	For all immersion sleeves: for the installation of the temperature sensors (d = 6 mm) in the storage tank, in the collector and the hydraulic separator.	
	Attention: suitable for ball valves until 2016!	
	Hand filling pump	7061
	$\frac{1}{2}$ " external thread, 15 mm hose connection, attainable pressure up to approx. 4 bar, length 225 mm	
	Hand filling pump with fill and drain valve	7062
	$^{\prime\prime}\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	
	Hose connector for hand filling and injection pump	70611
	Hose connector for hand filling and injection pump $\frac{1}{2}$ " x 15 mm	
#	Stainless-steel corrugated hose Solarflex, L=18-800 mm	840180
1	Stainless-steel corrugated hose Solarflex, L=22-800 mm	840280
	Ideal for the roof part leading to the collector. Two soldered connections for clamping-ring compression fittings, for diameters of 18 mm or 22 mm.	
	Temperature: -30 °C 260 °C; max. admissible pressure: 12 bar; bursting pressure: 120 bar; bending radius: 45 mm; wall width: 0,2 mm; inside diameter: 12 mm or 16 mm; length: 500 mm or 800 mm	
	Flush and fill unit DN 25 (1")	5640
📮 🖉	Flush and fill unit DN 25 (1") for 15 mm copper pipe	56431
	Flush and fill unit DN 25 (1") for 22 mm copper pipe	56451
	consisting of: Brass ball valve internal thread 1", with red butterfly handle, with 2 outlets ½" before and after the ball, 2 self-sealing fill and drain valves with hose connector 15 mm	
	56431 and 56451: additionally with 2 cutting-ring compression fittings with support sleeve, premounted	
	Flush and drain unit DN 25 (1")	34611
	Counter T-piece with self-sealing fill and drain valve. For extending the solar station with a flush and drain connection or for installation at the lowest point (drain unit).	
	Cutting-ring compression fitting DN 25 (1"), d = 15 mm	562915
	Cutting-ring compression fitting DN 25 (1"), d = 18 mm	562918
	Cutting-ring compression fitting DN 25 (1"), d = 22 mm	562922
	1" external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 °C.	



# Mounting equipment solar DN 25



	2-way zone valve - DN 25 (1") for tank heat transfer module Midi	563542
	for connecting and disconnecting single storage tanks, DN 25, 1" int. thread, setting time for 90°: 30 sec., Kvs value = 68	
O T	2-way zone valve - DN 32 (1¼") for tank heat transfer module Maxi	563552
Break and a state of the state	for connecting and disconnecting single storage tanks, DN 32, 1¼" internal thread, setting time for 90°: 30 sec., Kvs value = 123	
	3-way valve PV3 - DN 25 (1")	5675431
	3-way valve PV3 with union nut - DN 25 (1")	5675432
	Can be used in solar and heating installations, to switch between different zones or to connect and disconnect different parts of the system. The actuator is equipped with a relay which is actuated by a 2-point signal, if needed, it can also be manually operated. The 3-way zone PV3 valve can be operated in both directions.	
	Power supply: 230 V - 50 Hz Power consumption: 5 Nm Setting time 90°: 13 s	
	Kvs value: 15.5         Solar pressure gauge 0-6 bar	523206
Kin	Solar pressure gauge 0-10 bar	523210
	with automatic isolation, solar version up to 130 °C, measuring range: 0-6 bar / 0-10 bar diameter: d = 50 mm	
	Hand refractometer	58055
	The hand refractometer measures the anti-freeze safety of water-propylene glycol and water- ethylene glycol mixtures in solar thermal installations. It can also be used to determine the density of water-battery acid mixtures.Only one or two drops of the fluid are sufficient.	
7	Measuring ranges: propylene glycol: 0 - 50 °C ethylene glycol: 0 - 50 °C battery acid: 1.10 - 1.40 g/cm ³	



# SolarBloC[®] mega up to a collector surface of 175 m²





EPP

Brass

#### Application range

• Efficient circulation of the solar fluid in the solar circuit

#### **Application range**

#### **Operating data**

Max. operating pressure	6 bar
Max. operating temperature	120 °C
Low-flow = 0.25 l/min per m ² of collector surface	up to a collector surface of 175 m ²
High-flow = 0.5 l/min per m ² of collector surface	up to a collector surface of 115 m ²

For information on design data, see chapter "Product range SolarBloC®"

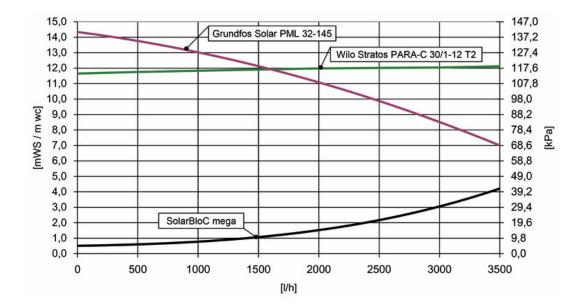
#### Technical data

Insulation

Check valves

Equipment		Dimensions	
Check valves	2 x 200 mm wc	Height	671 mm
Controller	on site	Width	366 mm
Sensors	no	Depth	240 mm
Safety valve	6 bar	Installation length	600 mm
Pressure gauge	0-6 bar, resistant to high temperatures	Centre distance	125 mm
Airstop	no	Nominal diameter	DN 32 (1¼")
		Connections	1¼" int. thread
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		





SolarBloC [®] mega - DN 32 (1¼")		ltem no.
<b>6</b> .	Wilo Stratos PARA-C 30/1-12 T2, controller on site	791010WH12
	Grundfos Solar PML 32-145, controller on site	791010GH14







# DrainBloC® DN 20

# Catalogue 04/2025

Drainback systems for solar thermal installations

Valid for the EU







### DrainBloC[®] DN 20 (¾") Drain-back system







#### **Application range**

Drain-back system for small and medium solar thermal installations

#### **Recommended application range**

• Vapour and over-pressure formation as well as stagnation is avoided, as there is no solar fluid in the collector field

#### Operating data

Max. operating pressure10 barOperating temperature95 °C, sho<br/>130 °CHead of the pump14.5 m

Container volume

95 °C, short-term 130 °C 14.5 m 20 l (usable up to 15 litres)



Technical data

#### Equipment

Controller Safety valve Pressure gauge

Flow meter PWM pump

#### Materials

Valves and fittings Gaskets Insulation SC2.3 6 bar 0-6 bar, resistant to high temperatures 0.5-10 l/min 2-60 W, PWM control

Brass EPDM / AFM34 EPP

## Dimensions

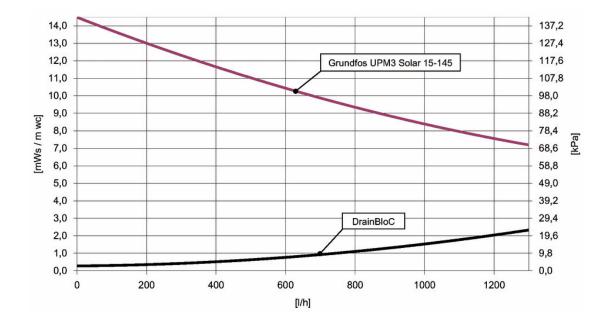
Height container Height DrainBloC[®] Total width

Width DrainBloC® Total depth Ø container Centre distance 603 mm 577 mm at least 721 mm

334 mm 365 mm 280 mm var., min.400 mm







DrainBloC [®] DN 20 (¾")		ltem no.
	Grundfos UPM3 Solar 15-145	6104425



#### General Terms and Conditions of the company PAW GmbH & Co. KG, Böcklerstr. 11, 31789 Hameln - Germany (RA SD/Vers. 12.12.14)

#### 1. Scope

The following General Terms and Conditions (GTC) apply to all goods and services rendered by PAW GmbH & Co. KG (referred to as PAW in the following). Deviations from the GTC are only binding for PAW if explicitly acknowledged by PAW in writing. For foreign business transactions, the definitions of INCOTERMS prevailing at the time of conclusion of the contract apply in addition to the GTC.

#### 2. Conclusion of Contract/Quotes and Acceptance

1. The Customer is bound to orders (quotes) for four weeks upon receipt by PAW. Orders become legally binding only upon written order confirmation by PAW. Agreements, verbal or by telephone, can only form part of the contract if confirmed in writing by PAW. The same applies to orders per Internet or email. 2. Cost estimates with drawings and other documentation given to the Customer by PAW prior to any contractual agreement, remain the property of PAW until signing of the contract and - if a contract is not concluded - must be returned to PAW upon request. PAW retains all copyrights pertaining to the documentation. Duplication and passing thereof to Third Parties requires advance consent by PAW.

#### 3. Prices and Terms of Payment

1. Prices quoted are net "ex works" including packaging and excluding VAT (sales tax), freight and transport insurance, customs, postage and other transport costs. Deliveries within the EU market (Intra-trade) are exempt from VAT (sales tax) only if the Customer quotes his valid VAT ID number when placing the order with PAW.

2. If delivery periods in excess of three months are agreed upon, PAW is entitled to subsequently increase the prices for material and/or labour which formed the basis of the original cost estimate by an appropriate amount, if the increase in costs was not foreseeable at the time the contract was concluded.

3. Payment is due within 30 days from the date of invoice without any deductions. Bills of exchange and cheques are precluded. Receipt of payment determines on time payment. In case of delayed payment PAW has the right to charge interest on arrears at nine percent above the prevailing base rate. In the case of several outstanding accounts, PAW is entitled to freely determine the set-off against individual invoices. The Customer is given an appropriate set-off statement.

4. If, following written order confirmation, PAW receives knowledge of a significant deterioration in the assets of the Customer or if other justified doubts as to the creditworthiness of the Customer arise, PAW is entitled to make deliveries only against appropriate securities or pre-payment.

5. If the Customer is in default of payment, PAW can withhold further deliveries and services until all due

receivables are balanced, unless the Customer pays in advance.

#### 4. Delivery, Passing of Risk, Storage Costs

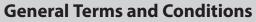
1. The transport of goods occurs at the risk of the Customer - even when the freight order was placed and paid for by PAW. Fixed delivery dates are only legally binding if contractually agreed or confirmed by PAW. Relevant for on time delivery is the time the goods were consigned to the carrier or other company handling the transport/shipment.

2. If a delivery date is exceeded at the Customer's request or other reasons for which PAW is not responsible, the Customer bears the resulting storage costs, commencing 30 days after availability for dispatch. For storage on site, a flat-rate of 0.5% of the net invoice value is payable per month or 1/30th per calendar day respectively. The Customer is entitled to prove that PAW incurred considerably lower storage costs.

#### 5. Reservation of Proprietary Rights

1. PAW retains the right to all supplied goods until complete payment of all invoices resulting from the business relation with the Customer. This also applies when the purchase price has been paid for certain goods specified by the Customer, as the reserved property acts as security against the overall receivables balance due to PAW. The processing of goods supplied by PAW - and which are still retained as property of PAW - is always on behalf of PAW, without any commitments resulting therefrom for PAW. If the goods so retained by PAW are mixed or incorporated with/ into other goods, the Customer herewith assigns his proprietary or co-proprietary rights on the new article to PAW and will store said articles with due diligence. The Customer may sell goods to which PAW has the proprietary rights under normal business transactions, as long as the Customer is not in arrears with payment. 2. Protective conveyance, pledging or selling of stock "enbloc" by the Customer to Third Parties is not permissible, in as far as the proprietary rights of PAW are affected. With conclusion of the purchase contract between the Customer and PAW the Customer assigns, as security, the full amount - not only the pro rata sum - of any claim due against a buyer resulting from a purchase or other legal reasons including all subsidiary rights. The Customer remains entitled to collect these claims as long as he is not in arrears to PAW. If the value of the object supplied under retention of title as a security interest exceeds the total receivables of PAW by more than 20 %, PAW shall be obliged to release the collateral to which it is entitled upon request by the customer insofar as the realizable value is secured by another collateral of equal value (e.g. bond).

3. If PAW takes back goods from the Customer – without incurring any legal commitment – this does not constitute a cancellation of the contract. In the case of such returns of goods PAW will issue the Customer with a credit note less compensatory handling charge of 20% of the net invoice value, with a minimum charge of €10.00. Freight costs for the return of goods to PAW are to be paid for by the Customer.





The customer is entitled to prove that PAW incurred undisputed or accepted by PAW. The same applies to significantly lower costs.

#### 6. Warranty

1. The Customer is obliged to inspect goods delivered by PAW immediately upon receipt for visible transport damage and also to inform PAW immediately in writing of any defects/faults found during goods inwards inspection.

In case of complaints or when ordering spare parts, specification of the PAW serial number is mandatory. Processing will not be possible without this information. Exceptions: auxiliary material, accessory parts (no electronic components).

If the complaints are justified, PAW is obliged to either rework or replace the faulty goods - according to choice by PAW. If reworking or replacement fail, the Customer may only claim redhibition, any reduction is precluded.

2. Minor changes in the construction, shape and design of the delivered goods are permissible and comply with the contract as long as they do not adversely affect the intended use, quality and functionality. The same applies to spare parts.

3. If the Customer supplies components for a product to be manufactured and supplied by PAW as part of a Customer order, then PAW is exempted from any liability for material defects, in as far as the goods supplied by PAW are faulty due to defects arising from the components supplied by the Customer. PAW is not obliged to test the components supplied by the Customer for defects or functionality prior to processing/assembly. The same applies to components supplied to PAW by Third Parties ordered by and paid for by the Customer. 4. Claims for damages against PAW, regardless of legal provisions, including infringements of pre- and collateral contracts relating to information, reference and due care as well as definite breaches of contract and tortious acts are excluded, in as far as damages are not due to malicious intent or gross negligence. This preceeding exemption from liability does not apply if properties are lacking which PAW had explicitly guaranteed or confirmed in writing with the express purpose of protecting the Customer against said damages. Additional claims by the Customer against PAW, such as consequential damages, installation costs and lost profits, are excluded.

5. The liability of PAW for faulty products in accordance with the Law on Product Liability remains untouched by the preceeding conditions. If PAW is made liable for damages by a Third Party in accordance with the Law on Product Liability or other legal liability regulations or if PAW incurs damage for other reasons (i.e. a recall), then the Customer has to exempt PAW against Third Parties if the damage is due to a mistake or fault in the Customer's area of responsibility. 6. The warranty period is defined by statutory regulations (§438 BGB - German Civil Code).

#### 7. Set-off, Right of Retention, Assignment

The customer is only entitled to set-off rights, if his/ her counterclaims have been legally established, are

#### 8. Place of Performance, Court of Jurisdiction

Place of performance and court of jurisdiction for all disputes arising from the contractual arrangements between Customer and PAW is the domicile of PAW or - if PAW so chooses - the Customer's domicile. The contractual arrangements between PAW and Customer are subject to German Law (as priority), alternatively to EU Law.

#### 9. Severability Clause

Should individual provisions of this GTC be or become void, the remaining provisions of the GTC will remain unaffected and valid.In place of the void provisions those legal regulations will apply, which economically come closest to the purpose of the void provision(s) in the GTC.

### Manufacturer's warranty

#### 5-years manufacturer's warranty

#### I.

Due to the high quality of our products, we issue a 5-year warranty – irrespective of the statutory provisions – under the following conditions:

II.

The warranty includes all PAW fittings, except for pumps, controllers and actuators.

The warranty covers the delivered devices with all components, except for such components that are subject to natural use and wear.

The warranty covers the replacement of material but not the costs for mounting and dismounting and other costs that are not costs of the replacement of the material.

Furthermore, the warranty implies that the PAW products have been used according to the generally acknowledged rules of engineering. If maintenance work is necessary, it shall be proven in case of warranty that the maintenance work has been carried out properly and professionally.

III.

The warranty is a 5-year warranty and starts with the date of delivery. The date specified on the delivery note is decisive. The warranty claims shall be submitted at the latest 12 months after the case of warranty. Any warranty claims will be void after this period.

#### IV.

Should there be any defects of material or manufacture or problems with the performance of the device within the warranty period, the customer shall return the warranty object at his own risk to the warrantor.

#### V.

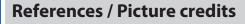
The warranty shall not be considered if the warranty object is not operated according to the specifications; if it gets damaged or destroyed due to force majeure or environmental influences (frost, overvoltage, inadmissible media); if it gets damaged due to improper use (in particular, non-observance of the operating or mounting instructions or due to deferred maintenance); if it has been opened or repaired by a company or craftsman not authorized for it; if the warranty object has external mechanical damages of any type.



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