Award winner HeatBloC® MCom

HeatBloC® MCom DN 25 - 50

Catalogue 01/2024

Automatic, dynamic balancing of distribution manifolds

Valid for the EU

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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
safe
efficient

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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
- ✓ up to 15 % subsidies for heating circuits and communication sets (heating optimisation)

Measuring and visualising all system parameters

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

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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 approximately **50 % of the pump energy** compared to mechanical differential pressure controllers. With the **HeatBloC® MCom** it is also possible to **save up to 20 % of fuel**.

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!

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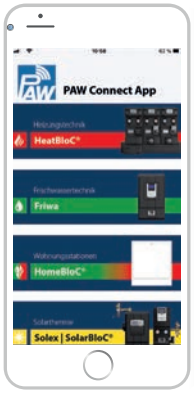
HeatBloC® MCom:
Important data included!

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**
  - ✓ ΔpAC , ΔpNOM
- **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:
CO_2- and cost reduction included!

The energy-efficient **HeatBloC® MCom** is **BAFA listed**, the **BAFA and KfW subsidies of 15 % (heating optimisation)** can thus be requested quickly and easily. Other countries (like Austria) have similar subsidy programmes.

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.

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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.

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

MC41
direct / unmixed

up to 50 kW*

MC42
3-way mixing valve

up to 40 kW*

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

up to 45.5 kW*

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

up to 45.5 kW*

MC45
3-temperature mixing valve

up to 32.5 kW*

MC46
Boiler charging set with 3-way mixing valve

up to 50 kW*

MCom communication set

Connection set for MCom controller (mandatory)

Award winner HeatBloC® MCom:

*Temperature difference = 20 K

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

Application range

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

Technical data

Equipment

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	500 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

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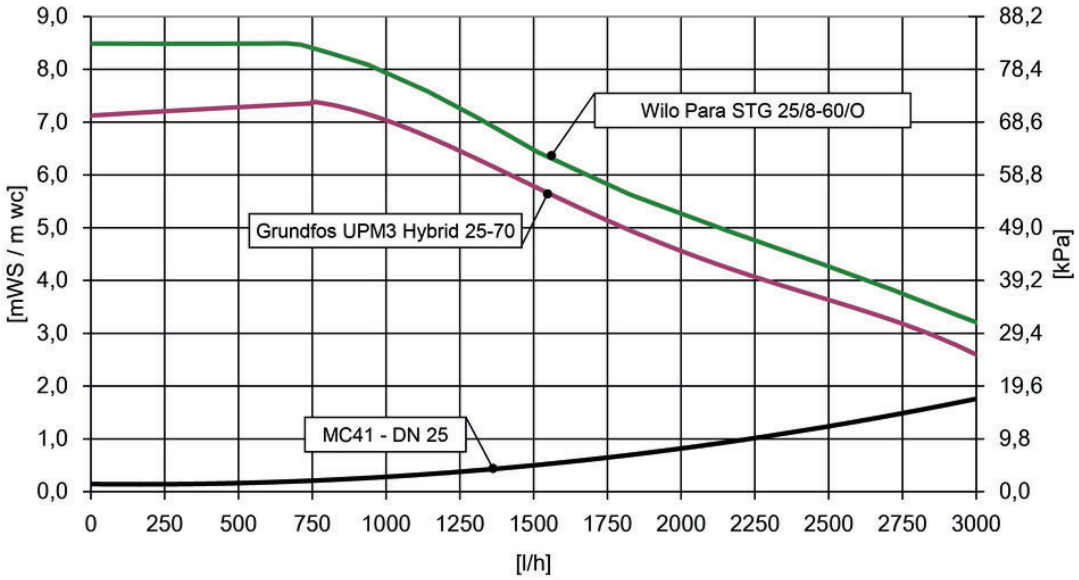
HeatBloC® MC41 DN 25 (1")
direct / unmixed



HeatBloC® MC41 DN 25 (1")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 25-70, flow rate signal**	< 0.20	▲	**4536013GU7**
	Wilo Para STG 25/8/-60/O	< 0.21	▲	**4536013WS08**

▲ = with pump ⊖ = without pump Ⓜ =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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	5 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	500 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

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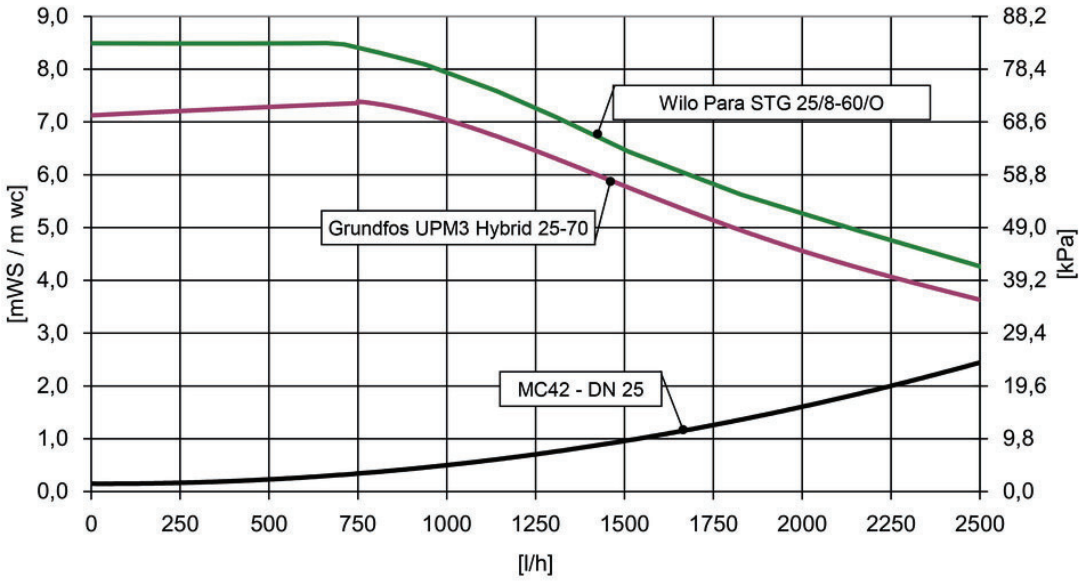
HeatBloC® MC42 DN 25 (1")
3-way H-type mixing valve



HeatBloC® MC42 DN 25 (1")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 25-70, flow rate signal**	< 0.20	▲Ⓜ	**4536053MGU7**
	Wilo Para STG 25/8/-60/O	< 0.21	▲Ⓜ	**4536053MWS08**

▲ = with pump ⊖ = without pump Ⓜ =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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	10 Nm 24 V AC/DC Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	500 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

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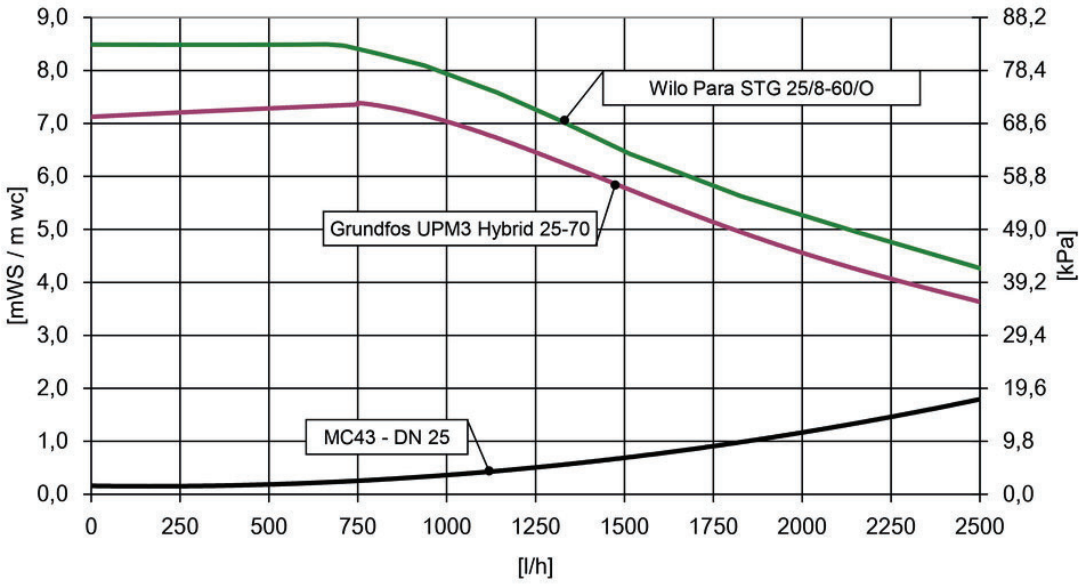
HeatBloC® MC43 DN 25 (1")
Controlled circuit, const. value, 3-way mixing valve with bypass



HeatBloC® MC43 DN 25 (1")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 25-70, flow rate signal**	< 0.20	▲Ⓜ	**4536073MGU7**
	Wilo Para STG 25/8/-60/O	< 0.21	▲Ⓜ	**4536073MWS08**

▲ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

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

Application range

- 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
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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	5 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	500 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

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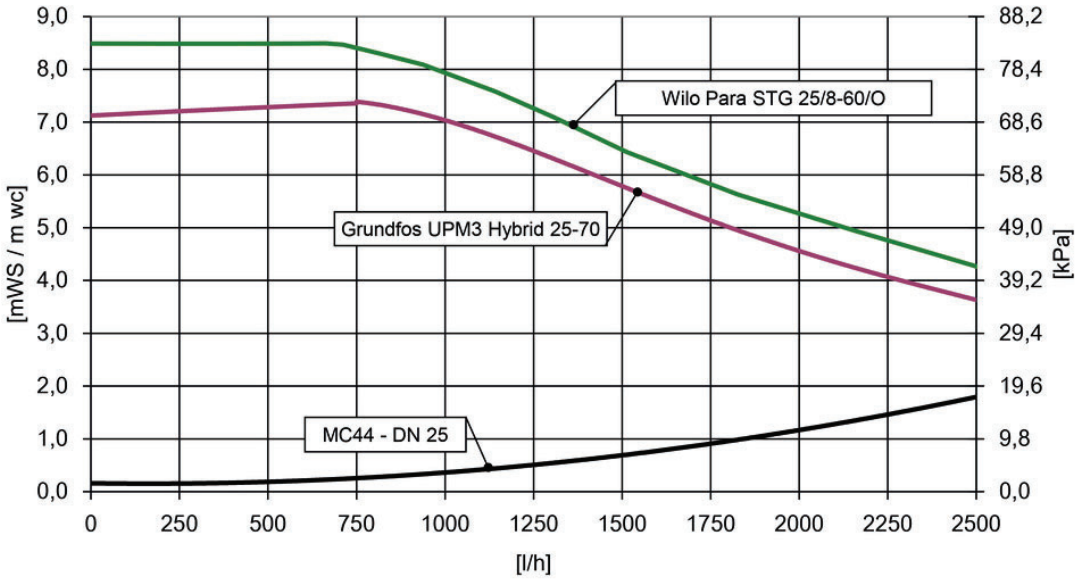
HeatBloC® MC44 DN 25 (1")
3-way bypass mixing valve



HeatBloC® MC44 DN 25 (1")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 25-70, flow rate signal**	< 0.20		**4536063MGU7**
	Wilo Para STG 25/8/-60/O	< 0.21		**4536063MWS08**

= with pump = without pump =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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	5 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	500 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

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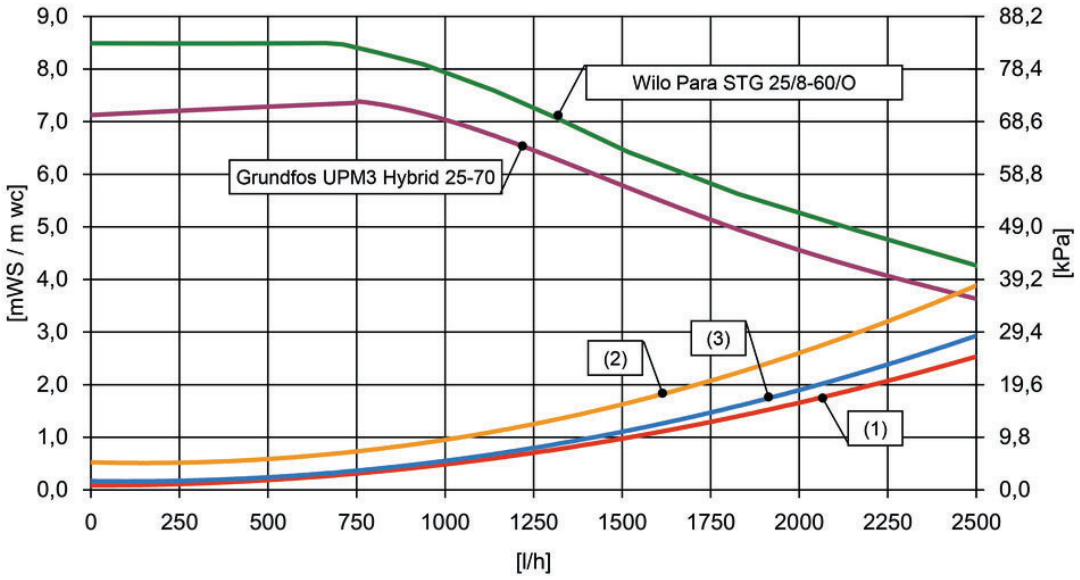
HeatBloC® MC45 DN 25 (1")
3-temperatures mixing valve



(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® MC45 DN 25 (1")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 25-70, flow rate signal**	< 0.20		**4536093MGU7**
	Wilo Para STG 25/8/-60/O	< 0.21		**4536093MWS08**

= with pump = without pump =with actuator *EEI = Energy Efficiency Index

HeatBloC® MC46 DN 25 (1")
Boiler charging set with 3-way mixing valve

Application range

- Return flow temperature maintenance for solid fuel boilers, wood firing and stove heating systems
- for a constant flow rate in the heat generator

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® MC46 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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	10 Nm 24 V AC/DC Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	500 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

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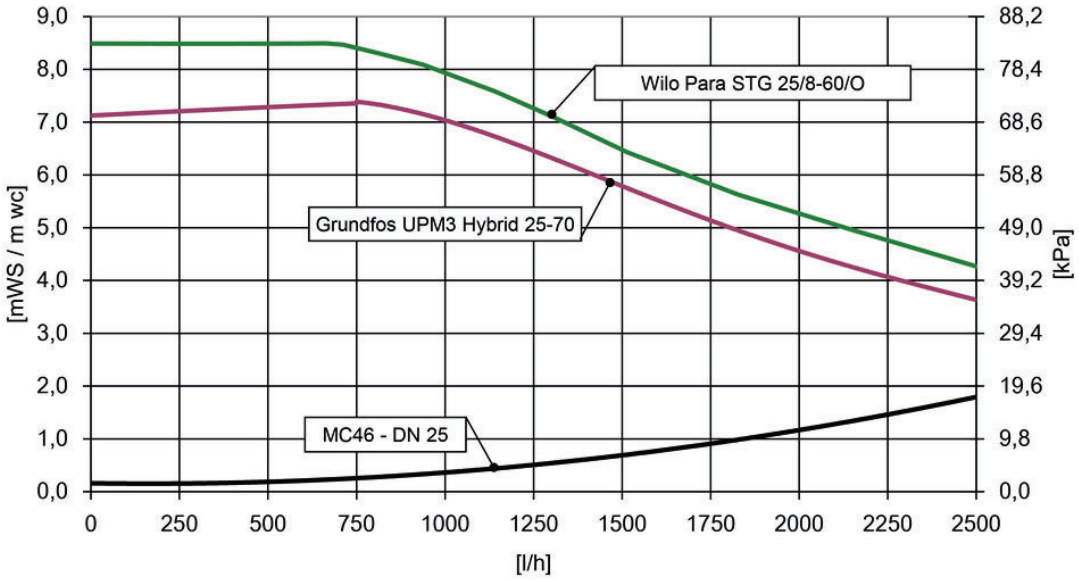
HeatBloC® MC46 DN 25 (1")
Boiler charging set with 3-way mixing valve



HeatBloC® MC46 DN 25 (1")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 25-70, flow rate signal**	< 0.20		**45360333GU7**
	Wilo Para STG 25/8/-60/O	< 0.21		**45360333WS08**

= with pump = without pump =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.

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

MC41
direct / unmixed

up to 65 kW*

MC42
3-way mixing valve

up to 51 kW*

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

up to 64 kW*

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

up to 64 kW*

MC46
Boiler charging set with 3-way mixing valve

up to 64 kW*

MCom communication set (optional)

Connection set for MCom controller (mandatory)

Award winner HeatBloC® MCom:

*Temperature difference = 20 K

HeatBloC® MC41 DN 32 (1¼")
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
- the integration in a Smart Home environment is possible with the MCom communication set (item no.: 1398731)

Technical data

Equipment

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc

Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	557 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

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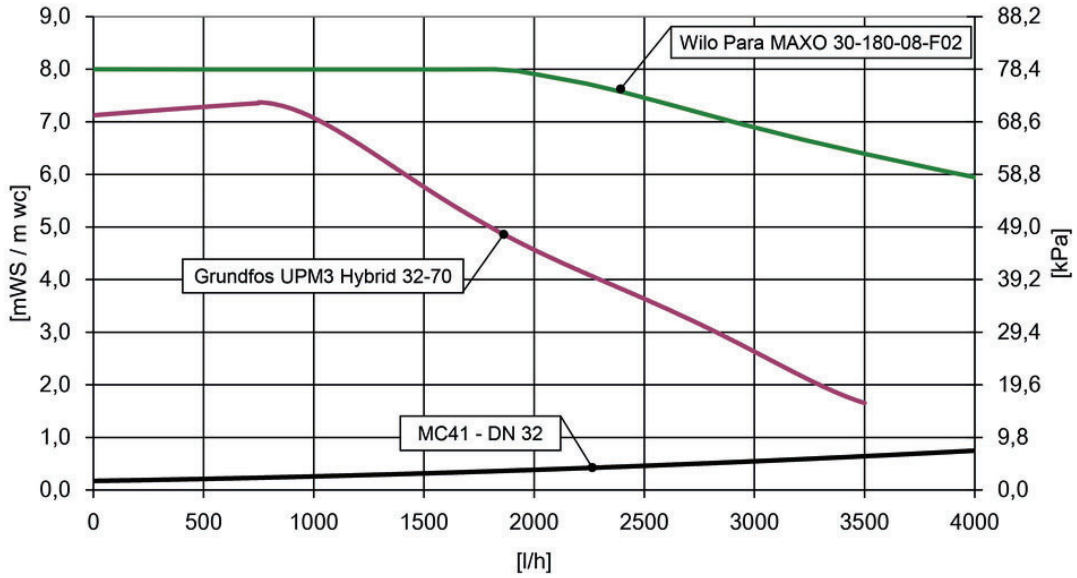
HeatBloC® MC41 DN 32 (1¼")
direct / unmixed



HeatBloC® MC41 DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 32-70, flow rate signal**	< 0.20	▲	**4539013GU7**
	Wilo Para MAXO 30-180-08-F02	< 0.21	▲	**4539013WM08**

▲ = with pump ⊖ = without pump Ⓜ =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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	5 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	557 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

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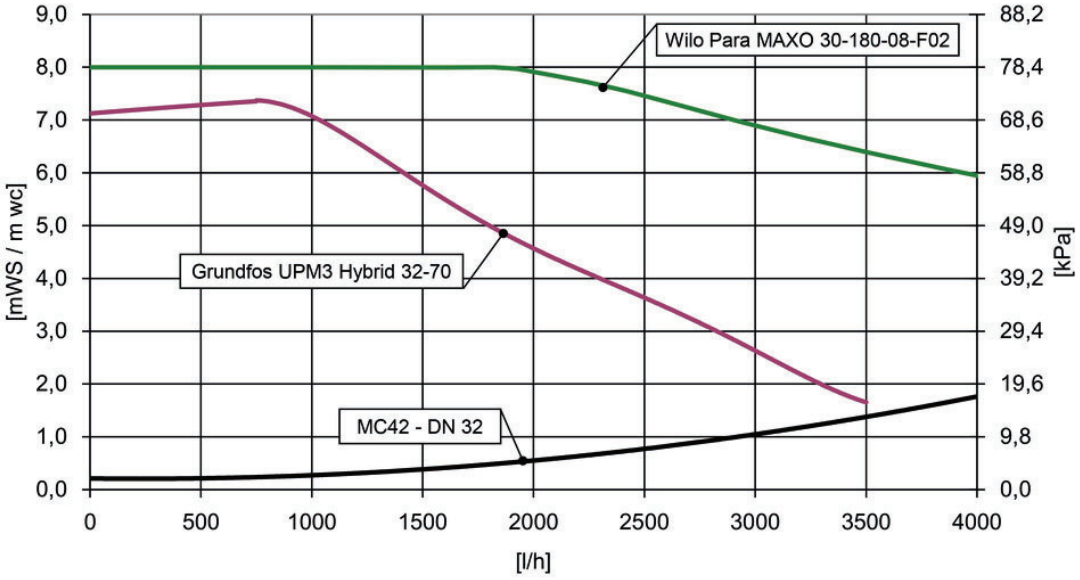
HeatBloC® MC42 DN 32 (1¼")
3-way H-type mixing valve



HeatBloC® MC42 DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 32-70, flow rate signal**	< 0.20		**4539053MGU7**
	Wilo Para MAXO 30-180-08-F02	< 0.21		**4539053MWM08**

= with pump = without pump =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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	10 Nm 24 V AC/DC Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	557 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

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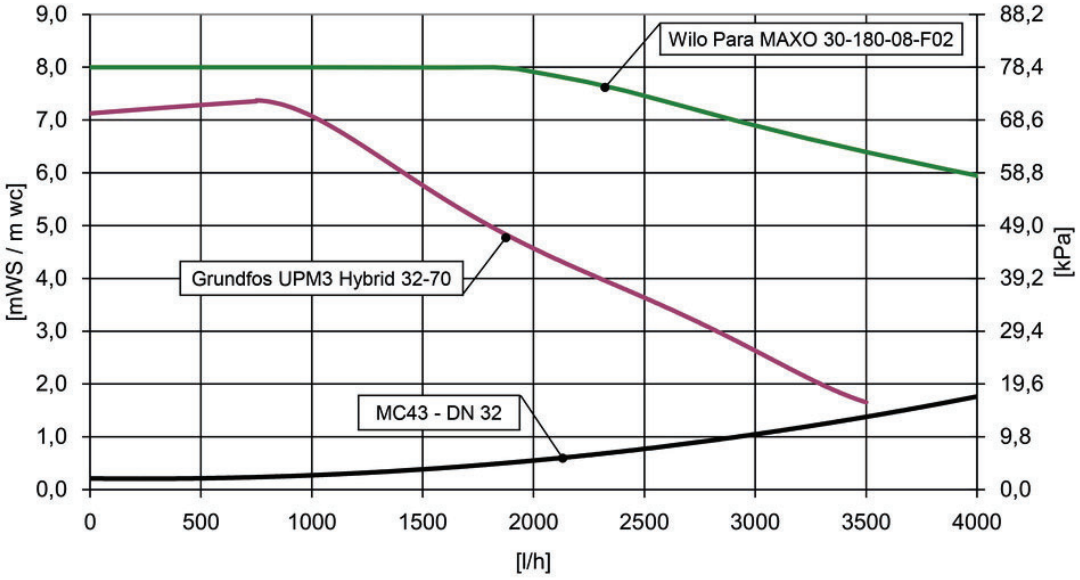
HeatBloC® MC43 DN 32 (1¼")
Controlled circuit with constant temperature, electronically



HeatBloC® MC43 DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 32-70, flow rate signal**	< 0.20	▲Ⓜ	**4539073MGU7**
	Wilo Para MAXO 30-180-08-F02	< 0.21	▲Ⓜ	**4539073MWM08**

▲ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	5 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	557 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

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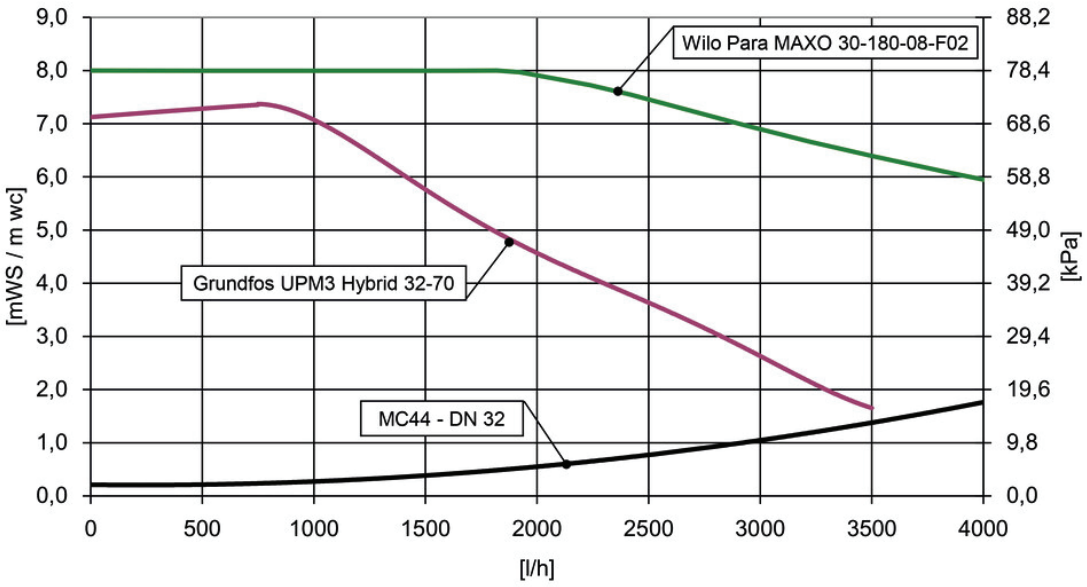
HeatBloC® MC44 DN 32 (1¼")
3-way bypass mixing valve



HeatBloC® MC44 DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 32-70, flow rate signal**	< 0.20		**4539063MGU7**
	Wilo Para MAXO 30-180-08-F02	< 0.21		**4539063MWM08**

= with pump = without pump =with actuator *EEI = Energy Efficiency Index

HeatBloC® MC46 DN 32 (1¼")
Boiler charging set with 3-way mixing valve

Application range

- Return flow temperature maintenance for solid fuel boilers, wood firing and stove heating systems
- for a constant flow rate in the heat generator

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® MC46 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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 200 mm wc
Actuator	10 Nm 24 V AC/DC Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	557 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

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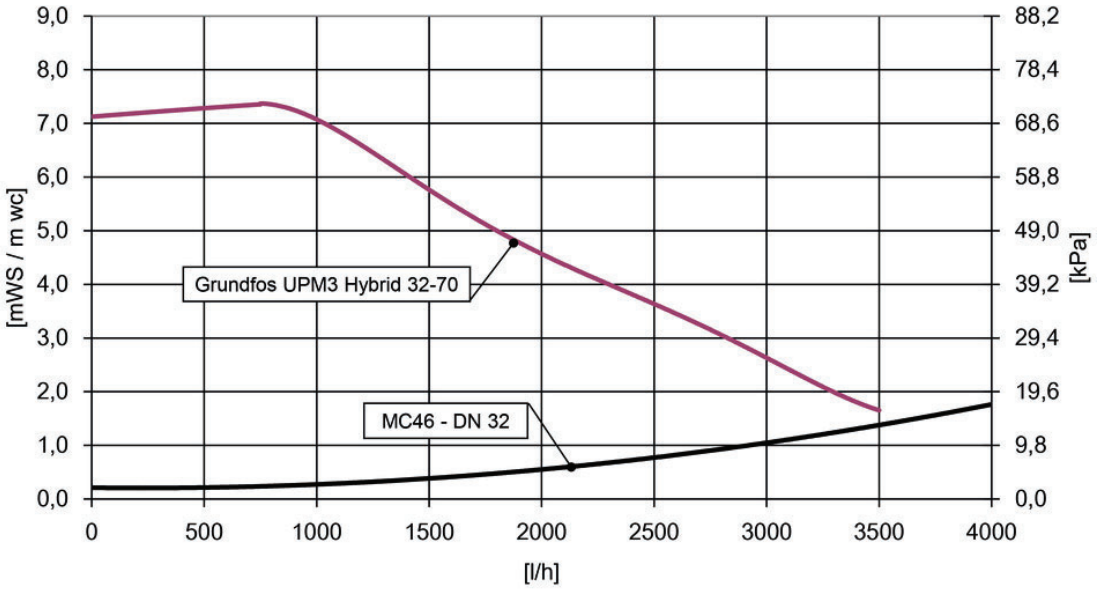
HeatBloC® MC46 DN 32 (1¼")
Boiler charging set with 3-way mixing valve



HeatBloC® MC46 DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos UPM3 Hybrid 32-70, flow rate signal**	< 0.20		**45390333GU7**

= with pump = without pump =with actuator *EEI = Energy Efficiency Index

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.

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

MC41 - DN 40 (1½“)
direct / unmixed

up to 150 kW*

MC42 - DN 40 (1½“)
3-way mixing valve

up to 125 kW*

MC41 - DN 50 (2“)
direct / unmixed

up to 250 kW*

MC42 - DN 50 (2“)
3-way mixing valve

up to 230 kW*

MCom communication set
(optional)

Connection set for MCom controller
(mandatory)

Award winner
HeatBloC® MCom:

*Temperature difference = 20 K

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

Equipment

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 250 mm wc

Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	Flange DN 40 / PN 6
Connection consumer	1½" int. thread
Height	790 mm
Installation length	560 mm
Centre distance	160 mm
Width	320 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

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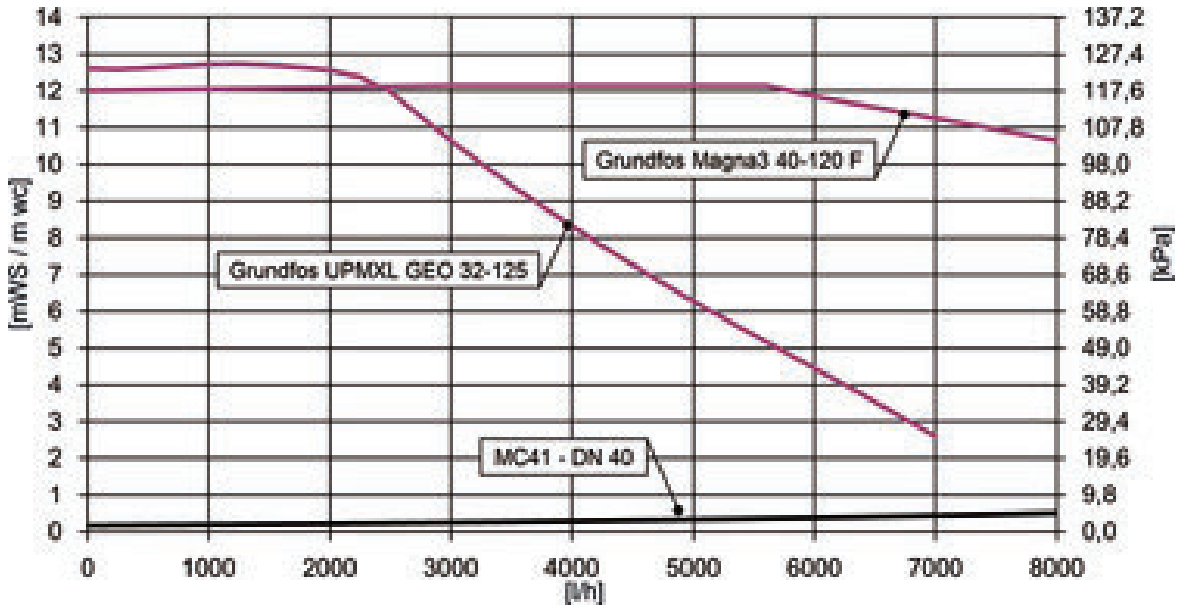
HeatBloC® MC41 DN 40 (1½")
direct / unmixed



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

▲ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

HeatBloC® MC42 DN 40 (1½")
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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 250 mm wc
Actuator	10 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	Flange DN 40 / PN 6
Connection consumer	1½" int. thread
Height	790 mm
Installation length	560 mm
Centre distance	160 mm
Width	320 mm

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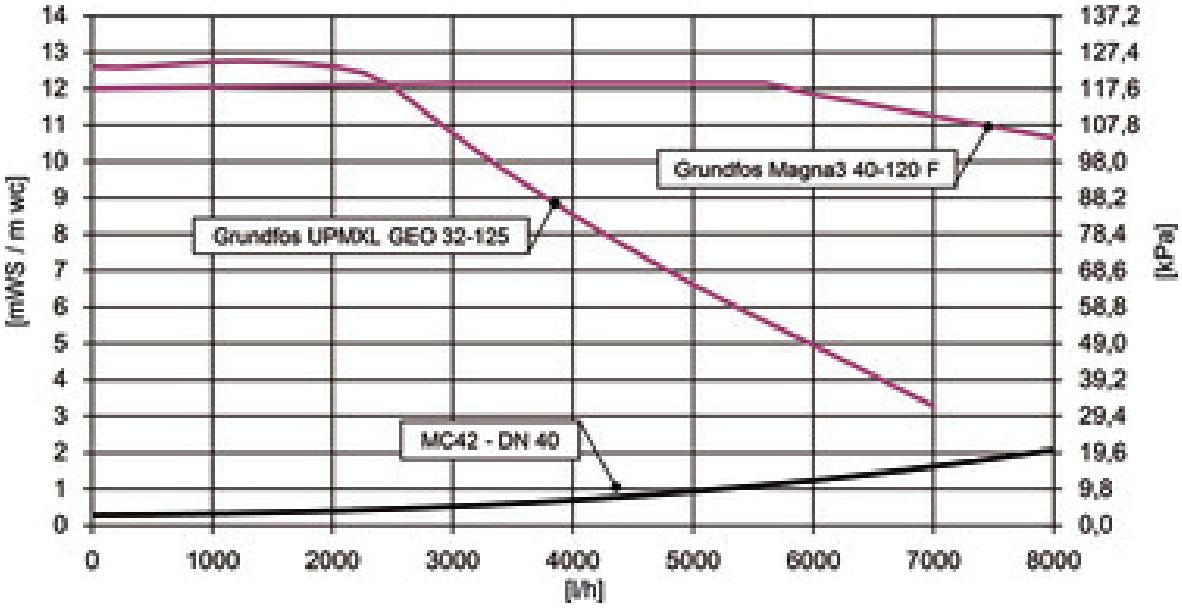
HeatBloC® MC42 DN 40 (1½")
3-way H-type mixing valve



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

= with pump = without pump =with actuator *EEI = Energy Efficiency Index

HeatBloC® MC43 DN 40 (1½")
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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 250 mm wc
Actuator	10 Nm 24 V AC/DC Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	Flange DN 40 / PN 6
Connection consumer	1½" int. thread
Height	790 mm
Installation length	560 mm
Centre distance	160 mm
Width	320 mm

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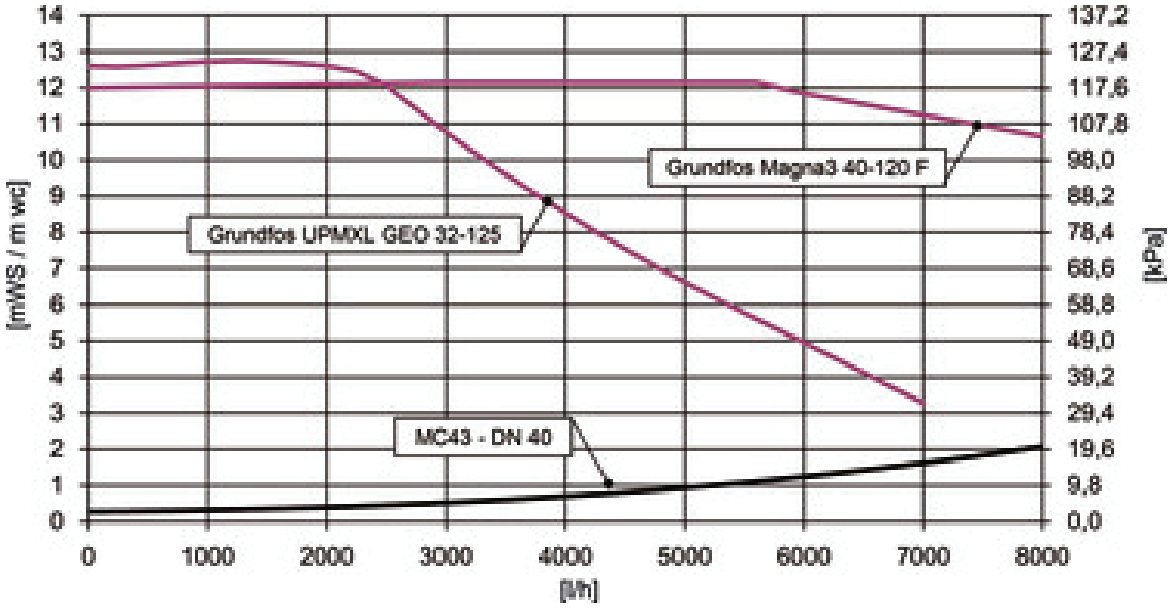
HeatBloC® MC43 DN 40 (1½")
Controlled circuit with constant value, 3-way mixing valve



HeatBloC® MC43 DN 40 (1½")		EEI*	with	Item no.
	**Grundfos MAGNA3 40-120 F**	< 0.18	▲Ⓜ	**4541071MGH12**
	Grundfos UPMXL GEO 32-125, flow estimation	< 0.23	▲Ⓜ	**4541071MGX12**

▲ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

HeatBloC® MC46 DN 40 (1½")
Boiler charging set with 3-way mixing valve

Application range

- Return flow temperature maintenance for solid fuel boilers, wood firing and stove 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® MC46 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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 250 mm wc
Actuator	10 Nm 24 V AC/DC Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	Flange DN 40 / PN 6
Connection consumer	1½" int. thread
Height	790 mm
Installation length	560 mm
Centre distance	160 mm
Width	320 mm

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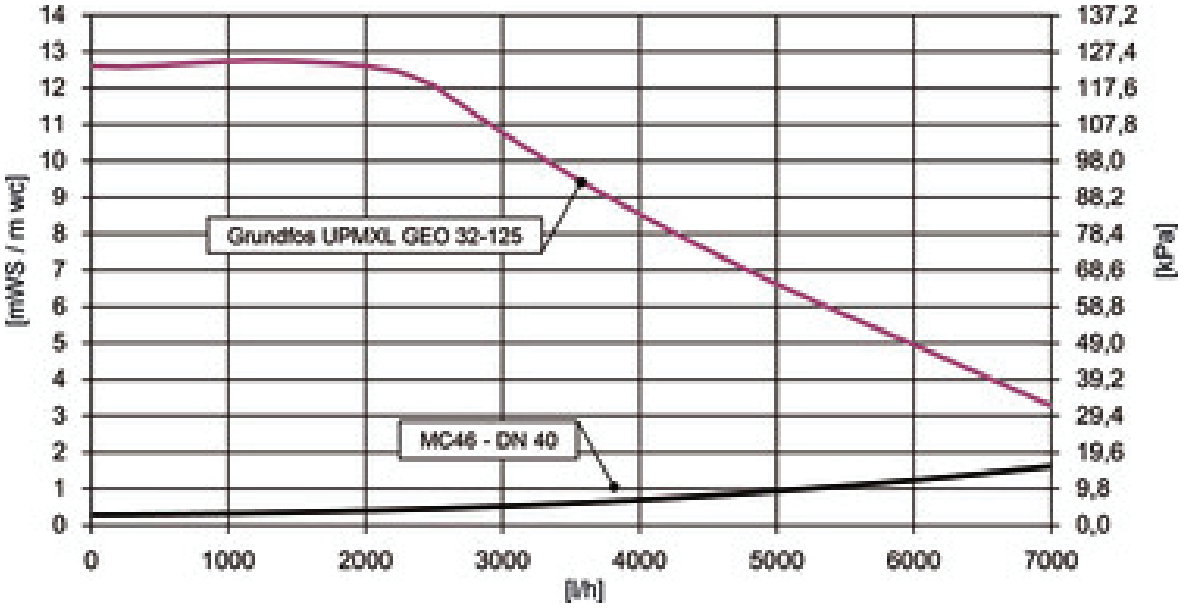
HeatBloC® MC46 DN 40 (1½")
Boiler charging set with 3-way mixing valve



HeatBloC® MC46 DN 40 (1½")		EEI*	with	Item no.
	**Grundfos UPMXL GEO 32-125, flow estimation**	< 0.23	▲Ⓜ	**45410331GX12**

▲ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

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

Technical data

Equipment

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 250 mm wc

Dimensions

Nominal diameter	DN 50 (2")
Connection generator	Flange DN 50 / PN 6
Connection consumer	2" int. thread
Height	850 mm
Installation length	630 mm
Centre distance	180 mm
Width	320 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

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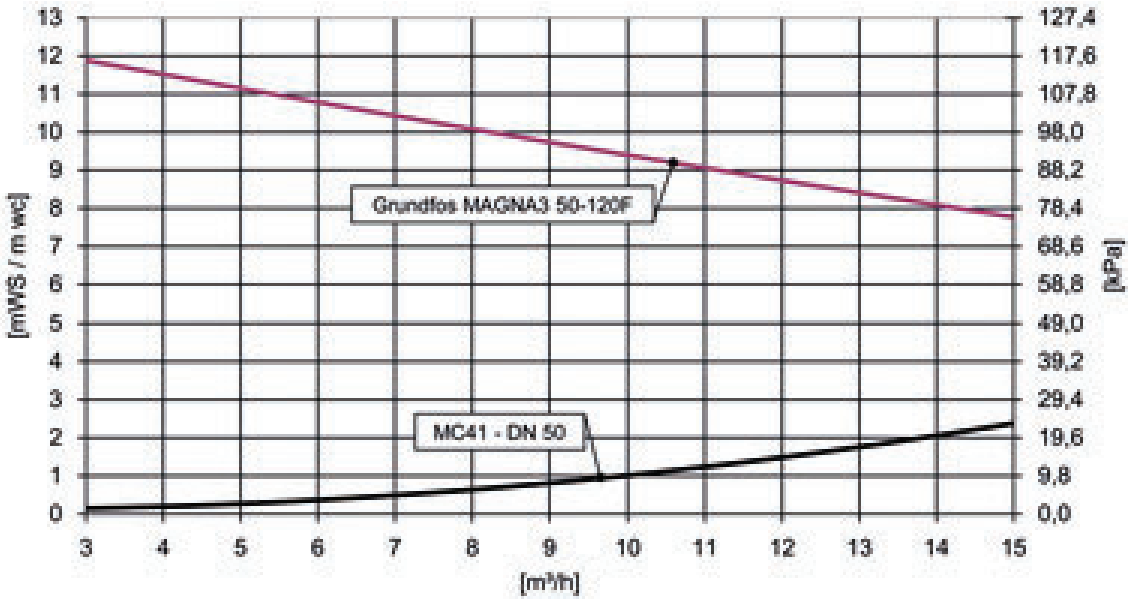
HeatBloC® MC41 DN 50 (2")
direct / unmixed



HeatBloC® MC41 DN 50 (2")		EEI*	with	Item no.
	**Grundfos MAGNA3 50-120 F**	< 0.18	⏢	**4551011GH12**

⏢ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

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

Controller MCom 3.4	24 Vdc, max. 200 mA Interface: Modbus RTU (integration into building control and SmartHome systems)
Temperature sensors	1x Pt1000 in the flow and return
Differential pressure sensors	0-600 mbar
Thermometer	0 - 120 °C
Check valves	1 x 250 mm wc
Actuator	10 Nm 230 V - 50 Hz Setting time 90°: 140 s

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Dimensions

Nominal diameter	DN 50 (2")
Connection generator	Flange DN 50 / PN 6
Connection consumer	2" int. thread
Height	850 mm
Installation length	630 mm
Centre distance	180 mm
Width	360 mm

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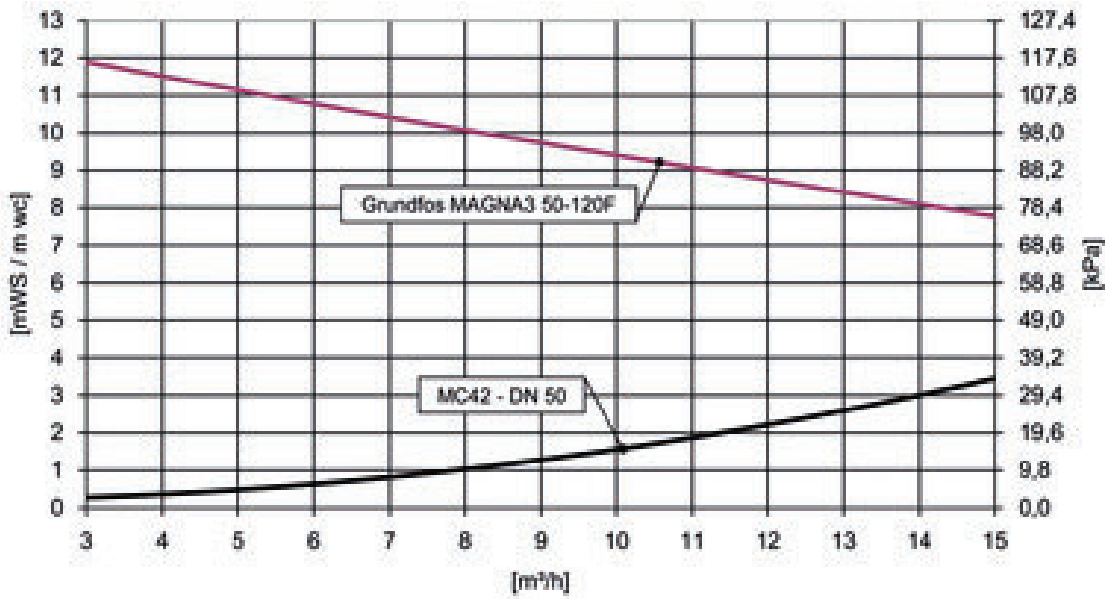
HeatBloC® MC42 DN 50 (2")
3-way H-type mixing valve



HeatBloC® MC42 DN 50 (2")		EEI*	with	Item no.
	**Grundfos MAGNA3 50-120 F**	< 0.18	⏢	**4551051MGH12**

⏢ = with pump ⊖ = without pump Ⓜ =with actuator *EEI = Energy Efficiency Index

Equipment HeatBloC® MCom DN 25 up to DN 50

	**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 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	**34163**
	**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 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	**37163**
	**Modular distribution manifold DN 40, 2-fold**	**4112**
	Modular distribution manifold DN 40, 3-fold	**4113**
	Modular distribution manifold DN 40, 4-fold modular distribution manifold made of brass connecting flanges as slip-on flanges made of steel gaskets 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	**4114**
	**Modular distribution manifold DN 50, 2-fold**	**5112**
	Modular distribution manifold DN 50, 3-fold	**5113**
	Modular distribution manifold DN 50, 4-fold 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	**5114**
	**MCom communication set** 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	**1398731**
	**Connection set for MCom** Mains cable (24 V DC, RJ12, RS485) for the connection of the MCom controllers to the power supply. Please note: For the function of a MC system with up to 8 controllers, one connection set is necessary.	**1398700**

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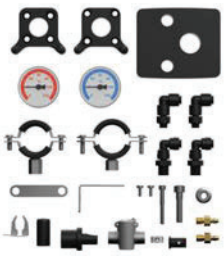
	**PowerLine Case** for extending the reach of the WiFi radio network during the hydraulic balancing	**1398736**
	**Plug adapter** RJ12 adapter, for connecting the MCom system as Modbus-RTU-Slave (GLT, Loxone) to external systems	**1398710**
	**KM2 Interface adapter** Modbus-IP client for visualising 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	**1309001**
	**Maintenance set DPS - DN 25 / DN 32 (1"/1¼")** 1x sealing cap 2x strainer	**N00257**
	**Wall bracket for HeatBloC® DN 25 - DN 32** 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	**34722**
	**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**
	**Wall bracket set for installation of single heating circuits - DN 25 (1")** Components: 2 x 1½" nut, mounting plate, wall bracket possible wall distance: 155 mm	**3422SET**
	**Wall bracket set DN 32** Components: 2 x 2" nut, mounting plate, wall bracket possible wall distance: 155 mm	**3722SET**

Equipment HeatBloC® MCom DN 25 up to DN 50

	**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**
	**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**
	**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**

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HeatBloC®
Standard series DN 20-50

Catalogue 01/2024

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

Valid for the EU

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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

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 20.

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Product range HeatBloC®
Heating circuits DN 20 - types

K31
direct / unmixed

up to 30 kW*

K32
with 3-way mixing valve

up to 21 kW*

K33
Controlled circuit with constant value, 3-way mixing valve with bypass 0-50%

up to 5 kW*

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

up to 21 kW*

K36
Boiler charging set with thermal control valve

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

Technical data

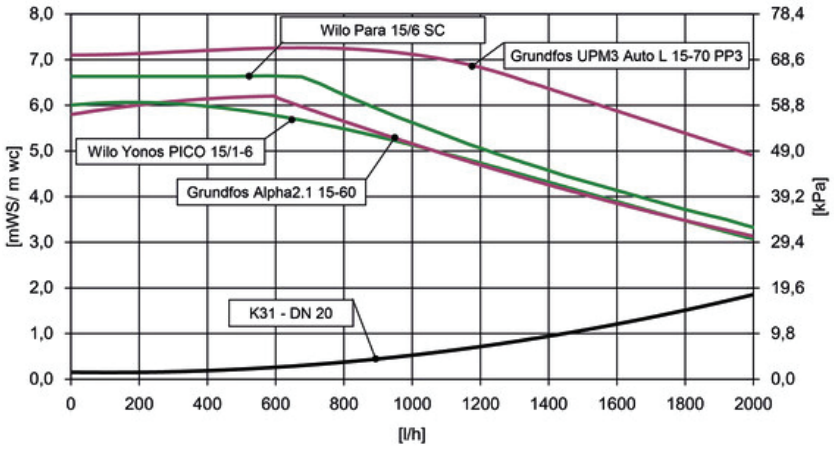
Dimensions

Nominal diameter	DN 20 (¾")
Connection generator	1" ext. thread, flat sealing
Connection consumer	¾" int. thread
Height	385 mm
Installation length	255 mm
Centre distance	90 mm
Width	180 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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HeatBloC® K32 DN 20 (¾")
3-way H-type mixing valve

Application range

- 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
Kvs value	3.7

Technical data

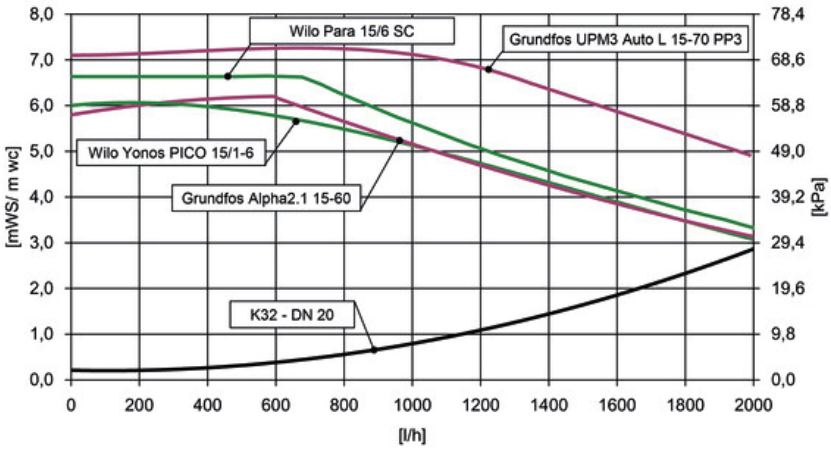
Dimensions

Nominal diameter	DN 20 (¾")
Connection generator	1" ext. thread, flat sealing
Connection consumer	¾" int. thread
Height	385 mm
Installation length	255 mm
Centre distance	90 mm
Width	180 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

= conversion to flow left (it.no. 999300) ▲ = with pump ⊖ = without pump Ⓜ = 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

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

Technical data

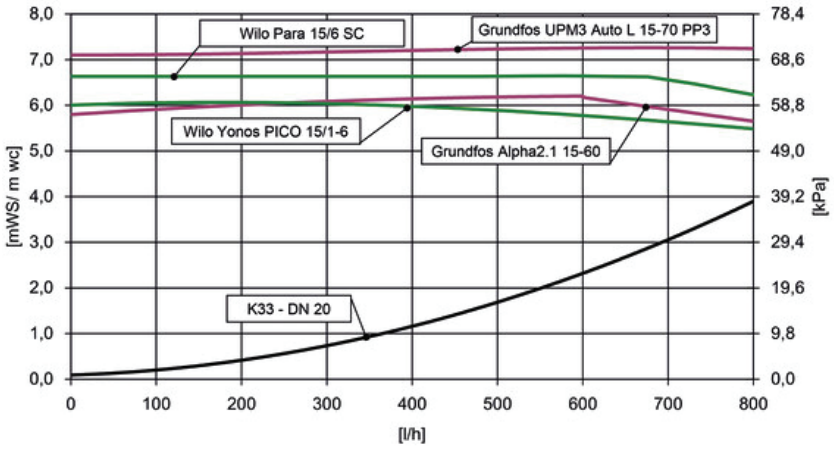
Dimensions

Nominal diameter	DN 20 (¾")
Connection generator	1" ext. thread, flat sealing
Connection consumer	¾" int. thread
Height	385 mm
Installation length	255 mm
Centre distance	90 mm
Width	180 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K33 DN 20 (¾")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 15-60**	< 0.17	▲	**32073GH6**
	Grundfos UPM3 Auto L 15-70	< 0.20	▲	**32073GM6**
	Wilo Para SC 15/6-43	< 0.20	▲	**32073WP6**
	Wilo Yonos PICO 15/1-6	< 0.20	▲	**32073WN06**
	without pump - for pumps with 1" ext. thread x 130 mm		⊖	**32073**

= conversion to flow left (it.no. 999300) ▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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HeatBloC® K34 DN 20 (¾")
3-way bypass mixing valve

Application range

- for low-temperature 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
Kvs value	3.7
Adjustment range bypass	0 - 50 %

Technical data

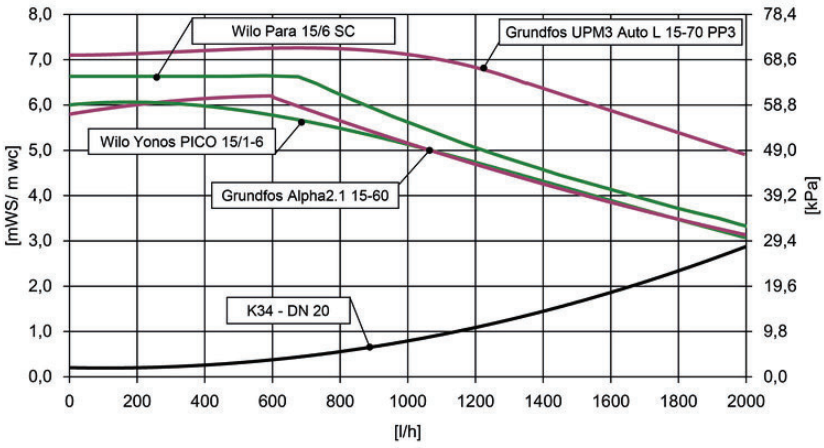
Dimensions

Nominal diameter	DN 20 (¾")
Connection generator	1" ext. thread, flat sealing
Connection consumer	¾" int. thread
Height	385 mm
Installation length	255 mm
Centre distance	90 mm
Width	180 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K34 DN 20 (¾")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 15-60**	< 0.17		**32063MGH6**
	Grundfos UPM3 Auto L 15-70	< 0.20		**32063MGM6**
	Wilo Para SC 15/6-43	< 0.20		**32063MWP6**
	Wilo Yonos PICO 15/1-6	< 0.20		**32063MWN06**
	without pump - for pumps with 1" ext. thread x 130 mm			**32063M**
	Grundfos ALPHA2.1 15-60	< 0.17		**32063GH6**
	Grundfos UPM3 Auto L 15-70	< 0.20		**32063GM6**
	Wilo Para SC 15/6-43	< 0.20		**32063WP6**
	Wilo Yonos PICO 15/1-6	< 0.20		**32063WN06**
	without pump - for pumps with 1" ext. thread x 130 mm			**32063**

= conversion to flow left (it.no. 999300) = with pump = without pump = 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

Technical data

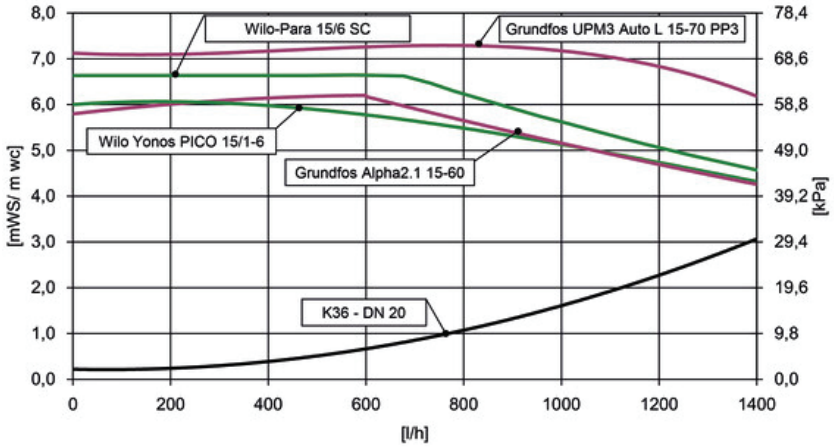
Dimensions

Nominal diameter	DN 20 (¾")
Connection generator	¾" int. thread
Connection consumer	¾" int. thread
Height	385 mm
Installation length	347 mm
Centre distance	90 mm
Width	180 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K36 DN 20 (¾")			EEI*	with	Item no.
	**Grundfos ALPHA2.1 15-60**	Opening temperature: 45 °C	< 0.17	▲	**320353GH6**
	Grundfos UPM3 Auto L 15-70	Opening temperature: 45 °C	< 0.20	▲	**320353GM6**
	Wilo Para SC 15/6-43	Opening temperature: 45 °C	< 0.20	▲	**320353WP6**
	Wilo Yonos PICO 15/1-6	Opening temperature: 45 °C	< 0.20	▲	**320353WN06**
	without pump - for pumps with 1" ext. thread x 130 mm	Opening temperature: 45 °C		⊖	**320353**
	Grundfos ALPHA2.1 15-60	Opening temperature: 60 °C	< 0.17	▲	**320373GH6**
	Grundfos UPM3 Auto L 15-70	Opening temperature: 60 °C	< 0.20	▲	**320373GM6**
	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**
	without pump - for pumps with 1" ext. thread x 130 mm	Opening temperature: 60 °C		⊖	**320373**

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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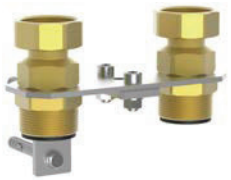
Equipment for modular sytem DN 20

	**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**
	**Conversion kit DN 20 (¾") from flow on the left to flow on the right**	**31071**
	Conversion kit DN 20 (¾") from flow on the right to flow on the left The conversion kit for changing the flow line is mandatory for mixing valves K33 with bypass at the front.	**31072**
	**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 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	**3116**
	**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 set DN 20** Components: mounting plate, wall bracket, 2 x 1" nut, possible centre distance: 55-115 mm distance: 15 mm	**3122SET**
	**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**
	**Mounting plate DN 20 (¾")** 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	**3125**

Equipment for modular sytem DN 20

	**Overflow set DN 20 (¾")** 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.	**31301**
	**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**
	**Piping group DN 20** Piping group for hydraulic separator, consisting of 2 pipe sections, union nuts and gaskets, for connection of a vertically mounted hydraulic separator below a PAW distribution manifold. Flat-sealing connection, completely insulated, outlet on the right or on the left.	**3142KS1**
	**Extension set for low-loss header - DN 20 (¾")** 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.	**3143**
	**Fitting for for heat flowmeter - DN 20 (¾")** - 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	**3145**
	**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**
	**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**

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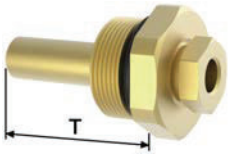
Equipment for modular sytem DN 20

	**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** self-sealing, with o-ring, polished brass, for sensor, T = 30 mm	**566001**
	Immersion sleeve ¼" ext. thread x T = 60 mm standard, chromed brass, for sensor, T = 60 mm	**566002**
	Immersion sleeve ½" ext. thread x T = 60 mm standard, chromed brass, with valve extension (25 mm), for sensor, T = 60 mm	**5660021**
	Immersion sleeve ½" ext. thread x T = 100 mm standard, chromed copper, for sensor, T = 100 mm	**566003**
	Immersion sleeve ½" ext. thread x T = 150 mm standard, chromed copper, for sensor, 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. Attention: suitable for ball valves until 2016!	**566004**
	**PAW actuator SR2** 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 (705013), 24 V - 50/60 HZ, DC 24 V (705015) Input power: 1 W (705013), 0.5 W (705015) Torque: min. 2 Nm Setting time for 90°: 105 s (705013), 100 s (705015)	**705013**
	**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**
	**Contact thermostat 20-60 °C** Contact thermostat for limiting the flow temperature, adjustable from 20 - 60 °C	**N00083**

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, 1½" external thread
including 1½" 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.

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Product range HeatBloC®
Heating circuits DN 25

K31
direct / unmixed

up to 50 kW*

K32
with 3-way mixing valve

up to 40 kW*

K33
Controlled circuit with constant value, 3-way mixing valve with bypass 0-50%

up to 10 kW*

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

up to 22.5 kW*
(radiant panel heating, ΔT = 10 K)
up to 45 kW* (return flow temperature maintenance, ΔT = 20 K)

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

up to 45.5 kW*

K35
3-temperature mixing valve

up to 32.5 kW*

K36E
direct / unmixed

up to 40 kW*

K38
with 4-way mixing valve

up to 33 kW*

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

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

Technical data

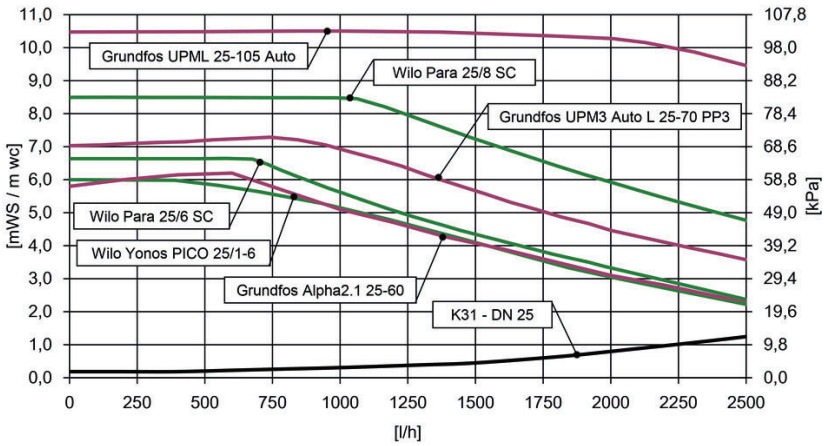
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K31 DN 25 (1")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 25-60**	< 0.17	▲	**36013GH6**
	Grundfos UPM3 Auto L 15-70	< 0.20	▲	**36013GM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲	**36013GL9**
	Wilo Para SC 25/6-43	< 0.20	▲	**36013WP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲	**36013WP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲	**36013WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖	**36013**

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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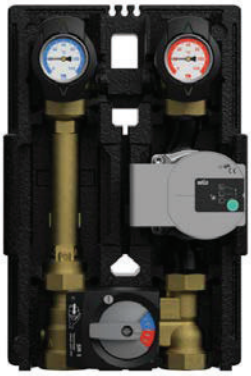
HeatBloC® K32 DN 25 (1")
3-way H-type mixing valve



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

Technical data

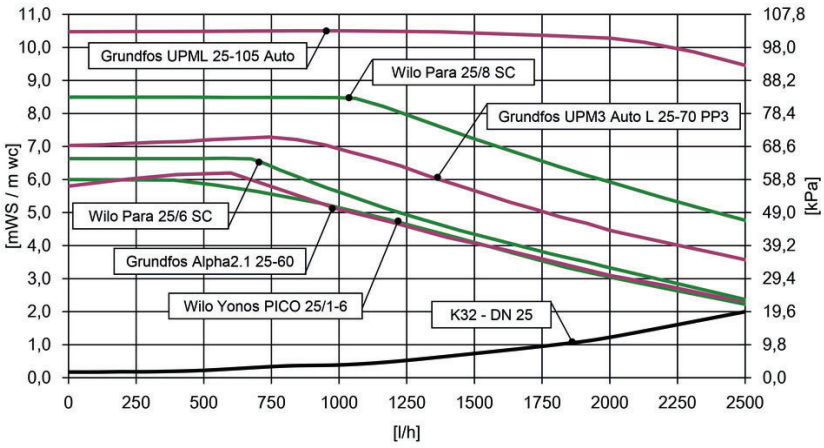
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

= conversion to flow left (it.no. 999300) = with pump = without pump = with actuator *EEI = Energy Efficiency Index

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

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 data

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

Technical data

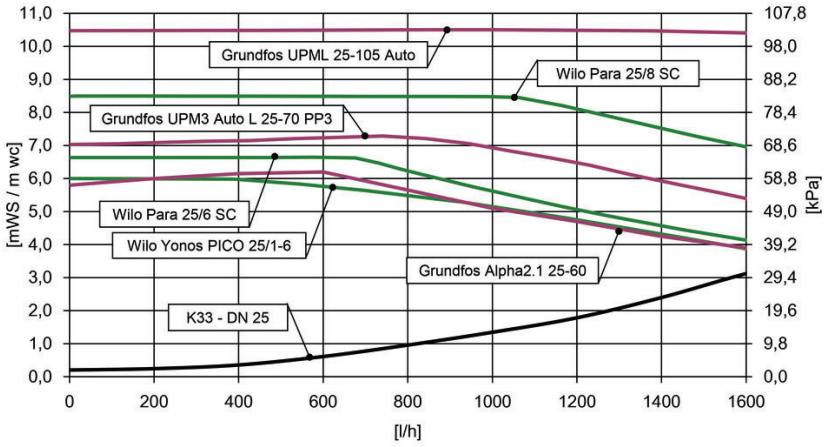
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K33 DN 25 (1")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 25-60**	< 0.17	▲	**36073GH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲	**36073GM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲	**36073GL9**
	Wilo Para SC 25/6-43	< 0.20	▲	**36073WP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲	**36073WP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲	**36073WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖	**36073**

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

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

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

Technical data

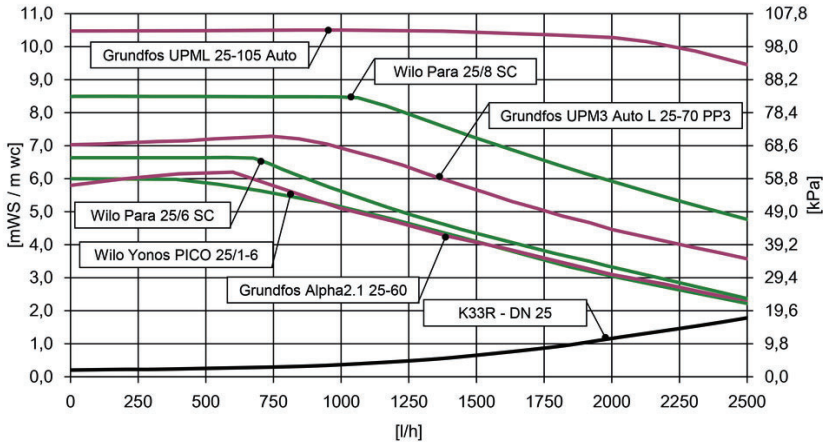
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K33R DN 25 (1")	EEI*	with	Item no.
Grundfos ALPHA2.1 25-60	< 0.17	▲	**360463GH6**
Grundfos UPM3 Auto L 25-70	< 0.20	▲	**360463GM6**
Grundfos UPML 25-105 AUTO	< 0.23	▲	**360463GL9**
Wilo Para SC 25/6-43	< 0.20	▲	**360463WP6**
Wilo Para SC 25/8-60/O	< 0.20	▲	**360463WP8**
Wilo Yonos PICO 25/1-6	< 0.20	▲	**360463WN06**
without pump - for pumps with 1½" ext. thread x 180 mm		⊖	**360463**

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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

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

Technical data

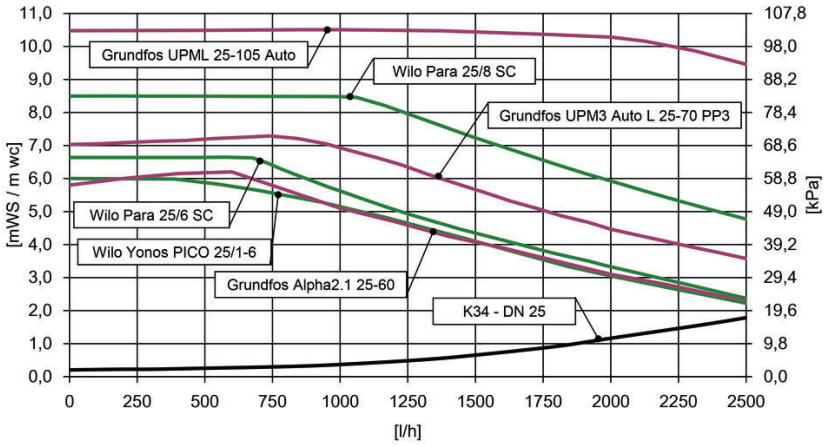
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K34 DN 25 (1")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 25-60**	< 0.17	▲Ⓜ	**36063MGH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲Ⓜ	**36063MGM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲Ⓜ	**36063MGL9**
	Wilo Para SC 25/6-43	< 0.20	▲Ⓜ	**36063MWP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲Ⓜ	**36063MWP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲Ⓜ	**36063MWN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖Ⓜ	**36063M**
	Grundfos ALPHA2.1 25-60	< 0.17	▲	**36063GH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲	**36063GM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲	**36063GL9**
	Wilo Para SC 25/6-43	< 0.20	▲	**36063WP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲	**36063WP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲	**36063WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖	**36063**

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

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 %

Technical data

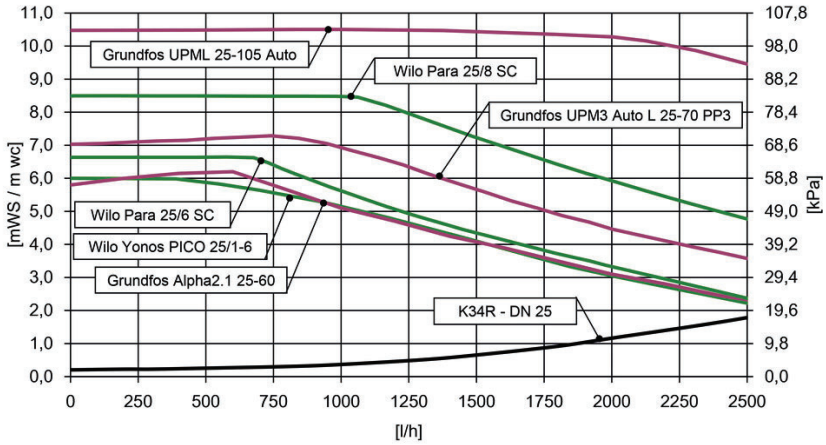
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K34R DN 25 (1")	EEI*	with	Item no.
Grundfos ALPHA2.1 25-60	< 0.17		**360663MGH6**
Grundfos UPM3 Auto L 25-70	< 0.20		**360663MGM6**
Grundfos UPML 25-105 AUTO	< 0.23		**360663MGL9**
Wilo Para SC 25/6-43	< 0.20		**360663MWP6**
Wilo Para SC 25/8-60/O	< 0.20		**360663MWP8**
Wilo Yonos PICO 25/1-6	< 0.20		**360663MWN06**
without pump - for pumps with 1½" ext. thread x 180 mm			**360663M**

= conversion to flow left (it.no. 999300) = with pump = without pump = with actuator *EEI = Energy Efficiency Index

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

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	4.1

Technical data

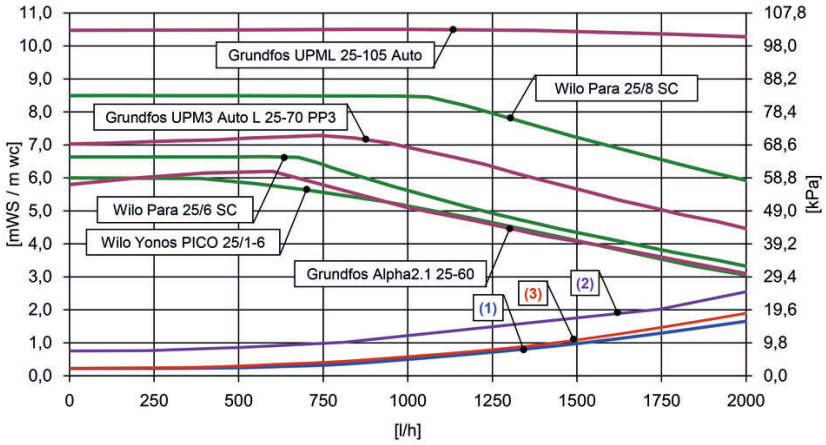
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



(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	Item no.
	**Grundfos ALPHA2.1 25-60**	< 0.17	▲Ⓜ	**36093MGH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲Ⓜ	**36093MGM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲Ⓜ	**36093MGL9**
	Wilo Para SC 25/6-43	< 0.20	▲Ⓜ	**36093MWP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲Ⓜ	**36093MWP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲Ⓜ	**36093MWN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖Ⓜ	**36093M**
	Grundfos ALPHA2.1 25-60	< 0.17	▲	**36093GH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲	**36093GM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲	**36093GL9**
	Wilo Para SC 25/6-43	< 0.20	▲	**36093WP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲	**36093WP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲	**36093WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖	**36093**

= conversion to flow left (it.no. 999300) ▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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HeatBloC® K36E DN 25 (1")
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

- up to 40 kW
- 20 K up to 1725 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	5.9

Technical data

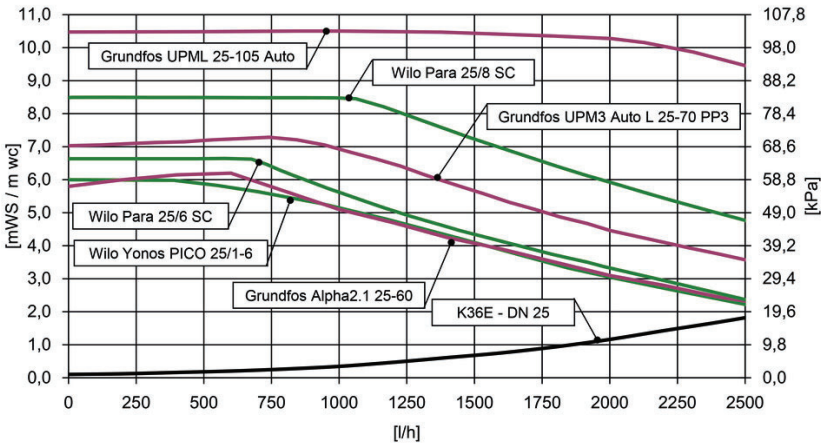
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1" int. thread
Connection consumer	1½" int. thread
Height	383 mm
Installation length	408 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K36E DN 25 (1")			EEI*	with	Item no.
	**Grundfos ALPHA2.1 25-60**	Opening temperature: 45 °C	< 0.17	▲	**360343GH6**
	Grundfos UPM3 Auto L 25-70	Opening temperature: 45 °C	< 0.20	▲	**360343GM6**
	Grundfos UPML 25-105 AUTO	Opening temperature: 45 °C	< 0.23	▲	**360343GL9**
	Wilo Para SC 25/6-43	Opening temperature: 45 °C	< 0.20	▲	**360343WP6**
	Wilo Para SC 25/8-60/O	Opening temperature: 45 °C	< 0.20	▲	**360343WP8**
	Wilo Yonos PICO 25/1-6	Opening temperature: 45 °C	< 0.20	▲	**360343WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm	Opening temperature: 45 °C		⊖	**360343**
	Grundfos ALPHA2.1 25-60	Opening temperature: 60 °C	< 0.17	▲	**360373GH6**
	Grundfos UPM3 Auto L 25-70	Opening temperature: 60 °C	< 0.20	▲	**360373GM6**
	Grundfos UPML 25-105 AUTO	Opening temperature: 60 °C	< 0.23	▲	**360373GL9**
	Wilo Para SC 25/6-43	Opening temperature: 60 °C	< 0.20	▲	**360373WP6**
	Wilo Para SC 25/8-60/O	Opening temperature: 60 °C	< 0.20	▲	**360373WP8**
	Wilo Yonos PICO 25/1-6	Opening temperature: 60 °C	< 0.20	▲	**360373WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm	Opening temperature: 60 °C		⊖	**360373**

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

HeatBloC® K38 DN 25 (1")
4-way mixing valve

Application range

- Heating system controlled by a mixing valve in combination with a boiler temperature maintenance

Recommended application range

- up to 33 kW
- 20 K up to 1400 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	4.1

Technical data

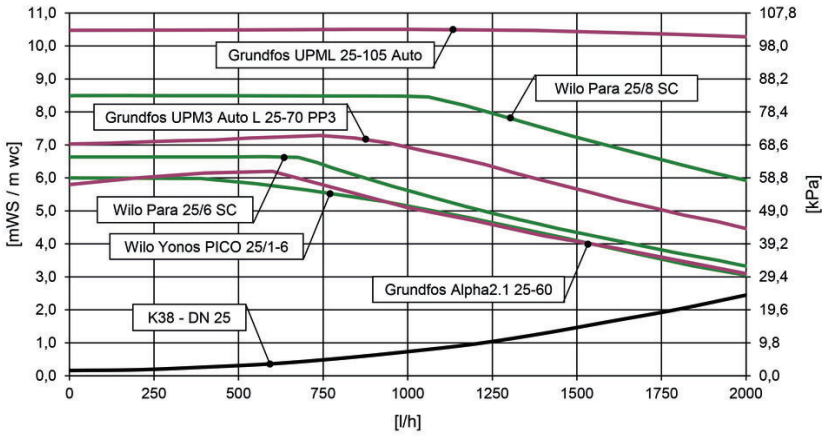
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	340 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K38 DN 25 (1")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 25-60**	< 0.17	▲Ⓜ	**36083MGH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲Ⓜ	**36083MGM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲Ⓜ	**36083MGL9**
	Wilo Para SC 25/6-43	< 0.20	▲Ⓜ	**36083MWP6**
	Wilo Para SC 25/8-60/O	< 0.20	▲Ⓜ	**36083MWP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲Ⓜ	**36083MWN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖Ⓜ	**36083M**
	Grundfos ALPHA2.1 25-60	< 0.17	▲	**36083GH6**
	Grundfos UPM3 Auto L 25-70	< 0.20	▲	**36083GM6**
	Grundfos UPML 25-105 AUTO	< 0.23	▲	**36083GL9**
	Wilo Para 25/6-43	< 0.20	▲	**36083WP6**
	Wilo Para 25/8-60/O	< 0.20	▲	**36083WP8**
	Wilo Yonos PICO 25/1-6	< 0.20	▲	**36083WN06**
	without pump - for pumps with 1½" ext. thread x 180 mm		⊖	**36083**

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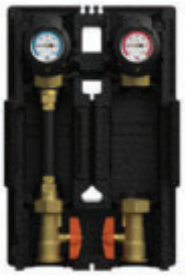
Equipment for modular sytem DN 25

	**Fitting for heat flowmeter - DN 25 for unmixed HeatBloC®s** - 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 M12 x 1.5 ext. thread) - Seals	**34453**
	**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" ext. thread x 110 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**
	**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. Careful: Flush and drain set is not compatible with the HeatBloC® MC system!	**3461**

Equipment for modular sytem DN 25

	**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 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	**34163**
	**Adapter pipe DN 25 (1")** 2 x 1½" external thread, flat-sealing, length 180 mm, when an external circulation pump is used to bridge the pump connection.	**3447**
	**Reducer set DN 25 - DN 20** 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.	**34351**
	**Set extension pieces DN 25 - DN 32** 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	**3436**
	**Coupling piece for overhead installation - DN 25 (1")** 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.	**34241**
	**Mounting plate DN 25 (1")** 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	**3425**
	**Wall bracket for HeatBloC® - DN 25 (1") / DN 32 (1¼")** Galvanised mounting bracket for wall assembly of HeatBloC®s. Mount HeatBloC®s on mounting bracket for an easy assembly.	**34723**
	**Wall bracket for HeatBloC® DN 25 - DN 32** 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	**34722**

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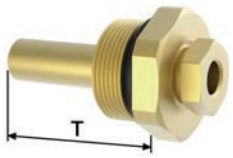
Equipment for modular sytem DN 25

	**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**
	**Wall bracket set for installation of single heating circuits - DN 25 (1")** Components: 2 x 1½" nut, mounting plate, wall bracket possible wall distance: 155 mm	**3422SET**
	**Immersion sleeve ½" ext. thread x T = 30 mm** self-sealing, with o-ring, polished brass, for sensor, T = 30 mm	**566001**
	Immersion sleeve ¼" ext. thread x T = 60 mm standard, chromed brass, for sensor, T = 60 mm	**566002**
	Immersion sleeve ½" ext. thread x T = 60 mm standard, chromed brass, with valve extension (25 mm), for sensor, T = 60 mm	**5660021**
	Immersion sleeve ½" ext. thread x T = 100 mm standard, chromed copper, for sensor, T = 100 mm	**566003**
	Immersion sleeve ½" ext. thread x T = 150 mm standard, chromed copper, for sensor, 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. Attention: suitable for ball valves until 2016!	**566004**
	**Union nut DN 25 (1")** Brass, to screw insertion pieces for soldering below distribution manifolds DN 25 (1")	**2155**
	**Sealing for nut - DN 25 (1")** asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	**2157**
	**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 1" external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 °C.	**562922**
	**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 25 (1")** 2 brass screw-in fittings 1½" external thread x 1" internal thread, for connection of pipes with 1" external thread	**3432**

Equipment for modular sytem DN 25

	**Non-return valve DN 25 (1")** 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. For HeatBloC® K38 DN 25	**34011**
	**Non-return valve for the mixing valve return - DN 25 (1")** 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.	**340112**
	**Piping for two HeatBloC®s K35** Pipe set DN 25 to connect the connections on the backside, for the assembly of two HeatBloC®s K35 on one distribution manifold.	**36092KS2**
	**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**
	**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**

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Equipment for modular sytem DN 25

	**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** 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	**5254**
	**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**

Equipment for modular sytem DN 25

	**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, due 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	**705001**
	**PAW actuator SR10** due 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 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 0…10 V output Electrical connection: 230 V / 50 Hz Input power: 1.5 W Torque: 10 Nm Setting time for 90°: 140 s	**70541**
	**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	**703601**
	**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**
	**Room remote control RCD 2.0** Room remote control RCD 2.0 for weather compensated controller PWR6	**1359501**

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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

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

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Product range HeatBloC®
Heating circuits DN 32

K31
direct / unmixed

up to 65 kW*

K32
with 3-way mixing valve

up to 51 kW*

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

up to 32 kW*
(radiant panel heating, ΔT = 10 K)
up to 64 kW* (return flow temperature maintenance, ΔT = 20 K)

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

up to 64 kW*

K36E
Boiler charging set, with integrated overflow valve

up to 60 kW*

K38
with 4-way mixing valve

up to 52 kW*

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

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

Technical data

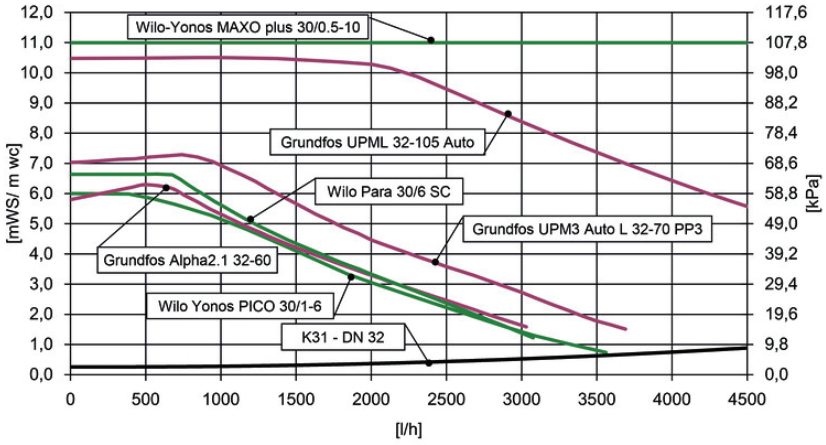
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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HeatBloC® K32 DN 32 (1¼")
3-way H-type mixing valve

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

Technical data

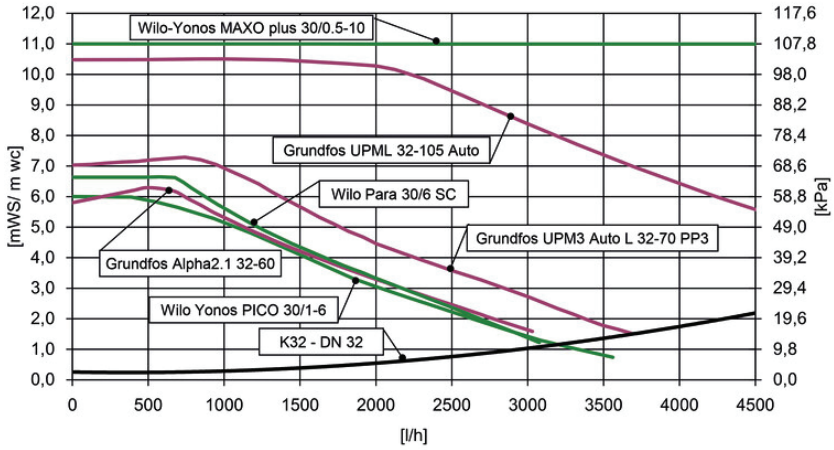
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

= conversion to flow left (it.no. 999300) = with pump = without pump = with actuator *EEI = Energy Efficiency Index

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

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 %

Technical data

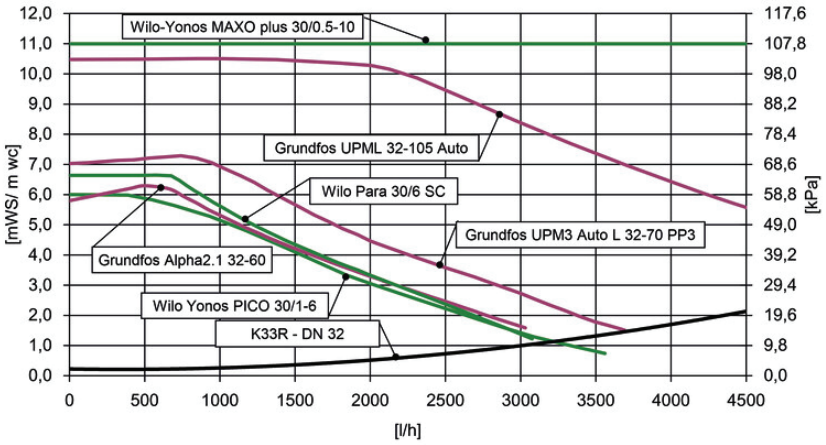
Dimensions

Nominal diameter	DN 32
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

= conversion to flow left (it.no. 999300) ▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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HeatBloC® K34 DN 32 (1¼")
3-way bypass mixing valve

Application range

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

Recommended application range

- up to
- 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 %

Technical data

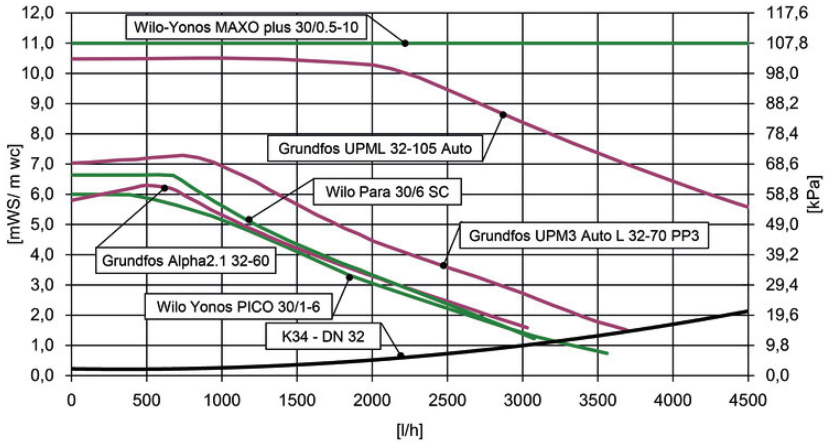
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

= conversion to flow left (it.no. 999300) ▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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

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 %

Technical data

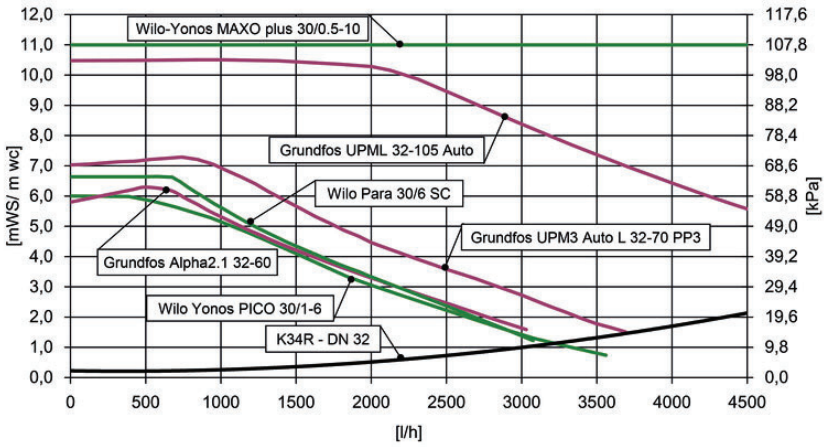
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K34R DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 32-60**	< 0.17		**390663MGH6**
	Grundfos UPM3 Auto L 32-70	< 0.20		**390663MGM6**
	Grundfos UPML 32-105 AUTO	< 0.23		**390663MGL9**
	Wilo Para 30/6-43	< 0.20		**390663MWP6**
	Wilo Yonos PICO 30/1-6	< 0.20		**390663MWN06**
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20		**390663MWY10**
	without pump - for pumps with 2" ext. thread x 180 mm			**390663M**

= conversion to flow left (it.no. 999300) = with pump = without pump = with actuator *EEI = Energy Efficiency Index

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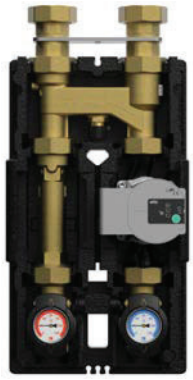
HeatBloC® K36E DN 32 (1¼")
Boiler charging set, with integrated overflow valve



Application range

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

Recommended application range

- up to 60 kW
- 20 K up to 2600 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	9.7

Technical data

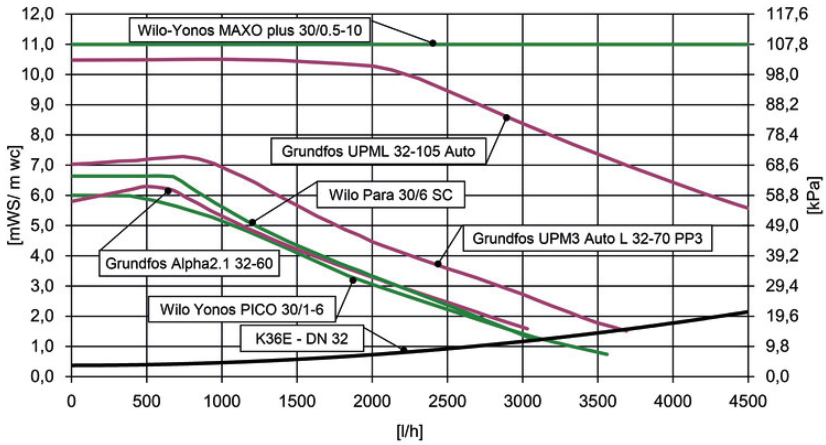
Dimensions

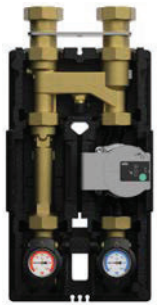
Nominal diameter	DN 32 (1¼")
Connection generator	1¼" int. thread
Connection consumer	2" int. thread
Height	441 mm
Installation length	465 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

HeatBloC® K38 DN 32 (1¼")
4-way mixing valve

Application range

- Heating system controlled by a mixing valve in combination with a boiler temperature maintenance

Recommended application range

- up to 52 kW
- 20 K up to 2240 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	110 °C
Kvs value	6.1

Technical data

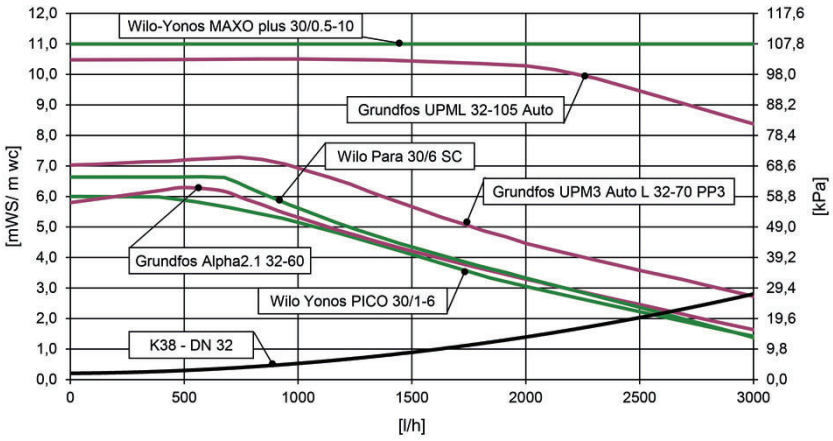
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	2" ext. thread, flat sealing
Connection consumer	1¼" int. thread
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K38 DN 32 (1¼")		EEI*	with	Item no.
	**Grundfos ALPHA2.1 32-60**	< 0.17	▲Ⓜ	**39083MGH6**
	Grundfos UPM3 Auto L 32-70	< 0.20	▲Ⓜ	**39083MGM6**
	Grundfos UPML 32-105 AUTO	< 0.23	▲Ⓜ	**39083MGL9**
	Wilo Para SC 30/6-43	< 0.20	▲Ⓜ	**39083MWP6**
	Wilo Yonos PICO 30/1-6	< 0.20	▲Ⓜ	**39083MWN06**
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	▲Ⓜ	**39083MWY10**
	without pump - for pumps with 2" ext. thread x 180 mm		⊖Ⓜ	**39083M**
	Grundfos ALPHA2.1 32-60	< 0.17	▲	**39083GH6**
	Grundfos UPM3 Auto L 32-70	< 0.20	▲	**39083GM6**
	Grundfos UPML 32-105 AUTO	< 0.23	▲	**39083GL9**
	Wilo Para SC 30/6-43	< 0.20	▲	**39083WP6**
	Wilo Yonos PICO 30/1-6		▲	**39083WN06**
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	▲	**39083WY10**
	without pump - for pumps with 2" ext. thread x 180 mm		⊖	**39083**

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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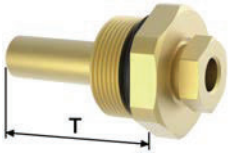
Equipment for modular sytem DN 32

	**Fitting for heat flowmeter - DN 32 for unmixed HeatBloC®s** - for unmixed HeatBloC®s DN 32 - 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, flat sealing - Union nut - 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) - Seals	**37453**
	**Fitting for heat flowmeter - DN 32 for mixed HeatBloC®s** - 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	**37463**
	**Immersion sleeve ½" ext. thread x T = 30 mm** self-sealing, with o-ring, polished brass, for sensor, T = 30 mm	**566001**
	Immersion sleeve ¼" ext. thread x T = 60 mm standard, chromed brass, for sensor, T = 60 mm	**566002**
	Immersion sleeve ½" ext. thread x T = 60 mm standard, chromed brass, with valve extension (25 mm), for sensor, T = 60 mm	**5660021**
	Immersion sleeve ½" ext. thread x T = 100 mm standard, chromed copper, for sensor, T = 100 mm	**566003**
	Immersion sleeve ½" ext. thread x T = 150 mm standard, chromed copper, for sensor, 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. Attention: suitable for ball valves until 2016!	**566004**
	**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")** 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. Careful: Flush and drain set is not compatible with the HeatBloC® MC system!	**3761**
	**Union nut DN 32 (1¼")** Brass, to screw insertion pieces for soldering below distribution manifolds DN 32 (1¼")	**2156**

Equipment for modular sytem DN 32

	**Sealing for nut - DN 32 (1¼")** asbestos-free, outside diameter: 50 mm, inside diameter: 38 mm, height: 2 mm	**2158**
	**Connection set DN 32 (1¼")** Consisting of 2 insertion pieces for connection of pipes with 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**
	**Non-return valve DN 32 (1¼")** 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.	**37011**
	**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**
	**Mounting plate DN 32 (1¼")** Components: mounting plate, 2 gaskets, 2 x 2" nut for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	**3725**
	**Wall bracket for HeatBloC® - DN 25 (1") / DN 32 (1¼")** Galvanised mounting bracket for wall assembly of HeatBloC®s. Mount HeatBloC®s on mounting bracket for an easy assembly.	**34723**
	**Wall bracket for HeatBloC® DN 25 - DN 32** 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	**34722**
	**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**
	**Wall bracket set DN 32** Components: 2 x 2" nut, mounting plate, wall bracket possible wall distance: 155 mm	**3722SET**

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Equipment for modular sytem DN 32

	**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**
	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**
	**Piping group for hydraulic separator - DN 32 (1¼")** 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.	**34742KS1**
	**Extension set for low-loss header - DN 32 (1¼")** 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.	**37431**
	**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 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	**37163**
	**Contact thermostat 20-60 °C** Contact thermostat for limiting the flow temperature, adjustable from 20 - 60 °C	**N00083**
	**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**

Equipment for modular sytem DN 32

	**Connection set DN 25 for diaphragm expansion tank** 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**
	**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 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, due 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	**705001**
	**PAW actuator SR10** due 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 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 0…10 V output Electrical connection: 230 V / 50 Hz Input power: 1.5 W Torque: 10 Nm Setting time for 90°: 140 s	**70541**
	**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	**703601**

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	**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**
	**Room remote control RCD 2.0** Room remote control RCD 2.0 for weather compensated controller PWR6	**1359501**

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 1½" / 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.

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

K31 - DN 40 (1½“)
direct / unmixed

up to 150 kW*

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

up to 125 kW*

K31 - DN 50 (2“)
direct / unmixed

up to 250 kW*

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

up to 230 kW*

*Temperature difference = 20 K

HeatBloC® K31 DN 40 (1½")
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

Technical data

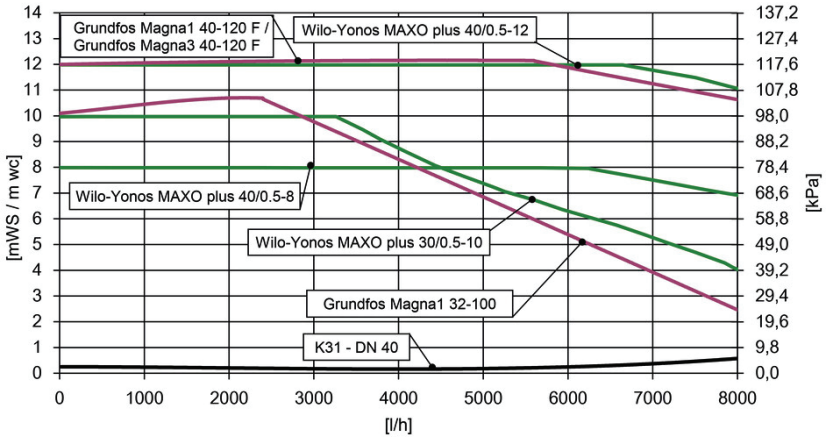
Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	Flange DN 40 / PN 6
Connection consumer	1½" int. thread
Height	610 mm
Installation length	560 mm
Centre distance	160 mm
Width	320 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K31 DN 40 (1½")		EEI*	with	Item no.
	**Grundfos MAGNA3 40-120 F**	< 0.18	▲	**41211GH12**
	Grundfos MAGNA1 32-100	< 0.21	▲	**41211GL10**
	Grundfos MAGNA1 40-120 F	< 0.21	▲	**41211GL12**
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	▲	**41211WY10**
	Wilo Yonos MAXO plus 40/0.5-8	< 0.20	▲	**41211WY8**
	Wilo Yonos MAXO plus 40/0.5-12	< 0.20	▲	**41211WY12**
	without pump - for pumps with flange DN 40/PN6 x 250 mm		⊖	**41211**

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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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	6 bar
Max. operating temperature	110 °C
Kvs value	17.7

Technical data

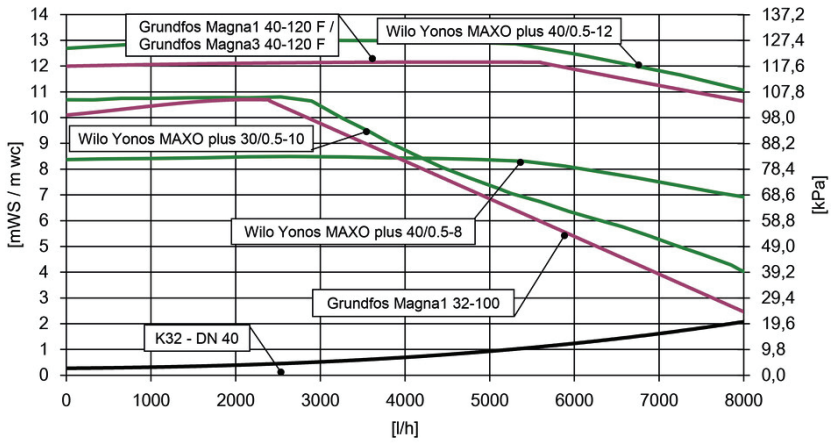
Dimensions

Nominal diameter	DN 40 (1½")
Connection generator	Flange DN 40 / PN 6
Connection consumer	1½" int. thread
Height	610 mm
Installation length	560 mm
Centre distance	160 mm
Width	320 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K32 DN 40 (1½")		EEI*	with	Item no.
	**Grundfos MAGNA3 40-120 F**	< 0.18	▲Ⓜ	**41221MGH12**
	Grundfos MAGNA1 32-100	< 0.21	▲Ⓜ	**41221MGL10**
	Grundfos MAGNA1 40-120 F	< 0.21	▲Ⓜ	**41221MGL12**
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	▲Ⓜ	**41221MWY10**
	Wilo Yonos MAXO plus 40/0.5-8	< 0.20	▲Ⓜ	**41221MWY8**
	Wilo Yonos MAXO plus 40/0.5-12	< 0.20	▲Ⓜ	**41221MWY12**
	without pump - for pumps with flange DN 40/PN6 x 250 mm		⊖Ⓜ	**41221M**
	Wilo Yonos MAXO plus 30/0.5-10	< 0.20	▲	**41051WY10**
	Wilo Yonos MAXO plus 40/0.5-12	< 0.20	▲	**41051WY12**
	Grundfos MAGNA3 40-120 F	< 0.18	▲	**41221GH12**

= conversion to flow left (it.no. 999300) ▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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

Technical data

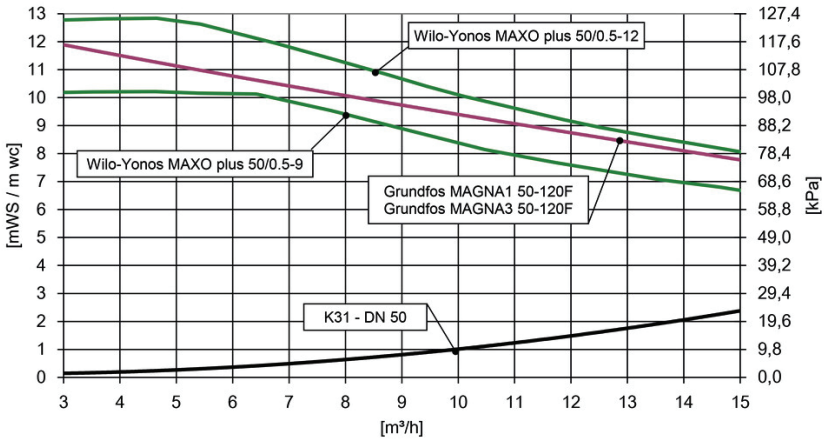
Dimensions

Nominal diameter	DN 50 (2")
Connection generator	Flange DN 50 / PN 6
Connection consumer	2" int. thread
Height	660 mm
Installation length	630 mm
Centre distance	180 mm
Width	360 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K31 DN 50 (2")		EEI*	with	Item no.
	**Grundfos MAGNA3 50-120 F**	< 0.18	▲	**51211GH12**
	Grundfos MAGNA1 50-120 F	< 0.21	▲	**51211GL12**
	Wilo Yonos MAXO plus 50/0.5-12	< 0.23	▲	**51211WM12**
	Wilo Yonos MAXO plus 50/0.5-9	< 0.20	▲	**51211WY9**
	without pump - for pumps with flange DN 50/PN6 x 280 mm		⊖	**51211**

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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

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

Technical data

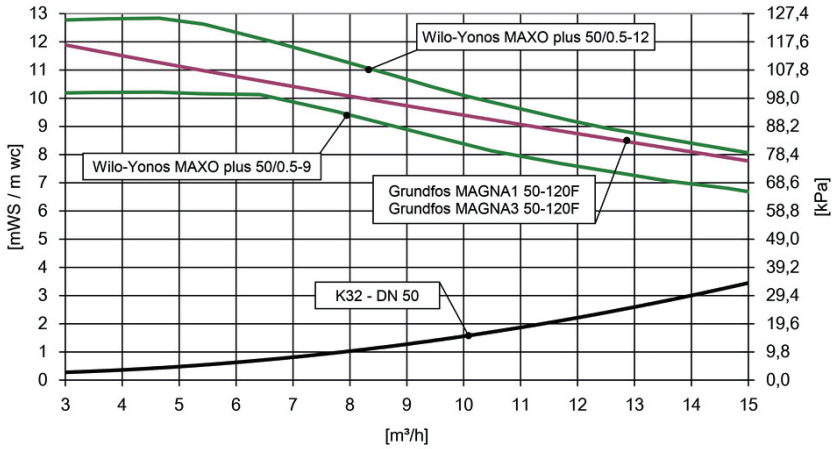
Dimensions

Nominal diameter	DN 50 (2")
Connection generator	Flange DN 50 / PN 6
Connection consumer	2" int. thread
Height	660 mm
Installation length	630 mm
Centre distance	180 mm
Width	360 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



HeatBloC® K32 DN 50 (2")		EEI*	with	Item no.
	**Grundfos MAGNA3 50-120 F**	< 0.18		**51221MGH12**
	Grundfos MAGNA1 50-120 F	< 0.21		**51221MGL12**
	Wilo Yonos MAXO plus 50/0.5-12	< 0.23		**51221MWM12**
	Wilo Yonos MAXO plus 50/0.5-9	< 0.20		**51221MWY9**
	Wilo Yonos MAXO plus 50/0.5-9	< 0.20		**51051WY9**
	without pump - for pumps with flange DN 50/PN6 x 280 mm			**51221M**

= conversion to flow left (it.no. 999300) = with pump = without pump = with actuator *EEI = Energy Efficiency Index

Equipment for modular sytem DN 40 / 50

	**Modular distribution manifold DN 40, 2-fold**	**4112**
	Modular distribution manifold DN 40, 3-fold	**4113**
	Modular distribution manifold DN 40, 4-fold modular distribution manifold made of brass connecting flanges as slip-on flanges made of steel gaskets 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	**4114**
	**Modular distribution manifold DN 50, 2-fold**	**5112**
	Modular distribution manifold DN 50, 3-fold	**5113**
	Modular distribution manifold DN 50, 4-fold 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	**5114**
	**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")** 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**
	**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**
	**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**

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Equipment for modular sytem DN 40 / 50

	**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**
	**Blind flange DN 40 (1½") / PN 6**	**41611**
	Blind flange 50 (2") / PN 6 PN 6, as per DIN 2527, with 1 gasket, 4 screws and 4 nuts	**51611**
	**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 PN 6, acc. to DIN 2565, steel, black	**51612**
	**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**
	**Set reducer flanges DN 40 - DN 32 (1½" - 1¼")** 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" - 1½")** 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**
	**Extension set for low-loss header - DN 40 (1½")**	**4143**
	Extension set for low-loss header DN 50 (2") 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.	**5143**
	**PAW actuator SR10** due 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**

Equipment for modular sytem DN 40 / 50

	**Adapter pipe DN 40 (1½")** DN 40 x 30 mm for flange pumps DN 40 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**

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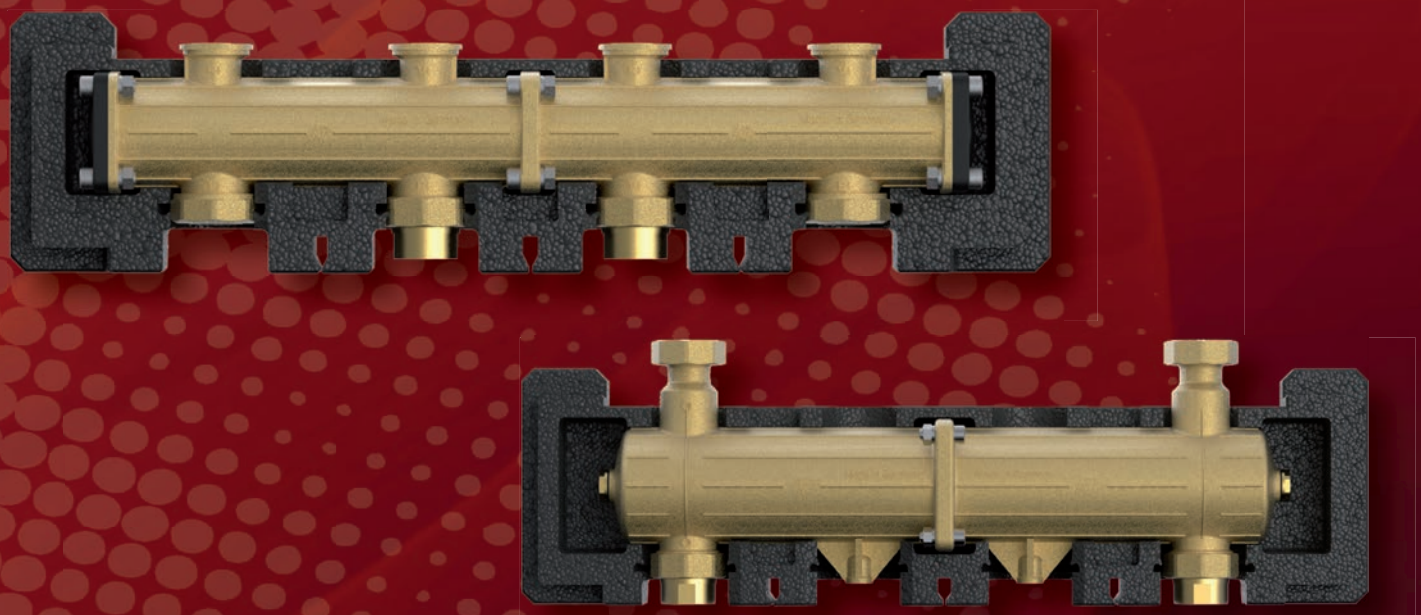

Modular distribution manifolds / hydraulic separators

Catalogue 01/2024

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

Valid for the EU

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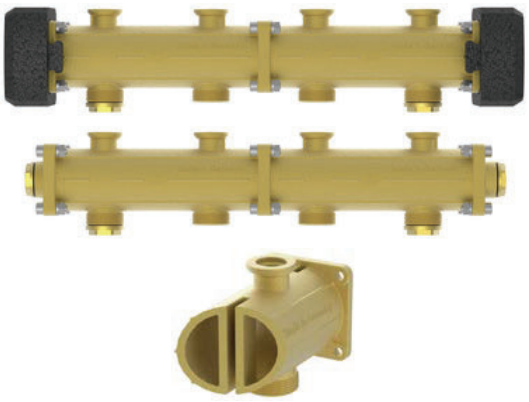
Distribution manifold DN 20 (¾")



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

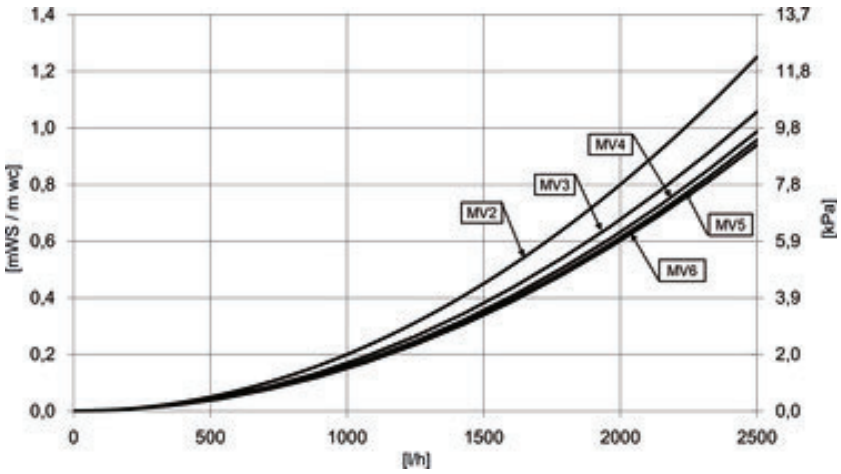
Dimensions

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
Connection consumer	¾" PAW flange for nut 1" (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	Item 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**

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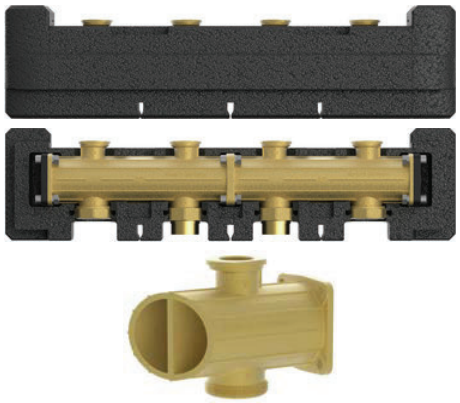
Distribution manifold DN 25 (1")



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

Technical data

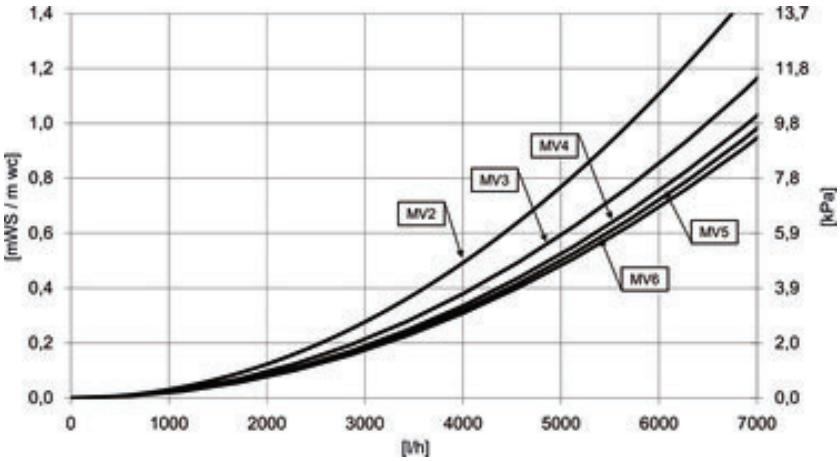
Dimensions

Nominal diameter	DN 25 (1")
Height	128 mm
Height insulation	137 mm
Centre distance	125 mm
Connection generator	1½" ext. thread, flat sealing (bottom), 2 x for boiler connection, others plugged
Connection consumer	1" PAW flange for nut 1½" (top)

Materials

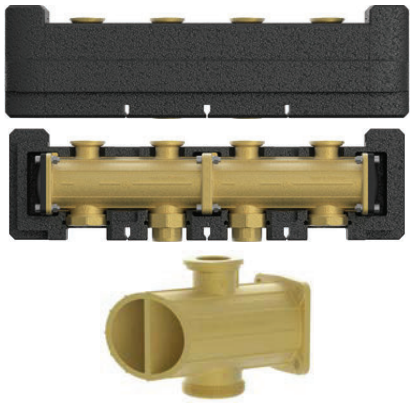
Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP

Differential pressure diagram



Distribution manifold DN 25	Execution	Kvs value	Width	Connections for HeatBloC®s	Item 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**

Distribution manifold DN 32 (1¼")



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

Technical data

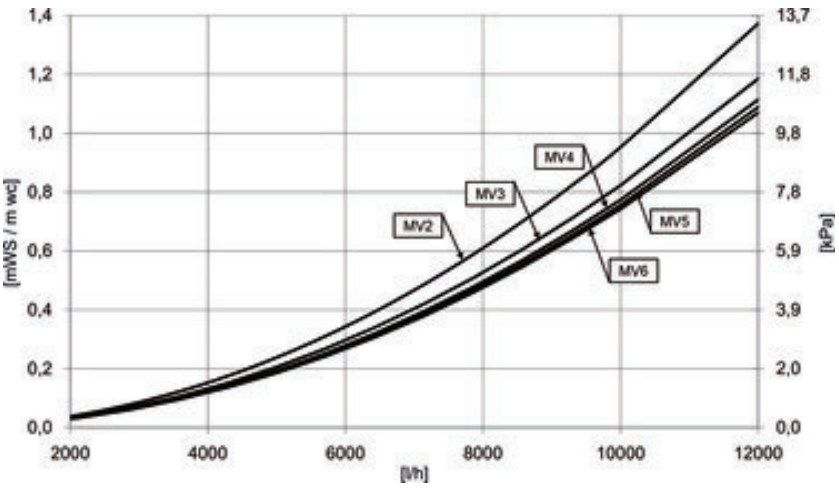
Dimensions

Nominal diameter	DN 32 (1¼")
Height	156 mm
Height insulation	156 mm
Centre distance	125 mm
Connection generator	2" ext. thread, flat sealing (bottom), 2 x for boiler connection, others plugged
Connection consumer	1¼" PAW flange for nut 2" (top)

Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP

Differential pressure diagram



Distribution manifold DN 32	Execution	Kvs value	Width	Connections for HeatBloC®s	Item 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**

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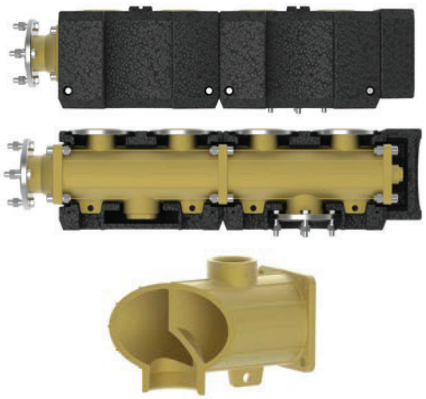
Distribution manifold DN 40 (1½")



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
Max. operating temperature	110 °C

Technical data

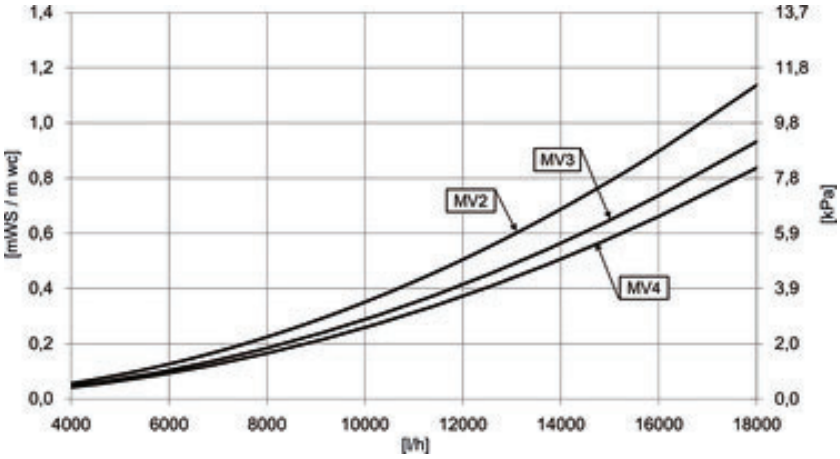
Dimensions

Nominal diameter	DN 40 (1½")
Height	179 mm
Height insulation	190 mm
Centre distance	160 mm
Connection generator	Flange DN 50 / PN 6, flow at the side, return to the bottom, others sealed with 2" plug
Connection consumer	Flange DN 40 / PN 6 (on top)

Materials

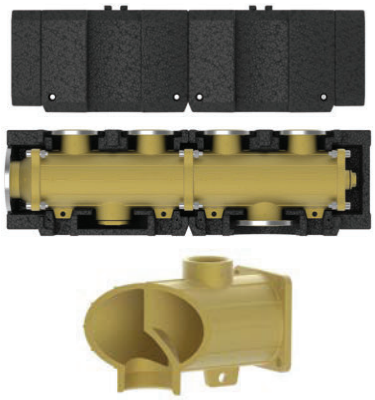
Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP

Differential pressure diagram



Distribution manifold DN 40	Execution	Kvs value	Width	Connections for HeatBloC®s	Item 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**

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

Technical data

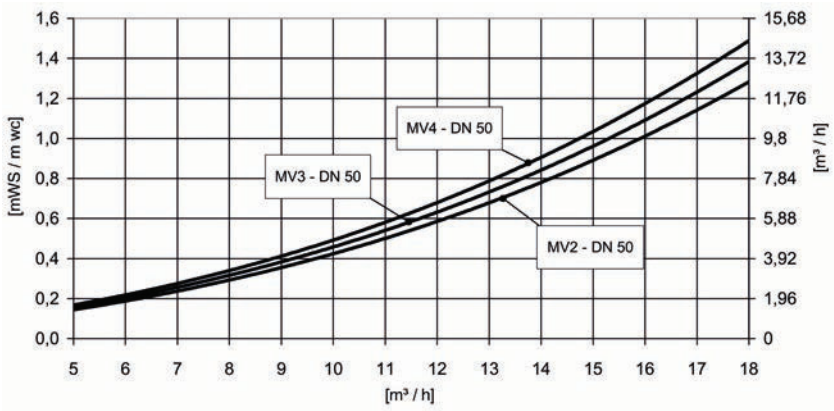
Dimensions

Nominal diameter	DN 50 (2")
Height	225 mm
Height insulation	220 mm
Centre distance	180 mm
Connection generator	Flange DN 65 / PN 6, flow at the side, return to the bottom, others sealed with 2" plug
Connection consumer	Flange DN 50 / PN 6 (on top)
Lateral connection	1¼" int. thread, sealed with plug, for safety group and expansion tank

Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP

Differential pressure diagram



Distribution manifold DN 50	Execution	Kvs value	Width	Connections for HeatBloC®s	Item no.
	2-fold	70.4	840 mm	2	**5112**
	3-fold	74.7	1 200 mm	3	**5113**
	4-fold	85.6	1 560 mm	4	**5114**

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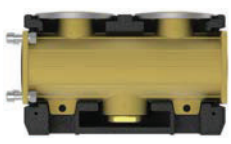
	**MCom communication set** For WiFi communication with an Apple or Android terminal. The communication module is the condition for for the automatic hydraulic balancing of the radiators via the PAW app. You can get the corresponding app in the App Store or Google Play Store by searching for "PAW MCom". 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	**1398731**
	**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**
	**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**
	**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

	**Set extension pieces DN 25 - DN 32** 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	**3436**
	**Coupling piece for overhead installation - DN 25 (1")** 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.	**34241**
	**Mounting plate DN 20 (¾")** 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	**3125**
	**Mounting plate DN 25 (1")** 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	**3425**
	**Mounting plate DN 32 (1¼")** Components: mounting plate, 2 gaskets, 2 x 2" nut for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	**3725**
	**Extension module DN 20** Completely made of brass Completely preassembled Flow and return chamber 95 % thermally separated	**3111**
	**Extension module DN 25 for modular distribution manifold until 12/2016**	**3411**
	Extension module DN 25 for modular distribution manifold as of 01/2017 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!	**34113**
	**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 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!	**37113**
	**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**

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	**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**
	Extension set for low-loss header - DN 32 (1¼") 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.	**37431**
	**Extension set for low-loss header - DN 40 (1½")**	**4143**
	Extension set for low-loss header DN 50 (2") 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.	**5143**
	**Blind flange DN 40 (1½") / PN 6**	**41611**
	Blind flange 50 (2") / PN 6 PN 6, as per DIN 2527, with 1 gasket, 4 screws and 4 nuts	**51611**
	**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 PN 6, acc. to DIN 2565, steel, black	**51612**
	**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")** 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")** 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**

Mounting equipment modular distribution manifold DN 20-50

	**Reducer set DN 25 - DN 20** 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.	**34351**
	**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 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 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**
	**Adapter pipe DN 40 (1½")** DN 40 x 30 mm for flange pumps DN 40 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**

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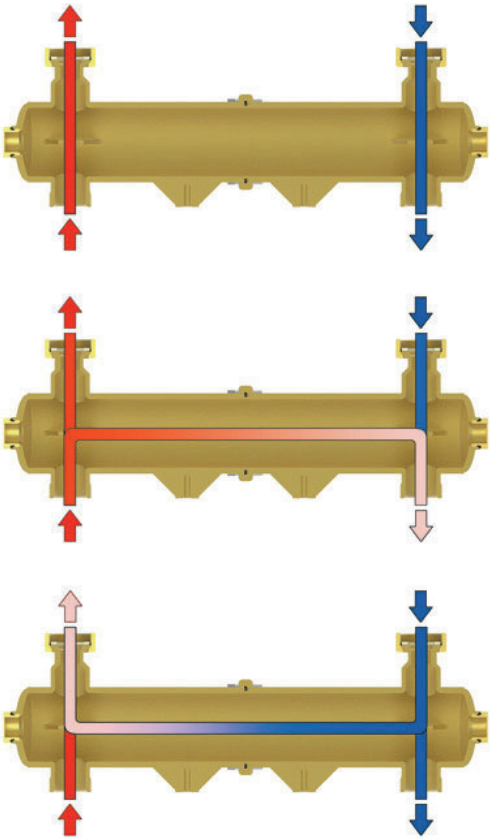
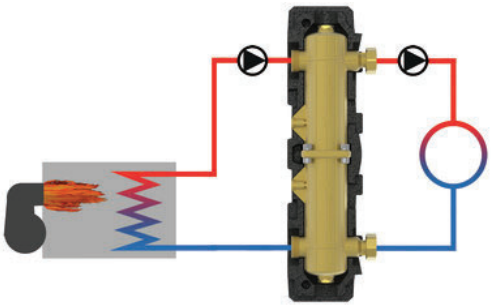
	**Adaptor pieces DN 50 (2")** for flange pumps DN 50 DN 50 x 20 mm Installation length from 240 to 280 mm	**12396**
	**Reducer set DN 32 - DN 25** for installation of modular heating circuits DN 20 on modular distribution manifolds DN 25, adapter set 1½" external thread, flat-sealing with nut on ¾" PAW 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 (1½" - 1¼")** 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" - 1½")** 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**

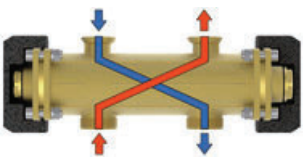
Hydraulic separator DN 20 (¾")



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 20 (¾")		Item no.
	**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**
	**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: ¾" PAW flange for nut 1" nut (top), ¾" 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**

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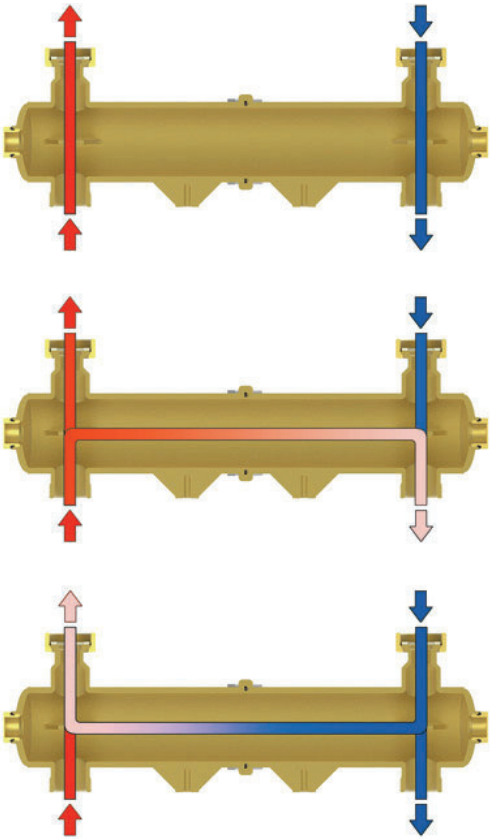
Hydraulic separator DN 25 (1")



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.
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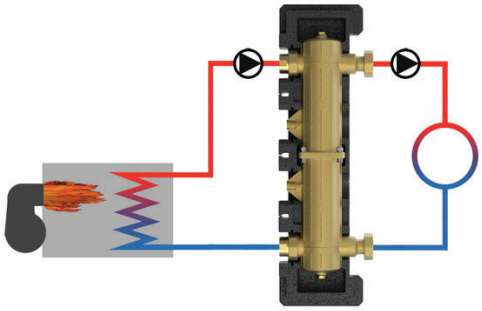
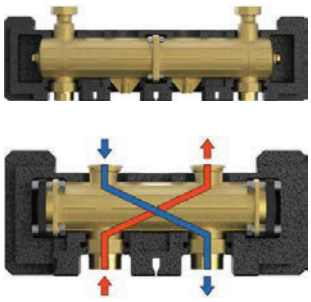
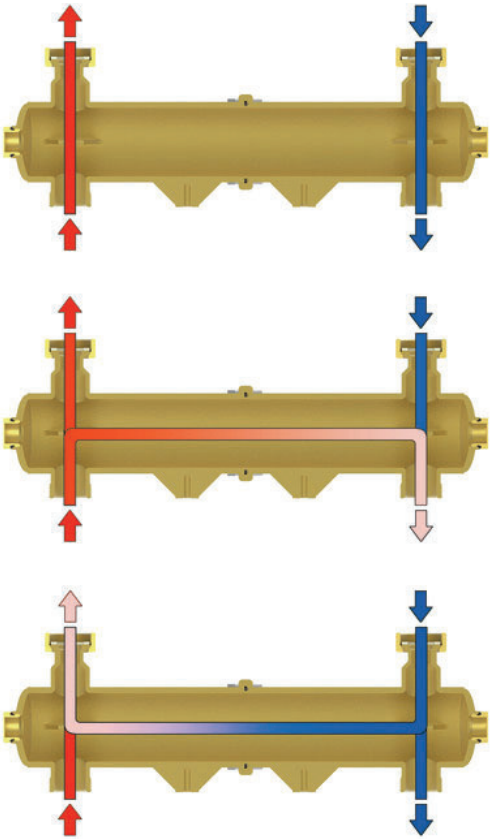


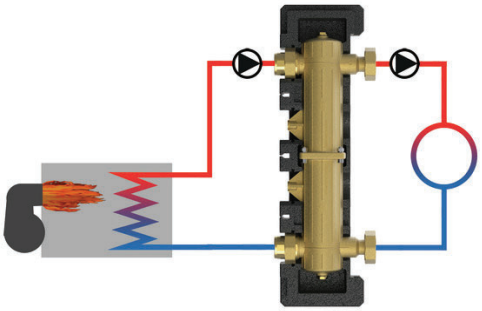
Hydraulic separator DN 25 (1")		Item no.
	**Flow rate: 1600 /h** Completely made of brass, with separate flow and return line, for the installation under an individual HeatBloC® DN 25. With EPP insulation. Can also be installed under a modular distribution manifold DN 25 (with mounting plate item no. 3425) or separately (in the pipe). In case of separate installation you need two connection sets item no. 2151. Connections: 1" PAW flange for 1½" nut (top), 1½" external thread, flat-sealing with fitting, width = 375 mm installation height = 128 mm centre distance = 125 mm	**344203**
	Flow rate: 3500 l/h 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 1½" nut (top), 1½" external thread / 1" internal thread, flat-sealing with fitting, 2 x ½" internal thread for immersion sleeve and fill and drain valve, width = 625 mm, installation height = 180 mm centre distance = 375 mm	**344213**

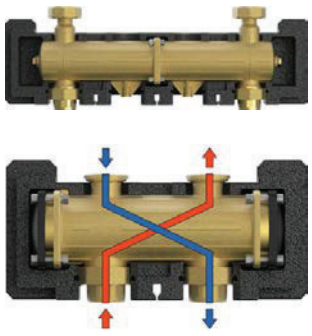
Hydraulic separator DN 32 (1¼")



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 32 (1¼")		Item no.
	**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. 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	**374203**
	Flow rate: 4800 l/h Completely made of brass, completely insulated with EPP insulation, for the installation under a modular distribution manifold DN 32 or separately (vertically or horizontally) to the wall. Connections: 1¼" PAW flange for 2" nut (top), 1¼" internal thread / 2" external thread, flat-sealing (bottom) with fitting, 2 x ½" internal thread for immersion sleeve and fill and drain valve, width = 600 mm installation height = 200 mm centre distance = 375 mm	**374213**

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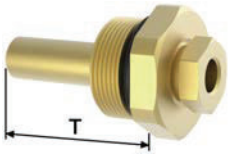	**Immersion sleeve ¼" ext. thread x T = 60 mm** standard, chromed brass, for sensor, T = 60 mm	**566002**
	**Wall bracket for HeatBloC® DN 20 (¾")** Components: 2 wall bracket sets, mounting equipment Possible wall distance: 70-100 mm, distance: 15 mm For 5-fold modular distribution manifolds, we recommend to use two wall bracket sets.	**3121**
	**Wall bracket for 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**
	**Mounting plate DN 20 (¾")** 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	**3125**
	**Mounting plate DN 25 (1")** 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	**3425**
	**Mounting plate DN 32 (1¼")** Components: mounting plate, 2 gaskets, 2 x 2" nut for installation with flat sealings under a modular distribution manifold and for attaching wall brackets	**3725**
	**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**
	**Union nut DN 20 (¾")** Brass, to screw insertion pieces for soldering below distribution manifolds DN 20 (¾")	**2055**
	Union nut DN 25 (1") Brass, to screw insertion pieces for soldering below distribution manifolds DN 25 (1")	**2155**
	Union nut DN 32 (1¼") Brass, to screw insertion pieces for soldering below distribution manifolds DN 32 (1¼")	**2156**
	**Sealing for nut - DN 20 (¾")** asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	**2057**
	Sealing for nut - DN 25 (1") asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	**2157**
	Sealing for nut - DN 32 (1¼") asbestos-free, outside diameter: 50 mm, inside diameter: 38 mm, height: 2 mm	**2158**

Mounting equipment hydraulic separators DN 20-32

	**Low-loss header DN 20, 2-fold** Number of connections for HeatBloC®s = 3 Width = 440 mm	**31422**
	**Low-loss header DN 20, 3-fold** Number of connections for HeatBloC®s = 5 Width = 620 mm	**31423**
	**Low-loss header DN 25, 2-fold** Number of connections for HeatBloC®s = 3 Width = 580 mm	**344223**
	**Low-loss header DN 25, 3-fold** Number of connections for HeatBloC®s = 5 Width = 830 mm	**344233**
	**Low-loss header DN 32, 2-fold** Number of connections for HeatBloC®s = 3 Width = 600 mm	**374223**
	**Low-loss header DN 32, 3-fold** 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).	**374233**
	**Extension set for low-loss header - DN 20 (¾")** 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.	**3143**
	**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**
	Extension set for low-loss header - DN 32 (1¼") 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.	**37431**

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

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CoolBloC DN 25 / DN 32

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Systems, valves and fittings
for modern heating and cooling

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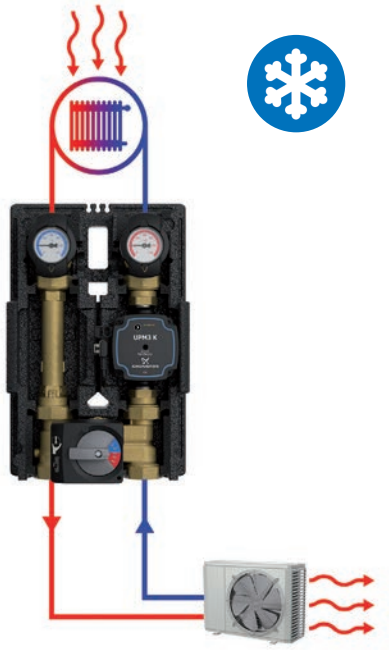
All CoolBloCs offer the following advantages:



Pump group for heating and cooling

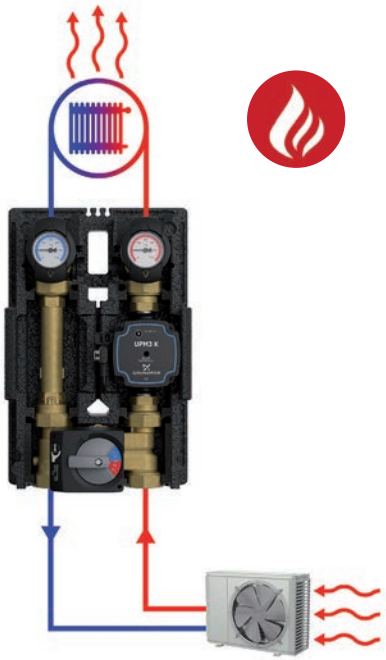
Condensation-resistant valves and fittings:
high-quality components to avoid oxidation

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.

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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

Operating data

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

Technical data

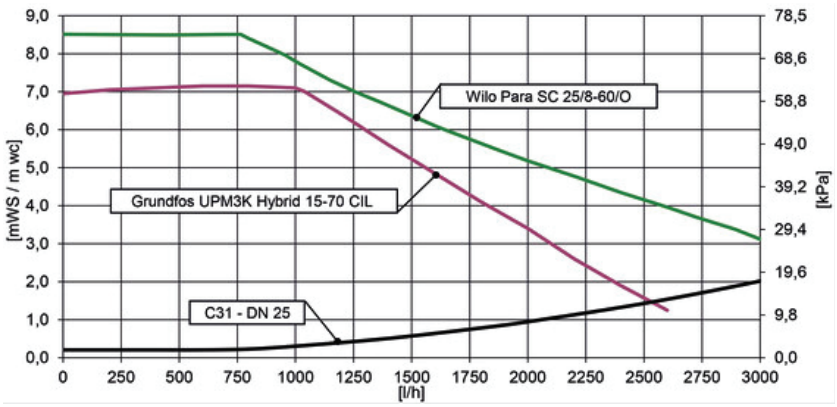
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	342 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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

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

Operating data

Max. operating pressure	6 bar
Max. operating temperature	95 °C
Kvs value	6
Adjustment range bypass	0 - 50 %

Technical data

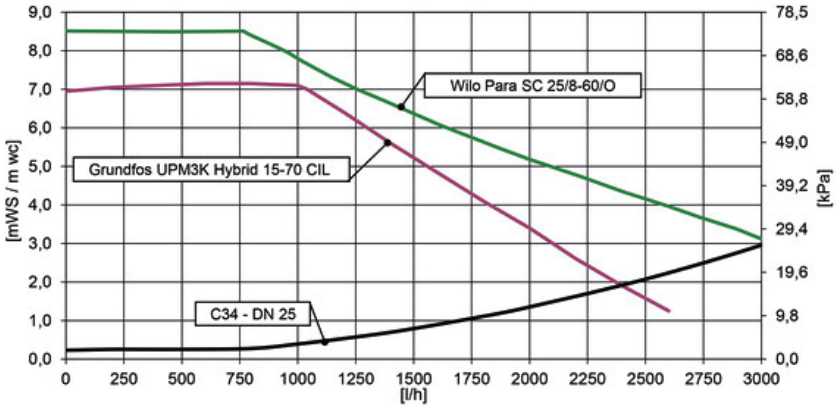
Dimensions

Nominal diameter	DN 25 (1")
Connection generator	1½" ext. thread, flat sealing
Connection consumer	1" int. thread
Height	383 mm
Installation length	342 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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

Technical data

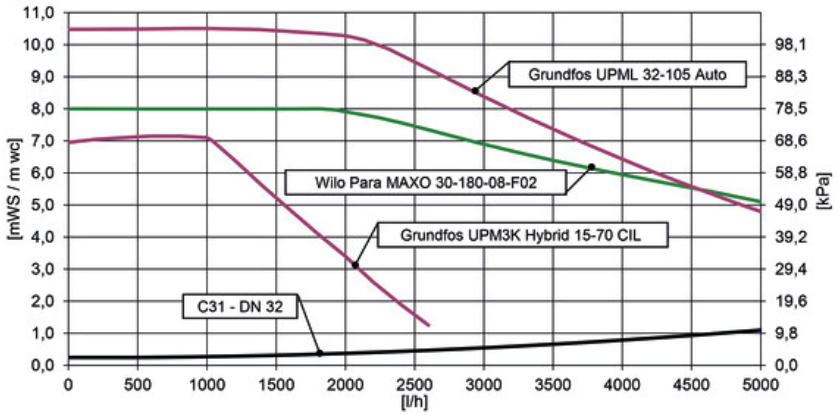
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	1¼" int. thread
Connection consumer	2" ext. thread, flat sealing
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

▲ = with pump ⊖ = without pump Ⓜ = with actuator *EEI = Energy Efficiency Index

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

Application range

- for heating and cooling systems controlled by a mixing valve

Recommended application range

- up to 48 kW
- 20 K up to 2070 l/h

Operating data

Max. operating pressure	6 bar
Max. operating temperature	95 °C
Kvs value	10.1
Adjustment range bypass	0 - 50 %

Technical data

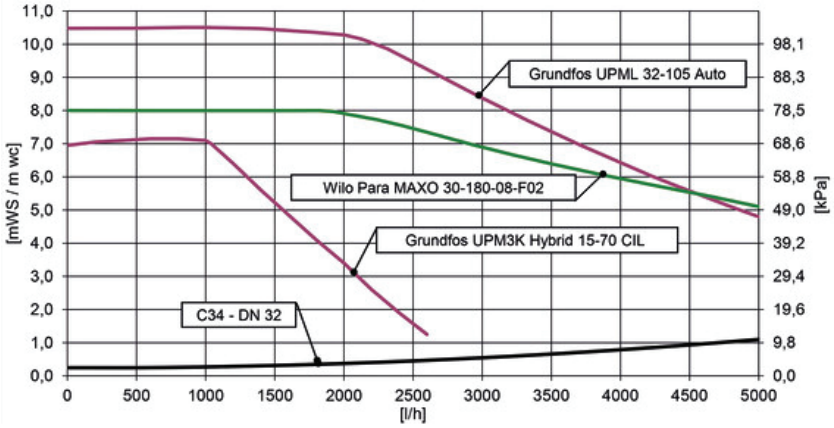
Dimensions

Nominal diameter	DN 32 (1¼")
Connection generator	1¼" int. thread
Connection consumer	2" ext. thread, flat sealing
Height	441 mm
Installation length	400 mm
Centre distance	125 mm
Width	250 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM
Insulation	EPP

Differential pressure diagram



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

= with pump = without pump = with actuator *EEI = Energy Efficiency Index

	**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 with 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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Thermax
Heating technology

Distribution system Thermax

Catalogue 01/2024

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

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Distrib. 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

Technical data

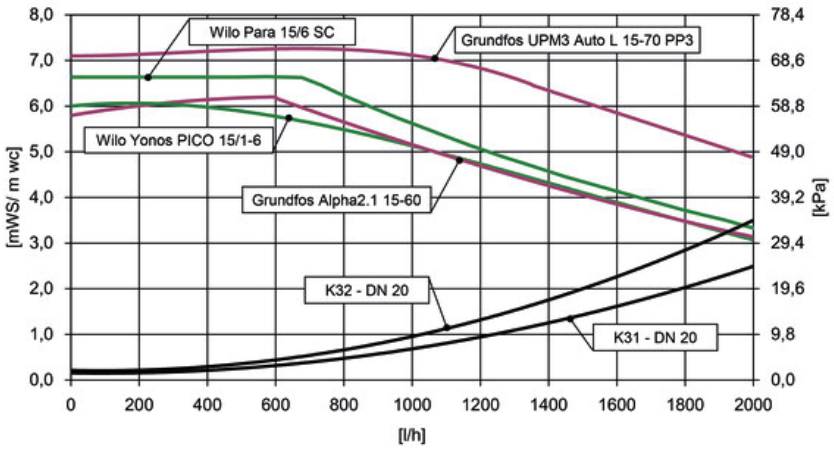
Dimensions

Nominal diameter	DN 20 (¾")
Connection generator	1" ext.thread / ¾" int.thread
Connection consumer	¾" int. thread
Height	400 mm
Installation length	335 mm
Centre distance	90 mm
Width	408 mm

Materials

Valves and fittings	Brass
Gaskets	EPDM / AFM34
Insulation	EPP / ABS

Differential pressure diagram



Distrib. system Thermax DN 20		EEI*	with	Item no.
	**K31-K32, 2x Grundfos ALPHA2.1 15-60**	< 0.17	▲Ⓜ	**323621GH6**
	K31-K32, 2x Grundfos UPM3 Auto L 15-70	< 0.20	▲Ⓜ	**323621GM6**
	K31-K32, 2x Wilo Para SC 15/6-43	< 0.20	▲Ⓜ	**323621WP6**
	K31-K32, 2x Wilo Yonos PICO 15/1-6	< 0.20	▲Ⓜ	**323621WN06**
	**K32-K32, 2x Grundfos ALPHA2.1 15-60**	< 0.17	▲Ⓜ	**323622GH6**
	K32-K32, 2x Grundfos UPM3 Auto L 15-70	< 0.20	▲Ⓜ	**323622GM6**
	K32-K32, 2x Wilo Para SC 15/6-43	< 0.20	▲Ⓜ	**323622WP6**
	K32-K32, 2x Wilo Yonos PICO 15/1-6	< 0.20	▲Ⓜ	**323622WN06**

▲ = with pump ⊖ = without pump Ⓜ =with actuator

*EEI = Energy Efficiency Index

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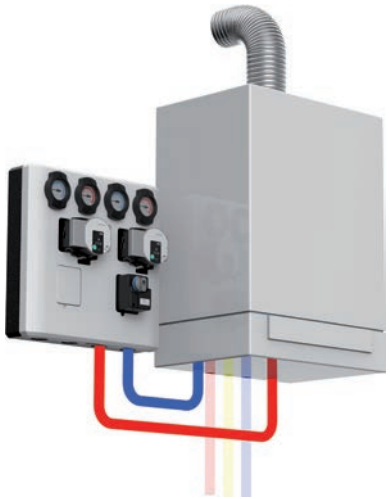
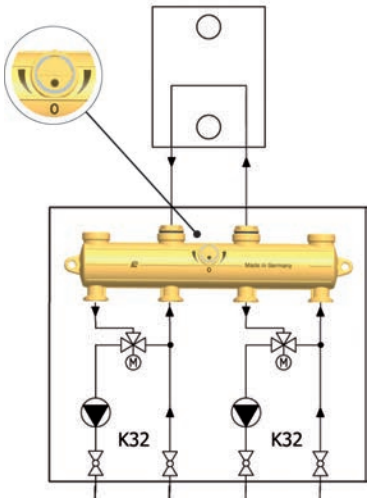
Description of function
Thermax DN 20 (¾")



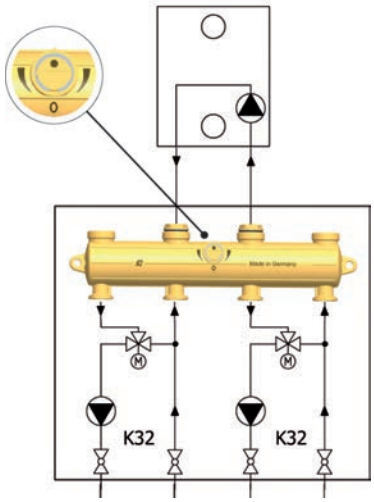
Installation beside the boiler:
Thermax is directly mounted to the wall without distance pieces

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 radiator) and a consumer with a low 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).

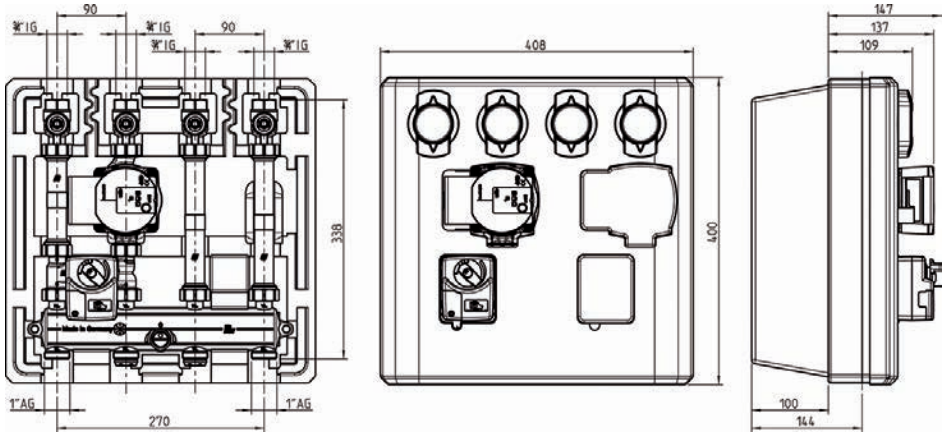


Bypass closed



Bypass open

Dimensions



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System separation DN 25

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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

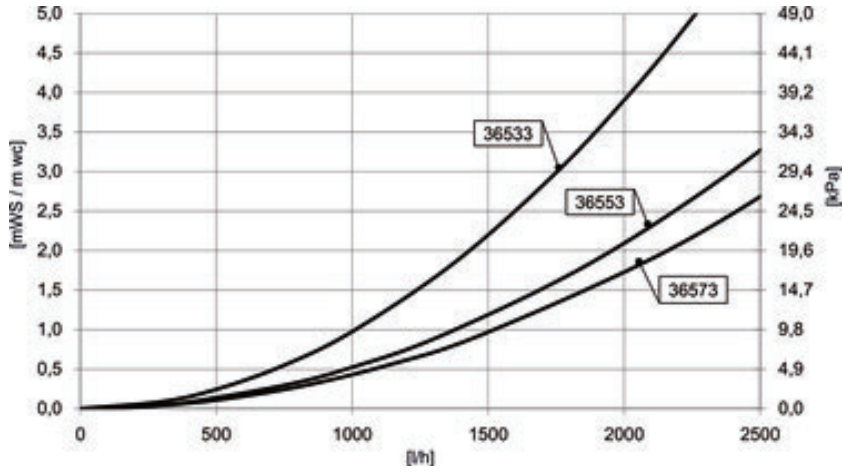
Equipment

Safety valve	3 bar, 50 kW
Pressure gauge	0-4 bar
Tank connection coupling	Stainless-steel corrugated hose: l = 700 mm; Wall bracket: for tanks with a max. diameter of 430 mm
Fill and drain valve	¾" ext. thread x ⅜" ext. thread, self-sealing, with counter nut and hose connector
Immersion sleeve	for sensor d = 6 mm
Vent plug	¾" ext. thread, self-sealing

Technical data

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

Differential pressure diagram



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)	Item 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**

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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**
 K31	36013WP6	Wilo Para 25/6-43	≤ 0.2	36533	1580 l/h = 18.3 kW
				36553	1830 l/h = 21.2 kW
				36573	1930 l/h = 22.4 kW
	36013GH6	Grundfos ALPHA2.1 25-60	≤ 0.17	36533	1480 l/h = 17.2 kW
				36553	1710 l/h = 19.9 kW
				36573	1790 l/h = 20.8 kW
	36013GM6	Grundfps UPM3 Auto L 25-70 PP3	≤ 0.2	36533	1720 l/h = 20.0 kW
				36553	2020 l/h = 23.5 kW
				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	Heating circuit	Pump	EEI*	System separation	Range of performance**
 K34	36063WP6	Wilo Para 25/6-43	≤ 0.2	36533	1540 l/h = 17.9 kW
				36553	1780 l/h = 20.7 kW
				36573	1860 l/h = 21.6 kW
	36063GH6	Grundfos ALPHA2.1 25-60	≤ 0.17	36533	1450 l/h = 16.8 kW
				36553	1650 l/h = 19.2 kW
				36573	1730 l/h = 20.1 kW
	36063GM6	Grundfos UPM3 Auto L 25-70 PP3	≤ 0.2	36533	1690 l/h = 19.6 kW
				36553	1950 l/h = 22.6 kW
				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**
 K31  K32	prim. 36053MWP6 sec. 36013WP6	Wilo Para 25/6-43	≤ 0.2	36533	1540 l/h = 17.9 kW
				36553	1750 l/h = 20.3 kW
				36573	1830 l/h = 21.2 kW
	prim. 36053MGH6 sec. 36013GH6	Grundfos ALPHA2.1 25-60	≤ 0.17	36533	1440 l/h = 16.7 kW
				36553	1630 l/h = 18.9 kW
				36573	1710 l/h = 19.9 kW
	prim. 36053MGM6 sec. 36013GM6	Grundfps UPM3 Auto L 25-70 PP3	≤ 0.2	36533	1670 l/h = 19.4 kW
				36553	1930 l/h = 22.4 kW
				36573	2000 l/h = 23.2 kW

** At a primary temperature of 60 - 50 °C, a secondary temperature of 35 - 45 °C and a secondary residual head of 1.5 m wc

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Return flow temperature maintenance

Catalogue 01/2024

Valves and fittings for the use in hot water heating systems

Valid for the EU

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Return flow temperature maintenance with thermal control valve DN 20 (¾") / DN 25 (1")

DN 25

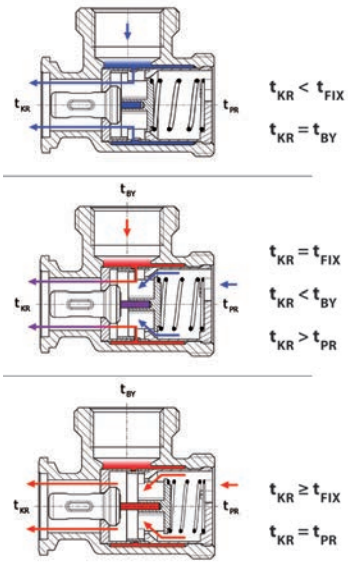
Application range

- **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: ¾" 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



Temperatures

t_{BY} = Bypass
t_{KR} = Boiler return
t_{PR} = return buffer tank
t_{FIX} = opening temperature

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.

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Return flow temperature maintenance with thermal control valve DN 20 (¾") / DN 25 (1") - types

Thermometer ball valve

- high Kvs value
- 3 ball valves per return flow temperature maintenance allow to shut off the group
- no draining necessary for service work at the pump or at the control valve

High-efficiency pump

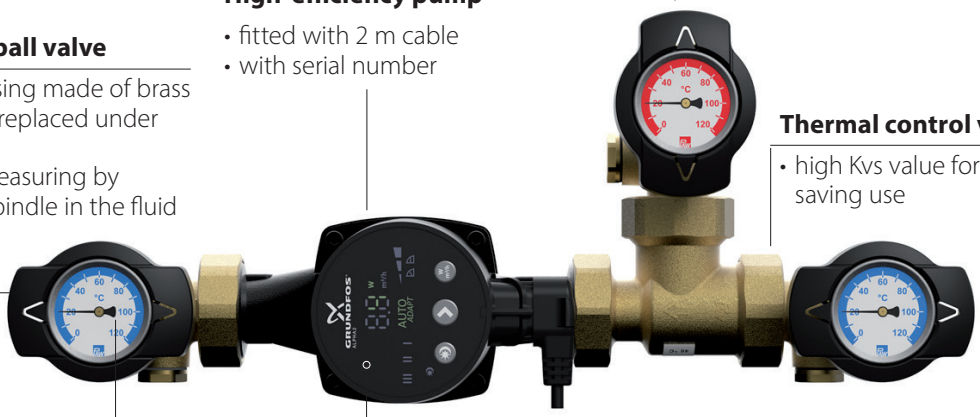
- fitted with 2 m cable
- with serial number

Thermometer ball valve

- one-piece housing made of brass
- spindle can be replaced under pressure
- temperature measuring by means of the spindle in the fluid

Thermal control valve

- high Kvs value for energy-saving use



Immersion thermometer

- with handle, 0 - 120 °C

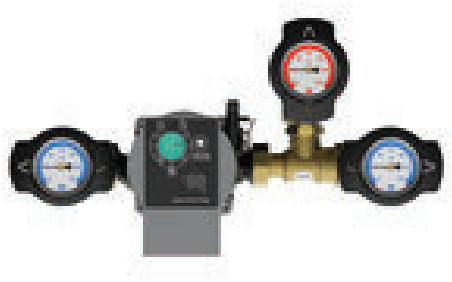
Serial numbers Return flow temperature maintenance and pump

- reliable identification, fast service

Mounting version 1

Mounting version 2

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

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)

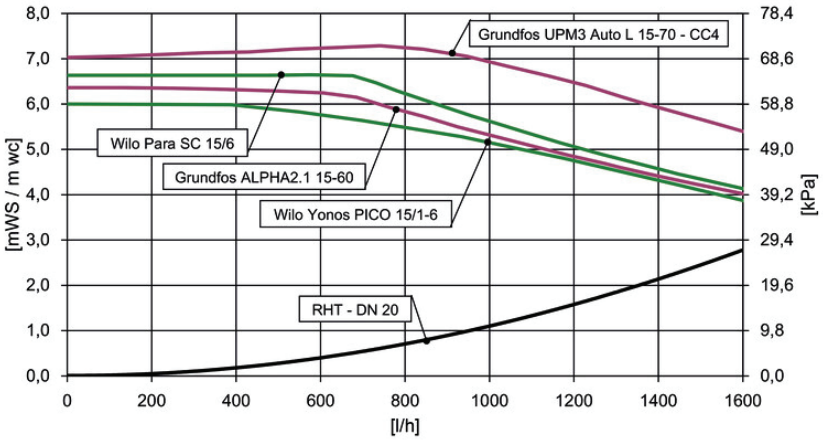
Dimensions

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

Differential pressure diagram



Return flow temperature maintenance with thermal control valve - DN 20 (¾")			EEI*	Item no.
	**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 L 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 L 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**

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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

- 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)

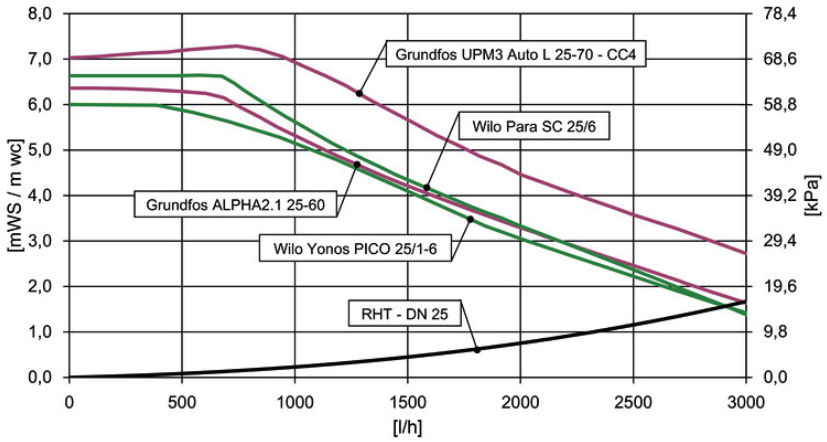
Dimensions

Nominal diameter	DN 25 (1")
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

Differential pressure diagram



Return flow temperature maintenance with thermal control valve - DN 25 (1")			EEI*	Item no.
	**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 L 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 L 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**

* EEI = Energy Efficiency Index

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)

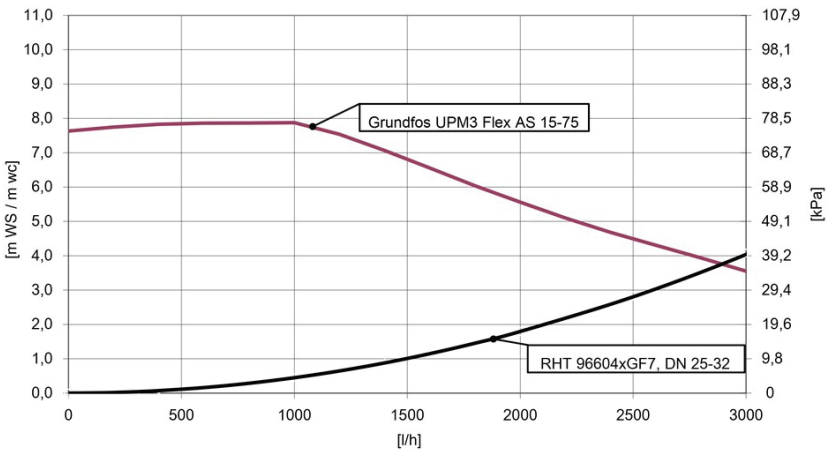
Dimensions

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

Differential pressure diagram



Return flow temperature maintenance with thermal control valve (60 °C) - DN 25 (1") - 32 (1¼")			EEI*	Item 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**

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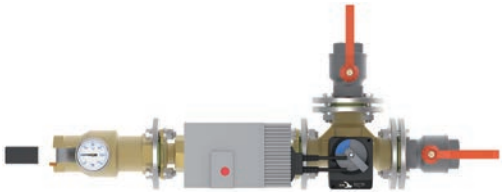
Pump sets for return flow temperature maintenance with actuator DN 20 (¾") - DN 50 (2")

Application range

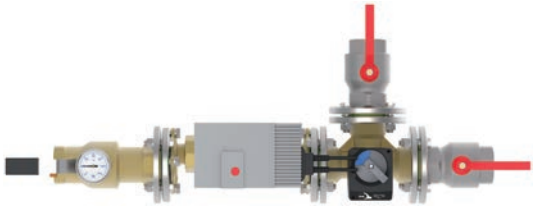
DN 20 (¾")

DN 25 (1")

DN 32 (1¼")



DN 40 (1½")



DN 50 (2")

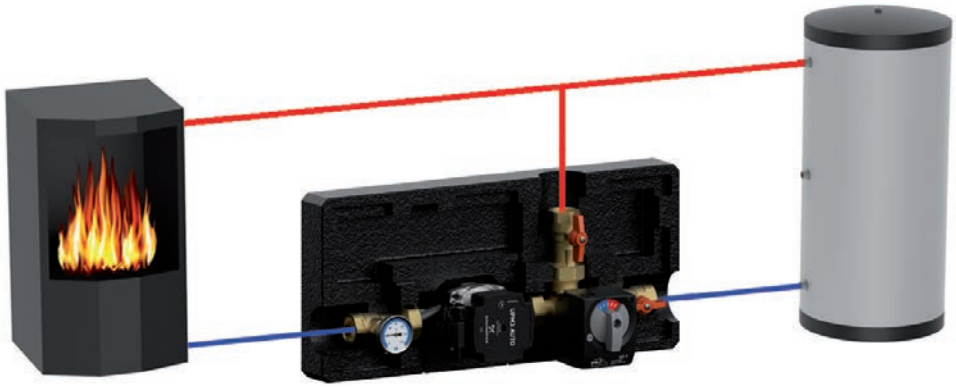
- **Heating systems with return flow temperature maintenance**
- **Solid fuel boilers, wood firing / stove heating systems**

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.



Mounting example return flow temperature maintenance with actuator DN 25

Return flow temperature maintenance RHM with actuator 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

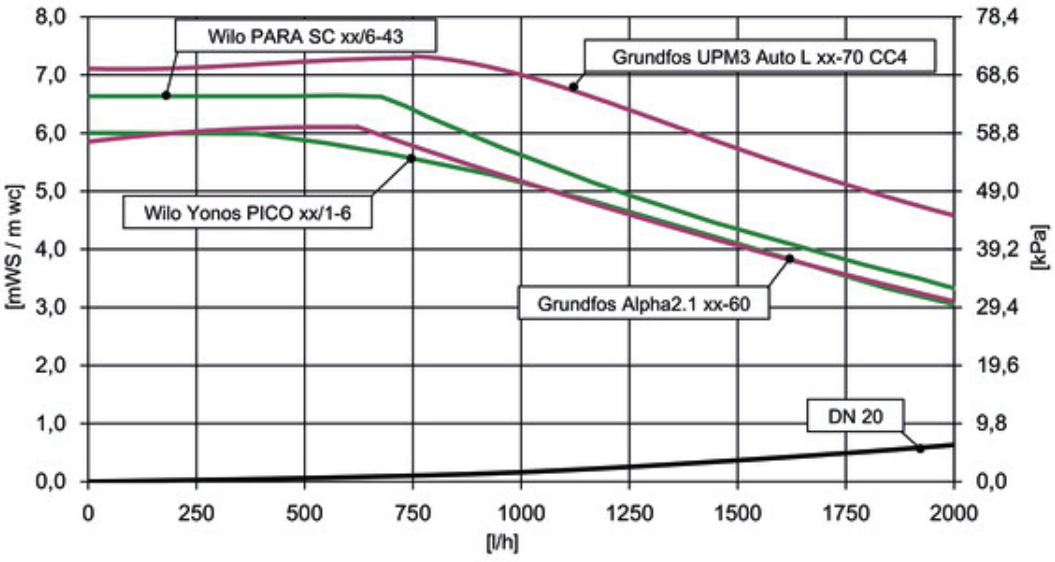
- up to 19,5 W
- 10 K up to 1650 l/h

Operating data

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

Technical data

Equipment	with actuator	**Dimensions**	
Actuator		Nominal diameter	DN 20 (¾")
Electrical data	230 V / 50 Hz	Connection generator	¾" int. thread
Power consumption	19,5 W	Connection consumer	¾" int. thread
Torque	2 Nm	Installation height	134 mm
Setting time 90°	105 s	Installation length	359 mm
Materials			
Valves and fittings	Brass		
Gaskets	AFM 34		
Insulation	--		



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

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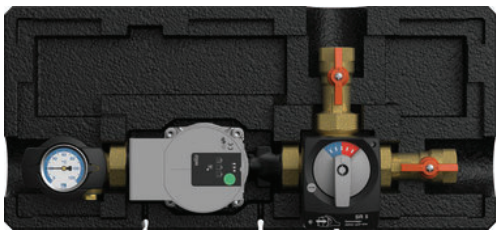
Return flow temperature maintenance RHM with actuator DN 25 (1")



Application range

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

Recommended application range

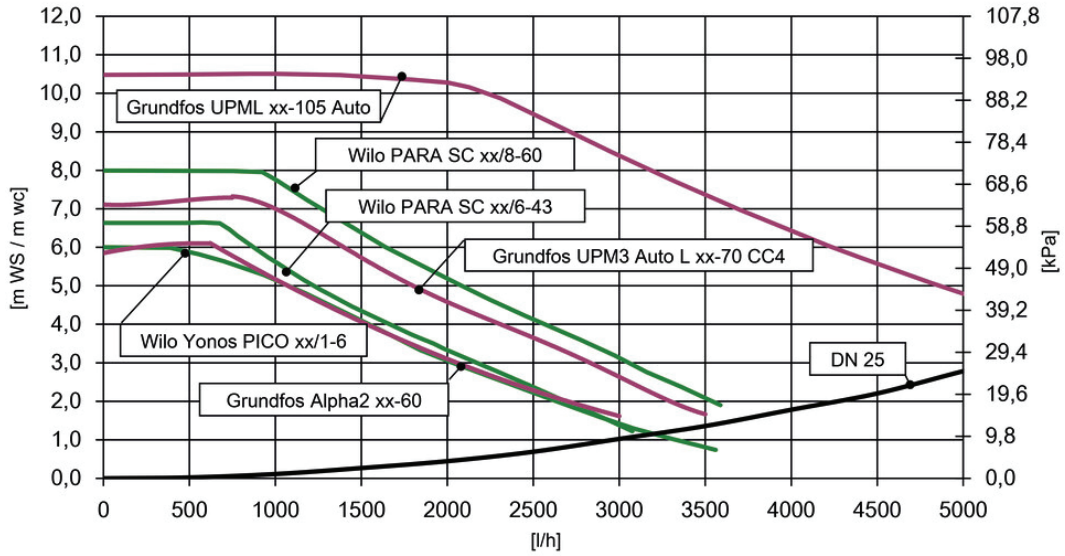
- up to 31 W
- 10 K up to 2670 l/h

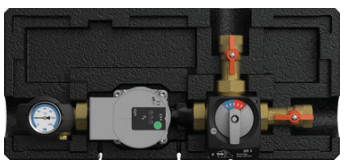
Operating data

Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	10

Technical data

Equipment	with actuator	**Dimensions**	
Actuator		Nominal diameter	DN 25 (1")
Electrical data	230 V / 50 Hz	Connection generator	1" int. thread
Power consumption	31 W	Connection consumer	1" int. thread
Torque	5 Nm	Installation height	187 mm
Setting time 90°	140 s	Installation length	437 mm
Materials			
Valves and fittings	Brass		
Gaskets	AFM 34		
Insulation	EPP		



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

* EEI = Energy Efficiency Index

Return flow temperature maintenance RHM with actuator DN 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

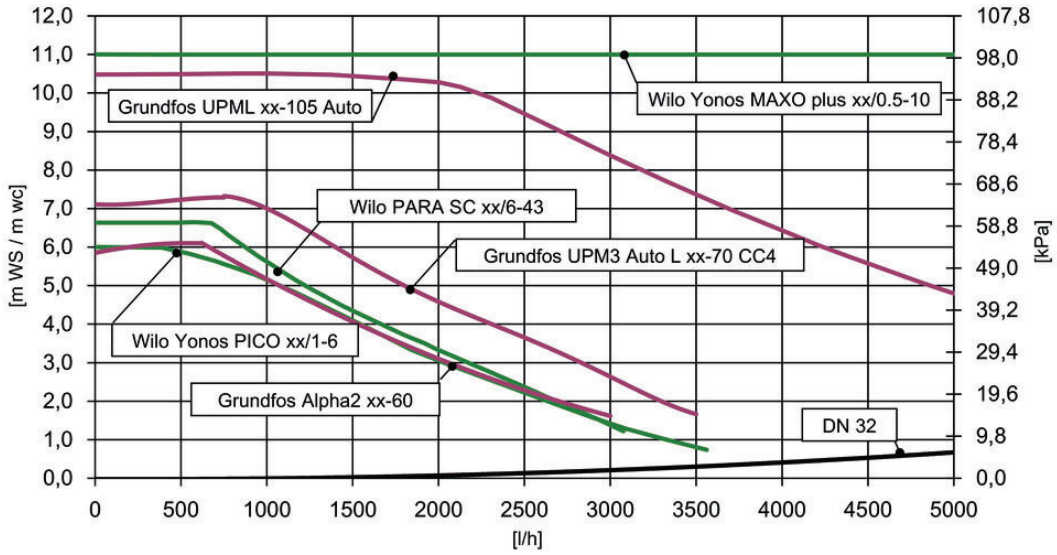
- up to 50 W
- 10 K up to 4310 l/h

Operating data

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

Technical data

Equipment	with actuator	**Dimensions**	
Actuator		Nominal diameter	DN 32 (1¼")
Electrical data	230 V / 50 Hz	Connection generator	1¼" int. thread
Power consumption	50 W	Connection consumer	1¼" int. thread
Torque	5 Nm	Installation height	217 mm
Setting time 90°	140 s	Installation length	497 mm
Materials			
Valves and fittings	Brass		
Gaskets	AFM 34		
Insulation	EPP		



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

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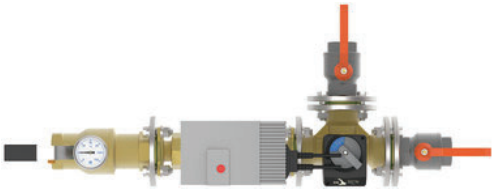
Return flow temperature maintenance RHM with actuator DN 40 (1½")



Application range

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

Recommended application range

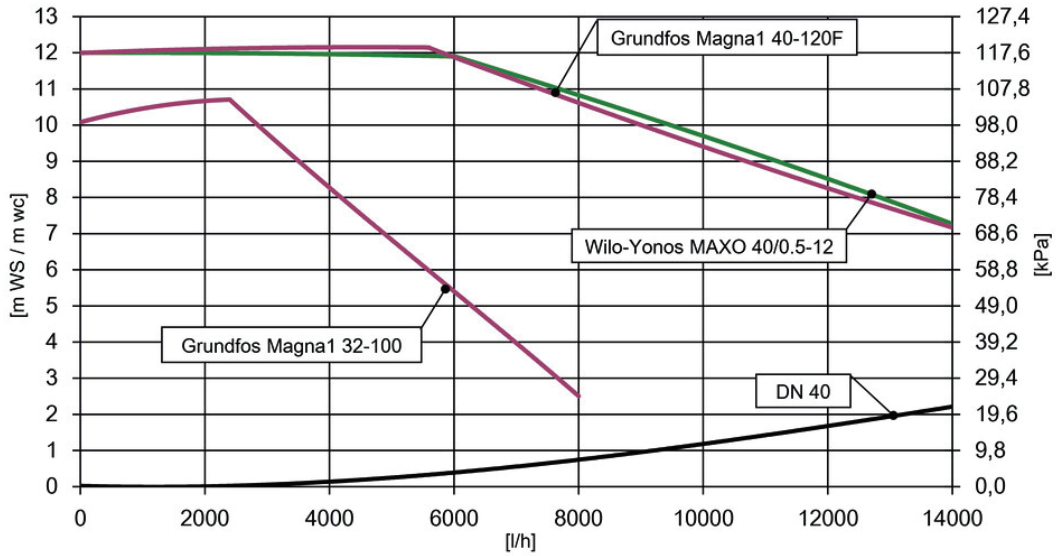
- up to 80 W
- 10 K up to 6890 l/h

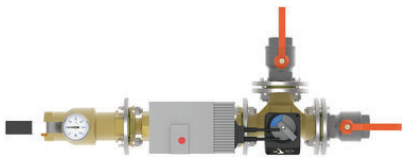
Operating data

Max. operating pressure	6 bar
Operating temperature	110 °C
Kvs value	23

Technical data

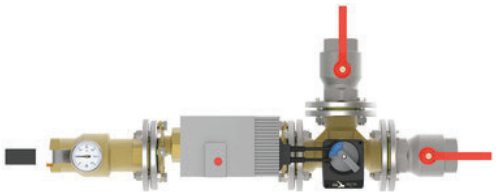
Equipment	with actuator	**Dimensions**	
Actuator		Nominal diameter	DN 40 (1½")
Electrical data	230 V / 50 Hz	Connection generator	1½" int. thread
Power consumption	80 W	Connection consumer	1½" int. thread
Torque	5 Nm	Installation height	266 mm
Setting time 90°	140 s	Installation length	735 mm
Materials			
Valves and fittings	Brass		
Gaskets	AFM 34		
Insulation	--		



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

* EEI = Energy Efficiency Index

Return flow temperature maintenance RHM with actuator DN 50 (2")



Application range

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

Recommended application range

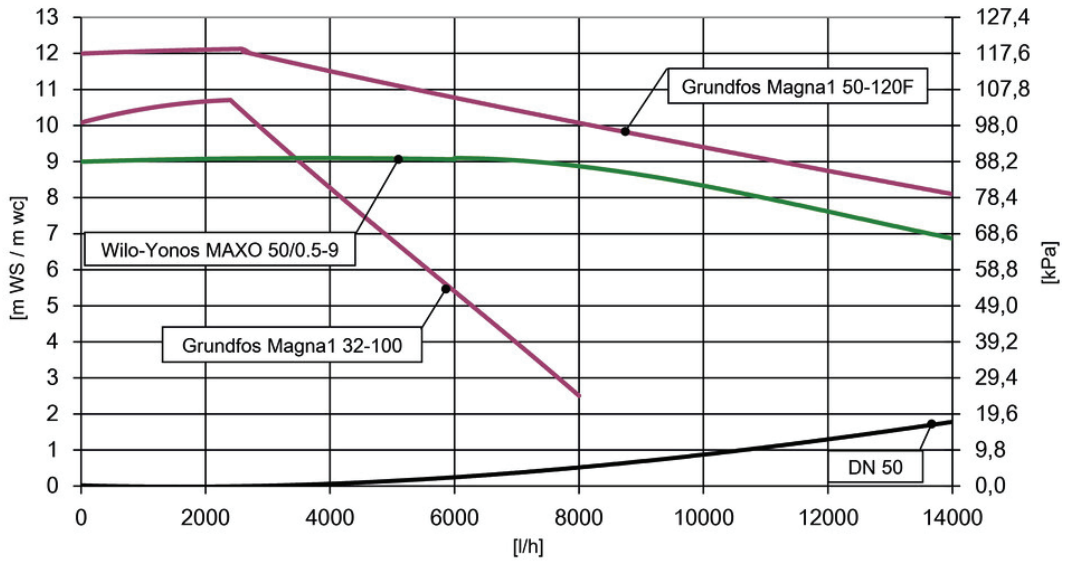
- up to 120 W
- 10 K up to 10340 l/h

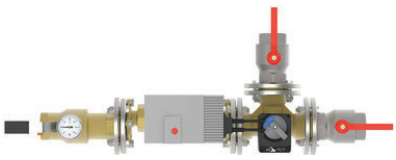
Operating data

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

Technical data

Equipment	with actuator	**Dimensions**	
Actuator		Nominal diameter	DN 50 (2")
Electrical data	230 V / 50 Hz	Connection generator	2" int. thread
Power consumption	120 W	Connection consumer	2" int. thread
Torque	5 Nm	Installation height	296 mm
Setting time 90°	140 s	Installation length	792 mm
Materials			
Valves and fittings	Brass		
Gaskets	EPDM / AFM34		
Insulation	--		



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

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	**Sealing for nut - DN 20 (¾")** asbestos-free, outside diameter: 30 mm, inside diameter: 21 mm, height: 2 mm	**2057**
	Sealing for nut - DN 25 (1") asbestos-free, outside diameter: 44 mm, inside diameter: 32 mm, height: 2 mm	**2157**
	**Screw-in fitting DN 20 (¾")** 1" external thread, flat-sealing x ¾" internal thread	**2053**
	Screw-in fitting 25 (1") 1½" external thread, flat-sealing x 1" internal thread	**2153**
	**Pump fitting DN 20 (¾")** with union nut, insert fitting and gasket, length: 30 mm	**2049**
	**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 ¾" external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 °C.	**561222**
	**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 1" external thread, self-sealing with o-ring, with support sleeve, suitable for soft copper pipes. For temperatures up to 150 °C.	**562922**