HERZ PUMPFIX

Datasheet **1 45XX XX**, Issue 0216

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HERZ PUMPFIX

Pump groups

General information

Description of HERZ PUMPFIX pump group

HERZ PUMPFIX pump group is a high qualitiy product that is assembled and pressure tested during the manufacturing process under constant quality control.

Advantages of the pump group are:

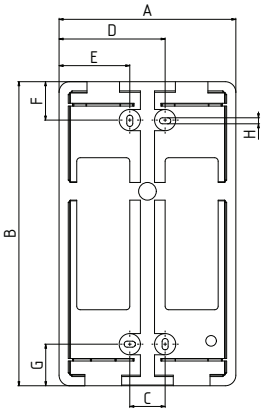
- all integrated components are the result of our own development,
- permanent quality control of production in our own factories,
- we supply complete pump groups,
- easy installation and maintenance,
- circulation pump with installation length of 130 mm and 180 mm
- connection distance between supply and return: 125 mm
- all pump groups are available either with or without circulation pump.

Assembly:

The pump group is mounted vertically, with the ball valves with thermometer facing up. Connection to boiler or distributor from below with external thread. Connection to the consumers above with internal thread.
Every HERZ PUMPFIX must be installed on a set of a mounting plate. Every pumps group is equipped with two mounting plates.
HERZ PUMPFIX distributor DN25 is recommended when using several parallel HERZ PUMPFIX pump groups (in case of multi-circular heating or cold water cooling system). Pump group and distributor are designed in that way that they can be fitted directly to each other. Pump groups can also be fitted to distributors with other dimensions (DN32) with using adaptor connections.

Installation dimensions of the support plate

DN	A	B	C	D	E	F	G	H
20	250	390	50	150	100	56,3	50,8	8,5
25	250	430	50	150	100	54,3	58,8	8,5
32	250	430	50	150	100	54,3	58,8	8,5



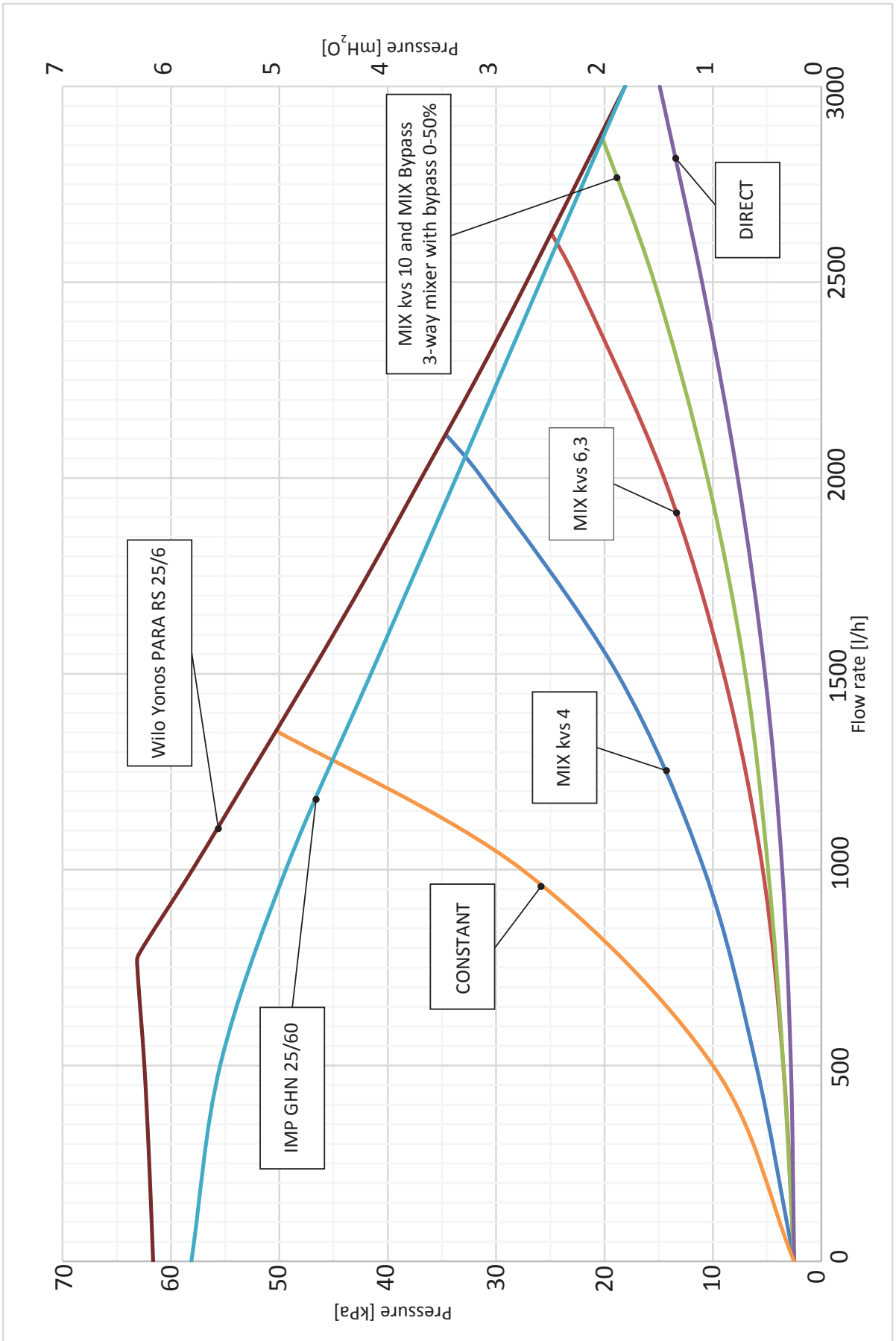
Maintenance instructions

If the product is used properly, no special maintenance is required. The circulation pump can be isolated by closing the ball valves and may therefore be maintained without draining the system.
Repairs on the device must be carried out by authorized persons only.

Disposal instructions

The disposal of HERZ PUMPFIX pump groups must not endanger the health or the enviroment. National legal regulations for proper disposal of the HERZ PUMPFIX pump groups have to been followed.

Pressure drop diagram of pump groups DN 25



HERZ PUMPFIX

Direct DN 20, DN 25, DN 32

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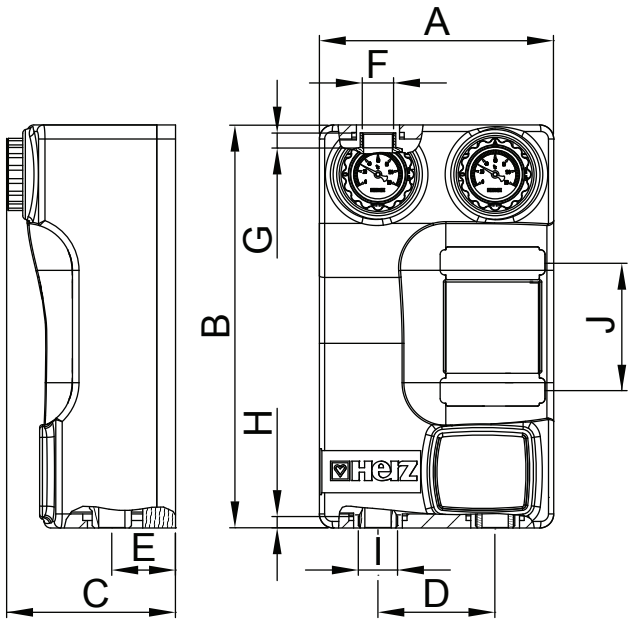
Dimensions



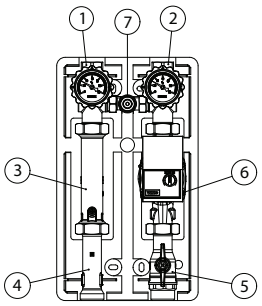
Order Nr.	DN	Pump	kvs [m³/h]	OV	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F* [in]	G [mm]	H [mm]	I** [in]	J [mm]
1 **4510** 12	20	Wilo Yonos PARA RS 15/6-130	4,3	no	250	390	209	125	68	¾″	16	14	1″	130
1 **4510** 42	20	Wilo Yonos PARA RS 15/6-130	4,3	yes	250	390	209	125	68	¾″	16	14	1″	130
1 **4510** 22	20	IMP GHN 15/40-130***	4,3	no	250	390	167	125	68	¾″	16	14	1″	130
1 **4510** 02	20	without pump	4,3	no	250	390	167	125	68	¾″	16	14	1″	130
1 **4510** 41	20	without pump	4,3	yes	250	390	167	125	68	¾″	16	14	1″	130
1 **4510** 13	25	Wilo Yonos PARA RS 25/6-180	5,8	no	250	430	209	125	68	1"	16	12	1-1/4"	180
1 **4510** 43	25	Wilo Yonos PARA RS 25/6-180	5,8	yes	250	430	209	125	68	1"	16	12	1-1/4"	180
1 **4510** 23	25	IMP GHN 25/60-180***	5,8	no	250	430	180	125	68	1"	16	12	1-1/4"	180
1 **4510** 03	25	without pump	5,8	no	250	430	180	125	68	1"	16	12	1-1/4"	180
1 **4510** 45	25	without pump	5,8	yes	250	430	180	125	68	1"	16	12	1-1/4"	180
1 **4510** 14	32	Wilo Yonos PARA RS 30/6-180	8,7	no	250	430	209	125	68	1-1/4"	16	12	1-1/2"	180
1 **4510** 44	32	Wilo Yonos PARA RS 30/6-180	8,7	yes	250	430	209	125	68	1-1/4"	16	12	1-1/2"	180
1 **4510** 24	32	IMP GHN 30/65-180***	8,7	no	250	430	180	125	68	1-1/4"	16	12	1-1/2"	180
1 **4510** 04	32	without pump	8,7	no	250	430	180	125	68	1-1/4"	16	12	1-1/2"	180
1 **4510** 49	32	without pump	8,7	yes	250	430	180	125	68	1-1/4"	16	12	1-1/2"	180

*Internal thread
**external thread
***Not available in EU (Commission regulations (ES) No 641/2009 and No 622/2012)
OV - Overflow valve (see page 16)

Components of HERZ PUMPFIX Direct

1. Valve with thermometer (blue)
2. Valve with thermometer (red)
3. Spacer with non-return valve
4. Spacer
5. Ball valve
6. Circulation pump*
7. Overflow valve*

*see overview table



Construction

Ball valve with thermometer:	forged brass acc. to EN 12165; CW 617N
Ball:	forged brass acc. to EN 12165, hard crome plated, CW617N
Handle of ball valve with thermometer:	plastic, PA66 GF30
Spacer with backflow preventer:	brass; CW617N
Backflow preventer:	200 mmWs, opens mechanically
Threaded connectors of closing valve:	internal thread acc. to ISO 7-1
Threaded connector of pump group:	external thread acc. to ISO 228-1
Spindle:	machined brass acc. to EN12164, CW614N
Spindle seals:	NBR / EPDM
Ball seals:	PTFE
Gaskets:	EPDM
Thermal insulation material of pump group:	EPP

Operating data

Nominal pressure:	6 bar with pump; 10 bar without pump
Max. operating temperature:	110°C
Min. operating tempererature:	0°C (water 0,5°C)
Max. short-term temperature load:	120°C

Medium:
Heating water according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for frost and corrosion protection.

Recommended range of application

DN 20 Max. heat output ΔT = 20K at 1250 l/h:	to 29 kW
DN 20 Max. heat output ΔT = 10K at 1250 l/h:	to 14,5 kW
DN 25 Max. heat output ΔT = 20K at 2155 l/h:	to 50 kW
DN 25 Max. heat output ΔT = 10K at 2155 l/h:	to 25 kW
DN 32 Max. heat output ΔT = 10K at 2500 l/h:	to 58 kW
DN 32 Max. heat output ΔT = 20K at 2500 l/h:	to 29 kW

Usage:

The HERZ- PUMPFIX pump group is used in heating and chilled water systems in household areas. The installation of circulation pumps of different manufacturers and types is possible.
The HERZ PUMPFIX DIRECT pump group can be used:

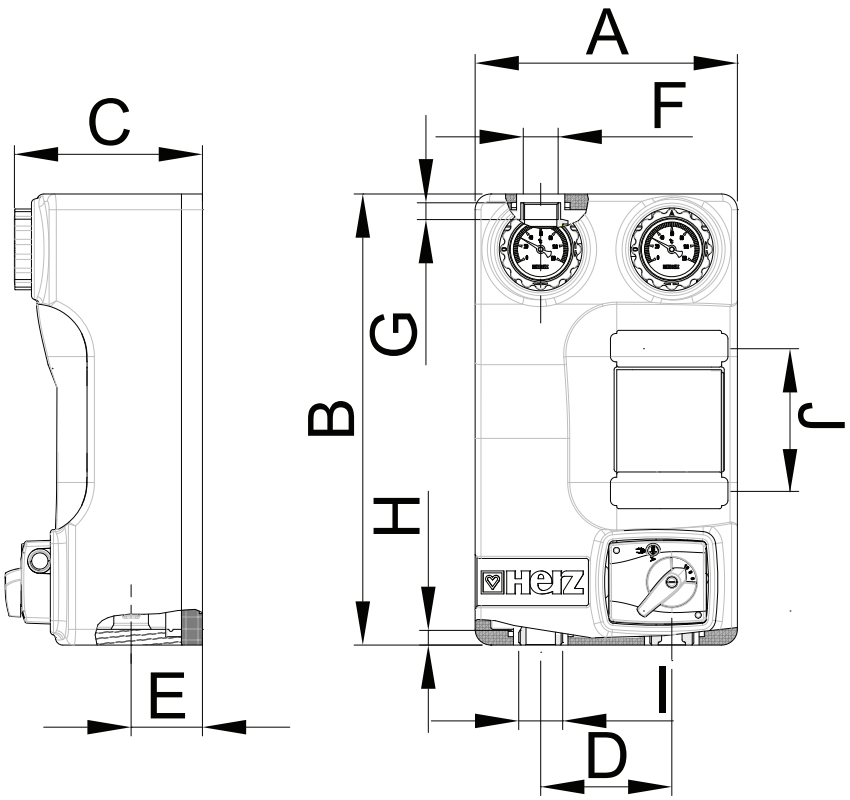
- for filling the hot water tanks
- for modulating temperature heating systems

HERZ PUMPFIX

Mix DN 20, DN 25, DN 32

Datasheet **1 4511 XX**

Dimensions



Order Nr.	DN	Pump	kvs [m³/h]	OV	BP	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F* [in]	G [mm]	H [mm]	I** [in]	J [mm]
1 **4511** 31	20	Wilo Yonos PARA RS 15/6-130	4	no	no	250	390	209	125	68	¾″	16	14	1″	130
1 **4511** 22	20	Wilo Yonos PARA RS 15/6-130	6,3	no	no	250	390	209	125	68	¾″	16	14	1″	130
1 **4511** 42	20	IMP GHN 15/40-130***	4	yes	no	250	390	186	125	68	¾″	16	14	1″	130
1 **4511** 16	20	IMP GHN 15/40-130***	6,3	yes	no	250	390	186	125	68	¾″	16	14	1″	130
1 **4511** 32	20	without pump	4	yes	no	250	390	186	125	68	¾″	16	14	1″	130
1 **4511** 35	20	without pump	6,3	yes	no	250	390	186	125	68	¾″	16	14	1″	130

*Internal thread
**external thread
***Not available in EU (Commission regulations (ES) No 641/2009 and No 622/2012)
OV - Overflow valve (see page 16)
BP - Bypass on the mixing valve

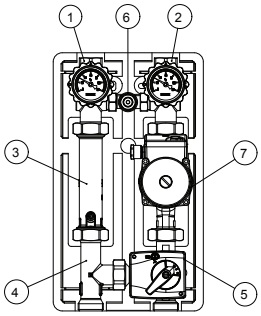
Order Nr.	DN	Pump	kvs [m³/h]	OV	BP	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F* [in]	G [mm]	H [mm]	I** [in]	J [mm]
1 **4511** 17	25	Wilo Yonos PARA RS 25/6-180	4	no	no	250	430	209	125	68	1"	16	12	1-1/4"	180
1 **4511** 13	25	Wilo Yonos PARA RS 25/6-180	6,3	no	no	250	430	209	125	68	1"	16	12	1-1/4"	180
1 **4511** 18	25	Wilo Yonos PARA RS 25/6-180	10	no	no	250	430	209	125	68	1"	16	12	1-1/4"	180
1 **4511** 27	25	IMP GHN 25/60-180***	4	yes	no	250	430	186	125	68	1"	16	12	1-1/4"	180
1 **4511** 23	25	IMP GHN 25/60-180***	6,3	yes	no	250	430	188	125	68	1"	16	12	1-1/4"	180
1 **4511** 28	25	IMP GHN 25/60-180***	10	yes	no	250	430	193	125	68	1"	16	12	1-1/4"	180
1 **4511** 07	25	without pump	4	yes	no	250	430	186	125	68	1"	16	12	1-1/4"	180
1 **4511** 03	25	without pump	6,3	yes	no	250	430	188	125	68	1"	16	12	1-1/4"	180
1 **4511** 08	25	without pump	10	yes	no	250	430	193	125	68	1"	16	12	1-1/4"	180
1 **4511** 64	25	without pump	4	no	no	250	430	186	125	68	1"	16	12	1-1/4"	180
1 **4511** 62	25	without pump	6,3	no	no	250	430	188	125	68	1"	16	12	1-1/4"	180
1 **4511** 63	25	without pump	10	no	no	250	430	193	125	68	1"	16	12	1-1/4"	180
1 **4511** 14	32	Wilo Yonos PARA RS 30/6-180	10	no	no	250	430	209	125	68	1-1/4"	16	12	1-1/2"	180
1 **4511** 15	32	Wilo Yonos PARA RS 30/6-180	16	no	no	250	430	209	125	68	1-1/4"	16	12	1-1/2"	180
1 **4511** 24	32	IMP GHN 30/65-180***	10	yes	no	250	430	193	125	68	1-1/4"	16	12	1-1/2"	180
1 **4511** 25	32	IMP GHN 30/65-180***	16	yes	no	250	430	196	125	68	1-1/4"	16	12	1-1/2"	180
1 **4511** 04	32	without pump	10	yes	no	250	430	193	125	68	1-1/4"	16	12	1-1/2"	180
1 **4511** 05	32	without pump	16	yes	no	250	430	193	125	68	1-1/4"	16	12	1-1/2"	180

*Internal thread
**external thread
***Not available in EU (Commission regulations (ES) No 641/2009 and No 622/2012)
OV - Overflow valve (see page 16)
BP - Bypass on the mixing valve

Components of HERZ PUMPFIX Mix

1. Valve with thermometer (blue)
2. Valve with thermometer (red)
3. Spacer with non-return valve
4. Return T-piece
5. Three way valve with a actuator (1 **2137** 2X)
6. Circulation pump*
7. Overflow valve*

*see overview table



Construction

Ball valve with thermometer:	forged brass acc. to EN 12165, CW617N
Ball:	forged brass acc. to EN 12165, hard crome plated, CW617N
Handle of ball valve with thermometer:	plastic, PA66 GF30
Spacer with backflow preventer:	brass; CW617N
Backflow preventer:	200 mmWs, opens mechanically
Threaded connectors of closing valve:	internal thread acc. to ISO 7-1
Threaded connector of pump group:	external thread acc. to ISO 228-1
Spindle:	turned brass acc. to EN 12164, CW614N
Spindle seals:	NBR / EPDM
Ball seals:	PTFE
Gaskets:	EPDM
Insulation material of pump group:	EPP

Operating data

Nominal pressure:	6 bar with pump; 10 bar without pump
Max. operating temperature:	110°C
Min. operating temperature:	0°C (water 0,5°C)
Max. short-term temperature load:	120°C

Medium:
Heating water according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for frost and corrosion protection.

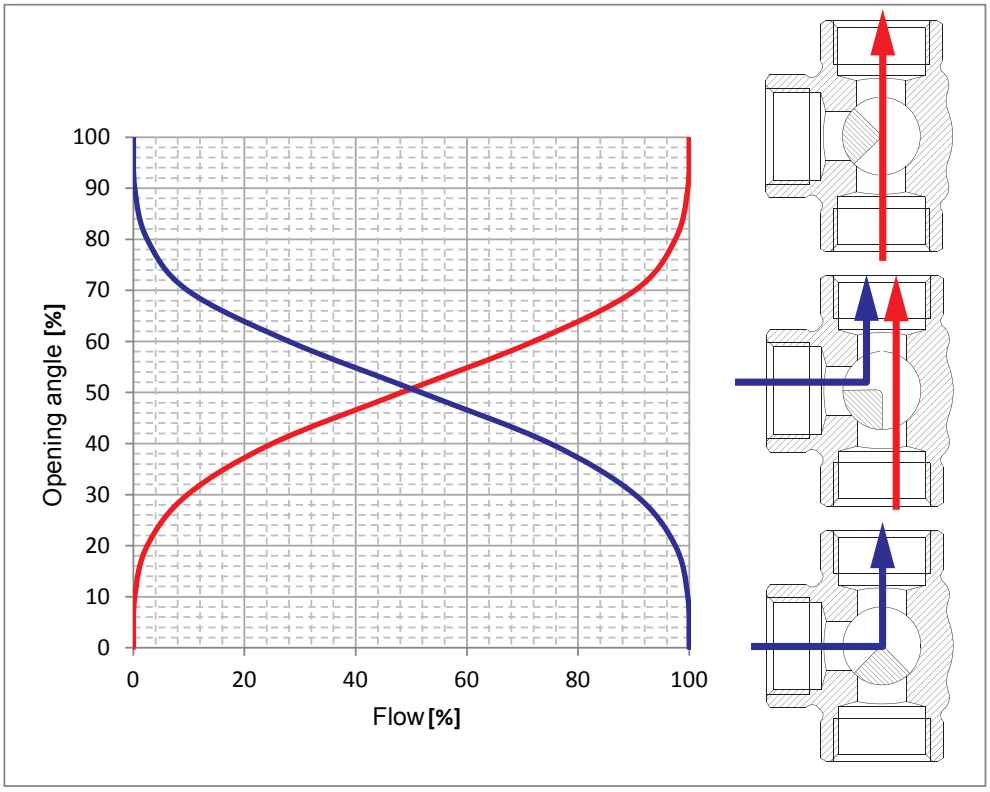
Recommended range of application

DN 20 Max. heat output ΔT = 20K at 900 l/h:	to 21 kW
DN 20 Max. heat output ΔT = 10K at 900 l/h:	to 10,5 kW
DN 25 Max. heat output ΔT = 20K at 2.100 l/h:	to 35 kW
DN 25 Max. heat output ΔT = 10K at 1508 l/h:	to 17,5 kW
DN 25 Max. heat output ΔT = 5K at 1508 l/h:	to 8,75 kW
DN 32 Max. heat output ΔT = 20K at 2.100 l/h:	to 48 kW
DN 32 Max. heat output ΔT = 10K at 1508 l/h:	to 24 kW
DN 32 Max. heat output ΔT = 5K at 1508 l/h:	to 12 kW

Usage:

The HERZ- PUMPFIX pump group is used in heating and chilled water systems in household areas. The installation of circulation pumps of different manufacturers and types is possible. The integrated 3-way valve can be used for mixing or distribution service in combination with the actuator. An equal percentage, linear or quadratic characteristic curve can be adjusted on the actuator (1 **7712** 63).

Characteristic curves of three-way valve

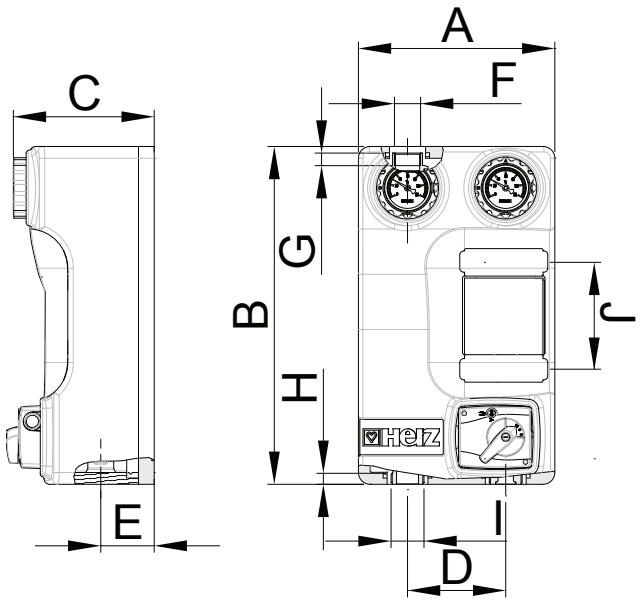


HERZ PUMPFIX

Mix with bypass DN 25

Datasheet **1 4511 XX**

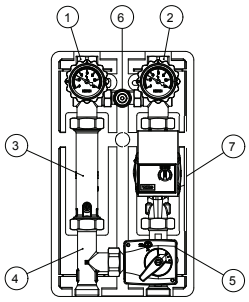
Dimensions



Order Nr.	DN	Pump	kvs [m³/h]	OV	BP	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F* [in]	G [mm]	H [mm]	I** [in]
1 **4511** 60	25	Wilo Yonos PARA RS 25/6	10	no	yes	250	430	225	125	68	1″	16	12	1-1/4″
1 **4511** 53	25	Wilo Yonos PARA RS 25/6	10	yes	yes	250	430	225	125	68	1″	16	12	1-1/4″
1 **4511** 59	25	without pump	10	no	yes	250	430	225	125	68	1″	16	12	1-1/4″
1 **4511** 65	25	without pump	10	yes	yes	250	430	225	125	68	1″	16	12	1-1/4″

*Internal thread
**external thread
OV - Overflow valve (see page 16)
BP - Bypass on the mixing valve

Components of HERZ PUMPFIX Mix with bypass



1. Valve with thermometer (blue)
2. Valve with thermometer (red)
3. Spacer with non-return valve
4. Return T-piece
5. Three way valve with integrated 50% bypass and a actuator(1 **7712** 63)
6. Circulation pump*
7. Overflow valve*

*see overview table

Construction

Ball valve with thermometer:	forged brass acc. to EN 12165; CW 617N
Ball:	forged brass acc. to EN 12165, hard crome plated, CW617N
Handle of ball valve with thermometer:	plastic, PA66 GF30
Spacer with backflow preventer:	brass; CW617N
Backflow preventer:	200 mmWs, opens mechanically
Threaded connectors of closing valve:	internal thread acc. to ISO 7-1; G1"
Threaded connector of pump group:	external thread acc. to ISO 228-1; G1 1/4"
Spindle:	turned brass acc. to EN12164, CW614N
Spindle seals:	NBR / EPDM
Ball seals:	PTFE
Gaskets:	EPDM
Thermal insulation material of pump group:	EPP

Operating data

Nominal pressure:	6 bar with pump; 10 bar without pump
Max. operating temperature:	110°C
Min. operating temperature:	0°C (water 0,5°C)
Max. short-term temperature load:	120°C
Kvs value:	10 m³/h

Medium:
Heating water according ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for frost and corrosion protection.

Recommended range of application

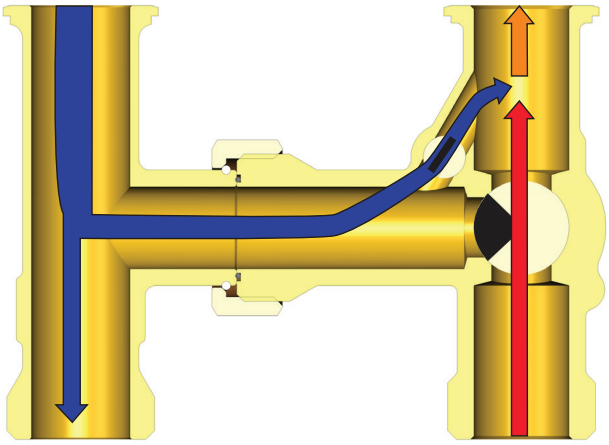
Max. heat output ΔT = 20K at 860 l/h: to 35 kW

Usage:

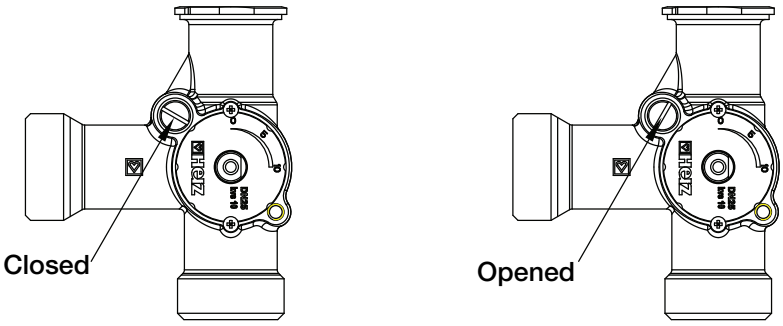
The HERZ- PUMPFIX pump group is used in heating and chilled water systems in households areas. The installation of circulation pumps of different manufacturers and types is possible. The integrated 3-way valve can be used for mixing or distribution service in combination with the actuator. An equal percentage, linear or quadratic characteristic curve can be adjusted on the actuator.
The 3-way valve has integrated bypass that can be adjusted in relation to the flow trough the mixing vale. The bypass can ensure a constant flow (up to 50% of the flow of the valve) of the liquid from the return circuit.
The main function of the integrated bypass comes into use if the system is not working properly and the temperature in the system is too high. The valve with integrated bypass allows fixed flow from the return and so it decreases the temperature. This prevents possible damages in the system.

Functional principle

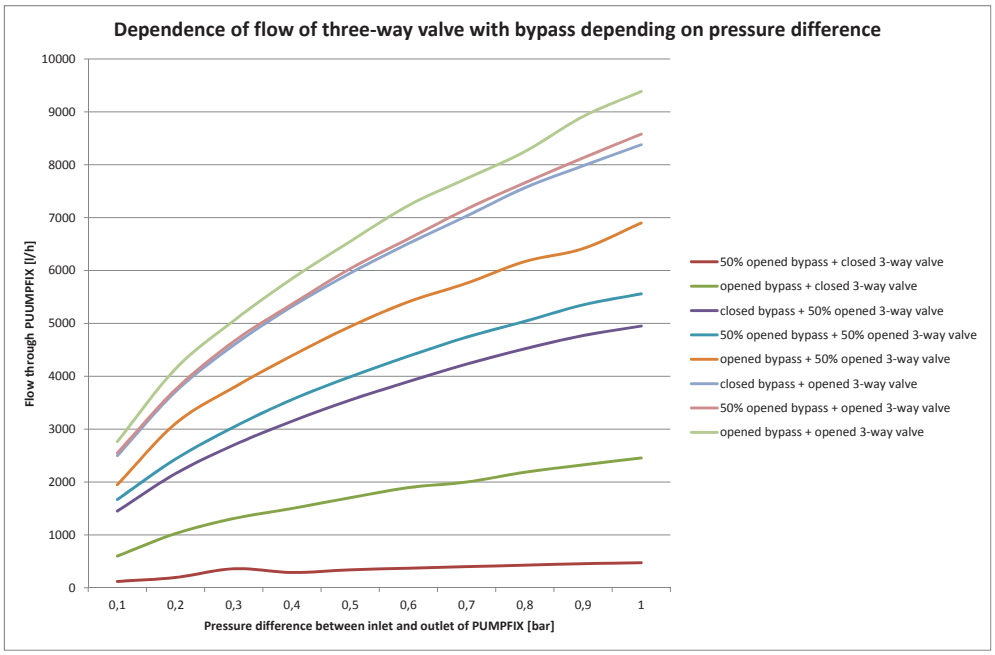
A part of the heatflow from the pump on the bypass operation is primed in normal operation – for example, when the return water mixer is closed. This current (smaller blue arrow) pictures 50% of the mixer capacitance (red arrow). A very high flow and a low temperature are sustained.



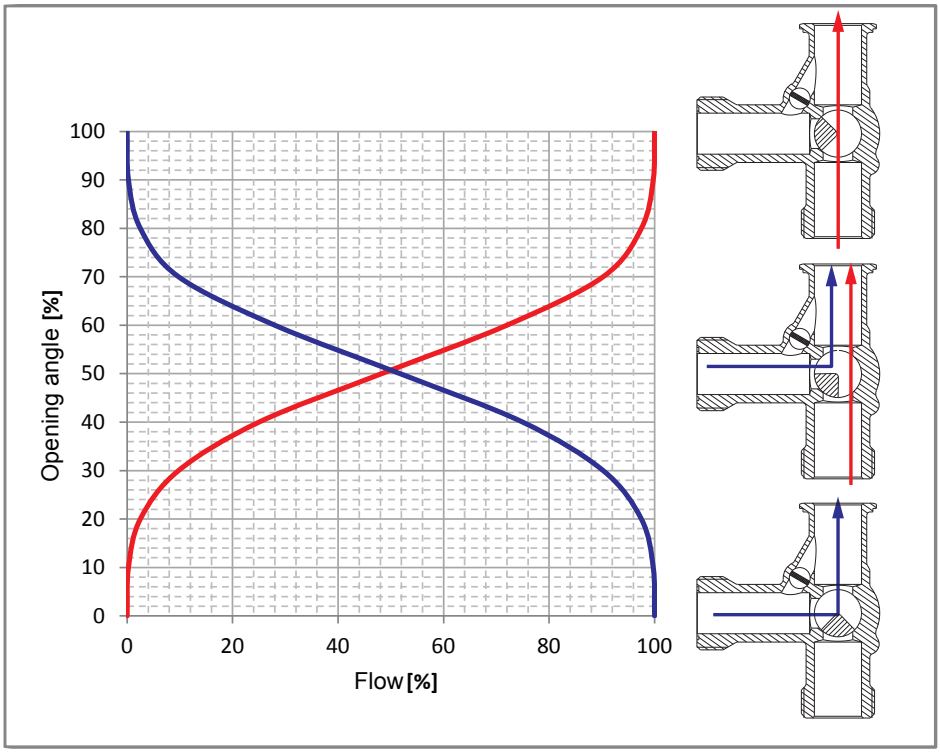
Bypass position



3-way valve flow chart



Characteristic curves of three-way valve (closed bypass)



HERZ - 3-point actuator

1 **7712** 63

General information

3-Point actuator (1 **7712** 63)

The actuator can be operated by 3-point and open-close control (see diagram). The mounting position in relation to the ball valve can be selected in 90° steps. The actuator is automatically disconnected when the end stops are reached. The actuator can be mounted in any position except with its head down. Two-piece body made of self-extinguishing plastic, the lower part is black and upper part is red. Straightforward direct mounting on the mixing ball valve with a screw. The screw is supplied with actuator.

Manual operation possible by lever:

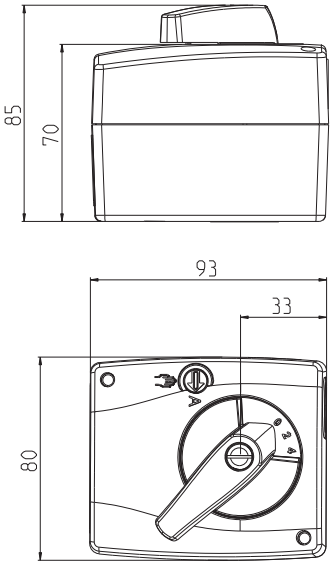
Press for temporary disengagement, permanent gearing disengagement by rotary switch on the housing to the manual position-

Safety note:

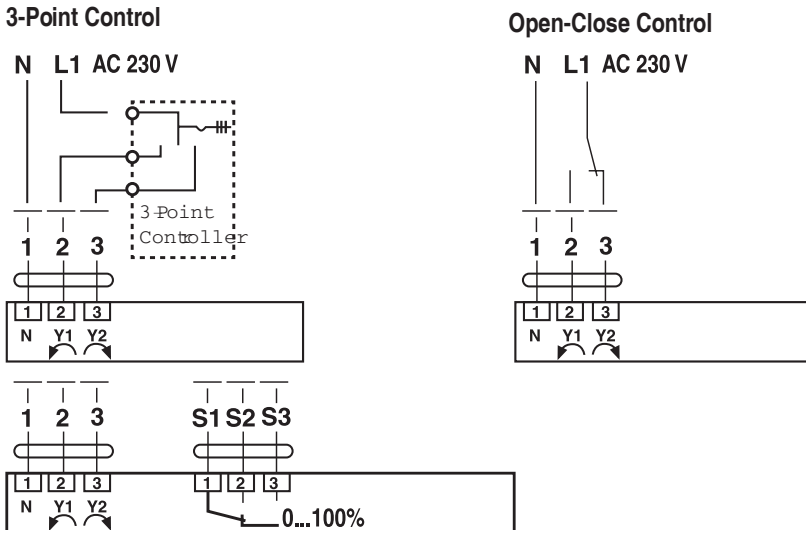
The actuator may only be opened at the factory. It contains no components which can be replaced or repaired by the user.

Technical data

Nominal voltage	AC 230 V 50 / 60 Hz
Power supply range	AC 198 ... 264 V
Dimensioning	3,5 VA
Power consumption	3,5 W
Auxiliary switch	1 x EPU 5 (1) A, AC 250 V
Switching point	adjustable 0 … 100%
Manual operation	Temporary and permanent disengagement of the gearing latch
Torque	min. 10 Nm (at nominal voltage)
Angle of rotation	90°
Running time	140 s
Sound power level	max. 35 dB(A)
Position indication	Scale 0 ... 10
Protection class	II (totally insulated)
Degree of protection	IP40
Ambient temperature range	0 … + 50 °C (duty cycle 140/35 s)
Media temperature	+ 5 ... + 120 °C (ball valve)
Non-operating temperature	– 30 … + 80 °C
Humidity test	according to EN 60730-1
EMC	CE according to 89/336/EWG
LV directive	CE according to 73/23/EWG
Mode of operation	Typ 1.B (EN 60730-1)
Maintenance	Maintenance-free



Wiring diagram



HERZ PUMPFIX Constant

constant control for temperature DN 25

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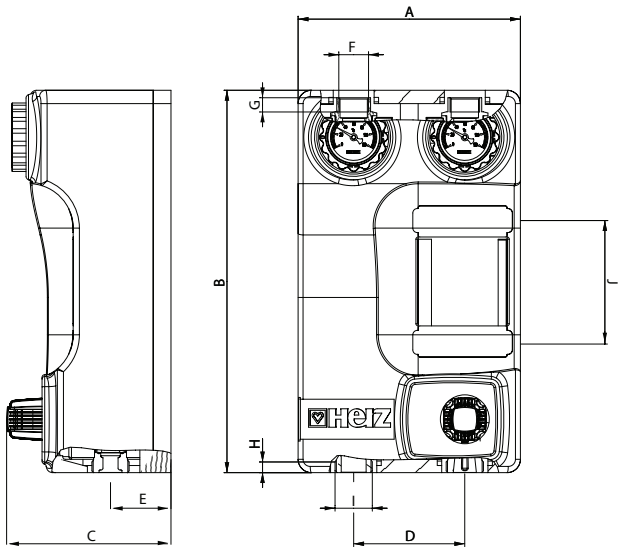
Dimensions



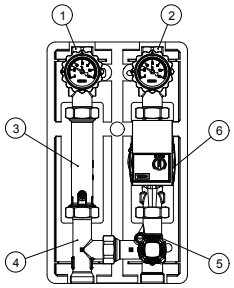
Order Nr.	DN	Pump	kvs [m³/h]	OV	BP	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F* [in]	G [mm]	H [mm]	I** [in]	J [mm]
1 **4514** 04	25	Wilo Yonos PARA RS 25/6-180	5,28	no	yes	250	430	209	125	68	1"	16	12	1-1/4"	180
1 **4514** 06	25	IMP GHN 25/60-180***	5,28	no	yes	250	430	190	125	68	1"	16	12	1-1/4"	180
1 **4514** 02	25	without pump	5,28	no	yes	250	430	190	125	68	1"	16	12	1-1/4"	180

*Internal thread
**external thread
***Not available in EU (Commission regulations (ES) No 641/2009 and No 622/2012)
OV - Overflow valve (see page 16)
BP - Bypass on the mixing valve

Components of HERZ PUMPFIX Constant

1. Valve with thermometer (blue)
2. Valve with thermometer (red)
3. Spacer with non-return valve
4. Return T-piece
5. Valve with HERZ Thermostatic head with contact sensor
6. Circulation pump*

*see overview table



Construction

Ball valve with thermometer:	forged brass acc. to EN 12165; CW 617N
Ball:	forged brass acc. to EN 12165, hard crome plated, CW617N
Handle of ball valve with thermometer:	plastic, PA66 GF30
Spacer with backflow preventer:	brass; CW617N
Backflow preventer:	200 mmWs, opens mechanically
Threaded connectors of closing valve:	internal thread acc. to ISO 7-1; G1"
Threaded connector of pump group:	external thread acc. to ISO 228-1; G1 1/4"
Spindle:	turned brass acc. to EN12164, CW614N
Spindle seals:	NBR / EPDM
Ball seals:	PTFE
Gaskets:	EPDM
Thermal insulation material of pump group:	EPP
Features:	Temperature regulator with contact sensor
Control range (1 **7420** 06)*:	25 - 50°C

*HERZ Thermostatic head with contact sensor

Operating data

Nominal pressure:	6 bar with pump; 10 bar without pump
Max. operating temperature:	110°C
Min. operating temperature:	0°C (water 0,5°C)
Max. short-term temperature load:	120°C
Kvs value:	5,8 m³/h

Medium:
Heating water according to ÖNORM H5195 or VDI-Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for frost and corrosion protection.

Recommended range of application

Max. heat output AT = 10°K at 860 l/h:	to 10 kW

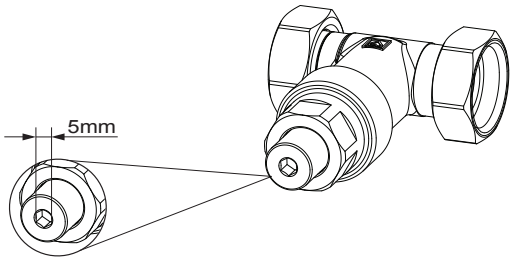
Usage:

The HERZ- PUMPFIX pump group is used in heating and chilled water systems in household areas. The installation of circulation pumps of different manufacturers and types is possible.

HERZ PUMPFIX

Overflow valve

Overflow valve



Construction:

Housing:	forged brass acc. to EN 12165, CW 617N
Nuts:	forged brass acc. to EN 12165, CW 617N; internal thread G3/4˝ acc. to ISO228-1
Sealings:	EPDM
Spring:	stainless steel

Operating data:

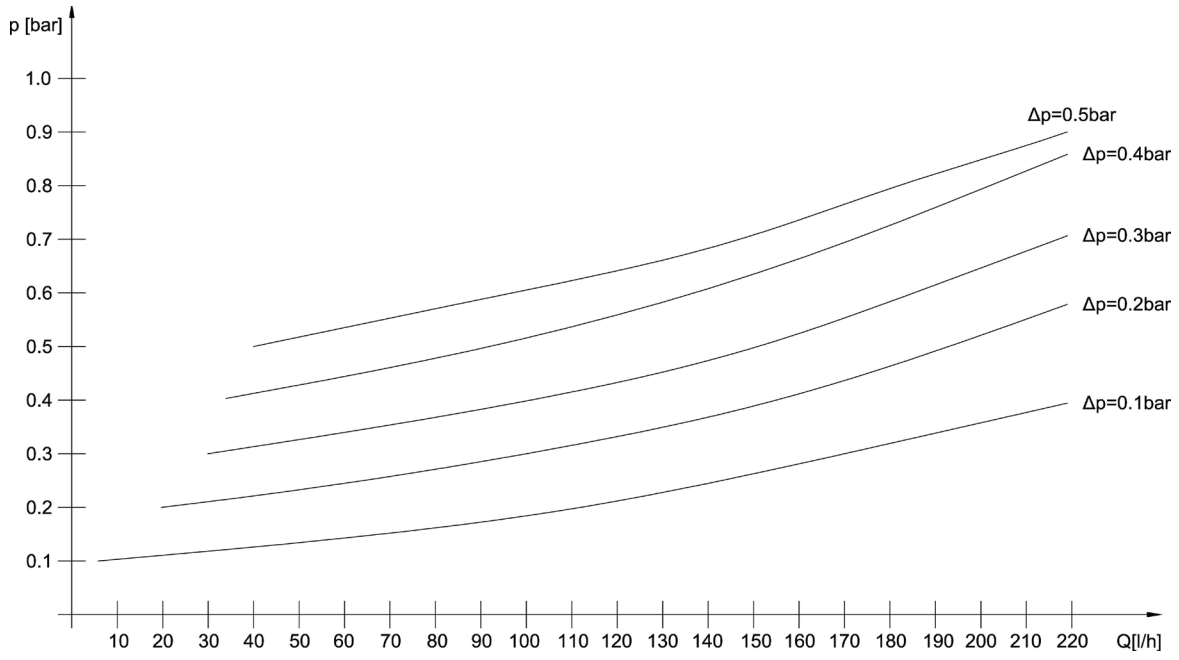
Setting range: 0 - 0,5bar

- close the valve
- 2 turns → 0,1 bar
- max. 10 turns → 0,5 bar

Usage:

Overflow valve is used to balance the pressure of the heating installation. Setting range 0-0,5 bar.
The amount of water required to reduce the differential pressure is derived in the bypass (depending on the over-dimensioning of the pump and the steepness of the pump curve).

Characteristic curves of overflow valve:

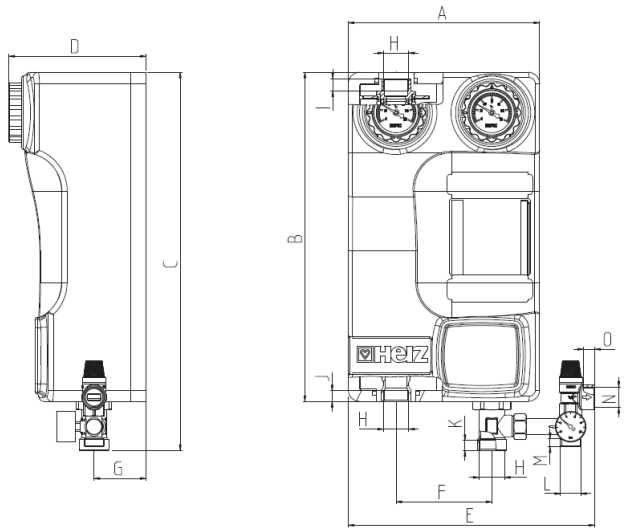


HERZ PUMPFIX

Heat pump

Datasheet **1 4512 XX**

Dimensions



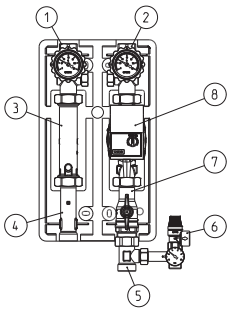
Order Nr.	DN	Pump	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H* [in]	I [mm]	J [mm]	K [mm]	L* [in]	M [mm]	N** [in]	O [mm]
1 **4512** 13	25	Wilo Yonos PARA RS 25/6-180	250	430	494	208	322	125	68	G 1''	16	14	13	G ¾''	10,5	G ¾''	15
1 **4512** 23	25	IMP GHN 25/60-180***	250	430	494	180	322	125	68	G 1''	16	14	13	G ¾''	10,5	G ¾''	15
1 **4512** 03	25	without pump	250	430	494	180	322	125	68	G 1''	16	14	13	G ¾''	10,5	G ¾''	15
1 **4512** 14	32	Wilo Yonos PARA RS 30/6-180	250	430	494	208	326	125	68	G 1-1/4"	20	14	15	G ¾''	10,5	G ¾''	15
1 **4512** 24	32	IMP GHN 30/65-180***	250	430	494	180	326	125	68	G 1-1/4"	20	14	15	G ¾''	10,5	G ¾''	15
1 **4512** 04	32	Without pump	250	430	494	180	326	125	68	G 1-1/4"	20	14	15	G ¾''	10,5	G ¾''	15

*Internal thread
**external thread
***Not available in EU (Commission regulations (ES) No 641/2009 and No 622/2012)

Components of HERZ PUMPFIX heat pump

1. Valve with thermometer (blue)
2. Valve with thermometer (red)
3. Spacer with non-return valve
4. Spacer
5. T-piece
6. Vessel connection with manometer
7. Ball valve
8. Circulation pump*

*see overview table



Construction

Ball valve with thermometer:	forged brass acc. to EN 12165; CW 617N
Ball:	forged brass acc. to EN 12165, hard crome plated, CW617N
Handle of ball valve with thermometer:	plastic, PA66 GF30
Spacer with backflow preventer:	brass; CW617N
Backflow preventer:	200 mmWs, opens mechanically
Threaded connectors of closing valve:	internal thread acc. to ISO 7-1
Threaded connector of pump group:	external thread acc. to ISO 228-1
Spindle:	machined brass acc. to EN12164, CW614N
Spindle seals:	NBR / EPDM
Ball seals:	PTFE
Gaskets:	EPDM
Thermal insulation material of pump group:	EPP

Operating data

Nominal pressure:	6 bar with pump; 10 bar without pump
Max. operating temperature:	110°C
Max. short-term temperature load:	120°C
Kvs value:	10 m³/h

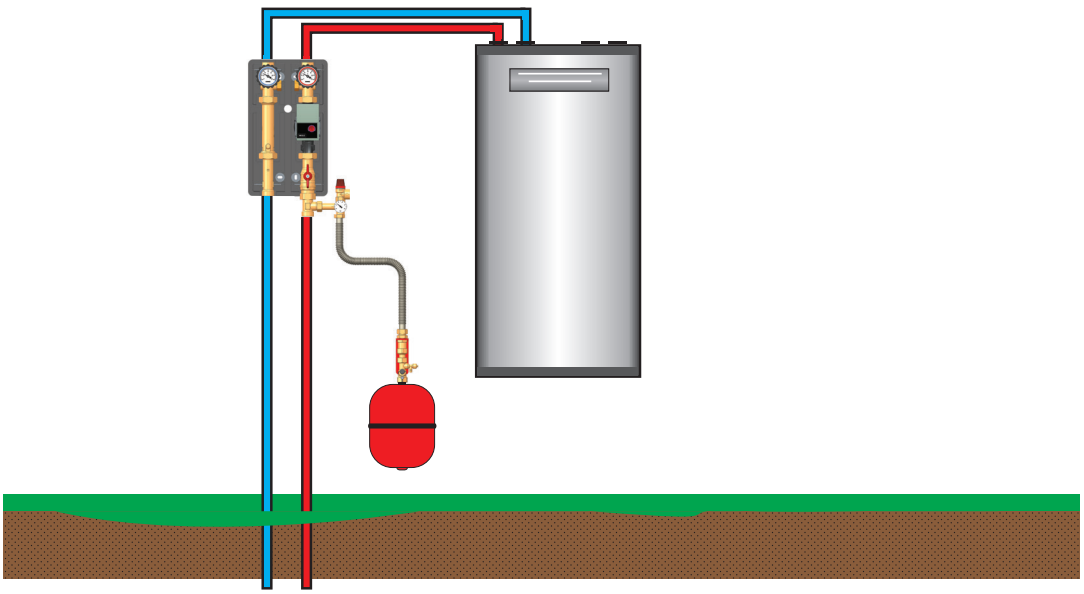
Medium:
Heating water according to ÖNORM H5195 or VDI- Standard 2035. The use of ethylene, or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for frost and corrosion protection.

Recommended range of application

DN 25 Max. heat output AT = 15°Kat 2155 l/h:	to 38 kW
DN 32 Max. heat output AT = 15°K at 3300 l/h:	to 61 kW

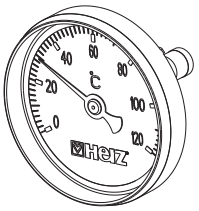
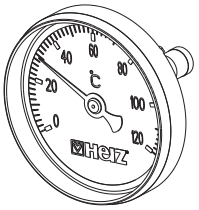
Usage:

For modulating temperature heating Systems connected to heat pumps / heat generation systems. The pump stations are vertically assembled with a ball valve and the thermometer facing upwards.



HERZ PUMPFIX

Pump groups accessories

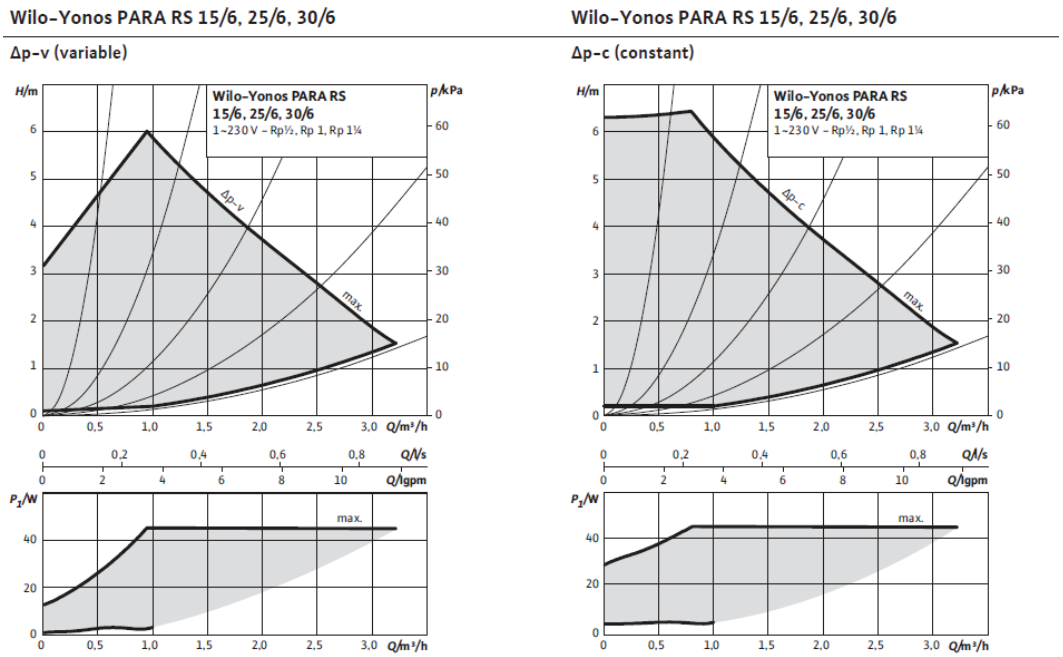
Illustration	Description	Item number
	**Red thermometer for HERZ PUMPFIX**	1 **2201** 91
	**Blue thermometer for HERZ PUMPFIX**	1 **2201** 90

HERZ PUMPFIX

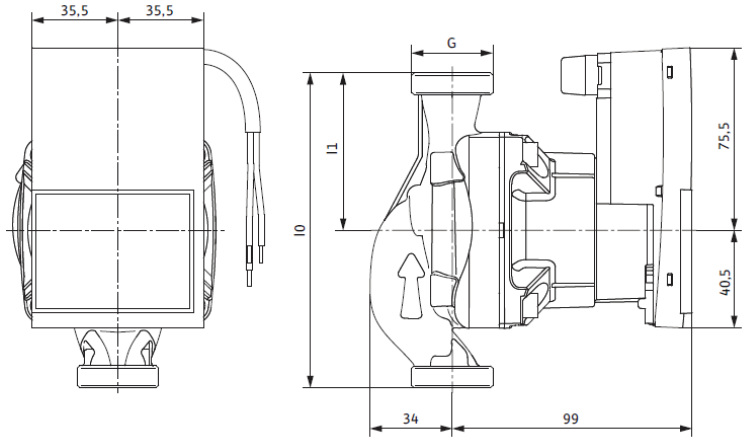
Circulation pumps used in pump groups

General information

Pump characteristic Wilo Yonos PARA RS



Pump dimensions



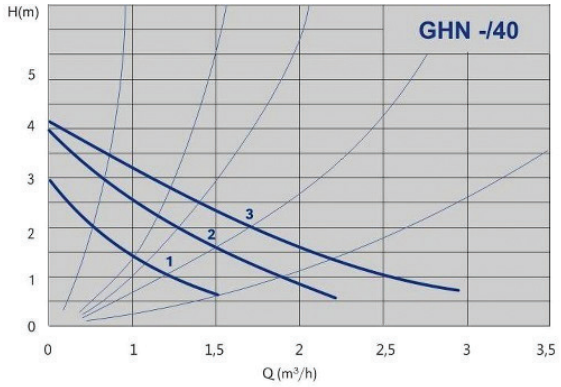
DN	G	l0	l1
20	1“	130	65
25	1½“	180	90
32	2“	180	90

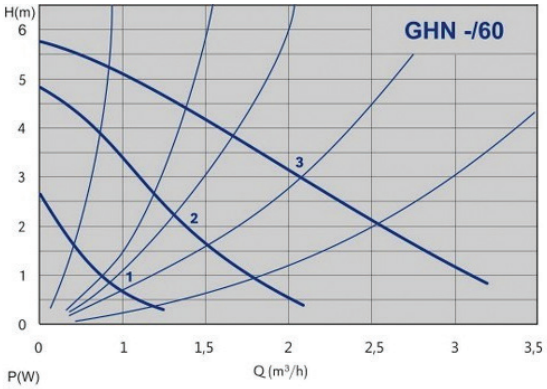
Pump data

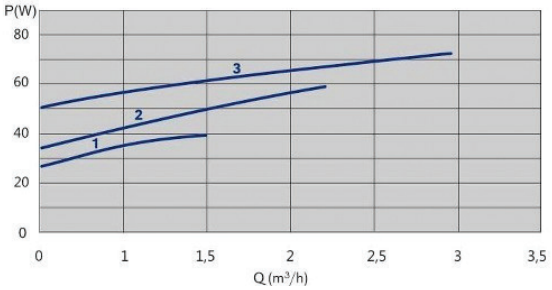
Type:	DN 20: Wilo Yonos PARA RS 15/6 RKA 130 DN 25: Wilo Yonos PARA RS 25/6 RKA 180 DN 32: Wilo Yonos PARA RS 30/6 RKA 180
Energy Efficiency Index (EEI):	≤ 0,20
Max. delivery head:	6.2 m
Max. volume flow:	3.3 m3/h
Max. operating temperature:	110°C
Max. static pressure:	6 bar
Mains connection:	1~230 V +10%/-15%, 50/60 Hz (IEC 60038 standard voltage)
Protection class:	IPx4D
Insulation class:	F

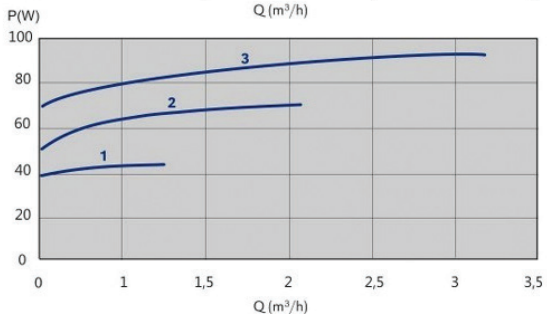
Minimum suction head at suction port to avoid cavitation at water pumping temperature
Minimum suction head at 50/95°C: 0.5/4.5 m

Pump characteristic- IMP GHN only available outside EU

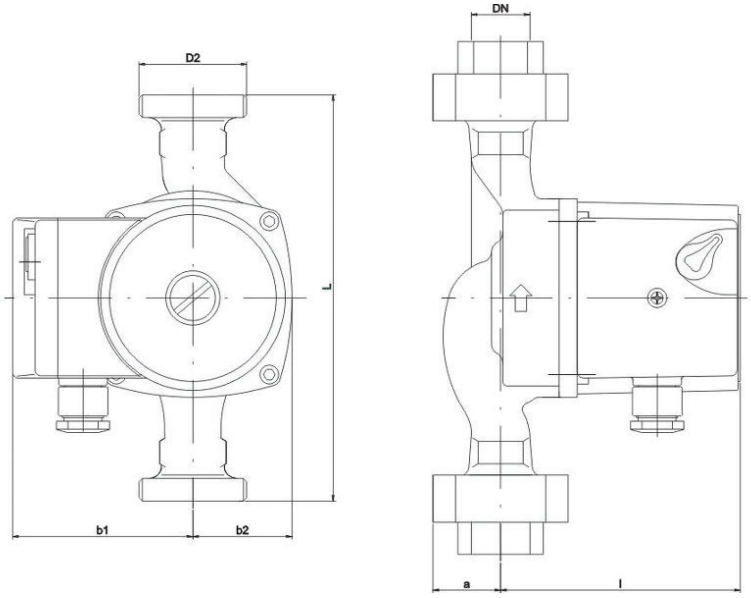








Pump dimensions



DN	G	L	H_{max}
20	1“	130	4 m
25	1½“	180	6 m
32	2“	180	6 m

Pump data

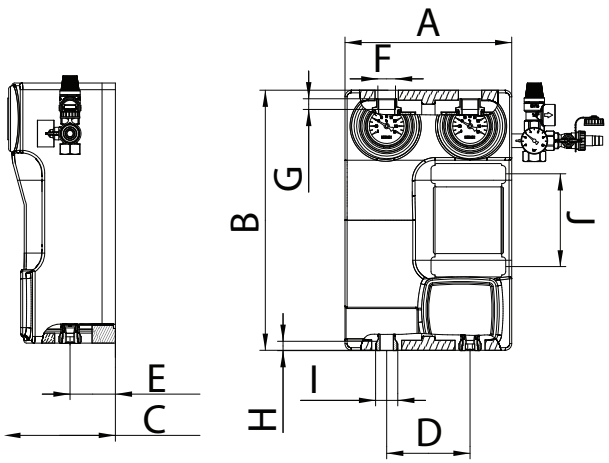
Type:	DN 20: IMP GHN 15/40-130 DN 25: IMP GHN 25/60-180 DN 32: IMP GHN 30/60-180
Max. volume flow:	3,5 m3/h
Max. operating temperature:	110°C
Max. static pressure:	10 bar
Power supply:	1 ~ 230 V
Degree of protection:	IP 44
Insulation class:	H

HERZ PUMPFIX

Solar

Datasheet **1 4513 X2**, Issue 0615

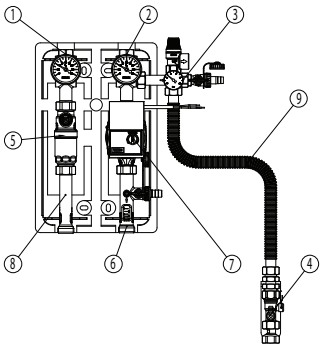
Dimensions



Art. nr.	DN	Pump	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F* [in]	G [mm]	H [mm]	I** [in]	J [mm]
1 **4513** 12	20	Wilo Yonos Para ST 15/7,0 PWM 2	250	390	167	125	68	3/4"	16	14	1"	130
1 **4513** 02	20	Without pump	250	390	161	125	68	3/4"	16	14	1"	130

*Internal thread
**external thread

Components of HERZ PUMPFIX solar pump group



1. Valve with Thermometer (red)
2. Valve with Thermometer (blue)
3. Saftey group
4. Service Valve* (1 **2105** 02)
5. Air vent
6. Flowmeter
7. Solar pump**
8. Spacer
9. Connecting tube with console* (1 **4513** 30)

*Not included in set, available as an accessory **see overview table

Construction

Ball valve with thermometer and check valve:	forged brass acc. to EN 12165; CW 617N
Ball:	forged brass acc. to EN 12165, hard crome plated, CW617N
Air vent casing:	forged brass acc. to EN 12165; CW 617N
Threaded connectors of closing valve:	internal thread acc. to ISO 7-1; G1"
Threaded connector of pump group:	external thread acc. to ISO 228-1; G 3/4"
Spindle:	machined brass acc. to EN12164, CW614N
Spindle seals:	EPDM
Ball seals:	PTFE
Gaskets:	EPDM
Thermal insulation material of pump group:	EPP
Range of flow meter	4-24 l/min
Saftey valve release pressure	6 bar

Operating data

Nominal pressure:	6 bar with pump;10 bar without pump
Max. operating temperature:	110°C
Max. short-term temperature load:	120°C

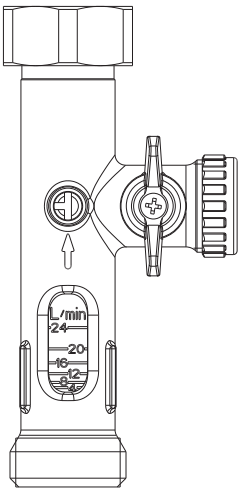
Medium:
Usage of ethylene glycol is not recommended due its toxicity. Any risk of leakage in the solar system that is used for the preparation of sanitary warm water may pose a danger for humans and animals. The use of propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using propylene glycol products for frost and corrosion protection.

Usage:

The pump stations are vertically assembled with a ball valve and the thermometer facing upwards. The pump group is part of the solar system for the preparation of sanitary warm water. The installation of the circulating pump of other manufacturers and designs is possible. The pump group is equipped with a flow meter, which enables the setting of the water flow. Furthermore, the pump station is equipped with a venting element, which is manually vented.

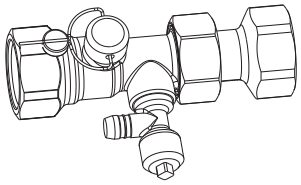
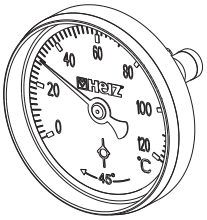
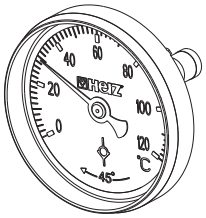
Flowmeter:

The flow rate of the solar system can be read off the flow meter. The flow meter has range from 0-24 l/min.



HERZ PUMPFIX

Solar accessories

Illustration	Description	Item number
	**Service valve**	1 **2105** 02
	**Connecting tube with console**	1 **4513** 30
	**Red thermometer for HERZ PUMPFIX Solar**	1 **2201** 93
	**Blue thermometer for HERZ PUMPFIX Solar**	1 **2201** 92

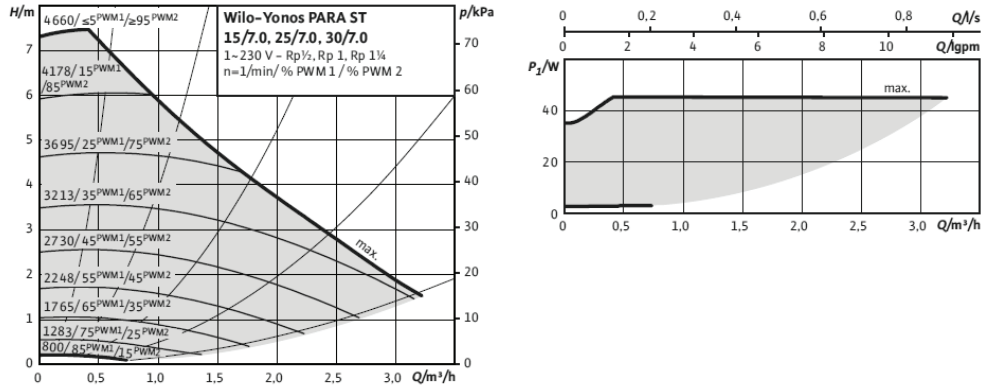
HERZ PUMPFIX

Circulation pumps used in pump groups solar

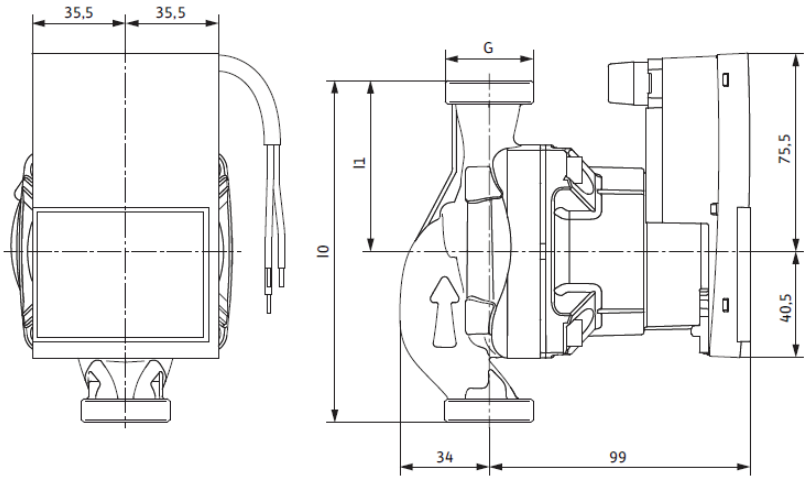
General information

Pump characteristic

External control via PWM



Pump dimensions



Pump data

Type:	Wilo - Yonos PARA ST 15/7.0 PWM2 130 12
Thread:	G 1"
Overall length:	130 mm
Energy Efficiency Index (EEI):	≤ 0,20
Max. delivery head:	7.3 m
Max. volume flow:	3.3 m3/h
Max. operating temperature:	110°C
Maxi. operating pressure:	6 bar
Mains connection:	1~230 V +10%/-15%, 50/60 Hz (IEC 60038 standard voltage)
Protection class:	IPx4D
Insulation class:	F

Minimum suction head at suction port to avoid cavitation at water pumping temperature

Minimum suction head at 50/95/110°C:	0.5 / 4.5 / 11 m

HERZ PUMPFIX

Distibutor

General information

Description of HERZ PUMPFIX distributor

HERZ PUMPFIX distributor is high qualitiy product that is assembled and pressure tested during the manufacturing process under constant quality control. The distributor is designed so that it is compatible with HERZ PUMPFIX pump group. Because of compatibility of the PUMPFIX system the customer can achieve cost, time and space saving when installing PUMPFIX system to the boiler and piping system.

Application:

The HERZ PUMPFIX distributor is used as a part of the pump group system, where a hydraulic circuit has to be divided into more consumer circles and the user wants to regulate them with different temperatures and through different time range.

Assembly:

The set is equipped with mounting equipment (2 mounting brackets, 4 plastic plugs, 4 screws and 4 nuts) for the assembly of the distributor on the wall. The supply and return flow of the HERZ PUMPFIX distributor are connected with boiler with the help of pipe fittings and flat seals. The pump group and distributor are connected with the help of pipe fittings and EPDM seals. When mounting the HERZ PUMPFIX pump group DN25 on the HERZ PUMPFIX welded distributor DN 32 always use special adapter 1 **4510** 51 (see accessories).

Maintenance instructions

If the product is used properly, no special maintenance is required. Repairs on the device must be carried out by authorized persons only.

Disposal instructions

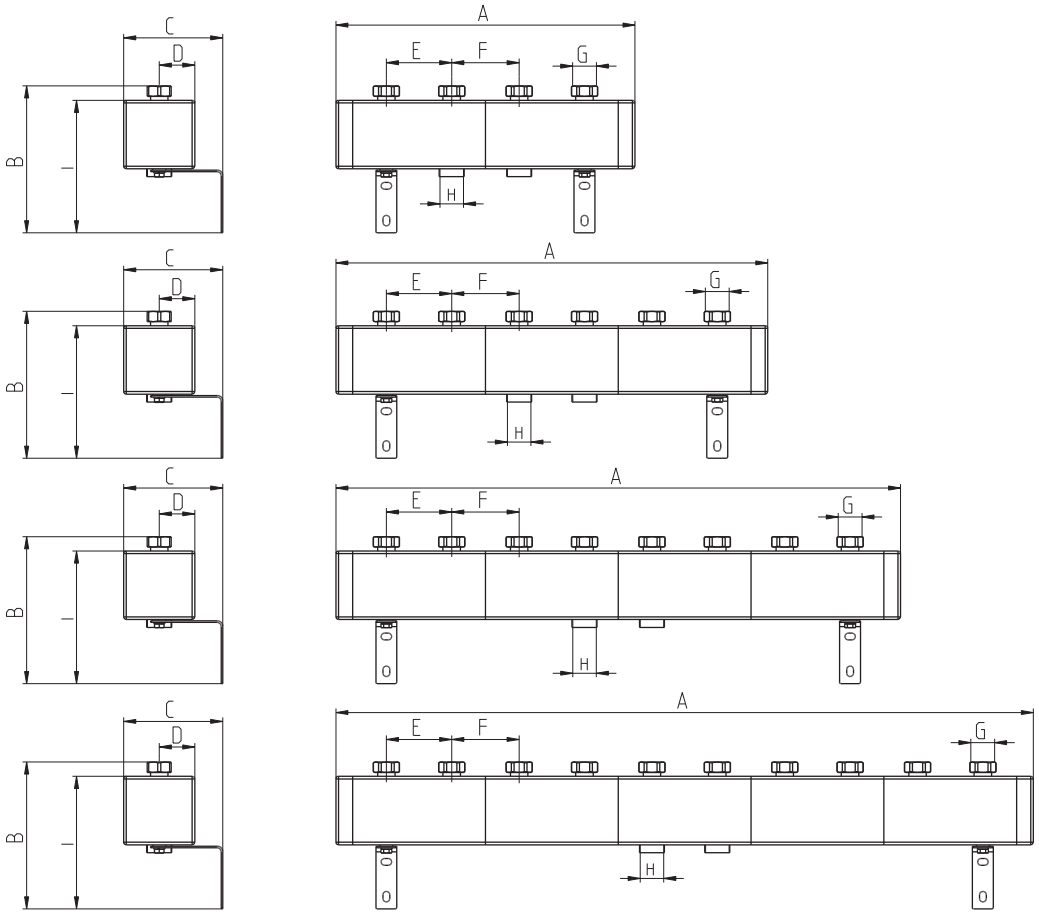
The disposal of the HERZ PUMPFIX distributors must not endanger health or environment. Users have to follow the national legal regulations for proper disposal of the HERZ PUMPFIX distributors.

HERZ PUMPFIX

Distributor made from sheet metal DN 25 and DN 32

Datasheet **1 4501 XX**

Dimensions

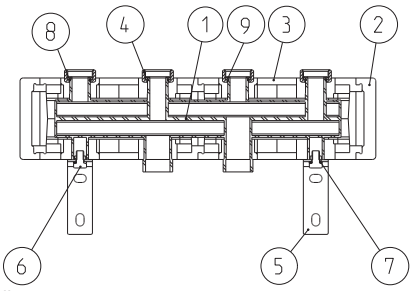


Order Nr.	DN	Nr. of Circuits	A [mm]	B [mm]	C*** [mm]	D [mm]	E [mm]	F [mm]	G* [in]	H** [in]	I [mm]
1 **4501** 11	25	2	572	281	140-190	68	125	129	1-1/4“	1-1/2“	253,5
1 **4501** 12	25	3	826	281	140-190	68	125	129	1-1/4“	1-1/2“	253,5
1 **4501** 13	25	4	1080	281	140-190	68	125	129	1-1/4“	1-1/2“	253,5
1 **4501** 14	25	5	1334	281	140-190	68	125	129	1-1/4“	1-1/2“	253,5
1 **4501** 30	32	2	572	280	140-190	68	125	129	1-1/2“	2“	253,5
1 **4501** 31	32	3	826	280	140-190	68	125	129	1-1/2“	2“	253,5
1 **4501** 32	32	4	1080	280	140-190	68	125	129	1-1/2“	2“	253,5
1 **4501** 33	32	5	1334	280	140-190	68	125	129	1-1/2“	2“	253,5

*Internal thread (free turning nut)
**external thread
***Adjustable spacing from the wall

Components of HERZ PUMPFIX distributor made from sheet metal

1. Distributor body
2. Insulation cap
3. Side cover
4. Nut
5. Mounting bracket
6. Screw M12
7. Washer
8. Snap ring
9. Flat sealing



Set also contains 4 plastic plugs, 4 screws, 4 washers and 4 nuts for the assembly of the distributor on the wall

Construction

Casing:	sheet metal
Threaded connectors of the pump group:	internal thread acc. to ISO 7-1
Lower threaded connectors:	external thread acc. to ISO 228
Gaskets:	EPDM
Thermal insulation of the distributor:	EPP

Operating data

Nominal pressure:	max. 10 bar
Min. operating temperature:	-10°C
Max. operating temperature:	110°C
Max. short-term temperature load:	120°C

Medium:
Heating water quality according to ÖNORM H5195 or VDI- Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by mineral oil lubricants and thus lead to failure of the sealings. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for freezing and corrosion protection.

Recommended range of application

DN 25 Max. Heating power ΔT = 20°C at 75kW (5 - heating circuits)
DN 32 Max. Heating power ΔT = 20°C at 155kW (5 - heating circuits)

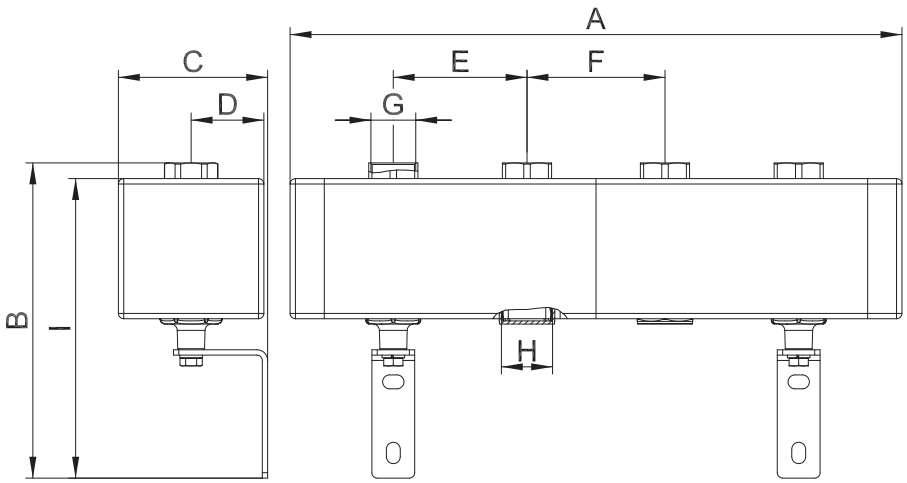
HERZ PUMPFIX

Distributor made from casted grey iron DN 25

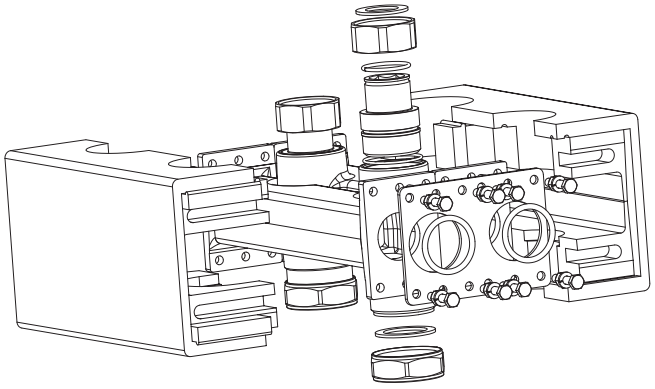
Datasheet **1 4501 X0**

Dimensions

1 **4501** 10



1 **4501** 20

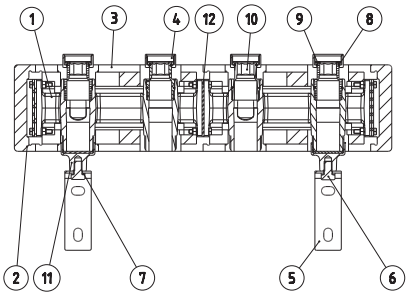


Order Nr.	DN	Nr. of Circuits	A [mm]	B [mm]	C*** [mm]	D [mm]	E [mm]	F [mm]	G* [in]	H** [in]	I [mm]
1 **4501** 10	25	2	572	295	140-190	68	125	129	1-1/4“	1-1/2“	253,5
1 **4501** 20	25	expansion module									

*Internal thread (free turning nut)
**external thread
***Adjustable spacing from the wall

Components of HERZ PUMPFIX distributor made from casted gray iron

1. Distributor body
2. Insulation cap
3. Side cover
4. Nut
5. Mounting bracket
6. Screw M12
7. Washer
8. Snap ring
9. Flat sealing
10. Hollander connector
11. Closing nut / carrier of brackets
12. Elements for connection of modular housing



Set also contains 4 plastic plugs, 4 screws, 4 washers and 4 nuts for the assembly of the distributor on the wall

Construction

Casing:	grey cast iron
Threaded connectors of the pump group:	internal thread acc. to ISO 7-1; 1-1/4“
Lower threaded connectors:	external thread acc. to ISO 228; 1-1/2“
Gaskets:	EPDM
Thermal insulation of the distributor:	EPP

Operating data

Nominal pressure:	6 bar
Min. operating temperature:	-10°C
Max. operating temperature:	110°C
Max. short-term temperature load:	120°C

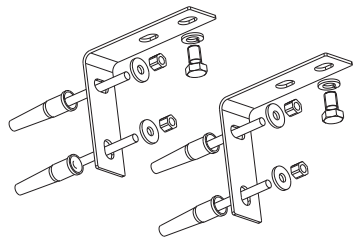
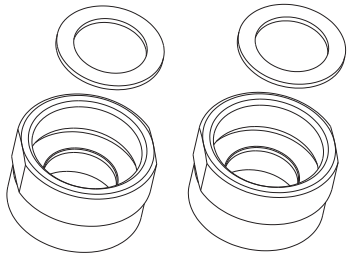
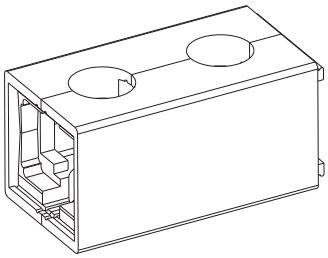
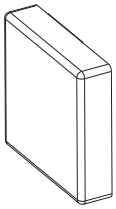
Medium:
Heating water quality according to ÖNORM H5195 or VDI- Standard 2035. The use of ethylene or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by mineral oil lubricants and thus lead to failure of the sealings. Please refer to manufacturers documentation when using ethylene glycol and propylene glycol products for freezing and corrosion protection.

Recommended range of application

Max. Heating power ΔT = 20°C at 3000 l/h	70kW

HERZ PUMPFIX

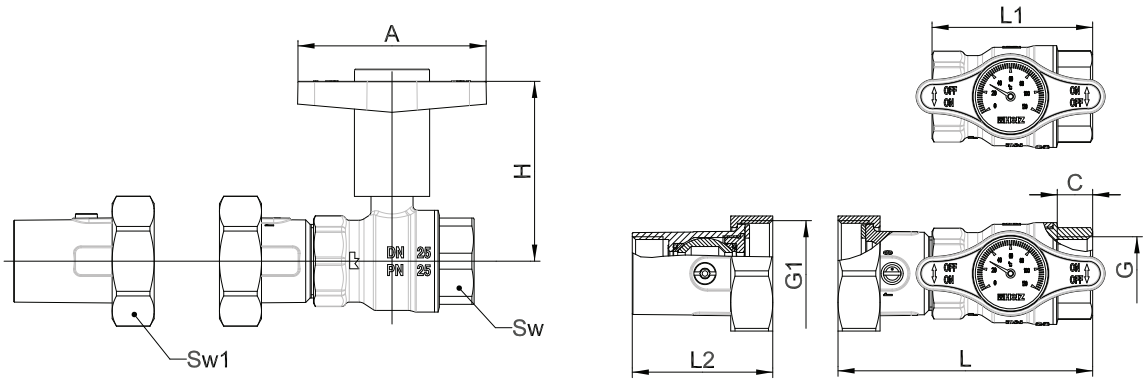
Distibutor accessories

Illustration	Description	Item number
	**Wall fixing set** Set contains: 2 mounting brackets, 4 plastic plugs, 4 screws and 4 nuts for the assembly of the distributor on the wall. Set also contains two M12 nuts and two washers for assembly of the distributor on brackets.	1 **4510** 50
	**Adapter connection set** Set allows mounting of pump group DN25 on distributor DN32 (only for sheet metal distributor). Set also contains two flat seals. Adapter: Material: turned brass acc. to EN12164, CW614N Upper internal thread: 1-1/4” acc. to ISO 228 Lower external thread: 1-1/2” acc. to ISO 228 Flat seal: Material: EPDM	1 **4510** 51
	**Flat seals set for PUMPFIX system DN25** Set is equipped with two flat seals for sealing between distributor DN25 and pump group DN25 Material: EPDM	1 **4510** 52
	**Flat seals set for PUMPFIX system DN32** Set is equipped with two flat seals for sealing between distributor DN32 and pump group DN32 Material: EPDM	1 **4510** 53
	**Side cover insulation set** Set contains two pieces of side insulations Material: EPP	1 **4510** 54
	**Insulation cap** Material: EPP	1 **4510** 55

HERZ PUMPFIX EASY

Datasheet **1 4513 31**

Dimensions



Model	PN [bar]	DN	G [in]	G1 [in]	C [mm]	L [mm]	L1 [mm]	L2 [mm]	A [mm]	H [mm]	Sw	Sw1
1 **4513** 31	25	25	G1	G1-1/2	16	115	73	64	85	87	39	52

Construction

Ball valve body:	forged brass acc. to EN 12165, chrome plated, CW617N
Connectors:	threads acc. to ISO 228
Ball:	forged brass acc. to EN 12165, hard chrome plated, CW617N
Spindle:	turned brass acc. to EN 12164, CW614N
Handle:	plastic (red, blue), PA66 GF30
Spindle seals:	PTFE
Ball seals:	PTFE
Gaskets:	EPDM

Technical data

Operating pressure:	max. 25 bar
Operating temperature range:	-30 °C to 150°C (water 0,5°C - 110°C, no steam)

Medium:
Heating water according ÖNORM H5195 or VDI- Standard 2035. The use of ethylene, or propylene glycol in a mixing ratio 25- 50% is allowed. EPDM gaskets can be affected by Mineral oils lubricants and thus lead to failure of the EPDM seals. Please refer to manufacturers documentation when using ethylene glycol products for frost and corrosion protection.

Usage

It is used as closing fitting in central heating and other installations and for fast connection of circulating pump through screw joint. Ball valve is only used in two basic positions: open, closed.

Assembly instructions

Taking into account the direction of flow of the installation is possible horizontally or vertically, with the screening space should face down. HERZ recommends the use of standard thread sealants for the connection between drain valves and pipe. Ball valve is mounted in front of the central heating circulating pump. The circulation pump is mounted with screw joint G1-1/2" that is attached to the valve flange. When assembling, use suitable assembly tool that adapts to valve end connections.

Maintenance instructions

The ball valves don't need any special maintenance.

Diagrams

Diagram pressure-temperature

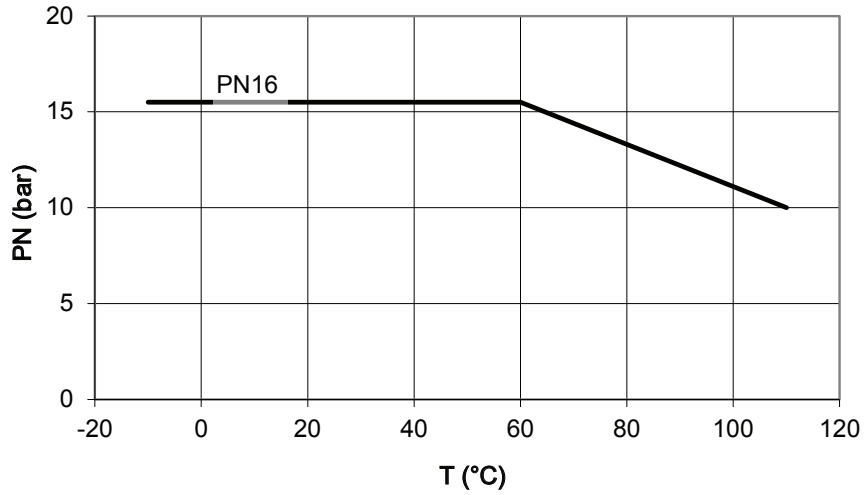


Diagram flow-dimension

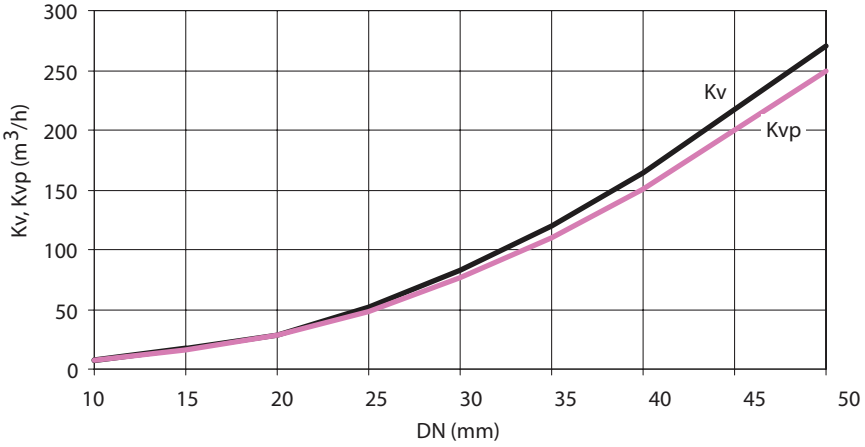
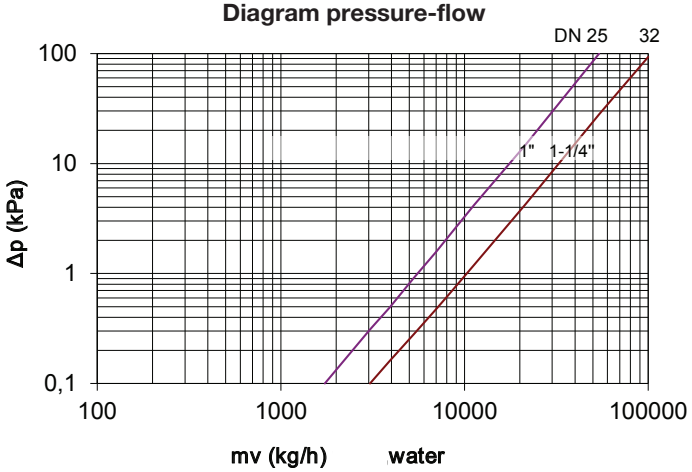


Diagram pressure-flow



Kv: Outflow characteristic (m3/h) - is the flow of water at temperature 15.5°C, a pressure drop of 1 bar (100 kPa) and a fully open valve.

Kvp: Outflow characteristic (m3 / h) - is the flow of air with density of 1,16 kg/m3 at temperature 15.5°C, a pressure drop of 1 mbar (0,1 kPa) and a fully open valve.

DN	25	32
Kv	55	102
Kvp	51	95

Example of system with HERZ products