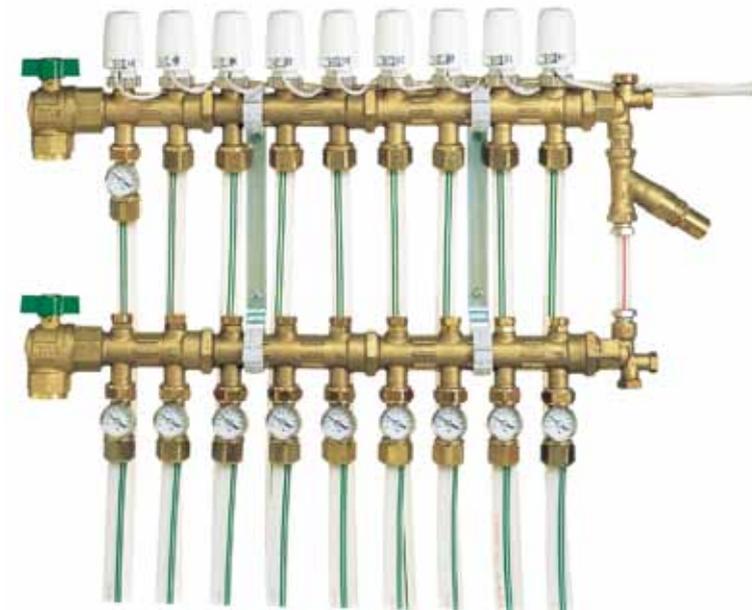


Floor heating

Distributors

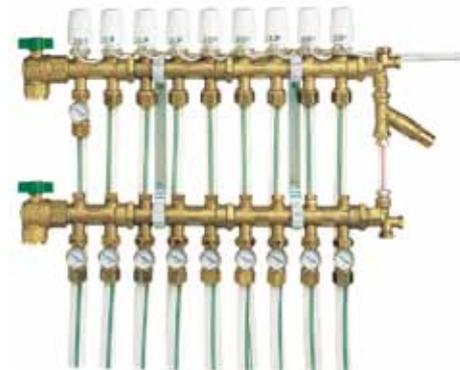


HEIMEIER

Pressurisation & Water Quality › Balancing & Control › Thermostatic Control

ENGINEERING ADVANTAGE

These floor heating distributor manifolds are of size G1, and are supplied in pairs, i.e. as a supply and a return distributor. They are available with 2, 3 or 4 G3/4 branch connectors. Identification washers are supplied with each set. The end of each distributor is fitted with venting and drain valves, together with a connection for a bypass pipe. Shut-off ball valves are available in straight or angled versions. Joints in ball valves, distributors and end blocks are sealed with O-rings.



Technical description

Application:

Floor heating systems

Function:

The distributors form a very important part of a floor heating system: it is from and to them that the actual floor heating coils start and return. The return distributors incorporate balancing return valves that establish the flow and pressure drop in each floor coil: these valves are set using a 4 mm Allen key. The total number of floor heating coils in a system must not exceed twelve.

Pressure class:

PN 10

Temperature:

Max. working temperature: 120°C

Min. working temperature: -10°C

Material:

Distributors:

AMETAL®

Seat seal, supply valve and O-ring: EPDM rubber

Return seal: Brass

End unit:

Body: AMETAL®

Disc and cover: Brass

O-ring: EPDM rubber

Ball valve:

Body and ball: Dezincification resistant metal

Seat: PTFE

Connections:

AMETAL® for parts in contact with water

AMETAL® is the dezincification resistant alloy of TA.

Diagram

The valve diagram for the floor heating distributor calculates the pressure drop in the inlet and return valves on pipe distributors. The diagram shows the pressure drop balancing values with the inlet and return valves fully open.

The loop length and the required heat output give the flow in l/s and the pressure drop (Δp) in kPa.

To achieve this distribution of flow from the distributor pipes, each loop must be balanced with the help of the return valve. Balancing is carried out using an Allen key (4 mm), and is counted from the valve in the closed position.

Example:

The longest loop has flow $F = 0.05$ l/s and the pipe pressure drop $\Delta p_r = 4.5$ kPa.

From the diagram, for a flow of 0.05 l/s, the pressure drop across the valves in the completely open position (5 turns on the return valve), is 1.4 kPa.

The total pressure drop over the longest loop and the distribution valves then becomes $\Delta p = 4.5 + 1.4 = 5.9$ kPa.

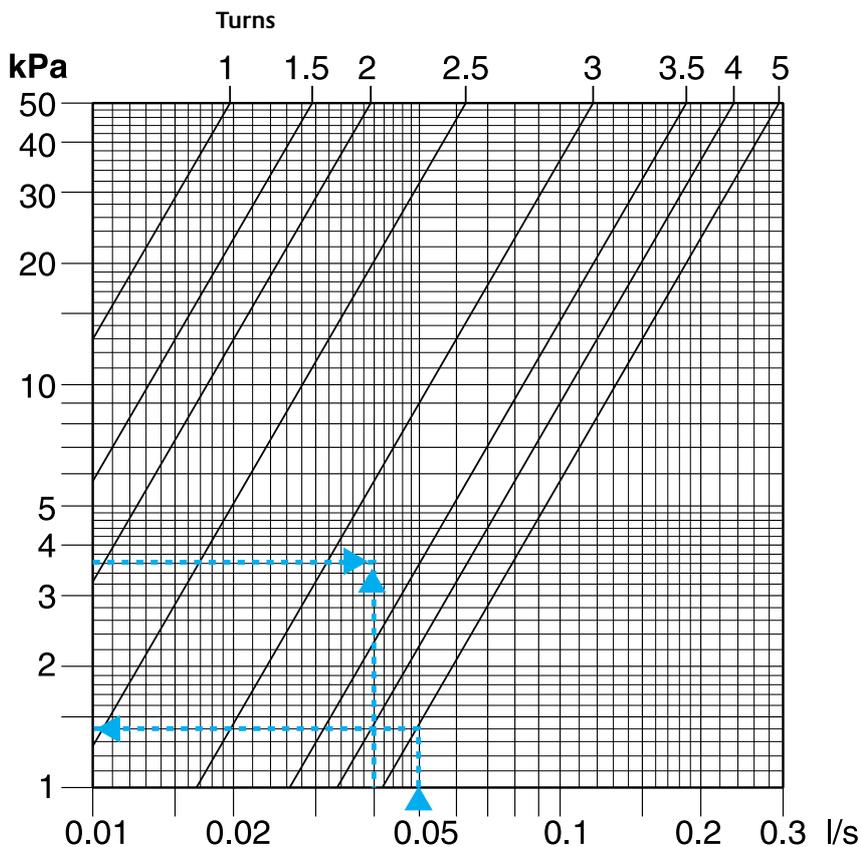
The next loop connected to the distributor has flow $F = 0.04$ l/s, and the pipe pressure drop Δp_r of 2.3 kPa.

For the same total pressure drop, the valves must have a pressure drop of $5.9 - 2.3 = 3.6$ kPa.

From the diagram, for flow 0.04 l/s and pressure drop 3.6 kPa, the return valve for this loop should be balanced at 3.25 turns (counted from the valve closed position).

If there are several floor heating distributors in the same floor heating installation, the pressure drop in the feed pipes and valves must also be counted in the total pressure drop. This allows the various distributors to be balanced.

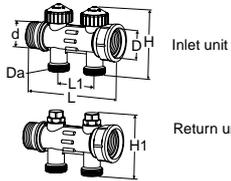
Number of turns counted from valve closed



Pair of distributors inlet and return

2 Loops

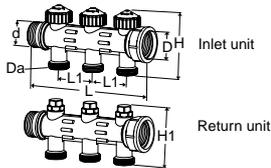
Without connection set



Article No	EAN	d	D	Da	L	L1	H	H1
50 222-101	7318793567307	G1	G1	G3/4	123	50	86	76

3 Loops

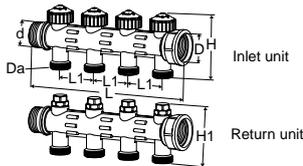
Without connection set



Article No	EAN	d	D	Da	L	L1	H	H1
50 223-101	7318793567406	G1	G1	G3/4	173	50	86	76

4 Loops

Without connection set



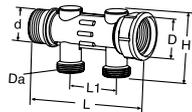
Article No	EAN	d	D	Da	L	L1	H	H1
50 224-101	7318793567505	G1	G1	G3/4	223	50	86	76

Kv-values, see diagram

Pipe distributors

2 Loops

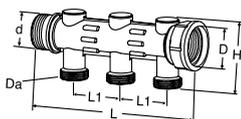
Without connection set



Article No	EAN	d	D	Da	L	L1	H	Kvs
50 222-100	7318793584106	G1	G1	G3/4	123	50	62	5,2

3 Loops

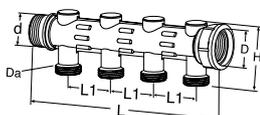
Without connection set



Article No	EAN	d	D	Da	L	L1	H	Kvs
50 223-100	7318793584205	G1	G1	G3/4	173	50	62	5,2

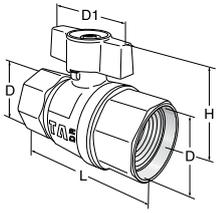
4 Loops

Without connection set



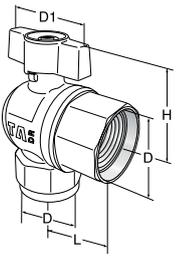
Article No	EAN	d	D	Da	L	L1	H	Kvs
50 224-100	7318793584304	G1	G1	G3/4	223	50	62	5,2

Ball valves



Straight

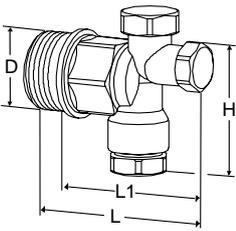
Article No	EAN	DN	D	D1	L	H
58 126-025	7318793571502	25	Rp 1	55	88	50



Angle

Article No	EAN	DN	D	D1	L	H
58 136-025	7318793571601	25	Rp1	55	44	50

End unit



Article No	EAN	D	L	D1	H
50 201-300	7318792564505	G1	77	58	74

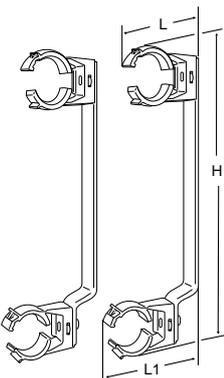
Bypass pipe set



Article No	EAN
50 206-100	7318793586605

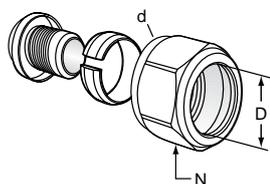
Delivered in separate parts

Bracket



Article No	EAN	L	L1	H
50 205-025	7318793585301	60	80	270

Connection set and connection bodies



Connection set

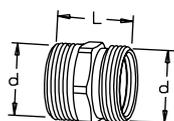
Non-plated (yellow)

Article No	EAN	d	L ¹	For PEX-pipe D	N
53 641-312	7318792945304	G3/4	12	12x2,0	30
53 641-415	7318793647009	G3/4	14	15x2,5	30
53 641-316	7318792945601	G3/4	14	16x2,0	30
53 641-317	7318792945700	G3/4	18	17x2,0	30
53 641-618	7318793713407	G3/4	16	18x2,5	30
53 641-320	7318792945908	G3/4	16	20x2,3	30
53 641-420	7318792946004	G3/4	16	20x2,0	30
53 641-422	7318793647108	G3/4	16	22x3,0	30

Nickel plated

Article No	EAN	d	L ¹	For PEX-pipe D	N
53 641-616	7318792946301	G3/4	14	16x2,2	30

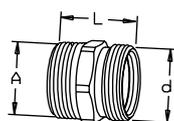
1) Over all length



Straight

Non-plated (yellow)

Article No	EAN	d	L
53 351-618	7318793712608	G3/4	31

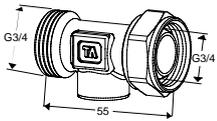


Straight, male

Non-plated (yellow)

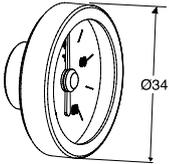
Article No	EAN	Axd	L
53 358-318	7318793736109	R1/2xG3/4	34
53 351-618	7318793712608	G3/4xG3/4	31

Accessories



Temperature intermediary section
With swivelling nut

Article No	EAN
50 205-601	7318792567605



Thermometer for control unit

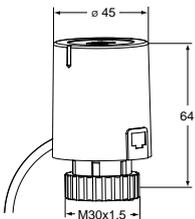
Article No	EAN
50 205-002	7318792567308



Handwheel

Article No	EAN
50 399-003	7318792605307

Actuators



TSE
For more information on TSE, see catalogue leaflet "TSE".

24V AC/DC

Article No	EAN	Cable length
TSE, NO (Normally open)		
50 358-001	7318793963406	2 m
50 358-011	7318793963505	5 m
TSE, NC (Normally closed)		
50 358-002	7318793963208	2 m
50 358-012	7318793963307	5 m

230V AC

Article No	EAN	Cable length
TSE, NO (Normally open)		
50 358-201	7318793963802	2 m
50 358-211	7318793963901	5 m
TSE, NC (Normally closed)		
50 358-202	7318793963604	2 m
50 358-212	7318793963703	5 m

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