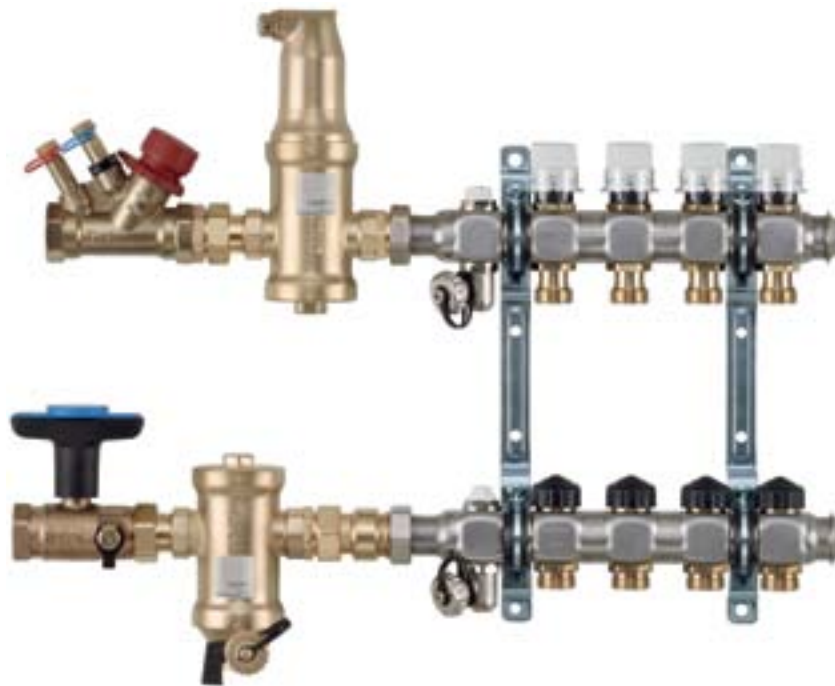


Dynacon

Floor heating manifold with automatic flow control



HEIMEIER

Pressurisation & Water Quality › Balancing & Control › Thermostatic Control

ENGINEERING ADVANTAGE

Dynacon adjusts the flow rate in the individual heating circuits directly in l/h. This means hydraulic balancing is achieved in one simple operation. The set flow rate is constantly adapted, i.e. if the rate becomes too high, e.g. due to closing adjacent circuits, Dynacon controls the flow automatically to the set value. The control cartridge always ensures a constant flow. This makes Dynacon heating circuit manifolds a time and cost-saving solution especially for system commissioning.

Technical description

HEIMEIER Dynacon floor heating manifold with automatic flow controllers in supply pipe for each individual heating circuit. Thermostatic inserts with M30x1.5 connection in return flow. Matching all HEIMEIER and TA M30x1,5 actuators. Stainless steel manifold with flat-sealing connection, 1" union nut. Pipe socket spacing, heating circuits, 50 mm. 1/2" manual bleeder, self-sealing. Drain with 3/4" hose connection. Wall holder with soundproofing, including mounting material. 3/4" Eurokonus pipe connections, suitable for HEIMEIER compression fittings. Operating temperature 2 °C to 70 °C. Maximum allowable working pressure 10 bar.

The following manifold connection kits are available:

- Connection kit 1 with Globo ball valves
- Connection kit 2 with TBV control valve and Globo ball valve
- Connection kit 3 with Zeparo Vent air separator in supply pipe and Zeparo Dirt sludge separator in return
- Connection kit 4 with Globo ball valve, including spacer for heat meter in return and Globo ball valve with connection for direct measurement in supply pipe.
- Connection kit 5 fixed value control station with high-efficiency pump for controlling the supply temperature.

Manifold boxes available as surface-mounted and flush-mounted versions.



Construction

Flow controller



- | | |
|--|---------------------------------|
| 1. Setting cap with blocking ring | 6. Maintenance-free O-ring seal |
| 2. Manifold | 7. Adjustment spindle |
| 3. Compression spring | 8. Sleeve |
| 4. Cartridge | 9. Control element |
| 5. Connection nipple for heating circuit | |

- **Automatic hydraulic balancing by direct setting of required flow rate**
- **Time and cost-saving commissioning solution**
- **Control cartridge ensures constant flow rate**
- **Set up and forget**
- **Flow rate easily adapted to different heating loads**
- **Optimum temperature distribution**
- **Saves energy**
- **Increased comfort**

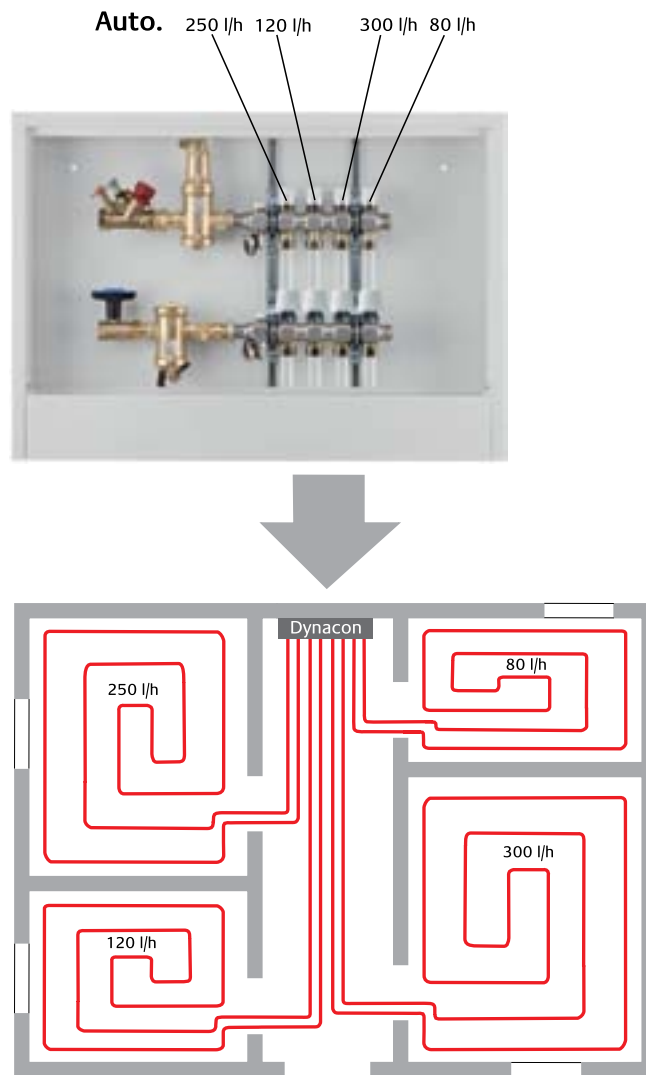
Application

Dynacon adjusts the flow rate in the individual heating circuits directly in l/h. This means hydraulic balancing is achieved in one simple operation. The set flow rate is constantly adapted, i.e. if the rate becomes too high, e.g. due to closing adjacent circuits, Dynacon controls the flow automatically to the set value. The control cartridge always ensures a constant flow. This makes Dynacon heating circuit manifolds a time and cost-saving solution especially for system commissioning.

With conventional heating circuit manifolds with throttle valves and flow indicators setting the required water quantities is a time-consuming affair. The setting required at the throttle valves must either be calculated or set using flow indicators at the manifold. However, the quantities of water distributed in this way only correspond to maximum requirements. When individual heating circuits are turned off, the quantity of water no longer required is distributed over the adjacent circuits resulting in an oversupply in these circuits.

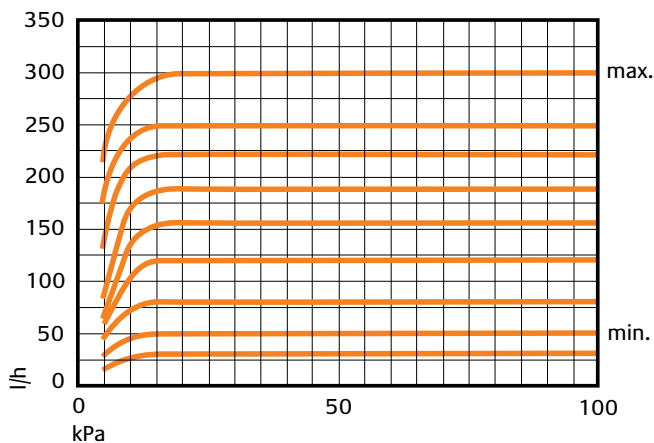
The automatic hydraulic balance with Dynacon avoids this oversupply in individual heating circuits. This ensures optimum temperature distribution, saves energy and increases comfort.

Sample application



Technical data

Flow rate range per heating circuit: 30 - 300 l/h



Minimum differential pressure via flow regulator: 10 -15 kPa depending on target value

Sample calculation:

Target:

Set value of Dynacon flow controller

Given:

Heat flow, heating circuit $\dot{Q} = 1120 \text{ W}$

Temperature spread $\Delta t = 8 \text{ K} (44/36^\circ \text{C})$

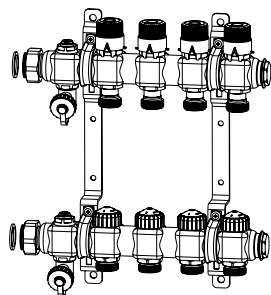
Solution:

Mass flow $\dot{m} = \dot{Q} / (c \cdot \Delta t) = 1120 / (1,163 \cdot 8) = 120 \text{ kg/h}$

Flow regulator setting

at Dynacon manifold: $\approx 120 \text{ l/h}$

Articles



Dynacon underfloor heating circuit manifold with automatic flow control

Heating circuits	EAN	Article No
2	4024052769612	9330-02.800
3	4024052769711	9330-03.800
4	4024052769810	9330-04.800
5	4024052769919	9330-05.800
6	4024052770014	9330-06.800
7	4024052770113	9330-07.800
8	4024052770212	9330-08.800
9	4024052770311	9330-09.800
10	4024052770618	9330-10.800
11	4024052770410	9330-11.800
12	4024052770519	9330-12.800

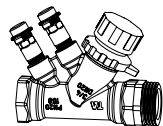


Connection kit 1 with Globo ball valves, DN 20

with red end cap in supply and blue end cap in return.



kvs	EAN	Article No
9,90	4024052770816	9339-01.800

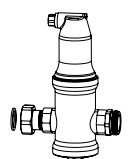


Connection kit 2 with TBV NF control valve and Globo ball valve, DN 20

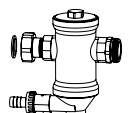
including measuring nipple for measuring differential pressure and flow rate.



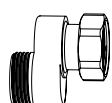
kvs	q_{max} [m ³ /h]	EAN	Article No
3,30	1,25	4024052775316	9339-02.800



Connection kit 3 with Zeparo Vent air separator in supply and Zeparo Dirt sludge separator in return, DN 20



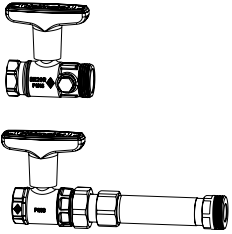
kvs	q_{max} [m ³ /h]	EAN	Article No
6,72	1,25	4024052775415	9339-03.800



S-connection

For connection kit 3. Installation aid for return in manifold boxes.

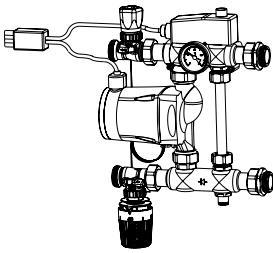
EAN	Article No
4024052775712	9339-00.362



**Connection kit 4 with Globo ball valve DN 20,
including spacer for heat meter in return**

Globo ball valve with connection for direct measurement in supply.

kvs	EAN	Article No
9,90	4024052775613	9339-04.800



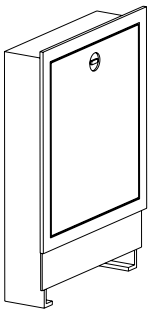
Connection kit 5, fixed value control station

with high-efficiency pump Grundfos Alpha 2 15 - 60 130, thermostatic valve with contact sensor and electrical pipe contact safety switch 230V, 15A.

Setting range thermostatic head	Setting range electrical pipe-contact sensor	EAN	Article No
20°C-50°C	10°C-90°C	4024052775514	9339-05.800

Manifold boxes

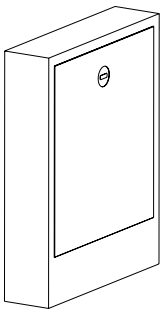
Flush-mounted box, installation depth 110 - 150 mm



Size	B x H	EAN	Article No
1	490 x 705 mm	4024052790616	9339-80.800
2	575 x 705 mm	4024052790715	9339-81.800
3	725 x 705 mm	4024052790814	9339-82.800
4	875 x 705 mm	4024052790913	9339-83.800
5	1.025 x 705 mm	4024052791019	9339-84.800
6	1.175 x 705 mm	4024052791118	9339-85.800

Manifold boxes

Surface-mounted box, installation depth 110 mm



Size	B x H	EAN	Article No
1	496 x 620 mm	4024052791217	9339-90.800
2	582 x 620 mm	4024052791316	9339-91.800
3	732 x 620 mm	4024052791415	9339-92.800
4	882 x 620 mm	4024052791514	9339-93.800
5	1.032 x 620 mm	4024052791613	9339-94.800
6	1.182 x 620 mm	4024052791712	9339-95.800

Kvs = m³/h at a pressure drop of 1 bar and fully open valve.

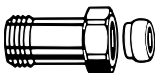
Accessories



Handwheel

for all HEIMEIER thermostatic valve bodies. With direct connection, white.

EAN	Article No
4024052323494	1303-01.325



Length adjustment fitting

For clamping plastic, copper, precision steel or multi-layer pipes.

For valves with male thread connection G 3/4. Brass nickel-plated.

L	EAN	Article No
G3/4 x G3/4	25	4024052298310
G3/4 x G3/4	50	4024052298419

**Compression fitting**

for plastic pipes.
Male thread connection G 3/4.
Nickel plated brass.

Ø Pipe	EAN	Article No
14x2	4024052134618	1311-14.351
16x2	4024052134816	1311-16.351
17x2	4024052134915	1311-17.351
18x2	4024052135110	1311-18.351
20x2	4024052135318	1311-20.351

**Compression fitting**

for copper or precision steel pipe.
Connection male thread G 3/4.
Brass nickel-plated.
With a pipe wall thickness of 0.8-1 mm
insert supporting sleeves. Heed pipe
manufacturer's technical advice.

Ø Pipe	EAN	Article No
12	4024052214211	3831-12.351
15	4024052214617	3831-15.351
16	4024052214914	3831-16.351
18	4024052215218	3831-18.351

**Support sleeve**

for copper or precision steel pipe with a
1 mm wall thickness. Brass.

L	Ø Pipe	EAN	Article No
25,0	12	4024052127016	1300-12.170
26,0	15	4024052127917	1300-15.170
26,3	16	4024052128419	1300-16.170
26,8	18	4024052128815	1300-18.170

**Compression fitting**

for copper or precision steel pipes.
Male thread connection G 3/4.
Soft sealed. Nickel-plated brass.

Ø Pipe	EAN	Article No
15	4024052515851	1313-15.351
18	4024052516056	1313-18.351

**Compression fitting**

for multi-layer pipes. Male thread
connection G 3/4. Nickel-plated brass.

Ø Pipe	EAN	Article No
16x2	4024052137312	1331-16.351

**Double connection fitting**

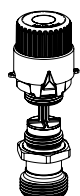
For clamping plastic, copper, precision
steel or multi-layer pipes.
Brass, nickel-plated.

	L	EAN	Article No
G3/4 x R1/2	26	4024052308415	1321-12.083

**Double nipple**

Both sides for clamping plastic, copper,
precision steel or multi-layer pipes.
Brass nickel-plated.

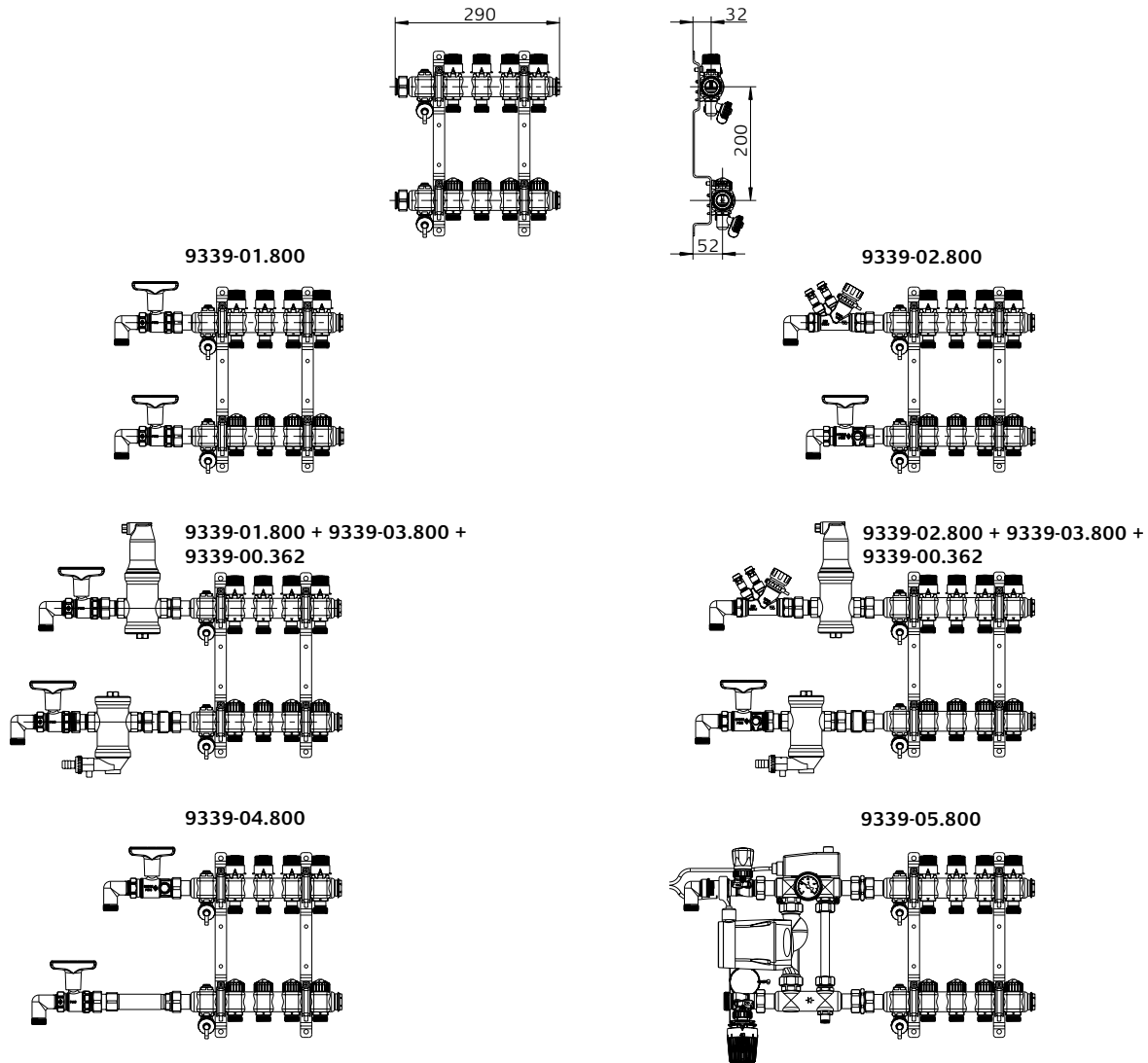
	EAN	Article No
G3/4 x G3/4	4024052136315	1321-03.081

**Automatic flow control insert**

Spare insert.

	EAN	Article No
	4024052765416	9330-00.300

Dimensions - manifold and connection kits

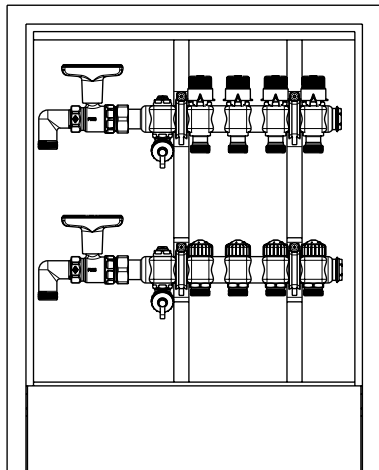


Heating circuit manifold, heating circuits	1	2	3	4	5	6	7	8	9	10	11	12
Length [mm]	140	190	240	290	340	390	440	490	540	590	640	690
Length, including kit 1 + 50 mm bend	275	325	375	425	475	525	575	625	675	725	775	825
Box size	1	1	1	2	2	3	3	3	4	4	4	5
Length, including kit 2 + 50 mm bend	310	360	410	460	510	560	610	660	710	760	810	860
Box size	1	1	1	2	2	3	3	3	4	4	4	5
Length, including kit 1 and kit 3 + 50 mm bend	450	500	550	600	650	700	750	800	850	900	950	1000
Box size	2	2	3	3	3	4	4	4	5	5	5	6
Length, including kit 2 and kit 3 + 50 mm bend	460	510	560	610	660	710	760	810	860	910	960	1010
Box size	2	2	3	3	3	4	4	4	5	5	5	6
Length, including kit 4 + 50 mm bend	415	465	515	565	615	665	715	765	815	865	915	965
Box size	1	2	3	3	3	4	4	4	5	5	5	6
Length, including kit 5 Fixed value control station	480	530	580	630	680	730	780	830	880	930	980	1030
Box size	2	3	3	3	4	4	4	5	5	5	6	6

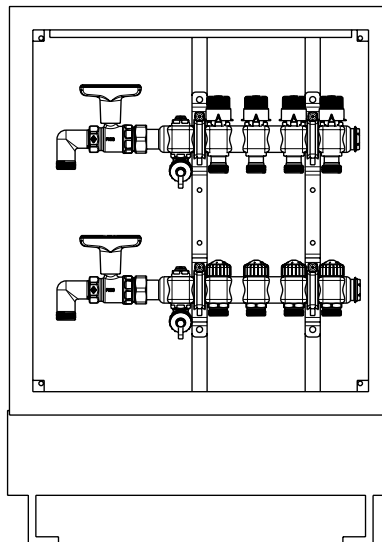
Supplied without bend

> Dimensions - manifold boxes

9330-90/91....800



9330-80/81....800



Size	W x H [mm]
Surface-mounted box, installation depth 110 mm	
1	496 x 620
2	582 x 620
3	732 x 620
4	882 x 620
5	1032 x 620
6	1182 x 620

Size	W x H [mm]
Flush-mounted box, installation depth 110 - 150 mm	
1	490 x 705
2	575 x 705
3	725 x 705
4	875 x 705
5	1025 x 705
6	1175 x 705

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