Multidis SFQ

Q-Tech Heating Circuit Manifold

Heating circuit manifold made of stainless steel for surface heating and cooling systems with forced circulation. For connecting two to twelve heating circuits to the heat or cooling generator.

The heating circuit manifold consists of a flow distributor, a return collector, wall brackets and fixing material. The heating circuit manifolds are completely pre-assembled with rotatable fill and drain cocks, vent plugs and end caps. To simplify the installation of the heating circuit pipes, the return collector (bottom) is moved forward in the wall bracket.

The flow distributor is equipped with integrated flow rate indicators. The return collector is equipped with QM valve inserts with M 30 x 1.5 connection thread to connect optional actuators. These are factory-fitted with a protection cap, which can also be used to temporarily shut off the heating circuit.

The heating circuit connections with G ¾ external thread are suitable for Oventrop compression fittings. Sound insulation according to DIN 4109.

Functions

- Automatic hydronic balancing
- Regulation of the heating circuit flow rate
- Flow rate check
- Heating circuit shutoff
- Filling, venting, draining
- M 30 x 1.5 connection thread for optional actuators

Features

+ Automatic hydronic balancing with QM valve inserts with Q-Tech technology
+ Integrated flow rate indicators
+ High-quality stainless steel version
+ Complete with wall brackets for installation in a surface-mounted or a flush-mounted cabinet or in a niche

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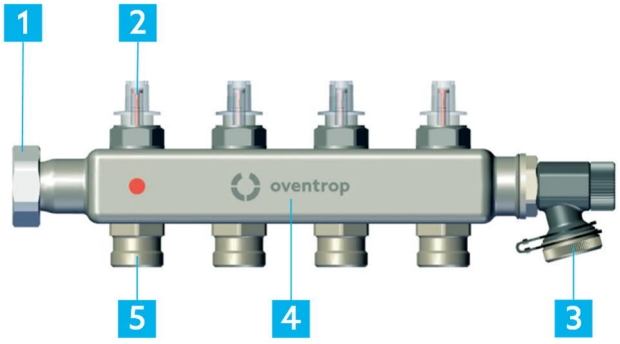
Product Details

Technical Data

Heating circuits	2...12
Variant	Flow distributor: flow rate indicators Return collector: QM valve inserts with connection thread M 30 x 1.5
Operating temperature	2...60 °C
Operation pressure	Max. 6 bar
Medium	Heating and cooling water according to VDI 2035 or ÖNORM 5195, water-glycol mixtures with max. 50% glycol content
Setting range heating circuit	0,5...5 l/min
Differential pressure max.	150 kPa (1,5 bar)
Differential pressure min.	Flow range 0.5...2 l/min: 10 kPa (100 mbar) Flow range >2...2.8 l/min: 15 kPa (150 mbar) Flow range >2.8...5 l/min: 20 kPa (200 mbar)
Actuator connection	M 30 x 1.5
Valve stroke	1.8 mm
Closing dimension	11.8 mm
Closing force actuator	90...150 N
Heating circuit connection	G ¾ external thread, Eurocone according to DIN EN 16313
Supply and return connection	G 1 union nut

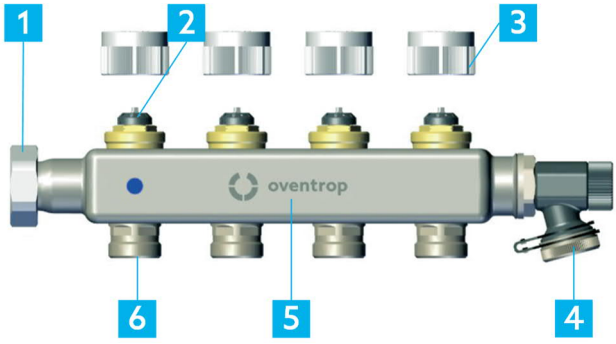
Design

Flow distributor design



1 G 1 union nut
2 Flow rate indicator
3 Fill and drain cock
4 Flow distributor
5 Heating circuit connection

Return collector design



1 G 1 union nut
2 QM valve insert
3 Protection cap
4 Fill and drain cock
5 Return collector
6 Heating circuit connection

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Functions

Shutoff

HEATING CIRCUITS

Individual heating circuits can be shut off via the flow rate indicators. The QM presetting key enclosed with the heating circuit manifold is used for this purpose.

In the return, the heating circuits can be briefly shut off with the supplied protection caps.

HEATING CIRCUIT MANIFOLD

For a complete shutoff of the heating circuit manifold to the system, ball valves must be placed between the manifold and the system connection. These are not included in the scope of delivery. Suitable flat sealing ball valves for the manifolds are:

- For the supply and return, red T-handle: item no. 1406383 (DN 20) and 1406384 (DN 25)
- For the supply, red T-handle and thermometer: item no. 1406483 (DN 20) or 1406484 (DN 25)
- For the return, blue T-handle and thermometer: item no. 1406583 (DN 20) or 1406584 (DN 25)

The different nominal sizes refer to the connection on the system side. The connection on the manifold side is always G 1, matching the G 1 union nuts of the manifolds. See also chapter “Accessories“ further on.

Flow regulation with Q-Tech

Multidis SFQ heating circuit manifolds are equipped with QM valve inserts with Q-Tech technology. This technology ensures that the flow through the heating circuit remains constant even with fluctuating differential pressure.

The flow through the individual heating circuits must be throttled by means of the QM valve inserts in the return to ensure hydronic balancing of the heating circuits connected to the manifold. The set values are determined by a room-by-room heating load calculation, which can be carried out e.g. with the free OVplan design programme.

Each heating circuit is set using the QM valve inserts. The setting range is 0.5 to 5 litres per minute (l/min). The set value can be transmitted directly, as the scale on the valve insert is also given in l/min.

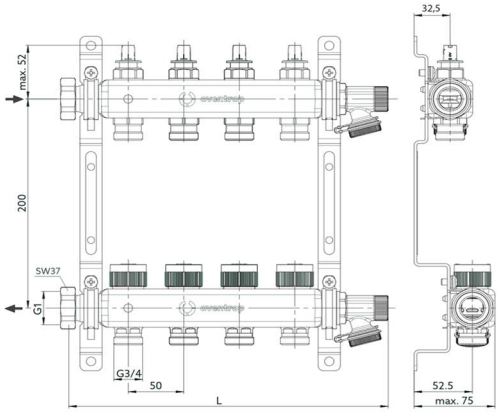
During setting, the circulation pump does not have to be in operation, actuators may already be installed, and the stroke position of the actuators is irrelevant.

Flow rate check

During commissioning and operation, the flow rate of each heating circuit can be checked using the flow rate indicators integrated in the flow distributor.

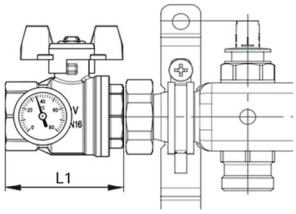
Important: The flow rate indicators only show whether the heating circuit is currently being flown through or not. The position of the indicator does not provide any information about the water quantity.

Dimensions and Item Numbers



Number of heating circuits	Length (L)	Item no.
2	188 mm	1404952
3	238 mm	1404953
4	288 mm	1404954
5	338 mm	1404955
6	388mm	1404956
7	438 mm	1404957
8	488 mm	1404958
9	538 mm	1404959
10	588 mm	1404960
11	638 mm	1404961
12	688 mm	1404962

Additional lengths for shutoff ball valves



Item no. ball valve	Nominal size	Additional length L1
1406383	DN 20	55 mm
1406384	DN 25	80 mm
1406483	DN 20	73 mm
1406484	DN 25	85 mm
1406583	DN 20	73 mm
1406584	DN 25	85 mm

Accessories

Ball valves

		Size	Suitable for	Item no.
	Ball valve, flat sealing, with red T-handle	DN 20: G ¾ x G 1	All Multidis SFQ	1406383
		DN 25: G 1 x G 1	All Multidis SFQ	1406384
	Ball valve, flat sealing, with red T-handle and thermometer	DN 20: G ¾ x G 1	All Multidis SFQ	1406483
		DN 25: G 1 x G 1	All Multidis SFQ	1406484
	Ball valve, flat sealing, with blue T-handle and thermometer	DN 20: G ¾ x G 1	All Multidis SFQ	1406583
		DN 25: G 1 x G 1	All Multidis SFQ	1406584

Surface-mounted cabinet

Steel, galvanised. Frame and door white lacquered.

Depth surface-mounted element: 160 mm

Height surface-mounted element: 760...870 mm

No.	Inner width	Item no.
1	600 mm	1401171
2	750 mm	1401172
3	1,000 mm	1401173
4	1,250 mm	1401174

Flush-mounted cabinet

Steel, galvanised. Frame and door white lacquered. With removable screen.

Depth flush-mounted element: 115...180 mm

Height flush-mounted element: 760...885 mm

No.	Inner width	Item no.
1	560 mm	1401151
2	700 mm	1401152
3	900 mm	1401153
4	1.200 mm	1401154

Aktor T

Thermal actuator, on/off

With fixed cable and stroke position indicator, IP54, 230 V AC

Normally closed

Cable length	Suitable for	Item no.
1 m	All Multidis SFQ	1012415
2 m	All Multidis SFQ	1012452
5 m	All Multidis SFQ	1012455
10 m	All Multidis SFQ	1012459

Cofit S

Compression fitting for Copipe multi-layer composite pipes and plastic pipes

according to DIN EN 16313, clamping ring and union nut made of brass, union nut nickel-plated, outlet made of bronze, metal to metal sealing plus O-ring

2-fold, for G ¾ external thread

For pipe	Item no.
14 x 2 mm	1507934
16 x 2 mm	1507935
17 x 2 mm	1507937
18 x 2 mm	1507938
20 x 2 mm	1507939
20 x 2.5 mm	1507940

Ofix K

Compression fitting for plastic pipes

according to DIN EN 4726, PE-X according to DIN 16892/16893, PB according to DIN 16968 and PP according to DIN 8078 A1, metal to metal sealing plus O-ring

2-fold, for G ¾ external thread

For pipe	Item no.
12 x 2 mm	1016870
14 x 2 mm	1016873
16 x 2 mm	1016874
17 x 2 mm	1016876
18 x 2 mm	1016877
20 x 2 mm	1016879

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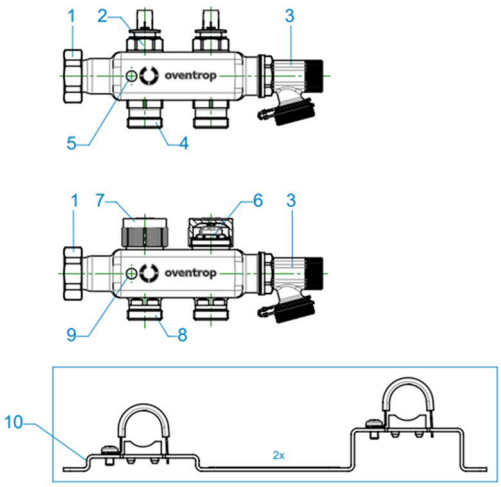
Spare parts



Pos.	Article	Item no.
2	Flow rate indicator	1408040
3	Fill and drain cock G ¾	1408104
4	Connection nipple, long	1408129
6	QM valve insert	1408023
8	Connection nipple, short	1408126
10	Wall bracket	1408110
—	QM presetting key	1651182

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