Multidis SF

Presettable Heating Circuit Manifold optionally with Flow Indicators

Item no. 14063

Item no. 14065

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 measuring and regulating devices or with simple regulating inserts. The return collector is equipped with 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

- Regulation of the heating circuit flow rate
- Flow rate check per heating circuit (item no. 14063)
- Heating circuit shutoff
- Filling, venting, draining
- M 30 x 1.5 connection thread for actuators

Features

+ Static setting of the flow rate, optionally with flow 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

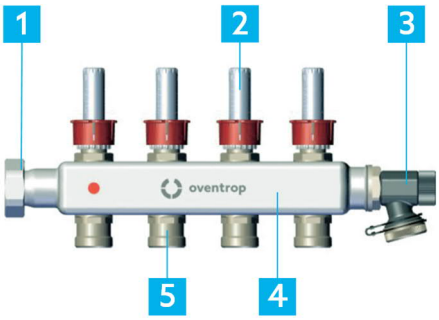
Product Details

Technical Data

	Item no. **14063** with flow measuring and regulating devices	Item no. **14065** with regulating inserts
Heating circuits	2...12	2...12
Variant	Flow distributor: flow measuring and regulating devices Return collector: valve inserts with connection thread M 30 x 1.5	Flow distributor: regulating inserts Return collector: valve inserts with connection thread M 30 x 1.5
Operating temperature	-10...70 °C	-10...90 °C
Operating pressure	max. 6 bar	max. 10 bar
Differential pressure	max. 100 kPa (1 bar)	max. 100 kPa (1 bar)
Medium	Heating and cooling water according to VDI 2035 or ÖNORM 5195, water-glycol mixtures with max. 50% glycol content	
Kvs value heating circuit	0.9	1.9
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	

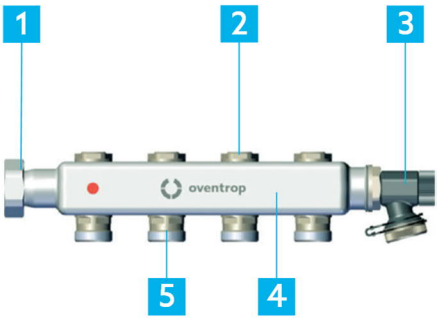
Design

Flow distributor design item no. **14063**



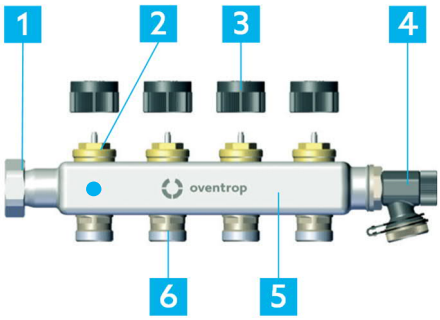
1 G 1 union nut
2 Flow measuring and regulating device
3 Fill and drain cock
4 Flow distributor
5 Heating circuit connection

Flow distributor design item no. **14065**



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

Return collector design



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

Functions

Shutoff

HEATING CIRCUITS

Individual heating circuits can be shut off via the regulating inserts.

- Item no. 14063: Turn the adjustment bonnet of the flow measuring and regulating device manually clockwise as far as it will go
- Item no. 14065: Turn the regulating plug of the insert clockwise as far as it will go using a 5 mm Allen key

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 unions nuts of the manifolds. See also chapter “Accessories“ further on.

Flow regulation

The flow through the individual heating circuits must be throttled by means of the regulating inserts/flow measuring and regulating devices in the supply 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 software.

WITH FLOW MEASURING AND REGULATIN DEVICES (ITEM NO. 14063)

Each heating circuit is set by adjusting the flow measuring and regulating devices. The setting range is 0 to 5 litres per minute. During setting, the circulation pump does not have to be in operation and, if necessary, set to constant speed operating mode. The setting should be done before the actuators are mounted. If actuators are already mounted, they should be removed. If this is not possible, make sure that all actuators are in the fully open position.

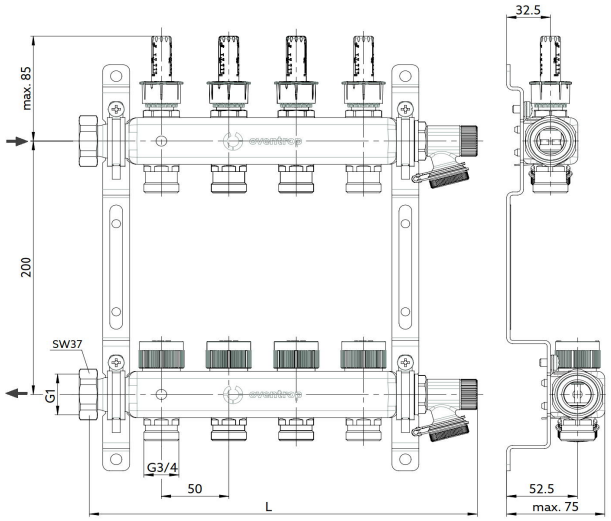
WITH REGULATING INSERTS (ITEM NO. 14065)

Each heating circuit is set by throttling the regulating inserts. When designing with OVplan, the set values are determined in the calculation and can be adopted directly. The set value is given in counterclockwise turns from the closed position of the regulating insert. Presetting 2 therefore corresponds to two full turns.

Alternatively, the set value can be determined from the pressure loss chart at the end of this data sheet. Flow rate and pressure loss are required to determine the set value. The point of intersection of the two values in the chart corresponds to the preset value. Setting of the regulating inserts can be carried out at any time.

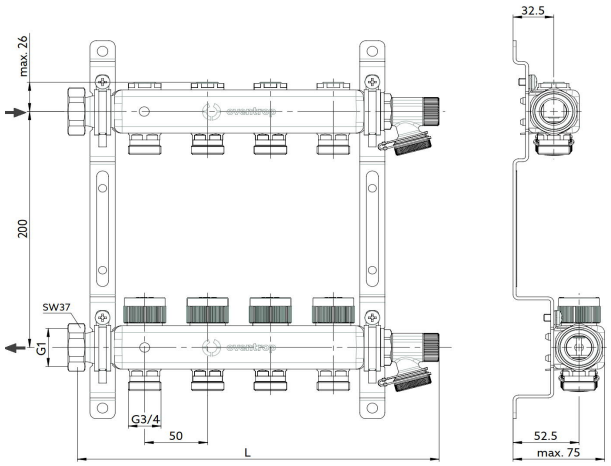
Dimensions and Item Numbers

Multidis SF with flow measuring and regulating devices (item no. 14063)



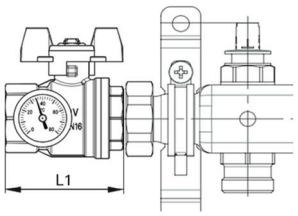
Number of heating circuits	Length (L)	Item no.
2	188 mm	1406352
3	238 mm	1406353
4	288 mm	1406354
5	338 mm	1406355
6	388mm	1406356
7	438 mm	1406357
8	488 mm	1406358
9	538 mm	1406359
10	588 mm	1406360
11	638 mm	1406361
12	688 mm	1406362

Multidis SF with regulating inserts (item no. 14065)



Number of heating circuits	Length (L)	Item no.
2	188 mm	1406552
3	238 mm	1406553
4	288 mm	1406554
5	338 mm	1406555
6	388mm	1406556
7	438 mm	1406657
8	488 mm	1406658
9	538 mm	1406559
10	588 mm	1406560
11	638 mm	1406561
12	688 mm	1406562

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 SF	1406383
		DN 25: G 1 x G 1	All Multidis SF	1406384
	Ball valve, flat sealing with red T-handle and thermometer	DN 20: G ¾ x G 1	All Multidis SF	1406483
		DN 25: G 1 x G 1	All Multidis SF	1406484
	Ball valve, flat sealing, with blue T-handle and thermometer	DN 20: G ¾ x G 1	All Multidis SF	1406583
		DN 25: G 1 x G 1	All Multidis SF	1406584

Surface-mounted cabinet

		No.	Inner width	Item no
	Steel, galvanised. Frame and door white lacquered. Depth surface-mounted element: 160 mm Height surface-mounted element: 760...870 mm	No. 1	600 mm	1401171
		No. 2	750 mm	1401172
		No. 3	1,000 mm	1401173
		No. 4	1,250 mm	1401174

Flush-mounted cabinet

		No.	Inner width	Item no.
	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. 1	560 mm	1401151
		No. 2	700 mm	1401152
		No. 3	900 mm	1401153
		No. 4	1,200 mm	1401154

Compression fittings

		For pipe	Item no.
	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	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	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

Actuator

	Type	Cable length	Suitable for	Item no.
	Aktor T thermal actuator, on/off With fixed cable and stroke position indicator, IP54, 230 V AC Normally closed	1 m	All Multidis SF	1012415
		2 m	All Multidis SF	1012452
		5 m	All Multidis SF	1012455
		10 m	All Multidis SF	1012459

Electrical connecting block

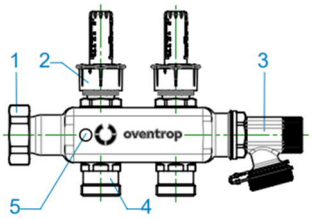
		Version	Item no.
	6 control zones, heating	230 V / 24 V	1400980
	10 control zones, heating / cooling (change-over), pump control	230 V	1400981
		24 V	1400982
	10 control zones, heating / cooling (change-over), pump and boiler control and integrated time switch	230 V	1400983

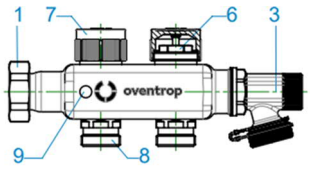
Electrical connecting blocks with adaptive hydronic balancing

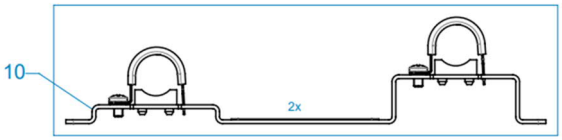
		Version	Item no.
	FloorCon F **200** 8 control zones / 12 heating circuit, pump control heating and cooling (change-over), 230 V	Without channel allocation	1400984
	FloorCon F **300** 8 control zones / 12 heating circuits, pump control heating and cooling (change-over), 230 V	With channel allocation	1400985
	Return temperature sensor Must be ordered in addition to FloorCon. The temperature sensor is required 1x per heating circuit. Suitable for pipe Ø 12...20 mm	Length 0.85 meter	1029094
		Length 2.1 Meter	1029095

Spare parts

Multidis SF with flow measuring and regulating devices (item no. 14063)

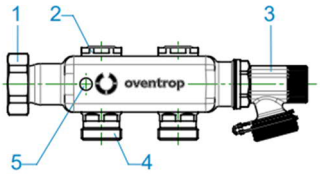


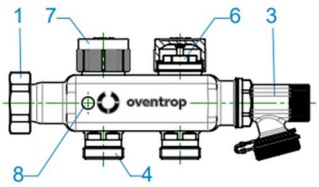


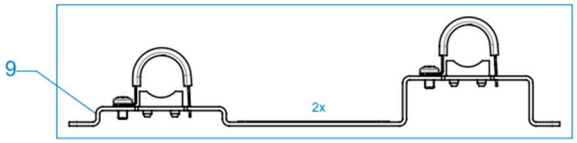


Pos.	Article	Item no.
2	Flow measuring and regulating device, 0...5 l/min	1408038
3	Fill and drain cock G ¾	1408104
4	Connection nipple, long	1408129
6	Valve insert	1404091
8	Connection nipple, short	1408126
10	Wall bracket	1408110

Multidis SF with regulating inserts (item no. 14065)





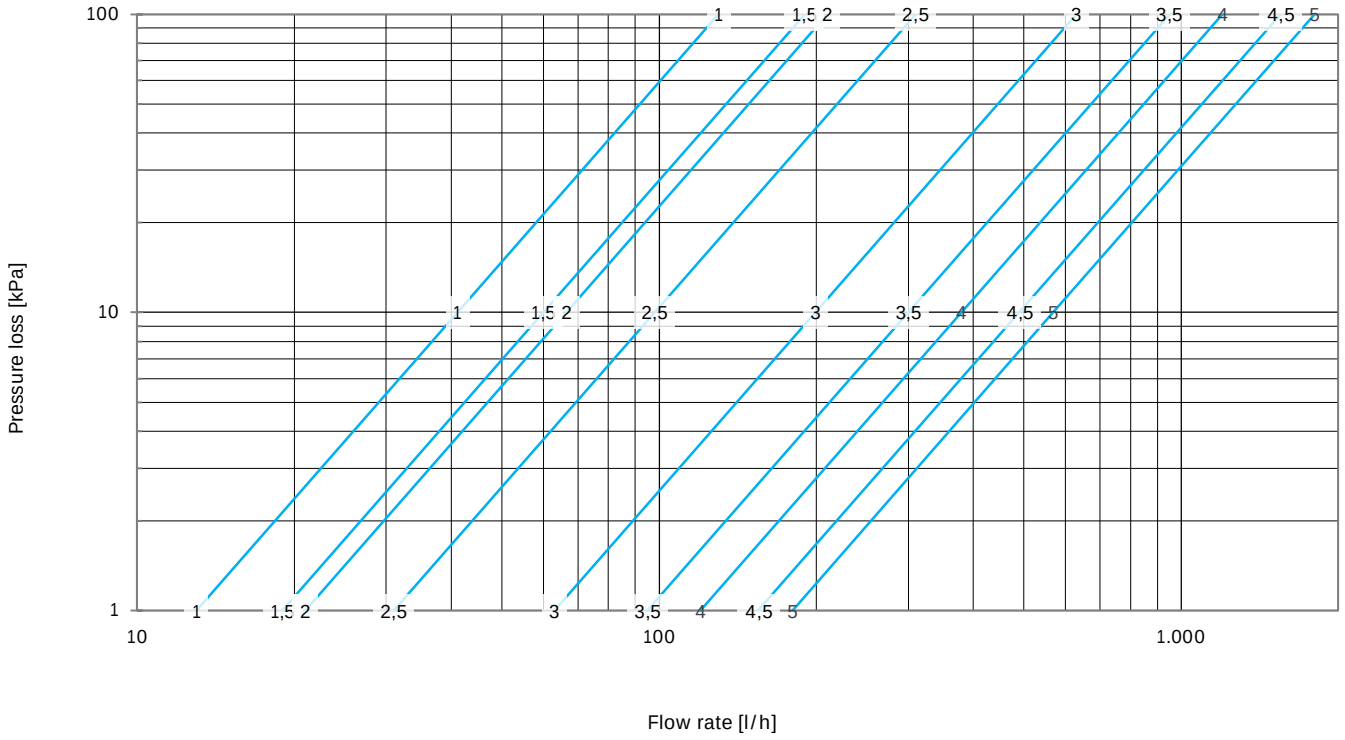


Pos.	Article	Item no.
2	Regulating insert	1408122
3	Fill and drain cock G ¾	1408104
4	Connection nipple, short	1408126
6	Valve insert	1404091
9	Wall bracket	1408110

Design

Multidis SF with regulating inserts (item no. 14065)

Flow chart



Kv values

Presetting	1	1,5	2	2,5	3	3,5	4	4,5	5	Kvs
Kv value	0.13	0.19	0.21	0.31	0.63	0.95	1.2	1.55	1.8	1.9

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