



Valves 3-way mixing valves type G and F

3 G, DN 20-50, cast iron, PN 6. Internal thread. 3 F, DN 20-150, cast iron, PN 6. Flange.

Operation

The ESBE 3-way valve is intended for use in heating and cooling systems to control and distribute the medium to the different radiator groups.

The required system temperature is obtained by adding a suitable proportion of return water to the boiler flow. The mixing proportions are adjusted manually or, in automatically controlled plants, by means of an actuator. The scale is graduated on both sides and can be turned, allowing a choice of mounting positions. The valve is usually connected as a mixing valve, but it may also be used as a diverting valve, see examples. Operation angle = 90°.

Service and maintenance

All major parts are replaceable. Two O-rings, one of which can be replaced without the need for draining down the system or dismantling the valve.

Required actuator torque

The figures below are only as a recommendation for ordinary installations. In some applications the valve may require even more actuator torque.

Valve size up to	DN 25	actuator torque	3 Nm
	DN 50		.5 Nm
	DN 80		.10 Nm
	DN 150		.15 Nm

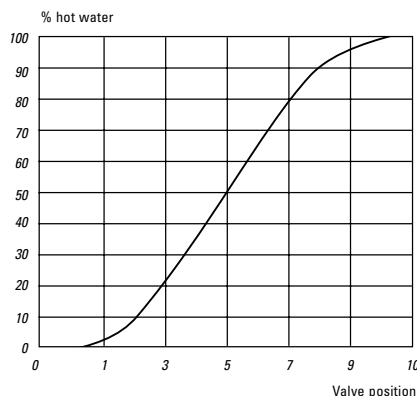
Material

Valve body:	Cast iron EN-JL 602N
Slide:	Brass CW 614N
Bushing:	Plastic
Cover plate:	Zinc
O-rings:	EPDM

Technical Data

Max. static pressure:	.600 kPa (6 bar)
Max. temperature:	.110°C
Min. temperature:	-.10°C
Max. pressure drop Type G:	.50 kPa
Max. pressure drop Type F, DN 20-40:	.50 kPa
Max. pressure drop Type F, DN 50-150:	.30 kPa
Leakrate in % of flow:	Mixing max. 1,5% Diverting max. 0,5%
Rangeability (Kvs/Kv min.):	.100

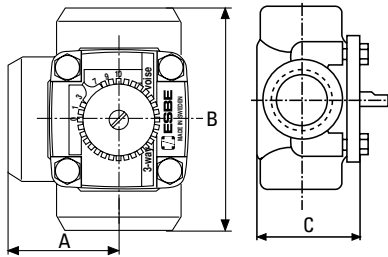
Valve characteristic



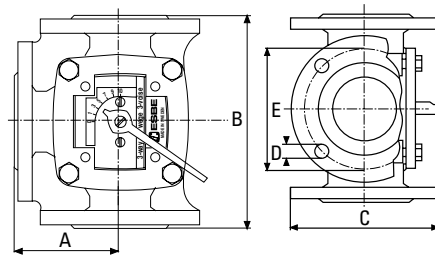
Valves

3-way mixing valves type G and F

Type G
with threaded connections



Type F
with flanged connections
PN 6, standard DIN 2531



Dimensions

Art. No.	Reference	Kvs*	Connections	A	B	C	D	E	Weight kg
101	3 G 20	8	3/4" BSP	52.5	105	66	—	—	1.6
102	3 G 25	12	1" BSP	54	108	66	—	—	1.8
103	3 G 32	18	1 1/4" BSP	57.5	115	70	—	—	2.2
104	3 G 40	28	1 1/2" BSP	60	120	74	—	—	2.5
105	3 G 50	44	2" BSP	78	156	93	—	—	4.4
110S	3 F 20	12	20 mm Flange	70	140	90	4x11.5	65	3.5
111S	3 F 25	18	25 mm Flange	75	150	100	4x11.5	75	4.0
112S	3 F 32	28	32 mm Flange	80	160	120	4x15	90	5.9
113S	3 F 40	44	40 mm Flange	87.5	175	130	4x15	100	6.8
114S	3 F 50	60	50 mm Flange	97.5	195	140	4x15	110	9.1
115S	3 F 65	90	65 mm Flange	100	200	160	4x15	130	10.0
116S	3 F 80	150	80 mm Flange	120	240	190	4x18	150	16.2
117S	3 F 100	225	100 mm Flange	132.5	265	210	4x18	170	21.0
118S	3 F 125	280	125 mm Flange	150	300	240	8x18	200	27.0
119S	3 F 150	400	150 mm Flange	175	350	265	8x18	225	37.0

* Kvs-value in m³/h at a pressure drop of 1 bar. Flow chart see page 6.

Example of installations

All the examples of installations can be reversed. The valve position plate is graduated on both sides and shall at the installation be fitted in the correct position as shown in the instruction for installation.

