

Mixer valves

Three-way valve and servomotor

Valve and servomotor to control the water flow in Central Heating and primary Hot Water.

Main features

- Valves and Servomotors designed to be added to the control equipment.
- Possible control via a two-pole thermostat.
- The valve can be manually operated.
- Valve with brass (from 3/4" to 2") or iron (2 1/2" a 4") body and brass shutter.
- EPDM 'O' rings

Delivery presentation

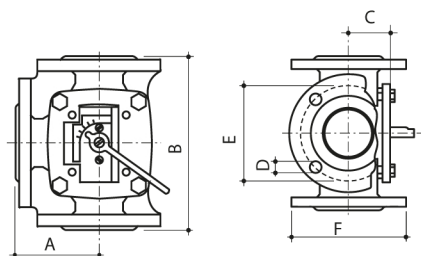
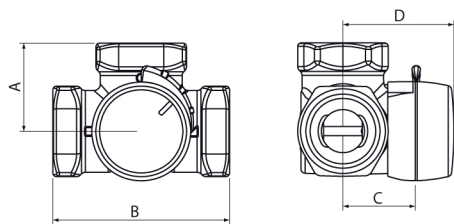
- In two packages:
- 3-way valve
 - Servomotor SM-41 and connection kit (for valves up to 2")
 - The Servomotor SM-81 includes a connection kit and an operating handle (for valves from 2 1/2" to 4").



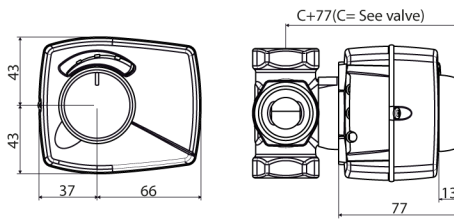
Dimensions and Technical Data

3-way valve

Max. operating temperature 110 °C



Servomotor SM-41 with direct coupling for 3-way valves from 3/4" to 2"



Threaded connections

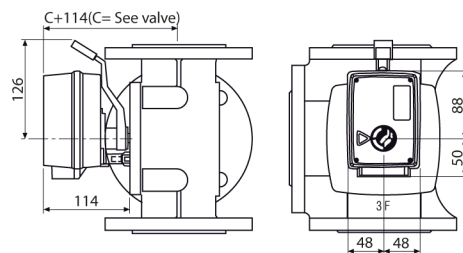
ø thread	Dimensions mm			
	A	B	C	D
3/4"	36	72	32	50
1"	41	82	34	52
1 1/4"	47	94	37	55
1 1/2"	53	106	44	60
2"	60	120	46	64

Flange connections (including the welding counterflange and the relevant fasteners).

Model	Dimensions mm					
	A	B	C	D	E	F
2 1/2"	100,0	200	52	4 x 15	130	160
3"	120,0	240	63	4 x 18	150	190
4"	132,5	265	73	4 x 18	170	210

Maximum working pressure: PN 6 bar

SM-81 Servomotor for 3-way valves, 2 1/2" to 4"



Maximum working pressure: PN 10 bar

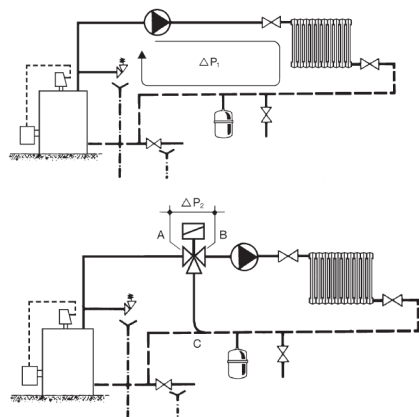
Recommendations for selecting the 3-way valves

Three-way valves should be sized such that the pressure drop ranges between 10 and 30% of the system pressure drop.

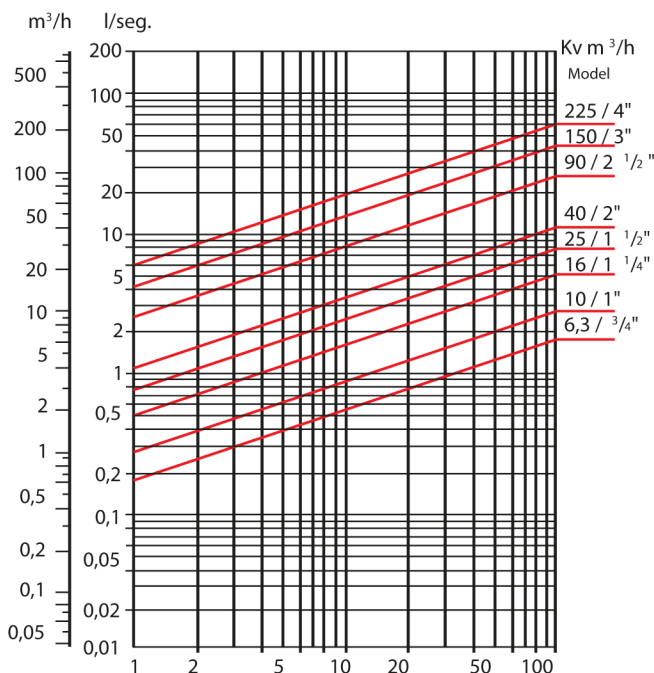
$$\Delta P_2 = 10 \div 30\% \Delta P_1$$

In addition, the following conditions should also occur:

- 1°- $\Delta P_1 + \Delta P_2 \leq$ Pump pressure.
- 2°- $\Delta P_{BC} \approx \Delta P_{CA}$ (boiler circuit)
- 3°- ΔP_{CA} must be as small as possible (by-pass).



Valve size selection graph



Head loss, KPa water gauge
100 KPa = 1 bar = 10.000 mm.c.a.

	SM-41	SM-81
Supply voltage	230 V	230 V
Power	5 VA	5 VA
Time to turn 90°C	120 sec.	120 sec.