

## Ball valves

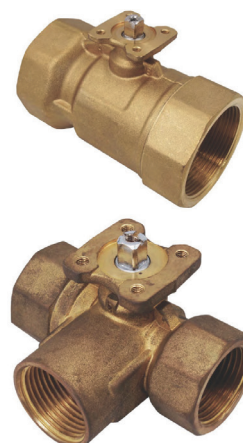
# VS

### Description

The ball valves VS serie are control valves with perfect sealing, that thanks to the shaping of the adjustment disk guarantees a percentage flow characteristic.

### Technical specifications

<b>Valve type</b>	BSP 2 way, 3 way mixing / diverting
<b>Fluid</b>	Hot and cold water (with glycole max. 50%) and 15% (103 kPa) saturated steam
<b>Fluid temperature</b>	-5...+120°C at an ambient temperature of 40°C
<b>Nominal pressure</b>	PN20
<b>Leakage</b>	0.01% of maximum flow per ANSI/FCI 70-2 Class IV Three-way bypass port leakage: 1% of maximum flow High tight shut-off
<b>Control flow characteristics</b>	Equal-percentage A-C, linear for port B bypass
<b>Max. closing pressure</b>	13 bar
<b>Max. diff. pressure (close-off)</b>	See table below
<b>Maintenance</b>	Free
<b>Valve</b>	Forged brass (from DN15 to DN50), cast iron (DN65 and DN80)
<b>Plug</b>	Stainless steel V2A
<b>Stem</b>	Brass
<b>Seat</b>	EPDM
<b>Seal</b>	HNVR double O-ring
<b>Standards</b>	CE-conformity, RoHS



	Models		DN	KV <sub>s</sub>	Actuator type(*)	Actuator type	Actuator type with spring return(**)
	2-way	3-way					
	VS215	VS315	15	4.0	S4..	S5..V	SR5..
	VS220	VS320	20	6.3	S4..	S5..V	SR5..
	VS225	VS325	25	10	S4..	S5..V	SR5..
	VS232	VS332	32	16	S8..	S5..V	SR10..
	VS240	VS340	40	25	S8..	S10..V	SR10..
	VS250	VS350	50	40	S16..	S10..V	SR15..
	VS250B	VS350B	50	63	S16..	S10..V	SR15..
	VS265	-	65	63	S16..		SR15..
	VS280	-	80	100	S16..		SR15..
	VS2100	-	100	120	S32..		-

(\*) For coupling valve and actuator adapter VSA is required

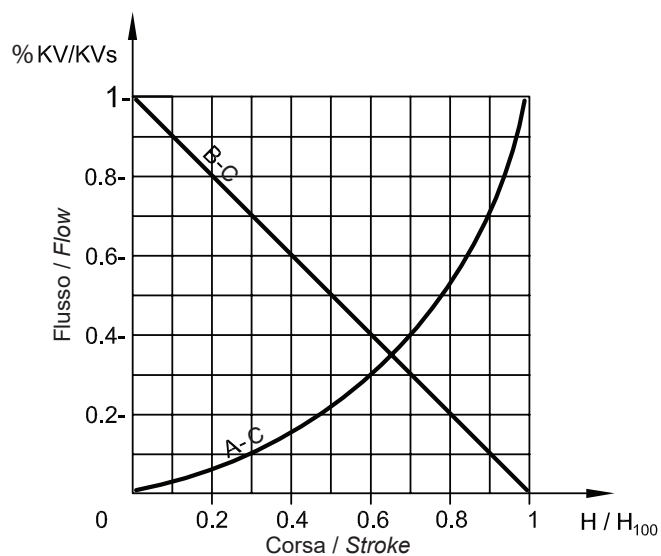
(\*\*) For coupling valve and spring return actuator adapter VSAR is required

### Maximum close-off pressure [kPa] with actuator

Model	torque (Nm)	DN15	DN20	DN25	DN32	DN40	DN50
S5..	5	1000	1000	1000	1000	690	400
S10..	10	1400	1400	1400	1400	1000	1000



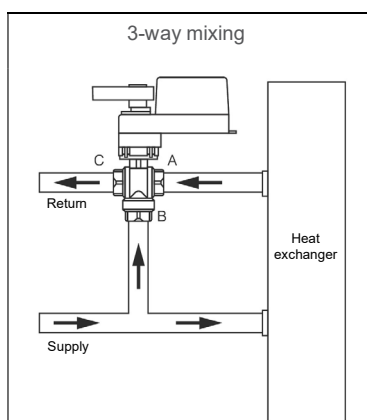
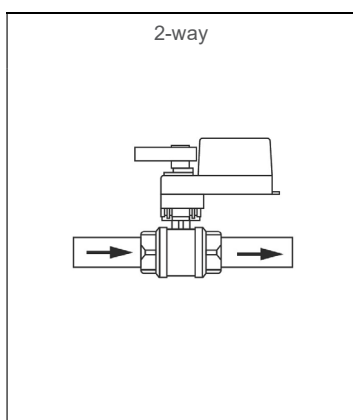
## Control flow characteristics



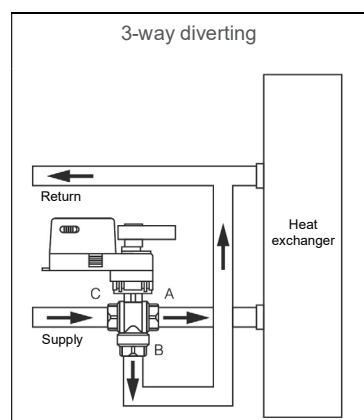
A-C equal-percentage way  
 B-C bypass lineare way  
 3-way used as mixing inlet in A and B,  
 outlet C  
 3-way used as diverting inlet in A,  
 outlet from B or C

**C way** constant flow  
**A way** variable flow  
**B (bypass) way** variable flow

## Installation



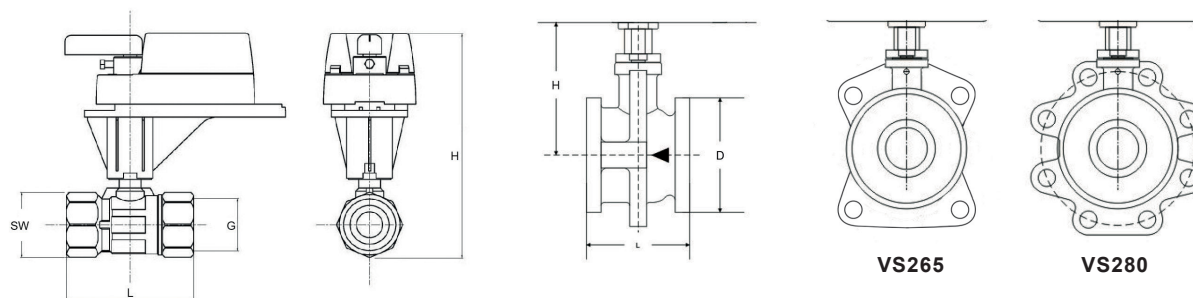
Mixing application:  
 Fluid enters through two inlets  
 (A & B) and exits through one  
 outlet (C).



Diverting application:  
 Fluid enters through one inlet  
 (C) and exits through two  
 outlets (A & B).

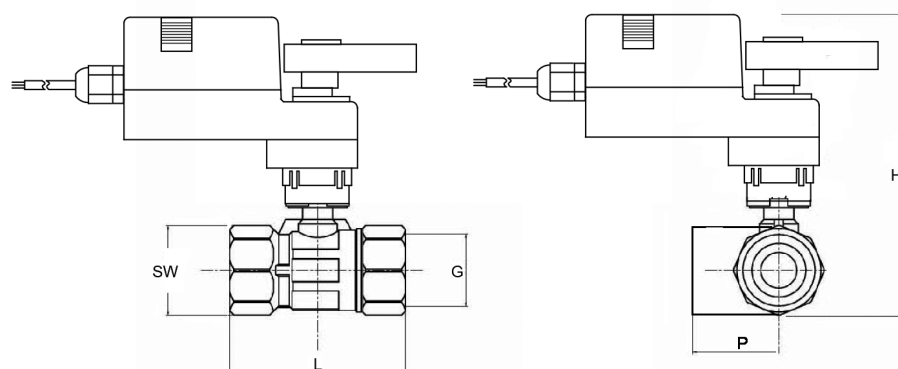


## ■ Dimensions with actuator S4...S32 (mm)



DN mm	G	L	H	SW	D	Flange	Weight 2 way (kg)	Weight 3 way (kg)
15	G 1/2	60	179,20	26	-	-	0,2	0,25
20	G 3/4	67	187,80	32	-	-	0,35	0,4
25	G 1"	89	193,80	39	-	-	0,55	0,7
32	G 1" 1/4	99	204	48	-	-	0,85	1,1
40	G 1" 1/2	106	212,80	56	-	-	1,2	1,4
50	G 2"	128	224,70	70	-	-	1,95	2,2
65	Flange 145	97	136	-	105	4-18	4,5	-
80	Flange 160	108	140	-	125	8-18	6,8	-
100	Flange 180	120	202	-	125	8-18	8,6	-

## ■ Dimensions with actuator S5..V and S..10V (mm)



DN mm	G	L	H	SW	P	Weight 2 way (kg)	Weight 3 way (kg)
15	G 1/2	60	137	26	31	0,2	0,25
20	G 3/4	67	142	32	32	0,35	0,4
25	G 1"	89	148	39	46	0,55	0,7
32	G 1" 1/4	99	159	48	49	0,85	1,1
40	G 1" 1/2	106	181,60	56	52	1,2	1,4
50	G 2"	128	192,70	70	69	1,95	2,2
65	Flange 145	97	136	-	-	4,5	-
80	Flange 160	108	140	-	-	6,8	-
100	Flange 180	120	202	-	-	8,6	-