



## GLOBE VALVES BODIES - STROKE 5,5 mm

VFZ

### APPLICATION AND USE

VFZ valve bodies are used in HVAC systems to control fluid in heating, cooling, refrigeration, ventilation in civil or industrial plants. Valves are fitted with female threaded connections in 2 and 3-way. 3-way valves are used in mixing mode, they can be used in diverting mode reducing the max differential pressure value by 50%. Do not use the bypass (angle way) as control port. VFZ valve bodies are motorized by SE4 series electric actuators.

### WORKING

Stem up : direct way A -AB closed  
(B-AB for 3 way valve open)

Stem down : direct way A-AB open  
(B-AB for 3 way valve closed)

TYPE		CONNECTION	KV <sub>s</sub> m <sup>3</sup> /h	MAX DIFF. PRESSURE (*) bar
2-WAY	3-WAY			
VFZ210	VFZ310	G 1/2	0.25	2.5 (10.0)
VFZ211	VFZ311	G 1/2	0.4	2.5 (10.0)
VFZ212	VFZ312	G 1/2	0.63	2.5 (10.0)
VFZ213	VFZ313	G 1/2	1.0	2.5 (10.0)
VFZ214	VFZ314	G 1/2	1.6	2.5 (10.0)
VFZ215	VFZ315	G 1/2	2.5	2.5 (10.0)
VFZ218	VFZ318	G 3/4	4.0	2.0 (5.0)
VFZ220	VFZ320	G 3/4	6.3	2.0 (5.0)
VFZ225	VFZ325	G 1	10.0	2.0 (2.5)
VFZ232	VFZ332	G 1 1/4	13.0	2.0 (2.5)
VFZ240	VFZ340	G 1 1/2	16.0	2.0 (2.0)

(\*) the values in the brackets are the max diff. pressure when valve is fully closed and actuator is still able to open or close the valve with security.  
the values outside the brackets are the suggested max pressure drop (valve fully open)

### TECHNICAL FEATURES

**Nominal pressure:** PN16 (ISO7268/EN1333)  
**Connections:** threaded female GAS  
**Valve body:** cast-iron G25  
**Plug :** brass OT58  
**Plug gasket:** FKM O-ring  
**Stem:** stainless steel AISI304  
**Stem packing:** FKM O-ring  
**Stem packing nut:** brass OT58  
**Spring:** stainless steel AISI304  
**Control stroke:** 5.5 mm

**Control flow characteristics:** linear  
**Leakage:** direct way A-AB perfect sealing  
angle way B-AB 0,2% KV<sub>s</sub>  
**Rangeability:** 50:1  
**Fluid temperature:** -10...+120 °C  
**Fluids type:** water, water with glycol max. 50%  
**Dimensions/weight:** see relevant table

### ACCESSORIES

RP1/2"...RP2" fitting for valve piping connections

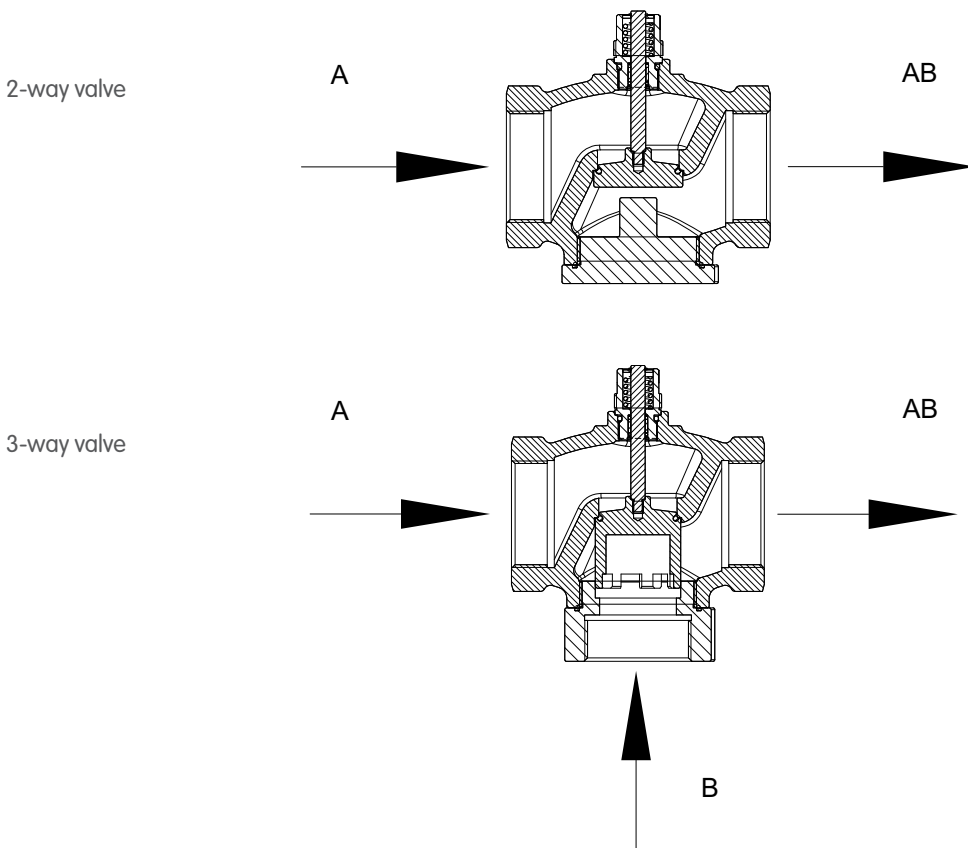


**INSTALLATION**

**PIPING CONNECTIONS**

Make the piping connections according to flow directions indicated on valve body as the following drawings.

AB is always the output. Input is A for 2-way valve, A and B for 3-way valve.



**VALVE MOUNTING**

Before mounting the valve body be sure that the pipes are clean and free of soldering scraps. Pipes must be lined up squarely with the valve at each connection and free of vibrations. Install the valve/actuator vertically or horizontally but never upside down. Leave enough clearance to facilitate the dismantling of actuator from the valve body for maintenance purpose.

The valve must not be installed in explosive atmosphere or in ambient with temperature and humidity outside the ranges indicated on technical features part. Valve must not be subjected to water or steam jets or dripping liquid. 3-way valve must be used in mixing way (2 inlets 1 output). If the valve is used in diverting way (1 inlet 2 outputs), the max differential pressure allowed is reduced by 50%.

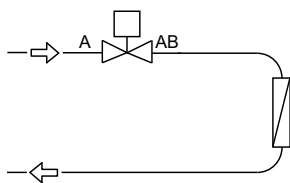


fig.1  
2-way

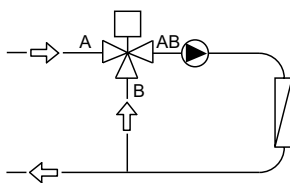


fig.2  
3-way mixing used in mixing application toward user

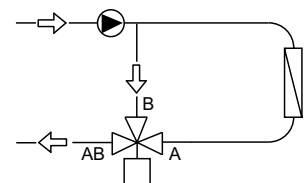
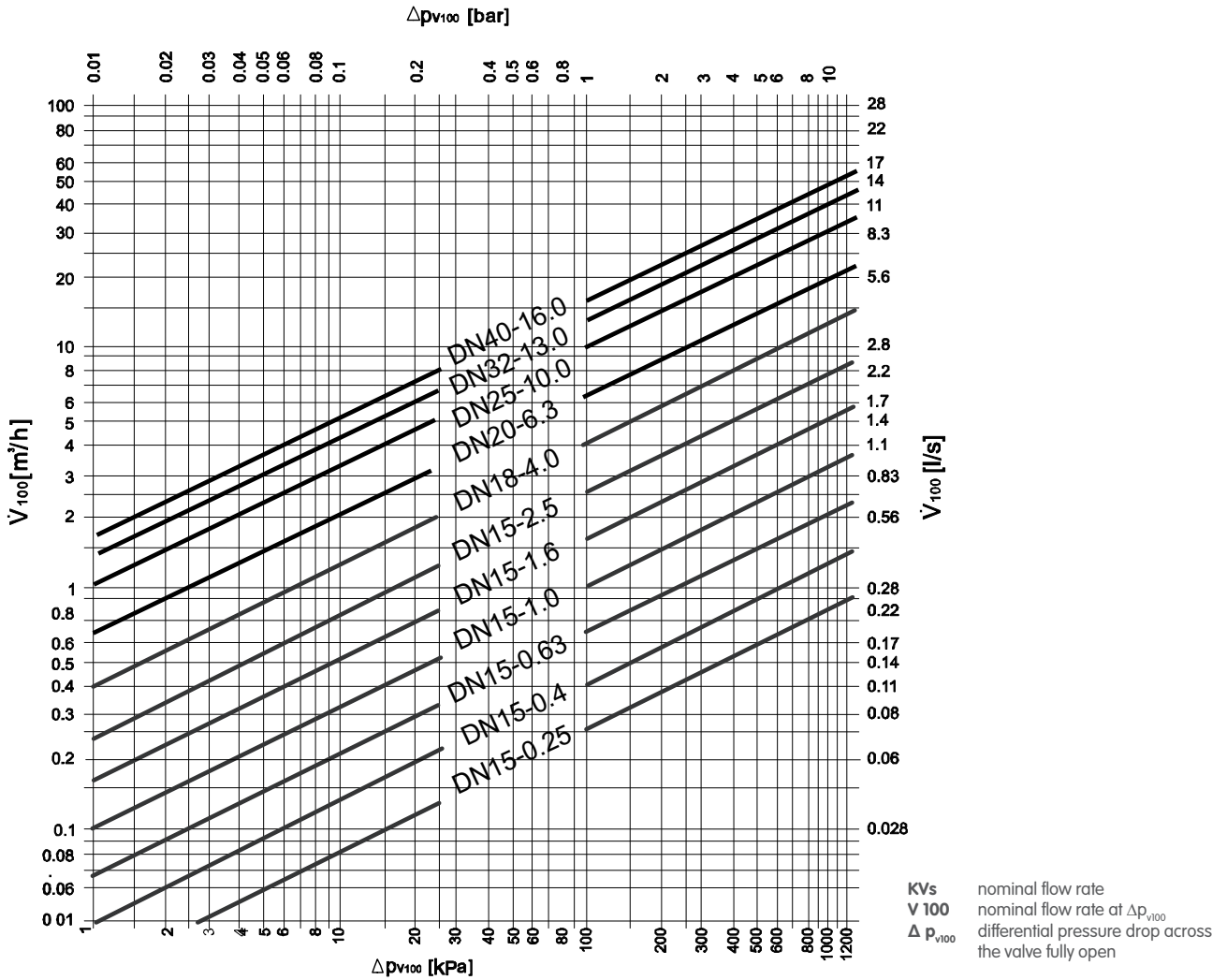
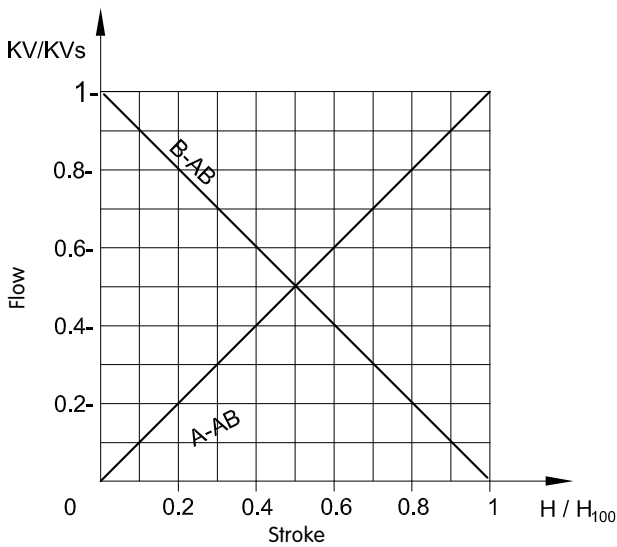


fig.3  
3-way mixing used in diverting application toward user

CONTROL DROP DIAGRAM



CONTROL FLOW CHARACTERISTICS

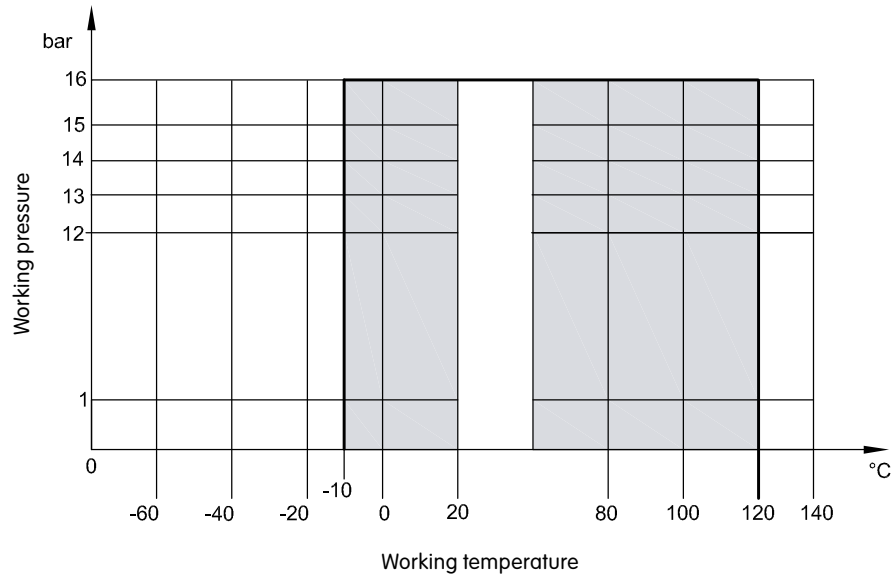


3-way used as mixing inlet in A and B, outlet AB  
 3-way used as diverting inlet in AB outlet from A and B

- Via AB**            constant flow
- Via A**             variable flow
- Via B (bypass)**   variable flow



DIAGRAM PRESSURE / TEMPERATURE



OVERALL DIMENSIONS (mm)

G	A	B	C		D	H min.	WEIGHT (g)	
			VFZ3	VFZ2			VFZ2	VFZ3
G 1/2	66	55.3	40.5	32.5	33.0	205	600	620
G 3/4	90	60.8	56.0	42.0	45.0	210	1050	1150
G 1	96	68.3	59.2	40.5	48.0	220	1400	1150
G 1 1/4	109	71.3	67.2	47.5	54.5	225	1850	2000
G 1 1/2	122	75.8	72.0	55.0	61.0	230	2650	2700

