



THREADED GLOBE VALVES IN CAST IRON - STROKE 5,5 mm

VFZ

APPLICATION

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 _s m ³ /h	MAX DIFF. PRESSURE * bar
2-WAY	3-WAY			
VFZ210	VFZ310	DN15 (G 1/2)	0.25	2.5 (10.0)
VFZ211	VFZ311	DN15 (G 1/2)	0.4	2.5 (10.0)
VFZ212	VFZ312	DN15 (G 1/2)	0.63	2.5 (10.0)
VFZ213	VFZ313	DN15 (G 1/2)	1.0	2.5 (10.0)
VFZ214	VFZ314	DN15 (G 1/2)	1.6	2.5 (10.0)
VFZ215	VFZ315	DN15 (G 1/2)	2.5	2.5 (10.0)
VFZ218	VFZ318	DN20 (G 3/4)	4.0	2.0 (5.0)
VFZ220	VFZ320	DN20 (G 3/4)	6.3	2.0 (5.0)
VFZ225	VFZ325	DN25 (G 1)	10.0	2.0 (2.5)
VFZ232	VFZ332	DN32 (G 1 1/4)	13.0	2.0 (2.5)
VFZ240	VFZ340	DN40 (G 1 1/2)	18.0	2.0 (2.0)

*dP_{max} The values in brackets are the max differential pressure when valve is fully closed. The servomotor can open and close the valve with safely. The values out of the brackets are the suggested max pressure drop (valve fully open).

TECHNICAL DATA

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
Stroke lenght: 5.5 mm

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



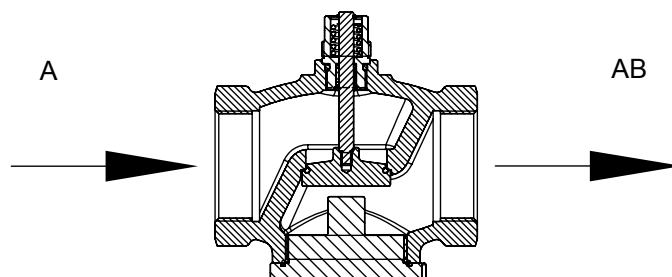
INSTALLATION

PIPING CONNECTIONS

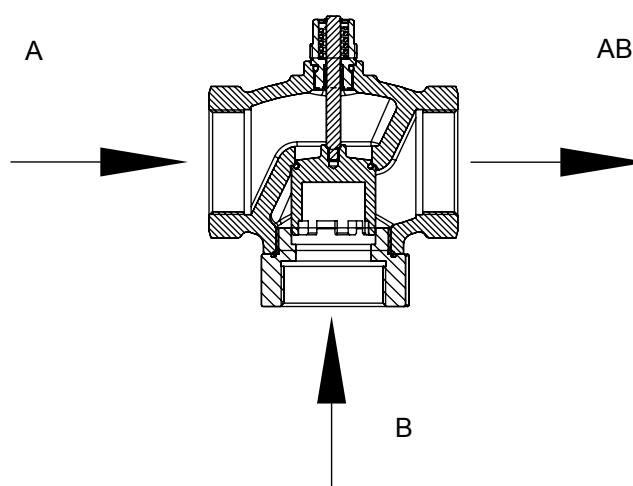
Make the piping connections according to flow directions indicated on valve body as the following drawings.

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

2-way valve



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 fig.2 (2 inlets 1 output). If the valve is used in diverting way (fig.3, 1 inlet 2 outputs), the max differential pressure allowed is reduced by 50%.

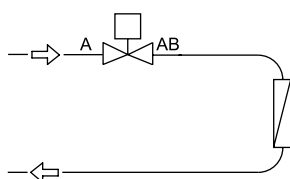


fig.1
2-way

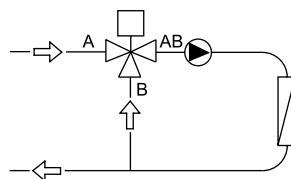


fig.2
3-way mixing used in mixing application
toward user

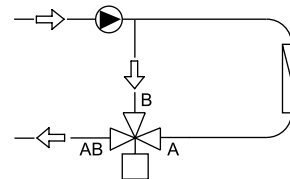
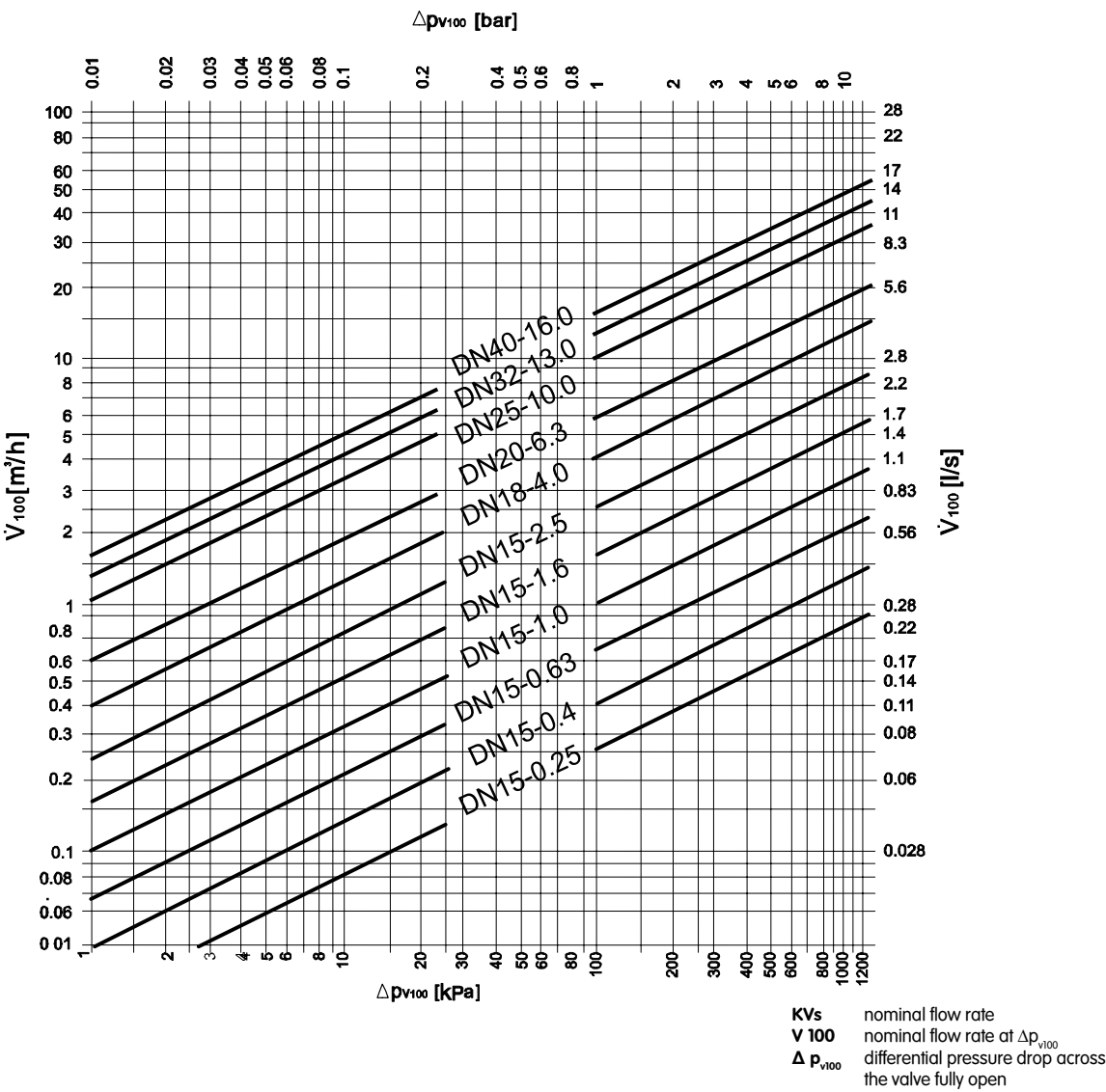
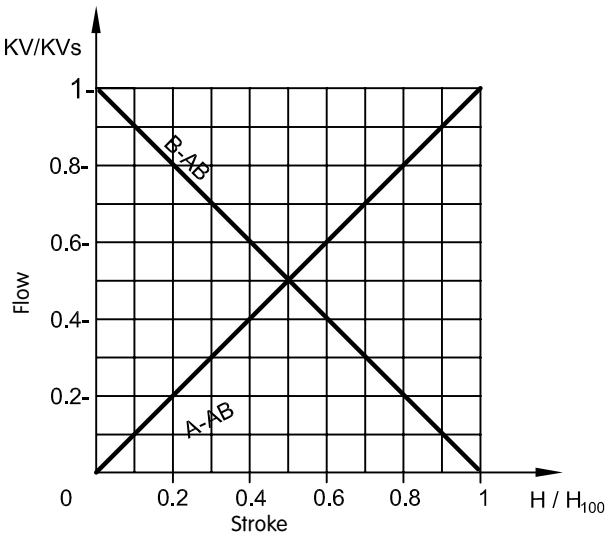


fig.3
3-way mixing used in diverting application
toward user

CONTROL DROP DIAGRAM



CONTROL FLOW CHARACTERISTICS



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

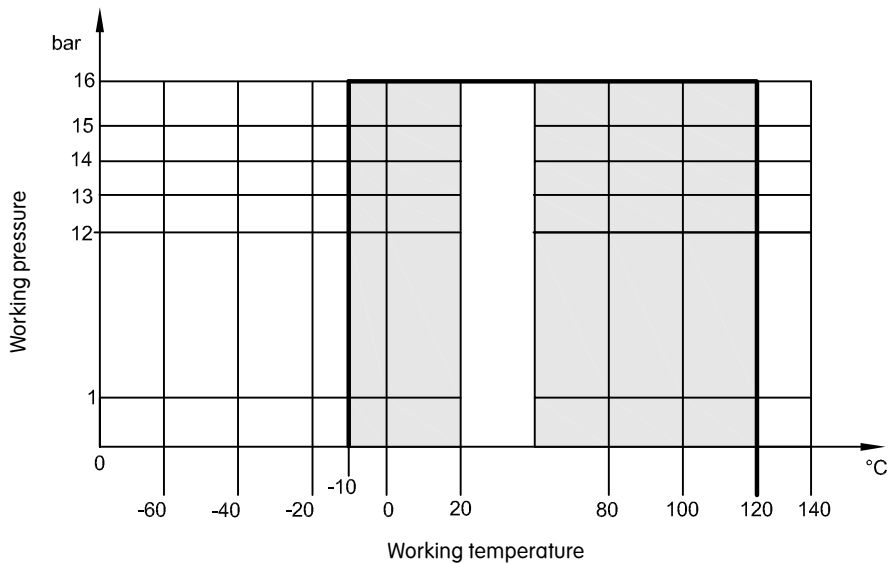
- AB-Way constant flow
- A-Way variable flow
- B-Way (bypass) variable flow



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DIAGRAM PRESSURE / TEMPERATURE



OVERALL DIMENSIONS (mm)

G	A	B	C	C1	D	H min.	WEIGHT (g)	
							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

