



THREADED GLOBE VALVE BODIES - STROKE 16,5 mm

VFS

APPLICATION AND USE

VFS valve bodies are used in HVAC systems to control and regulate fluids. Valves are female threaded for connections. 3-way valves are used as mixing. They can also be used as diverting by reducing the max differential pressure value by 50%. Do not use the bypass (angle way) as control port. VFS valve bodies are motorized by SE6 series electric actuators.

WORKING

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

TYPE		CONNECTION	KV _s m ³ /h	MAX DIFF. PRESS. (*) bar
2-WAY	3-WAY			
VFS215	VFS315	G 1/2	2.5	2.2 (11.0)
VFS218	VFS318	G 3/4	4.0	2.2 (11.0)
VFS220	VFS320	G 3/4	6.3	2.2 (11.0)
VFS225	VFS325	G 1	10.0	2.2 (7.0)
VFS232	VFS332	G 1 1/4	16.0	2.2 (4.4)
VFS240	VFS340	G 1 1/2	25.0	2.2 (2.7)
VFS250	VFS350	G 2	40.0	2.2 (2.2)
VFS252	VFS352	G 2	30.0	2.2 (2.2)

(*) 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: female threaded GAS
Valve body: cast-iron G25
Plug: brass OT58
Stem: stainless steel AISI304
Stem packing nut: brass OT58
Spring: stainless steel AISI304
Stem packing: FKM O-ring
Control stroke: 16.5 mm

Control flow characteristic: equal-percentage on way A→AB
 linear on way B→AB
Leakage: direct way A→AB perfect sealing
 angle way B→AB max 0,2% KV_s 50:1
Rangeability: 50:1
Fluid temperature: -10...+140°C
Fluid type: water
 water with max 50% glycol
 saturated steam max 2,5 Ata
Dimensions: see relevant table
Weight: see relevant table

ACCESSORIES

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



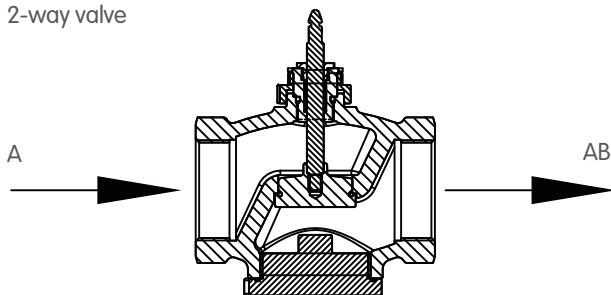
INSTALLATION

PIPING CONNECTIONS

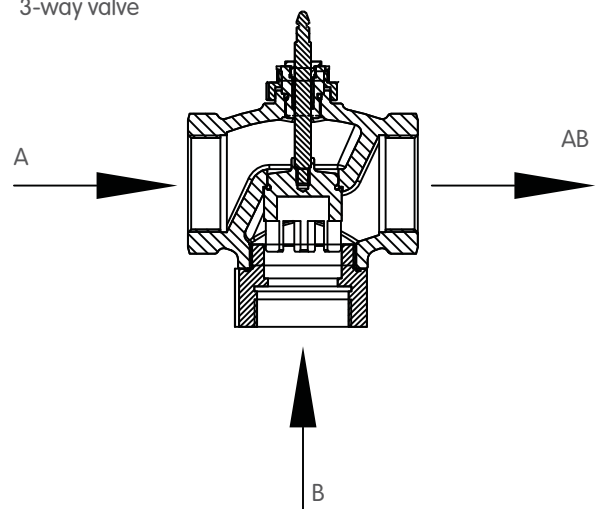
Make the piping connections according to flow directions indicated on valve body as the following drawings.

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

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 in the vertical or horizontal position, never at upside down. Leave sufficient clearance to facilitate the dismantling of actuator from the valve body for maintenance purpose.

The valve must not be installed in an explosive atmosphere or in places in which temperature and humidity are outside ranges indicated on the data sheet. Valve must not be subjected to steam or water jets or dripping liquid. 3-way valve must be used as mixing valve (2 inlets 1 output). If the valve is used in diverting way (fig.3, 1 inlet 2 outputs), the max differential pressure indicated in the data sheet must be reduced by 50%.

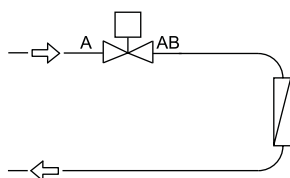


fig.1
2-way

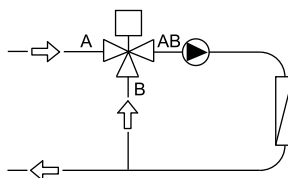


fig.2
3-way mixing used in mixing application toward user

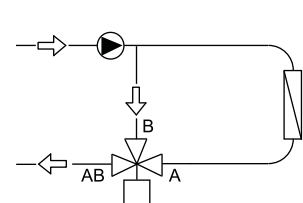
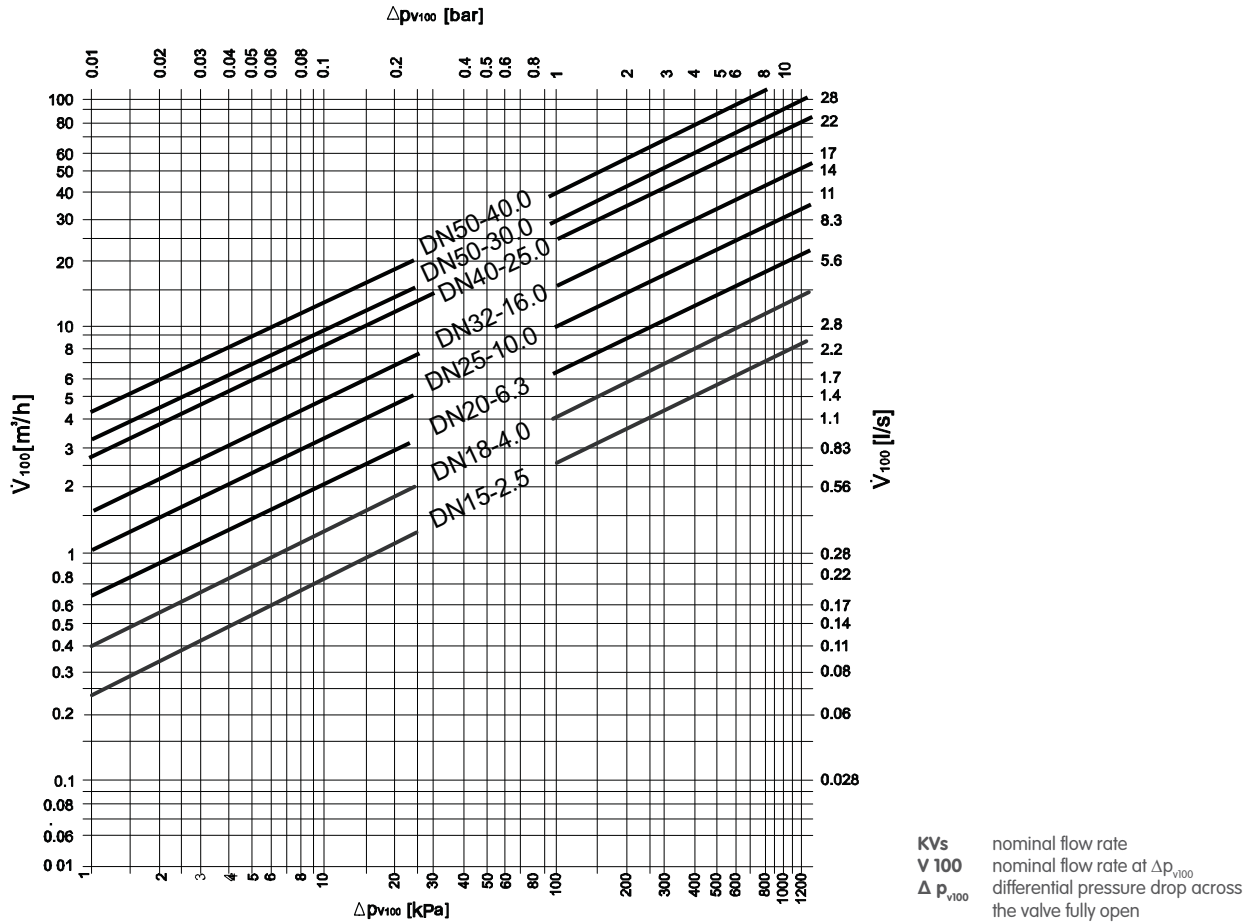
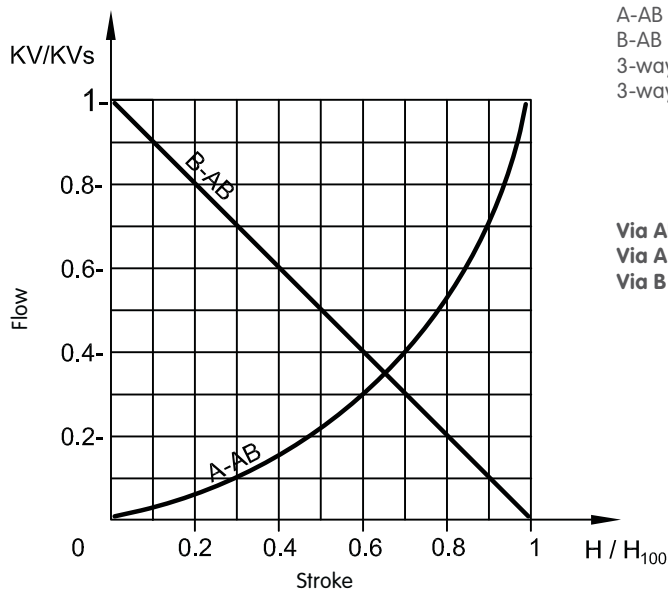


fig.3
3-way mixing used in diverting application toward user

CONTROL DROP DIAGRAM



CONTROL FLOW CHARACTERISTICS

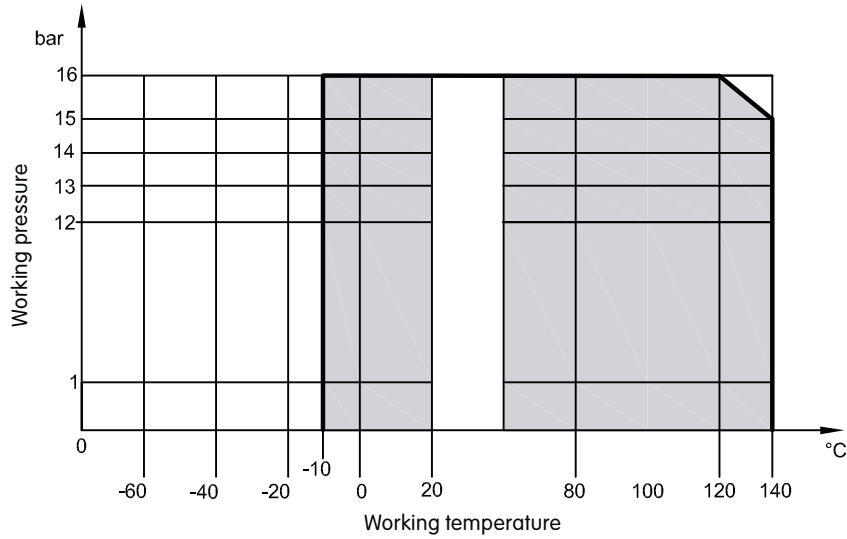


A-AB equal-percentage way
 B-AB bypass linear way
 3-way used as mixing inlet in A and B, outlet AB
 3-way used as diverting inlet in AB, outlet from A and B

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



PRESSURE / TEMPERATURE DIAGRAM



OVERALL DIMENSIONS (mm)

G	A	B	C	C1	D	H min.	Weight (g)	
			VFS3	VFS2			VFS2	VFS3
G 1/2	66	73.5	40.5	32.5	33.0	300	650	800
G 3/4	90	79.0	64.0	42.0	45.0	305	1100	1250
G 1	96	86.5	70.0	40.5	48.0	310	1450	1650
G 1 1/4	109	89.5	76.5	47.5	54.5	315	1950	2200
G 1 1/2	122	94.0	80.0	55.0	61.0	320	2750	2950
G 2	196	108.5	90.5	57.5	98.0	334.5	3950	4250

