



## FLANGED GLOBE VALVE BODIES - STROKE 16,5 mm

VFSF

### 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. VFSF valve bodies are motorized by SE6 series electric actuators.

TYPE		DN	KVs m <sup>3</sup> /h	STROKE mm	MAX DIFF. PRESS. * bar
2-WAY	3-WAY				
VFSF215	VFSF315	DN15	2.5	16.5	2.2 (11.0)
VFSF220	VFSF320	DN20	6.3	16.5	2.2 (11.0)
VFSF225	VFSF325	DN25	10.0	16.5	2.2 (7.0)
VFSF232	VFSF332	DN32	16.0	16.5	2.2 (4.4)
VFSF240	VFSF340	DN40	25.0	16.5	2.2 (2.7)
VFSF250	VFSF350	DN50	40.0	16.5	2.2 (2.2)

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

### TECHNICAL FEATURES

**Nominal pressure:** PN16 (ISO7268/EN1333)  
**VFSF2-VFSF3:** direct way A→AB equal-percentage  
**VFSF3:** angle way B→AB linear  
**Leakage:**  
**VFSF2-VFSF3:** direct way A→AB 0...0.05% of KVs  
**VFSF3:** angle way A→AB 0...1% of KVs  
**Connections:** flanged  
**Stroke length:** 16.5 mm (max 18.3)  
**Rangeability:** 50:1  
**Fluids type:** water  
**Fluidtemperature:** -10...+130 °C  
**Dimensions:** see relevant table  
**Weight:** see relevant table

### WORKING

When stem is up, the direct way is closed, with stem is down direct way is open.

### MANUFACTURING CHARACTERISTICS

- Valve body is made of G25 cast iron.
- Plug is made of brass with Contoured-type profile on direct way and V-port on angle way.
- Stem is made of CrNi steel with threaded M8.
- Stem packing is made of NOK O-ring and nitrile rubber.

### 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.

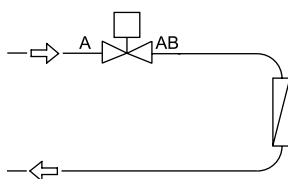


fig.1  
2-way

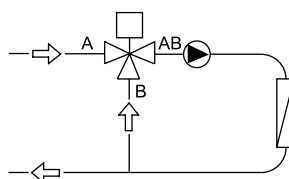


fig.2  
3-way mixing used in mixing application  
toward user

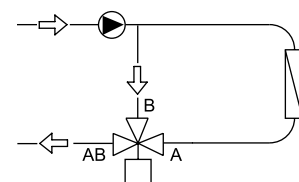
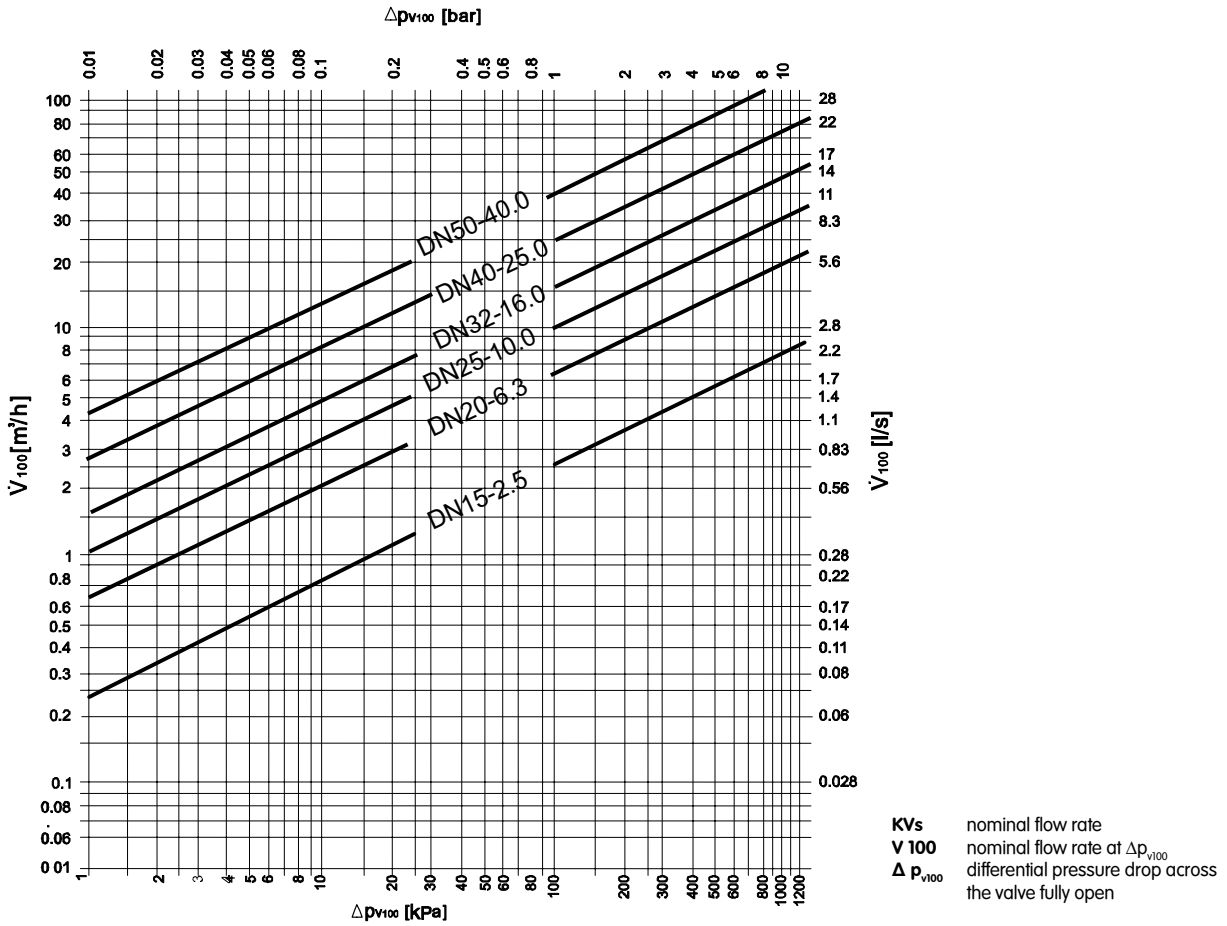
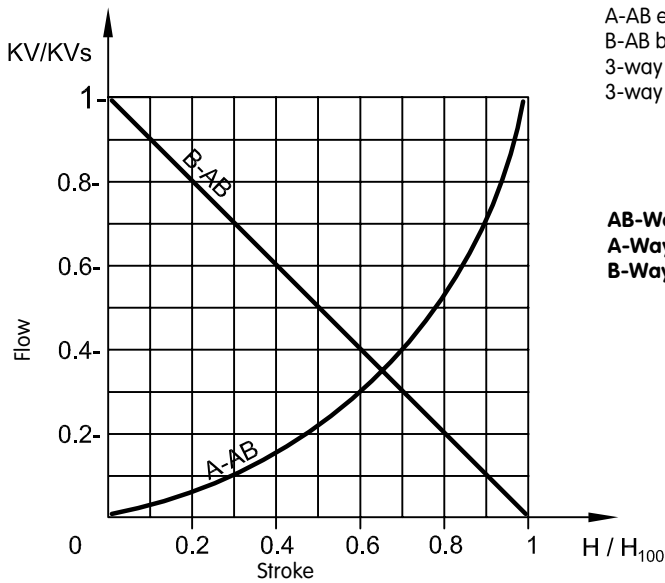


fig.3  
3-way mixing used in diverting application  
toward user

CONTROL DROP DIAGRAM



CONTROL FLOW CHARACTERISTICS



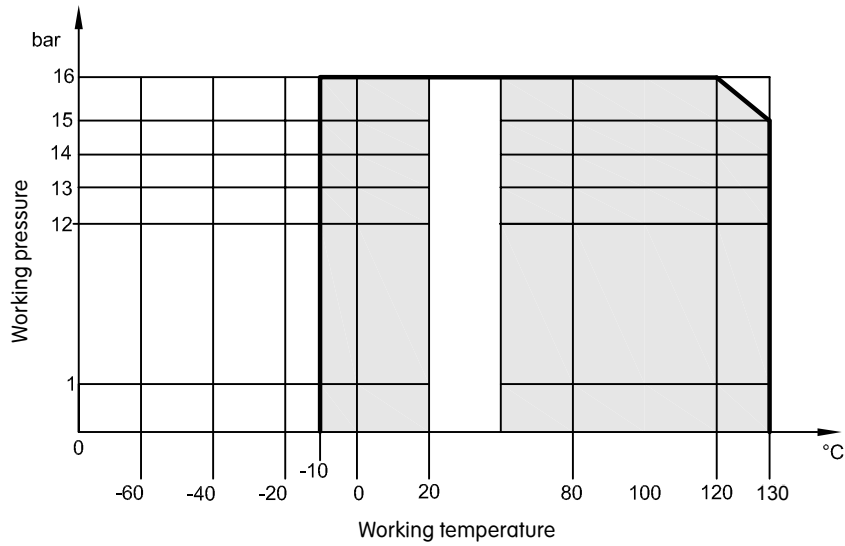
A-AB equal-percentage way  
 B-AB bypass linear way  
 3-way used as mixing inlet in A and B, outlet AB  
 3-way used as diverting inlet in AB, outlet from A and B

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

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## PRESSURE / TEMPERATURE DIAGRAM



## OVERALL DIMENSIONS (mm)

DN mm	A	B	C	C1	D	E	F	H	I	K	2F kg	3F kg
15	116	87.0	70.5	32.5	58.0	95	12.0	300	14	65	2.3	2.8
20	155	85.5	86.0	42.0	77.5	105	14.0	305	14	75	2.7	3.7
25	161	93.0	89.0	42.5	80.5	115	14.0	310	14	85	3.5	4.7
32	181	96.0	96.4	47.5	90.5	140	16.0	315	18	100	4.8	6.5
40	202	100.5	104.5	55.0	101.0	150	16.5	320	18	110	6.6	8.7
50	284	113.5	139.0	71.0	142.0	165	18.0	334.5	18	125	9.5	12.6

