

# 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.

ТҮРЕ		DN	KVs	STROKE	MAX DIFF. PRESS. *		
2-WAY	3-WAY		m³/h	mm	bar		
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 safely. 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  $A \rightarrow AB$  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 lenght: 16.5 mm (max 18.3) **Rangeability:** 50:1 Fluids type: water Fluidtemperature: -10...+130 °C Dimensions: see relevant table 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.

#### 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.

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

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#### 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-Wayconstant flowA-Wayvariable flowB-Way (bypass)variable flow





## PRESSURE / TEMPERATURE DIAGRAM

### OVERALL DIMENSIONS (mm)

DN mm	А	В	с	СІ	D	E	F	н	I	к	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



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