

Three-Way, Spring Return, Low Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies

Description

VF Series D-3000 Pneumatically Actuated Standard-Pressure, Standard-Temperature Butterfly Valves are designed specifically for a wide range of Heating, Ventilating, and Air Conditioning (HVAC) applications including two-position and modulating control of hot, chilled, or condenser water, and 50/50 glycol solutions. These valves are also bidirectional, allowing positive shutoff with the flow in either direction. Three-way assemblies have two valves that are linked together and mounted on a flanged, cast-iron tee. Three-way configurations are available in sizes 2 through 8 in.

- Disk: aluminum bronze
- Valve stem: stainless steel
- Seat: EPDM
- Fluid temperature rating: -30 to 250°F
- Actuator ambient temperature rating: -20 to 150°F
- Air supply pressure 20 psi minimum
- Actuator body material: cast aluminum
- Valve assemblies for On/Off applications are valve actuator positioner, 30 psig maximum air pressure rating
- Valve assemblies for proportional application standard with D-9502 valve actuator positioner, 25 psig maximum air pressure rating



Three-Way Pneumatically Actuated Butterfly Valve Assembly

Features

- Spring return open or closed
- ANSI Class 125/150 flanges
- Valve body: cast iron

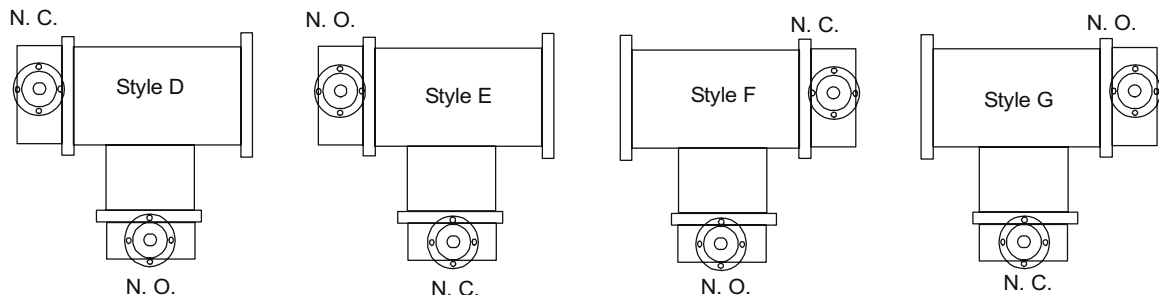
Repair Information

If the VF Series Butterfly Valve Assembly fails to operate within its specifications, replace the unit. For a replacement valve, contact the nearest Johnson Controls® representative.

Selection Chart

Size In.	Cv at 70°	Closeoff psig	On/Off (Proportional)	Proportional (With Positioner)
Three-Way Butterfly Valve Assemblies¹ — 175 psig Closeoff Pressure — Rated for 150 psi Dead-End Service				
2	105	175	VF4831AD+3153	VF4831AD+3153P
2-1/2	156	175	VF4831BD+3244	VF4831BD+3244P
3	240	175	VF4831CD+3244	VF4831CD+3244P
4	423	175	VF4831DD+3246	VF4831DD+3246P
5	656	175	VF4831ED+3246	VF4831ED+3246P
6	941	175	VF4831FD23246 ²	VF4831FD23246P ²
Three-Way Butterfly Valve Assemblies¹ — 50 psig Closeoff Pressure — Rated for 50 psig Dead-End Service				
4	423	50	VF6831DD+3244	VF6831DD+3244P
5	656	50	VF6831ED+3246	VF6831ED+3246P
6	941	50	VF6831FD+3246	VF6831FD+3246P
8	1,660	50	VF6831GD23246 ²	VF6831GD23246P ²

- Code numbers listed above are three-way valves, Style D. For Styles E, F, or G, change the D in the eighth digit of the code number to the desired style. Example: VFxxxxxE+xxxxxx, VFxxxxxF+xxxxxx, VFxxxxxG+xxxxxx.
- Valve assemblies have two actuators mounted in tandem.



Three-Way Valve Body Styles

VF Series Three-Way, Spring Return, Low Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies (Continued)

Technical Specifications

VF Series Three-Way, Spring Return, Low Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies		
Service	Hot Water, Chilled Water, Condenser Water, 50/50 Glycol Solutions (Not designed for use in steam applications.)	
Fluid Temperature	-30 to 250°F (-34 to 121°C)	
Maximum Fluid Velocity	30 ft/s (9 m/s)	
Rangeability	80:1 Minimum	
Flow Characteristics	Modified Equal Percentage	
Leakage	Bubble Tight, Bidirectional Shutoff Rated For Dead-End Service (Unidirectional), INLET Must Face Pressure	
Materials	Body, Valve	Cast Iron, ASTM A126 CL B
	Disk	Cast Iron
	Seat	Ethylene Propylene Diene Monomer (EPDM)
	Stem	416 Stainless Steel
	Bearings	Reinforced Polytetrafluorethylene (RPTFE)
	Body, Actuator	Die Cast Aluminum
	Diaphragm, Actuator	Synthetic Elastomer
	Body, Positioner	Die Cast Aluminum
	Cover, Positioner	Noryl
Actuator Ambient Operating Temperature Limits	-20 to 150°F (-29 to 66°C)	
Ambient Storage Temperature Limits	-20 to 150°F (-29 to 66°C); Preferably 40 to 85°F (4 to 29°C)	