

## Two-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.

### Features

- Spring return open or closed
- ANSI Class 125/150 flanges
- Valve body: cast iron
- 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 pressure rating.
- Valve assemblies for proportional applications standard with D-9502 valve actuator positioner, 25 psig maximum air pressure rating

### 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.



Two-Way Pneumatically Actuated Butterfly Valve Assembly

### Selection Chart

Size, in.	Cv at 70°	Closeoff psig	On/Off (Proportional)		Proportional (with Positioner)	
			Spring Open	Spring Closed	Spring Open	Spring Closed
<b>Two-Way Butterfly Valve Assemblies - 200 psig Closeoff Pressure - Rated for 150 psi Dead-End Service</b>						
2	105	175	VF4231AA+3153	VF4431AA+3153	VF4231AA+3153P	VF4431AA+3153P
2-1/2	156	175	VF4231BA+3153	VF4431BA+3153	VF4231BA+3153P	VF4431BA+3153P
3	240	175	VF4231CA+3153	VF4431CA+3153	VF4231CA+3153P	VF4431CA+3153P
4	423	175	VF4231DA+3244	VF4431DA+3244	VF4231DA+3244P	VF4431DA+3244P
5	656	175	VF4231EA+3246	VF4431EA+3246	VF4231EA+3246P	VF4431EA+3246P
6	941	175	VF4231FA+3246	VF4431FA+3246	VF4231FA+3246P	VF4431FA+3246P
8	1,660	175	VF4231GA23246 <sup>1</sup>	VF4431GA23246 <sup>1</sup>	VF4231GA23246P <sup>1</sup>	VF4431GA23246P <sup>1</sup>
<b>Two-Way Butterfly Valve Assemblies - 50 psig Closeoff Pressure - Rated for 50 psig Dead-End Service</b>						
4	423	50	VF6231DA+3153	VF6431DA+3153	VF6231DA+3153P	VF6431DA+3153P
5	656	50	VF6231EA+3244	VF6431EA+3244	VF6231EA+3244P	VF6431EA+3244P
6	941	50	VF6231FA+3246	VF6431FA+3246	VF6231FA+3246P	VF6431FA+3246P
8	1,660	50	VF6231GA+3246	VF6431GA+3246	VF6231GA+3246P	VF6431GA+3246P
10	2,560	50	VF6231HA23246 <sup>1</sup>	VF6431HA23246 <sup>1</sup>	VF6231HA23246P <sup>1</sup>	VF6431HA23246P <sup>1</sup>

1. Valve assemblies have two actuators mounted in tandem.

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

### Technical Specifications

VF Series Two-Way, Spring Return, Low Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies		
<b>Service</b>	Hot Water, Chilled Water, Condenser Water, 50/50 Glycol Solutions (Not designed for use in steam applications.)	
<b>Fluid Temperature</b>	-30 to 250°F (-34 to 121°C)	
<b>Maximum Fluid Velocity</b>	30 ft/s (9 m/s)	
<b>Rangeability</b>	80:1 Minimum	
<b>Flow Characteristics</b>	Modified Equal Percentage	
<b>Leakage</b>	Bubble Tight, Bidirectional Shutoff Rated For Dead-End Service (Unidirectional), <b>INLET</b> Must Face Pressure	
<b>Materials</b>	<b>Body, Valve</b>	Cast Iron, ASTM A126 CL B
	<b>Disk</b>	Aluminum Bronze, ASTM B148
	<b>Seat</b>	Ethylene Propylene Diene Monomer (EPDM)
	<b>Stem</b>	416 Stainless Steel
	<b>Bearings</b>	Reinforced Polytetrafluorethylene (RPTFE)
	<b>Body, Actuator</b>	Die Cast Aluminum
	<b>Diaphragm, Actuator</b>	Synthetic Elastomer
	<b>Body, Positioner</b>	Die Cast Aluminum
	<b>Cover, Positioner</b>	Noryl
<b>Actuator Ambient Operating Temperature Limits</b>	-20 to 150°F (-29 to 66°C)	
<b>Ambient Storage Temperature Limits</b>	-20 to 150°F (-29 to 66°C); Preferably 40 to 85°F (4 to 29°C)	