

VF Series

# 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.

## 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 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

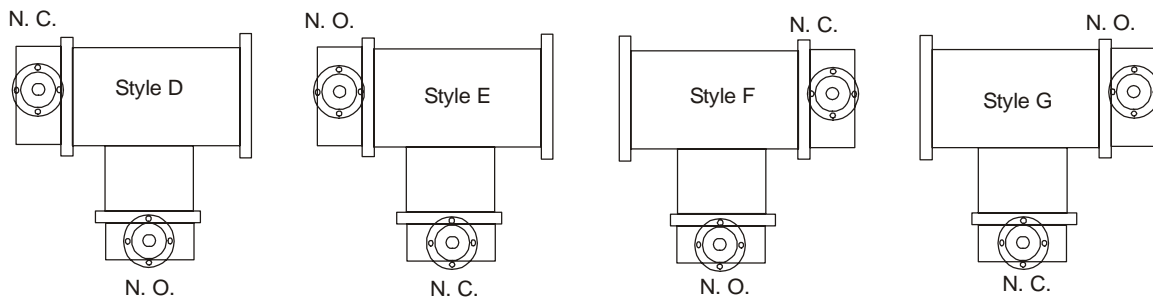
## Selection Chart

Size In.	Cv at 70°	Closeoff psig	On/Off (Proportional)	Proportional (With Positioner)
<b>Three-Way Butterfly Valve Assemblies<sup>1</sup> — 175 psig Closeoff Pressure — Rated for 150 psi Dead-End Service</b>				
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 <sup>2</sup>	VF4831FD23246P <sup>2</sup>
<b>Three-Way Butterfly Valve Assemblies<sup>1</sup> — 50 psig Closeoff Pressure — Rated for 50 psig Dead-End Service</b>				
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 <sup>2</sup>	VF6831GD23246P <sup>2</sup>

1. 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.

2. Valve assemblies have two actuators mounted in tandem.

## Valve Body Styles



Three-Way Valve Body Styles

## 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		
<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>	Cast Iron
	<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)	