

VF Series

LIT-1900147

## Three-Way, Industrial-Grade, Non-Spring Return, Electric Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies

### Description

VF Series Standard-Pressure, Standard-Temperature Butterfly Valves are designed for control of hot water, chilled water, 50% glycol solutions and condenser water in a wide range of HVAC applications.

### Features

- non-spring return (drive open, drive closed)
- ANSI Class 125/150 flanges
- valve body: cast iron
- disc: ductile iron coated with Nylon 11
- valve stem: 416 stainless steel

- seat: EPDM
- fluid temperature rating: -40 to 250°F
- actuator ambient temperature rating -40 to 150°F
- actuator resolution: 100 positions
- manual opener: standard
- internal heater: standard
- modulating input: 4 to 20 mA or 0 to 10 VDC
- 120 VAC input voltage
- NEMA 4X water-tight, corrosion-resistant enclosure
- thermal overload protection



Three-Way Valve with Industrial-Grade Non-Spring Return, VA-907x Series Electric Actuator

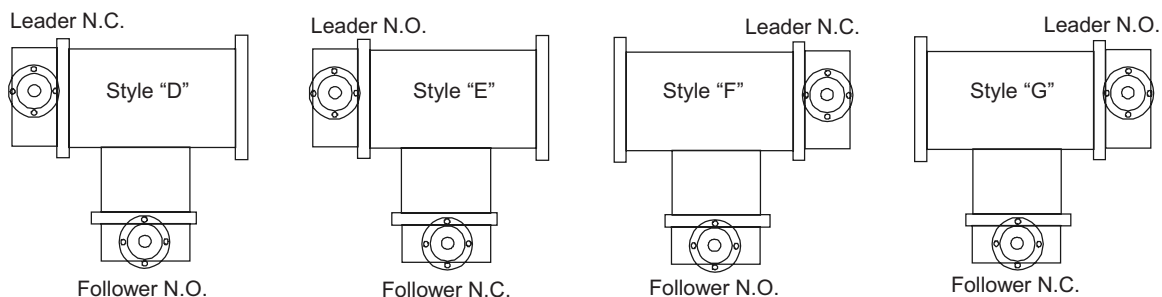
### Selection Chart

VF Series Three-Way, Industrial Grade, Non-Spring Return, Electrically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies

Actuator				On/Off	0 to 10 VDC Proportional
Size, in.	Cv at 90°	Cv at 60°	Closeoff		
<b>Three-Way Butterfly Valve Assemblies <sup>1</sup> – 175 psig Closeoff Pressure; 75 psig Dead-End Service</b>					
2	144	61	175	VFD-020HB-721D	VFD-020HB-701N
2-1/2	282	107	175	VFD-025HB-721D	VFD-025HB-701N
3	461	154	175	VFD-030HB-721D	VFD-030HB-701N
4	841	274	175	VFD-040HB-723D	VFD-040HB-703N
5	1,376	428	175	VFD-050HB-723D	VFD-050HB-703N
6	1,850	567	175	VFD-060HB-724D	VFD-060HB-704N
8	3,316	1,081	175	VFD-080HB-725D	VFD-080HB-705N
10	5,430	1,710	175	VFD-100HB-727D	VFD-100HB-707N
12	8,077	2,563	175	VFD-120HB-728D	VFD-120HB-708N
<b>Three-Way Butterfly Valve Assemblies <sup>1</sup> – 50 psig Closeoff Pressure; Not Rated for Dead-End Service</b>					
4	841	274	50	VFD-040LB-721D	VFD-040LB-701N
5	1,376	428	50	VFD-050LB-722D	VFD-050LB-702N
6	1,850	567	50	VFD-060LB-723D	VFD-060LB-703N
8	3,316	1,081	50	VFD-080LB-724D	VFD-080LB-704N
10	5,430	1,710	50	VFD-100LB-725D	VFD-100LB-705N
12	8,077	2,563	50	VFD-120LB-727D	VFD-120LB-707N

1. Code numbers listed above are three-way valves, style "D". For styles "E", "F", or "G" change the "D" in the third digit of the code number to the desired style. Example: VFE-xxxxx-xxxx, VFF-xxxxx-xxxx, VFG-xxxxx-xxxx.

**VF Series Three-Way, Industrial-Grade, Non-Spring Return, Electric Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies (Continued)**



**Three-Way Valve Body Styles**

**Repair Information**

If the VF Series Three-Way, Industrial Grade, Non-Spring Return, Electrically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies fails to operate within its specifications, replace the unit. For a replacement valve, contact the nearest Johnson Controls® representative.

**Technical Specifications**

VF Series Three-Way, Industrial Grade, Non-Spring Return, Electrically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies		
<b>Service<sup>1</sup></b>		Hot Water, Chill Water, Condenser Water, and 50/50 Glycol Solutions
<b>Fluid Temperature Limits</b>	<b>Water</b>	-40 to 250°F (-40 to 121°C)
	<b>Steam</b>	Not Rated for Steam Service
<b>Maximum Closeoff</b>	<b>2 through 12 in. Type "H"</b>	175 psig (1,206 kPa) Bidirectional 75 psig (517 kPa) Dead-End Service
	<b>4 through 12 in. Type "L"</b>	50 psig (345 kPa) Bidirectional Not Rated for Dead-End Service
<b>Flow Characteristics</b>		Equal Percentage
<b>Maximum Fluid Velocity</b>		30 ft/second (9 m/second)
<b>End Connection</b>		Fully Lugged, designed to be installed between ANSI 125/150 lb flanges
<b>Actuator Ambient Operating Temperature Limits</b>		-40 to 200°F (-40 to 93°C)
<b>Actuator Input Voltage</b>		120 VAC
<b>Actuator Enclosure Rating</b>		NEMA 4X
<b>Materials</b>	<b>Body</b>	Cast Iron, Red Epoxy finish
	<b>Disc</b>	Ductile Iron Coated with Nylon 11
	<b>Seat</b>	Ethylene Propylene Diene Monomer (EPDM)
	<b>Stem</b>	416 Stainless Steel (2 through 12 in.) 304 Stainless Steel (14 through 20 in.)
	<b>Tee</b>	Cast Iron

1. Refer to VDI 2035 Standard for recommended proper water treatment.