

Two-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies

Description

VF Series Two-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valves are specifically designed for a wide range of 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.

Refer to the *VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)* for important product application information.

Features

- low seating/unseating torques
- bubble-tight shutoff
- broad range of pre-assembled actuators
- compatible with all types of American National Standards Institute (ANSI) 125/150 slip-on and weld-neck flanges

- high-integrity components
- D-3000 Series pneumatic actuators available with or without a pneumatic positioner
- air supply pressure 20 psi minimum
- valve assemblies for on/off applications for 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, refer to the *VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)* for a list of repair parts available.



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Selection Chart

Valve Code Number	Size, in.	Cv at 70°	Closeoff Pressure, psig	On/Off (Proportional) Control		Proportional Control (with Positioner)	
				Spring Closed	Spring Open	Spring Closed	Spring Open
Two-Way Butterfly Valve Assemblies — 175 psig Closeoff Pressure — Rated for 75 psig Dead-End Service							
VFC-020HB	2	84	175	VFC-020HB-001N	VFN-020HB-001N	VFC-020HB-001A	VFN-020HB-001A
VFC-025HB	2-1/2	163	175	VFC-025HB-001N	VFN-025HB-001N	VFC-025HB-001A	VFN-025HB-001A
VFC-030HB	3	267	175	VFC-030HB-001N	VFN-030HB-001N	VFC-030HB-001A	VFN-030HB-001A
VFC-040HB	4	496	175	VFC-040HB-002N	VFN-040HB-002N	VFC-040HB-002A	VFN-040HB-002A
VFC-050HB	5	775	175	VFC-050HB-003N	VFN-050HB-003N	VFC-050HB-003A	VFN-050HB-003A
VFC-060HB	6	1,025	175	VFC-060HB-003N	VFN-060HB-003N	VFC-060HB-003A	VFN-060HB-003A
VFC-080HB	8	1,862	175	VFC-080HB-005N ¹	VFN-080HB-005N ¹	VFC-080HB-005A ¹	VFN-080HB-005A ¹
Two-Way Butterfly Valve Assemblies — 50 psig Closeoff Pressure — Not Rated for Dead-End Service							
VFC-040LB	4	496	50	VFC-040LB-001N	VFN-040LB-001N	VFC-040LB-001A	VFN-040LB-001A
VFC-050LB	5	775	50	VFC-050LB-002N	VFN-050LB-002N	VFC-050LB-002A	VFN-050LB-002A
VFC-060LB	6	1,025	50	VFC-060LB-003N	VFN-060LB-003N	VFC-060LB-003A	VFN-060LB-003A
VFC-080LB	8	1,862	50	VFC-080LB-003N	VFN-080LB-003N	VFC-080LB-003A	VFN-080LB-003A
VFC-100LB	10	2,948	50	VFC-100LB-005N ¹	VFN-100LB-005N ¹	VFC-100LB-005A ¹	VFN-100LB-005A ¹

1. Valve assemblies have two actuators mounted in tandem.

Two-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies (Continued)
Technical Specifications

Two-Way, Spring-Return, Low-Pressure D-3000 Series Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies ¹		
Service	Hot, Chilled, or Condenser Water, and 50/50 Glycol Solutions (Not Designed for Use in Steam Applications)	
Body Styles and Sizes	Two-Way, 2 through 10 in., Fully Lugged	
Fluid Temperature Limits	-40°F to 250°F (-40°C or 121°C)	
Body Pressure Rating	175 psig	
Maximum Fluid Velocity	30 ft/second (9 m/second)	
Rangeability	Refer to the <i>VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)</i> .	
Leakage	Bubble Tight	
Flow Characteristics	Modified Equal Percentage	
Materials	Body	Cast Iron, ASTM A126 Class B
	Tee (Three-Way Valves Only)	Cast Iron
	Disc	Ductile Iron, Nylon 11 Coated, ASTM A536 Gr 65-45-12
	Seat	Ethylene Propylene Diene Monomer (EPDM)
	Stem	416 Stainless Steel
Ambient Temperature Limits	Storage	-20 to 150°F (-29 to 66°C), Preferably 40 to 85°F (4 to 29°C)
	Operating	Spring-Return Actuator: -40 to 131°F (-40 to 55°C) Non-Spring-Return Actuator: -4 to 122°F (-20 to 50°C)

1. Refer to the *VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)* for actuator specifications.