

# Two-Way, Industrial-Grade, Spring-Return, V-919x Series High-Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies

## Description

VF Series Two-Way, Industrial-Grade, Spring-Return, V-919x Series High-Pressure 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
- valve assemblies for on/off applications come standard with a 24 or 120 VAC solenoid valve with speed controls
- valve assemblies for proportional applications come standard with a valve actuator positioner

## 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.



**Two-Way, Industrial-Grade, Spring-Return, V-919x Series High-Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies**

Butterfly Valves and Actuators

## Selection Chart

Valve Code Number	Actuator				On/Off <sup>1</sup>		Proportional (with Positioner)	
	Size, in.	Cv at 90°	Cv at 70°	Closeoff Pressure, psig	Spring Closed	Spring Open	Spring Closed	Spring Open
<b>Two-Way, Spring Return<sup>1</sup> — 150 or 175 psig Closeoff Pressure; 75 psig Dead-End Service</b>								
VFC-020HB	2	144	84	175	VFC-020HB-320C	VFN-020HB-320C	VFC-020HB-320B	VFN-020HB-320B
VFC-025HB	2-1/2	282	163	175	VFC-025HB-330C	VFN-025HB-320C	VFC-025HB-330B	VFN-025HB-320B
VFC-030HB	3	461	267	175	VFC-030HB-340C	VFN-030HB-330C	VFC-030HB-340B	VFN-030HB-330B
VFC-040HB	4	841	496	175	VFC-040HB-450C	VFN-040HB-440C	VFC-040HB-450B	VFN-040HB-440B
VFC-050HB	5	1,376	775	175	VFC-050HB-432C	VFN-050HB-422C	VFC-050HB-432B	VFN-050HB-422B
VFC-060HB	6	1,850	1,025	175	VFC-060HB-442C	VFN-060HB-432C	VFC-060HB-442B	VFN-060HB-432B
VFC-080HB	8	3,316	1,862	175	VFC-080HB-640C	VFN-080HB-620C	VFC-080HB-640B	VFN-080HB-620B
VFC-100HB	10	5,430	2,948	175	VFC-100HB-740C	VFN-100HB-720C	VFC-100HB-740B	VFN-100HB-720B
VFC-120HB	12	8,077	4,393	175	VFC-120HB-750C	VFN-120HB-730C	VFC-120HB-750B	VFN-120HB-730B
VFC-140HC	14	10,538	5,939	150	VFC-140HC-760C	VFN-140HC-820C	VFC-140HC-760B	VFN-140HC-820B
VFC-160HC	16	13,966	7,867	150	VFC-160HC-840C	VFN-160HC-830C	VFC-160HC-840B	VFN-160HC-830B
VFC-180HC	18	17,214	10,065	150	VFC-180HC-850C	VFN-180HC-830C	VFC-180HC-850B	VFN-180HC-830B
VFC-200HC	20	22,339	12,535	150	VFC-200HC-860C	VFN-200HC-840C	VFC-200HC-860B	VFN-200HC-840B
<b>Two-Way, Spring Return<sup>1</sup> — 50 psig Closeoff Pressure; Not Rated for Dead-End Service</b>								
VFC-040LB	4	841	496	50	VFC-040LB-340C	VFN-040LB-330C	VFC-040LB-340B	VFN-040LB-330B
VFC-050LB	5	1,376	775	50	VFC-050LB-440C	VFN-050LB-340C	VFC-050LB-440B	VFN-050LB-340B
VFC-060LB	6	1,850	1,025	50	VFC-060LB-432C	VFN-060LB-422C	VFC-060LB-432B	VFN-060LB-422B
VFC-080LB	8	3,316	1,862	50	VFC-080LB-442C	VFN-080LB-432C	VFC-080LB-442B	VFN-080LB-432B
VFC-100LB	10	5,430	2,948	50	VFC-100LB-550C	VFN-100LB-530C	VFC-100LB-550B	VFN-100LB-530B
VFC-120LB	12	8,077	4,393	50	VFC-120LB-660C	VFN-120LB-630C	VFC-120LB-660B	VFN-120LB-630B
VFC-140LC	14	10,538	5,939	50	VFC-140LC-740C	VFN-140LC-720C	VFC-140LC-740B	VFN-140LC-720B
VFC-160LC	16	13,966	7,867	50	VFC-160LC-740C	VFN-160LC-730C	VFC-160LC-740B	VFN-160LC-730B
VFC-180LC	18	17,214	10,065	50	VFC-180LC-750C	VFN-180LC-730C	VFC-180LC-750B	VFN-180LC-730B
VFC-200LC	20	22,339	12,535	50	VFC-200LC-830C	VFN-200LC-820C	VFC-200LC-830B	VFN-200LC-820B

1. On/off assemblies come with a 120 VAC solenoid valve and speed controls. If a 24 VAC solenoid valve is desired, change the **C** at the end of the code number to an **E**.

**Two-Way, Industrial-Grade, Spring-Return, V-919x Series High-Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies (Continued)**

**Technical Specifications**

Two-Way, Industrial-Grade, Spring-Return, V-919x Series High-Pressure Pneumatically Actuated, Standard-Pressure, Standard-Temperature Butterfly Valve Assemblies <sup>1</sup>		
<b>Service</b>	Hot, Chilled, or Condenser Water, and 50/50 Glycol Solutions (Not Designed for Use in Steam Applications)	
<b>Body Styles and Sizes</b>	Two-Way, 2 through 20 in., Fully Lugged	
<b>Fluid Temperature Limits</b>	-40°F to 250°F (-40°C to 121°C)	
<b>Body Pressure Rating</b>	175 psig	
<b>Maximum Fluid Velocity</b>	30 ft/second (9 m/second)	
<b>Rangeability</b>	Refer to the <i>VF Series Standard-Pressure, Standard-Temperature Butterfly Valves Product Bulletin (LIT-977205P)</i> .	
<b>Leakage</b>	Bubble Tight	
<b>Flow Characteristics</b>	Modified Equal Percentage	
<b>Materials</b>	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 (2 through 12 in.) 304 Stainless Steel (14 through 20 in.)
<b>Ambient Temperature Limits</b>	Storage	-20 to 150°F (-29 to 66°C), Preferably 40 to 85°F (4 to 29°C)
	Operating	-40 to 200°F (-40 to 95°C)

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