VF Series

LIT-1900152

Two-Way, Manually Operated, High-Pressure, High-Temperature Butterfly Valve Assemblies

Description

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

Features

- ANSI Class 150 and 300 flanges
- valve body: carbon steel
- disc: stainless steel
- valve stem: stainless steel
- seat: RPTFE
- fluid temperature rating: -20 to 450°F

Repair Information

If the VF Series Two-Way, Industrial Grade, Manually Operated, High-Pressure, High-Temperature Butterfly Valve Assembly fails to operate within its specifications, replace the unit. For a replacement valve, contact the nearest Johnson Controls® representative.

Two-Way High Performance Valve with Manual Gear-Operator

Selection Chart

VF Series Two-Way, Industrial Grade, Manually Operated, High-Pressure, High-Temperature Butterfly Valve Assemblies

Actuator				Ten-Position Manual Handle	Gear-Operated Manual Hand Wheel
Size, in.	Cv at 90°	Cv at 60°	Closeoff		
Two-Way Butterfly Valve Assemblies – ANSI Class 300 Flanges [1]					
2-1/2	160	78	550 psig	**VFM-025ZE-000M**	**VFM-025ZE-000G**
3	185	123		**VFM-030ZE-000M**	**VFM-030ZE-000G**
4	375	250		**VFM-040ZE-000M**	**VFM-040ZE-000G**
5	790	360		**VFM-050ZE-000M**	**VFM-050ZE-000G**
6	1,000	530		**VFM-060ZE-000M**	**VFM-060ZE-000G**
8	2,000	950		---	**VFM-080ZE-000G**
10	2,650	1,200		---	**VFM-100ZE-000G**
12	4,000	1,690		---	**VFM-120ZE-000G**
14	3,900	1,570		---	**VFM-140ZE-000G**
Two-Way Butterfly Valve Assemblies – ANSI Class 150 Flanges [2]					
2-1/2	160	78	240 psig	**VFM-025VE-000M**	**VFM-025VE-000G**
3	185	123		**VFM-030VE-000M**	**VFM-030VE-000G**
4	375	250		**VFM-040VE-000M**	**VFM-040VE-000G**
5	790	360		**VFM-050VE-000M**	**VFM-050VE-000G**
6	1,350	510		**VFM-060VE-000M**	**VFM-060VE-000G**
8	2,800	1,060		---	**VFM-080VE-000G**
10	4,300	1,630		---	**VFM-100VE-000G**
12	6,650	2,530		---	**VFM-120VE-000G**
14	7,650	2,900		---	**VFM-140VE-000G**

1. Maximum closeoff pressure for ANSI Class 300 valves is 740 psig for fluid temperatures below 100°F, and 550 psig for fluid temperatures at 250°F. Maximum steam pressure is 150 psig for On/Off service and 50 psig for modulating service.
2. Maximum closeoff pressure for ANSI Class 150 valves is 280 psig for fluid temperatures below 100°F, and 240 psig for fluid temperatures at 250°F. Maximum steam pressure is 150 psig for On/Off service and 50 psig for modulating service.

VF Series Two-Way, Manually Operated, High-Pressure, High-Temperature Butterfly Valve Assemblies (Continued)

Technical Specifications

VF Series Two-Way, Industrial Grade, Manually Operated, High-Pressure, High-Temperature Butterfly Valve Assemblies		
Service[1]		Hot Water, Chill Water, Condenser Water, and Steam
Fluid Temperature Limits	**Water**	-20 to 500°F (-29 to 260°C)
	Steam	On/Off Applications: 150 psig (1,034 kPa) saturated steam at 366°F (185°C)
		Modulating Applications: 50 psig saturated steam at 298°F (148°C)
Maximum Closeoff	**ANSI Class 150**	280 psig at 100°F 240 psig at 250°F 100 psig at 500°F
	ANSI Class 300	720 psig at 100°F 550 psig at 250°F 100 psig at 500°F
End Connection		Fully Lugged
Materials	**Body**	Carbon Steel, ASTM A216 GR WCB/A516 GR 70
	Disc	Stainless Steel, ASTM A 351 GR CF8M
	Stem	17-4 PH Stainless Steel, ASTM A564-Type 630
	Taper Pin (Two Locations)	17-4 PH Stainless Steel, ASTM A564-Type 630 316 Stainless Steel, ASTM 276 Type 316
	Disc Spacer (Two Locations)	316 Stainless Steel, ASTM 276 Type 316
	Gland Ring	216 Stainless Steel, ASTM 276 Type 316
	Stem Seal	One Carbon Fiber Ring and Three TFE Rings
	Thrust Washer	316 Stainless Steel, ASTM 276 Type 316
	Gland Retainer	Carbon Steel, ASTM A216 GR WCB/A516 GR 70
	Stud (Two Locations)	316 Stainless Steel, ASTM A193-B8M
	Lock Washer (Two Locations)	18-8 Stainless Steel
	Hex Nut (Two Locations)	18-8 Stainless Steel
	Seat Assembly	RTFE with Silicone Rubber O-Ring
	Seat Retainer	Carbon Steel, ASTM A516 GR 70
	Cap Screw (Eight Locations)	Alloy Steel
	O-Ring Gasket	PTFE
	Locating Plug®	Carbon Steel, Phosphate Coated
	Bellville Washer and Grounding Washer	18-8 Stainless Steel (For 14 and 16 in. ANSI Class 150 Valves and 14 in. ANSI Class 300 Valves)

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