

# Butterfly Control Valves

## VFF6 Three-way (A-AB-B) Butterfly Control Valves



Resilient seat three-way valves provide control for HVAC system applications including chilled water, hot water, cooling tower water, and thermal storage systems.

**Body Pattern:** 3 way (A-AB-B porting)

**Valve Action:** Normally Closed

**Connection Type:** Lugged

**Controlled Medium:** Chilled or hot water with up to 50% Glycol; not for use with steam or fuels.

**Flow Characteristic:** Modified Equal Percent

**Mounting:** ANSI Flanged

**Static Pressure Rating (max):** 250 psi (1724 kPa)

**Actuator Ambient Temperature Ratings-5 F to 140 F:** (-20 C to 60 C)

**Temperature Range:** -40 F to 250 F (-40 C to 121 C)

**Number of Flange Bolts**

For 2 in., 2-1/2 in., 3 in. valves: 4

For 4 in., 5 in., 6 in., 8 in., valves: 8

For 10 in., 12 in., 14 in. valves: 12

For 16 in., 18 in. valves: 16

For 20 in. valves: 20

**Flange Bolt Thread**

For 2 in., 2-1/2 in., 3 in., 4 in. valves: 5/8 in. -11 pitch

For 5 in., 6 in., 8 in., valves: 3/4 in. -10 pitch

For 10 in., 12 in. valves: 7/8 in. -9 pitch

For 14 in., 16 in., 18 in., 20 in. valves: 1-1/8 in. -7 pitch

**Materials**

**(Body):** Polyester-coated cast iron ASTM A126 Class B

**(Stem):** 416 Stainless Steel

**(Seat):** Peroxide-cured EPDM resilient seat

**(Plug/Ball/Disc):** Nylon 11-coated ductile iron (optional: aluminum, bronze, and stainless steel)

**Approvals**

**CE:** Compliant

**Underwriters Laboratories, Inc:** C/US UL873, Plenum Rated

**Accessories:**

**VFF50-0400-**Position status monitor for VFF butterfly valves with high pressure pneumatic actuators

# Butterfly Control Valves

Butterfly Valves	Fitting	Body Pattern	Size	Disk size (close-off)	Pressure Rating	Valve trim	Actuator secondary Specification	Actuator primary Specification	Description	Actuator Type	
VF	Butterfly Valve, resilient seat										
	F	Flanged fitting									
		1	2-way (spring return normally open)								
		2	2-way (non-spring return: Spring return normally closed or field-convertible)								
		3	3-way A-B-AB (mixing/diverting)								
		6	3-way A-AB-B (diverting/mixing)								
		F	2 inch (DN50)								
		G	2-1/2 inch (DN65)								
		H	3 inch (DN80)								
		J	4 inch (DN100)								
		K	5 inch (DN125)								
		L	6 inch (DN150)								
		M	8 inch (DN200)								
		N	10 inch (DN250)								
		P	12 inch (DN300)								
		R	14 inch (DN350)								
		S	16 inch (DN400)								
		T	18 inch (DN450)								
		U	20 inch (DN500)								
		V	Undercut disk (lower actuator torque; 50 psid close-off)								
		W	Full diameter disk (high close-off)								
			1	ANSI 150 psig body pressure rating							
			2	ANSI 250 psig body pressure rating							
			Y	Nylon-coated disk, EPDM seat							
			2	NEMA 2 actuator housing (Honeywell DCA)							
			6	NEMA 6 actuator housing with manual operator and heater							
			X	NEMA 4X actuator housing with manual operator and heater							
			8	Spring Range 8-13 psi for 20 psi pneumatic actuator							
			C	24 Vac solenoid for 80 psi pneumatic actuator							
			D	Electro-pneumatic positioner for 80 psi actuator							
			E	120 Vac solenoid for 80 psi pneumatic actuator							
			P	Pneumatic positioner for modulating applications							
			X	Standard, two-position control only							
			L	Lever operator for dead end service							
			G	Geared operator for dead end service							
			A	Floating actuator							
			B	Modulating actuator							
			C	Two-position 24 Vac spring return actuator							
			D	Modulating spring return actuator							
			E	Two-position 120 Vac spring return actuator							
			P	Pneumatic actuator, spring return 20 psi							
			R	Pneumatic actuator, push-pull 80 psi							
			S	Pneumatic actuator, spring return 80 psi							
			X	Valve body only, for dead end service							
			I								
VF	F	2	J	V	1	Y	2	D	2-way, 4 inch flanged resilient-seat butterfly valve, undercut disk (50 psid close-off) modulating/floating control, spring return normally closed.	Electric	

Commercial Components

\*\*VFF50-0400 position status monitor for VFF butterfly valves with high pressure pneumatic actuators is available to be ordered separately or will be assembled to the valve if ordered at the same time. It is compatible with any high pressure pneumatic actuators without pneumatic or electro-pneumatic positioner (e.g. VFF...XR/XS, VFF...CR/CS, or VFF...ER/ES).