

## Plant Valves

# VFB Butterfly Valves

DN15...500, PN16

VFB Butterfly Valves Series are specifically designed for a wide range of Heating, Ventilating, and Air Conditioning (HVAC) applications, including two-position and modulating control of hot, chilled, or condenser water, and 50/50 glycol solutions.

All valves are factory tested for bubble-tight shutoff at 100% of the fully-rated pressure.

These valves are also bidirectional, allowing positive shutoff with the flow in either direction.

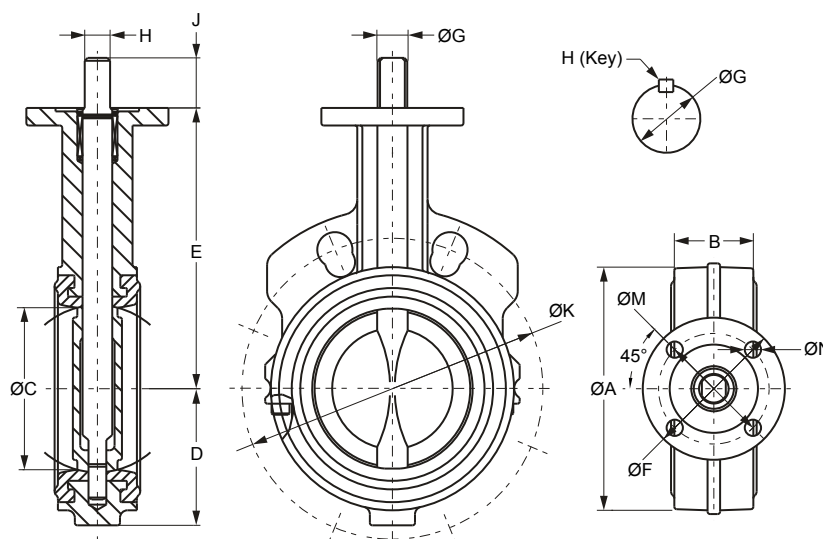
### Features

- Low Seating/Unseating Torques  
Reduce actuator torque and size requirements, particularly with lower-pressure rated valves
- Bubble-Tight Shutoff  
Ensures positive closure when needed
- Broad Range of Pre-Assembled Actuators  
Offers a wide selection for new and replacement electric and pneumatic actuators
- High-Integrity Components  
Provide quality valve assemblies, combining long cycle life with optimal engineered functional designs
- Fluid Temperature Limits  
-29 °C to 121 °C
- Flow Characteristics  
Modified Equal Percentage



## HVAC CONTROL PRODUCTS Valves

### Plant Valves VFB Butterfly Valves



### Two-Way Valve Dimensions (in mm)

Valve Size (mm)	Valve Size (inch)	A	B	C	D	E	F	M	N	G	H	J	Valve Net Weight** (kg)	Top Flange ISO 5211	Number of holes on Flange					
															K*	K*	K*			
																		PN6	PN10	PN16
25	1	60	30	32	43	25	65	50	7	10	8	25	1	F05	75	4 x M10	85	4 x M12	85	4 x M12
32	1-¼	70	32	41	53	25	65	50	7	10	8	25	1,15	F05	90	4 x M12	100	4 x M16	100	4 x M16
40	1-½	80	32	47	55	25	65	50	7	10	8	25	2.75	F05	100	4 x M12	110	4 x M16	110	4 x M16
50	2	94	42	51	56	140	90	70	10	14	10	32	3.05	F07	110	4 x M12	125	4 x M16	125	4 x M16
65	2-½	106	45	64	63	152	90	70	10	14	10	32	4.05	F07	130	4 x M12	145	4 x M16	145	4 x M16
80	3	124	45	76	71	159	90	70	10	14	10	32	4.3	F07	150	4 x M16	160	8 x M16	160	8 x M16
100	4	154	51	102	87	178	90	70	10	16	11	32	4.85	F07	170	4 x M16	180	8 x M16	180	8 x M16
125	5	179	55	127	102	190	90	70	10	19	13	32	7.2	F07	200	8 x M16	210	8 x M16	210	8 x M16
150	6	206	55	146	115	203	90	70	10	19	13	32	9.5	F07	225	8 x M16	240	8 x M20	240	8 x M20
200	8	267	59	197	146	241	150	125	14	22	16	32	12	F07	280	8 x M16	295	8 x M20	295	12 x M20
250	10	324	67	248	181	273	150	125	14	30	22	51	17	F12	335	12 x M16	350	12 x M20	355	12 x M24
300	12	378	77	298	206	311	150	125	14	30	22	51	20	F12	395	12 x M20	400	12 x M20	410	12 x M24
350	14	433	78	337	238	346	150	125	14	35	10x10***	51	23	F12	445	12 x M20	460	16 x M20	470	16 x M24
400	16	488	102	387	273	375	150	125	14	35	10x10***	51	27	F12	495	16 x M20	515	16 x M24	525	16 x M27
450	18	536	114	438	305	406	210	165	21	50	10x12***	64	30	F16	---	---	565	20 x M24	585	20 x M27
500	20	591	127	489	356	436	210	165	21	50	10x12***	64	33	F16	---	---	650	20 x M24	650	20 x M30

#### Note

\* Disc chordal dimension at valve face.

\*\* Net weight is for valve only (no actuator).

\*\*\* Key: the key is needed to link the actuator. It is inside the package of the valve. Dimensions in mm (high x width).

**Plant Valves**
**VFB Butterfly Valves**
**Ordering Codes**

Codes	Body Size	Valve Size (inch)	Kvs Value	Max Δp (kPa) Close-off Pressure
<b>High Pressure Close-off (12 Bar from DN50 to DN300, 10 Bar all other sizes)</b>				
VFB025H	DN25	1	52	1000
VFB032H	DN32	1 ¼	72	
VFB040H	DN40	1 ½	126	
VFB050H	DN50	2	124	1200
VFB065H	DN65	2 ½	243	
VFB080H	DN80	3	397	
VFB100H	DN100	4	723	
VFB125H	DN125	5	1083	
VFB150H	DN150	6	1591	
VFB200H	DN200	8	2852	
VFB250H	DN250	10	4670	
VFB300H	DN300	12	6946	1000
VFB350H	DN350	14	9063	
VFB400H	DN400	16	12044	
VFB450H	DN450	18	14804	
VFB500H	DN500	20	19212	
<b>Low Pressure Close-off (3,5 Bar from DN100 to DN500)</b>				
VFB100L	DN100	4	723	350
VFB125L	DN125	5	1083	
VFB150L	DN150	6	1591	
VFB200L	DN200	8	2852	
VFB250L	DN250	10	4670	
VFB300L	DN300	12	6946	
VFB350L	DN350	14	9063	
VFB400L	DN400	16	12044	
VFB450L	DN450	18	14804	
VFB500L	DN500	20	19212	

Plant Valves  
VFB Butterfly Valves

Ordering Codes with M9000 Actuators Assembly

VFB XXX X + 5XX X X X

**Auxiliary Switches**

- A = None
- C = 2 Auxiliary switches

**Power Supply**

- G = 24 VAC/DC
- D = 230 VAC

**Control**

- A = Floating
- B = ON/OFF
- G = Proportional
- H = Proportional with span offset

**Factory Mounted Electric Actuators:**

- 516 = M9116 Non Spring Return
- 524 = M9124 Non Spring Return
- 530 = M9220 Spring Return Open configuration
- 550 = M9220 Spring Return Close configuration

**Actuator**

**Close-off**

- H = High Pressure Close-off
- L = Low Pressure Close-off

**Valve Size**

- 025 = DN25, 1 inch
- 032 = DN32, 1-1/4 inch
- 040 = DN40, 1-1/2 inch
- 050 = DN50, 2 inch
- 065 = DN65, 2-1/2 inch
- 080 = DN80, 3 inch
- 100 = DN100, 4 inch

Plant Valves

VFB Butterfly Valves

*Available Combination:*

*VBF Valves with M9000 Actuators and necessary linkage code*

JCI VFB Valves				Non Spring Return		Spring Return
				Torque (Nm)		
				16	24	20
Ordering Codes Valves	DN	Inches	MAX Close-off Pressure (bar)	M9116	M9124	M9220
VFB025H	25	1"	12	M9100-100A	---	M9200-100A
VFB032H	32	1-1/4"	12	M9100-100A		M9200-100A
VFB040H	40	1-1/2"	12	M9100-100A		M9200-100A
VFB050H	50	2"	12	M9100-100B		M9200-100B
VFB065H	65	2-1/2"	12	M9100-100B		M9200-100B
VFB080H	80	3"	12	---	M9100-100B	M9200-100B
VFB100L	100	4"	3.5		M9100-100C	M9200-100C

Plant Valves

VFB Butterfly Valves

Ordering Codes with VA-9070 Actuators Assembly

VFB XXX X + 7 X X X

**Power Supply**

- 1 = 24 VAC
- 2 = 230 VAC

**Factory Mounted Electric Actuators \***

- 2 = VA-9072-xx Series      68 Nm Actuators
- 5 = VA-9075-xx Series      226 Nm Actuators
- 7 = VA-9077-xx Series      565 Nm Actuators
- 8 = VA-9078-xx Series      735 Nm Actuators
- A = VA-907A-xx Series      1470 Nm Actuators
- B = VA-907B-xx Series      2034 Nm Actuators

**Control**

- 0 = Proportional
- 2 = ON/OFF & Floating

**Actuator**

**Close-off**

- H = High Pressure Close-off
- L = Low Pressure Close-off

**Valve size**

- 025 = DN25, 1 inch
- 032 = DN32, 1-¼ inch
- 040 = DN40, 1-½ inch
- 050 = DN50, 2 inch
- 065 = DN65, 2-½ inch
- 080 = DN80, 3 inch
- 100 = DN100, 4 inch
- 125 = DN125, 5 inch
- 150 = DN150, 6 inch
- 200 = DN200, 8 inch
- 250 = DN250, 10 inch
- 300 = DN300, 12 inch
- 350 = DN350, 14 inch
- 400 = DN400, 16 inch
- 450 = DN450, 18 inch
- 500 = DN500, 20 inch

\* See VA-9070 Product Bulletin for more details

## HVAC CONTROL PRODUCTS Valves

### Plant Valves

### VFB Butterfly Valves

#### Available combination:

#### VBF Valves with VA-9070 Series Actuators

JCI VFB Valves				Power Supply 230 VAC					Power Supply 24 VAC		
				Torque (Nm)							
				68	226	735	1470	2034	68	226	565
Ordering Codes Valves	DN	Inches	MAX Close-off Pressure (bar)	VA-9072	VA-9075	VA-9078	VA-907A	VA-907B	VA-9072	VA-9075	VA-9077
VFB025H	25	1	12	•	---	---	---	---	•	---	---
VFB032H	32	1-¼	12	•	---	---	---	---	•	---	---
VFB040H	40	1-½	12	•	---	---	---	---	•	---	---
VFB050H	50	2	12	•	---	---	---	---	•	---	---
VFB065H	65	2-½	12	•	---	---	---	---	•	---	---
VFB080H	80	3	12	•	---	---	---	---	•	---	---
VFB100H	100	4	12	•	---	---	---	---	•	---	---
VFB125H	125	5	12	•	---	---	---	---	•	---	---
VFB150H	150	6	12	•	---	---	---	---	•	---	---
VFB200H	200	8	12	---	•	---	---	---	---	•	---
VFB250H	250	10	12	---	---	•	---	---	---	---	•
VFB300H	300	12	10	---	---	•	---	---	---	---	•
VFB350H	350	14	10	---	---	•	---	---	---	---	---
VFB400H	400	16	10	---	---	---	•	---	---	---	---
VFB450H	450	18	10	---	---	---	•	---	---	---	---
VFB500H	500	20	10	---	---	---	---	•	---	---	---
VFB100L	100	4	3.5	•	---	---	---	---	•	---	---
VFB125L	125	5	3.5	•	---	---	---	---	•	---	---
VFB150L	150	6	3.5	•	---	---	---	---	•	---	---
VFB200L	200	8	3.5	---	•	---	---	---	---	•	---
VFB250L	250	10	3.5	---	•	---	---	---	---	•	---
VFB300L	300	12	3.5	---	---	•	---	---	---	---	•
VFB350L	350	14	3.5	---	---	•	---	---	---	---	•
VFB400L	400	16	3.5	---	---	•	---	---	---	---	•
VFB450L	450	18	3.5	---	---	•	---	---	---	---	•
VFB500L	500	20	3.5	---	---	•	---	---	---	---	---

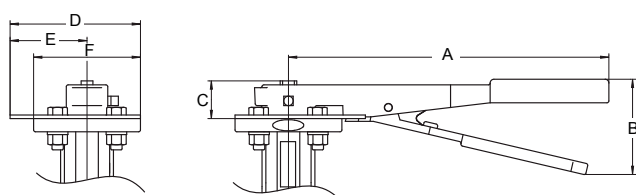
See VA-9070 Product Bulletin for more details.

## HVAC CONTROL PRODUCTS Valves

### Plant Valves

### VFB Butterfly Valves

#### Dimensions for Ten-Position Manual Handle

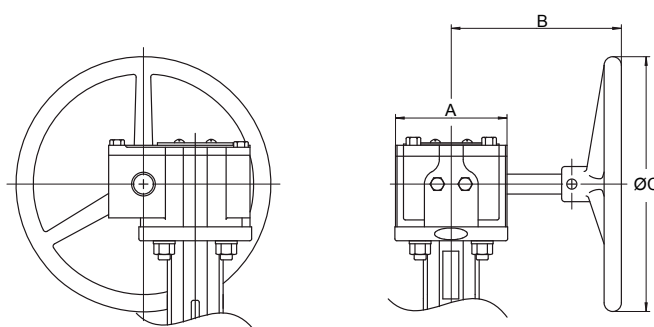


Valve Size (mm)	Valve Size (inch)	Code Number*	A	B	C
25 to 40	1/2" to 1-1/2"	VF-998-100	196	60	25
50 to 80	2" to 3"	VF-998-101	270	80	32
100	4"	VF-998-102	270	80	32
125 to 150	5" to 6"	VF-998-103	270	80	32
200	8"	VF-998-104	298	80	32
250 to 300	10" to 12"	VF-998-105	298	80	51

#### Note

\* Kit includes a manual gear operator, adaptor (if required), and mounting hardware.

#### Dimensions for Gear-Operated Manual Hand Wheel



Valve Size (mm)	Valve Size (inch)	Code Number*	A	B	C
50 to 150	2" to 6"	VF-998-303	90	136	203
200	8"	VF-998-304	150	190	203
250 to 300	10" to 12"	VF-998-305	150	190	203
350 to 400	14" to 16"	VF-998-307	150	303	305
450 to 500	18" to 20"	VF-998-308	210	379	305