



Butterfly Valves

Model XD381X

Technical Features

DESCRIPTION

The Model XD381X Butterfly Valves are designed for use in fire protection systems. They are available in sizes 2" (DN50) through 12" (DN300). The rugged design minimizes flow restriction and pressure loss while allowing for use outdoors without affect on the performance of the valve (if installed in accordance with the manufacturer's specifications). The bi-directional flow capabilities allow for flexibility in installation and the slow closing handwheel effectively minimizes water hammer while operating the valve during flow conditions.

LISTINGS AND APPROVALS



UL Listed



FM Approved

TECHNICAL DATA

Specifications:

Working Pressure: 300 psi (175, 200, and 250 available on request)

Connection:

Groove to ISO 6182 and AWWA C606

Supervisory switches: internal supervisory position switch and one internal auxiliary switch (also available without supervisory switch)

Sizes available:

2"/DN50, 2-1/2"/DN65, 3"/DN80, 4"/DN100, 5"/DN125, 6"/DN150, 8"/DN200, 10"/DN250, and 12"/DN300

Material Standards:

Plug: EPDM

Body: Ductile Iron, A536, 65-45-12

O-Ring: NBR

Lower Stem: AISI 431

Disc: Ductile Iron, A536, 65-45-12 and EPDM

O-Ring: NBR

Upper Stem: AISI 431

Bushing: 304 and Polytetrafluoroethylene (PTFE)

Cylindrical Pin: 304

Hex nut: Carbon Steel Zinc plated

Spring Washer: Spring Steel 65Mn

Signal Gear Box*: Ductile Iron, A536, 65-45-12

Name Plate: Stainless Steel



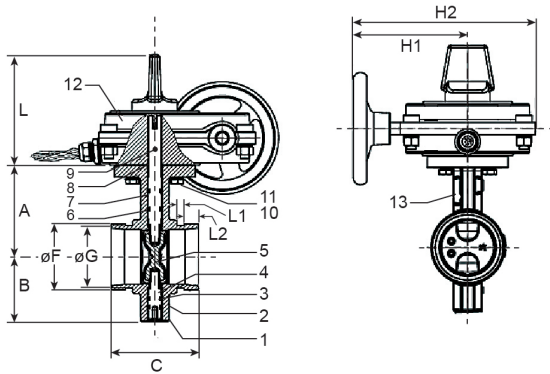
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Control Valves



Available Sizes and Dimensions

Dimensions Inch (mm)											
Inch	mm	A	B	C	ØF	ØG	L	L1	L2	H1	H
2	50	3.5 (89)	2.56 (65)	3.19 (81)	2.37 (60.3)	2.25 (57.15)	4.82 (122.5)	0.63 (15.88)	0.31 (7.93)	5 (127)	7.96 (202.2)
2-1/2	76.1	4.02 (102)	2.8 (71)	3.82 (97)	3 (76.1)	2.85 (72.26)	4.82 (122.5)	0.63 (15.88)	0.31 (7.93)	5 (127)	7.96 (202.2)
3	80	4.29 (109)	3.19 (81)	3.82 (97)	3.5 (88.9)	3.34 (84.94)	4.82 (122.5)	0.63 (15.88)	0.31 (7.93)	5 (127)	7.96 (202.2)
4	100	5.04 (128)	3.74 (95)	4.57 (116)	4.5 (114.3)	4.33 (110.08)	4.82 (122.5)	0.63 (15.88)	0.38 (9.53)	5 (127)	7.96 (202.2)
5	139.7	5.55 (141)	4.37 (111)	5.83 (148)	5.5 (139.7)	5.33 (135.48)	4.82 (122.5)	0.63 (15.88)	0.38 (9.53)	5 (127)	7.96 (202.2)
6	150	6.02 (153)	5.24 (133)	5.83 (148)	6.63 (168.3)	6.46 (163.96)	4.82 (122.5)	0.63 (15.88)	0.38 (9.53)	5 (127)	7.96 (202.2)
8	200	7.24 (184)	6.46 (164)	5.24 (133)	8.63 (219.1)	8.44 (214.4)	4.82 (122.5)	0.75 (19.05)	0.44 (11.1)	5 (127)	7.96 (202.2)
10	250	8.5 (216)	7.72 (196)	6.26 (159)	10.75 (273)	10.57 (268.28)	4.82 (122.5)	0.75 (19.05)	0.5 (12.7)	5 (127)	7.96 (202.2)
12	300	10 (254)	8.9 (226)	6.5 (165)	12.75 (323.9)	12.53 (318.29)	4.82 (122.5)	0.75 (19.05)	0.5 (12.7)	5 (127)	7.96 (202.2)



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Installation

USE CAUTION WHEN HANDLING BUTTERFLY VALVES. Damage to the seating area can cause leaks. Before installing, clean the mating surfaces and connecting couplings or flanges and lubricate the coupling gasket with approved lubricant. Install all couplings or connectors in accordance with the manufacturer's instructions. Place the butterfly valve against the pipe or fitting and install the gasket. Ensure the gasket seal seats properly on the valve and pipe/fitting in accordance with the manufacturer's instructions.

Conduit and electrical connections to the supervisory/auxiliary switches must be in accordance with the requirements of the Authority Having Jurisdiction.

Piping systems should be thoroughly cleaned and free from ingress of foreign materials.

Visually inspect the valve seating and ports for cleanliness immediately prior to installation.

All valves should be independently supported

against movement and stress from the connected piping system.

Check that the valve pressure rating is compatible with service conditions.

Operate the valve at least once from the open to closed position.

Ensure that mating flanges are compatible with intended service conditions.

Install valves with the disc in the almost closed position. Good working practice dictates that butterfly valves installed in the horizontal position have the stems in the vertical position.

Interference between the butterfly valve disc and the mating pipes should be avoided under all circumstances. Before tightening flange bolts, carefully open the valve to the open position and check for any disc interference.

Ensure that the valve is centrally located between the flanges, is independently supported and is not dependent for any support from the connecting pipework.

CAUTION

Properly support all piping on the inlet and outlet of the butterfly valve.

Do not use the butterfly valve to force piping into place.

Do not use excessive force on any components to seat the valve.

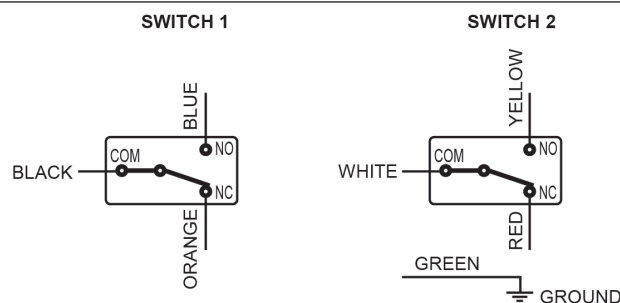
Do not use a wrench to seat the valve.

Ensure alignment of wafer valves to prevent obstructions to water flow.

Do not use excessive force to open or close the valve. Doing so violates all warranties whether expressed or implied.

Butterfly Valves - BVW-1, BVW-2 & BVW-3

Wiring Instructions





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Inspections and maintenance

Model XD381X must be kept free of foreign matter, freezing conditions, corrosive atmospheres, contaminated water supplies, and any condition that could impair operation or damage the device.

It is imperative that the valves be inspected and tested on a regular basis. The frequency of the inspections may vary due to contaminated or corrosive water supplies and/or corrosive atmospheres. For minimum maintenance and inspection requirements, refer to NFPA 25. In addition, the Authority Having Jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

NOTICE

The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to recognized standards such as those produced by NFPA, LPC, and VdS which describe care and maintenance of sprinkler systems. In addition, the Authority Having Jurisdiction (AHJ) may have additional maintenance, testing and inspection requirements which must be followed.

WARNING

Any system maintenance or testing that involves placing a control valve or detection system out of service may eliminate the fire protection of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected area.

Availability

Model XD381X Butterfly Valves are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation at www.vikinggroupinc.com