Data Sheet 1.53
Issue E

Wafer Butterfly Valve
Fig. 220

Product Description

Rapidrop Figure 220 Wafer Butterfly Valve is a rotary type valve with a visual indication of whether the valve is in fully open position or not. Butterfly valves are commonly used in fire protection systems as system control valves, sectional or pump water control valves.

These valves have been designed with minimum flow restriction and pressure loss when in fully open position. To reduce the risk of a water hammer *Rapidrop Butterfly Valves* are provided with a slow close hand wheel operation gearbox.

Factory installed double tamper switch for indoor and outdoor use, complete with 1m flying lead.

Maximum Working Pressure

20.7 bar (300 PSI)

Maximum Temperature

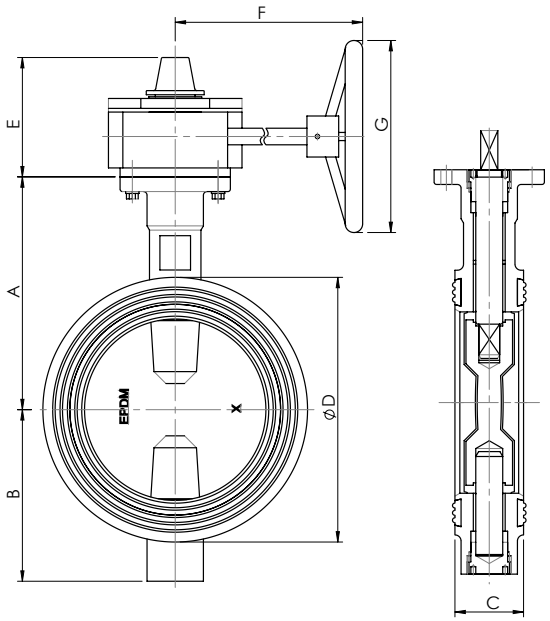
100°C

Coating

Fusion Bonded Epoxy Coating in accordance with ANSI /AWWA C550

Standards

Design:	AI609
Face to Face Distance:	ASME B16.1
Gearbox Mounting Flange:	ISO 5211
Test:	API598
Connections:	ANSI Class 125-150
	ISO 2084
	DIN 2501 PN16
	BS EN 1092 PN16



Dimensions

Sizes		Dimensions (mm)							Weight Kg	Product Ordering Code
Inch	mm	A	B	C	D	E	F	G		
2½"	DN65	125	95	44.2	112	111	153	152	9.1	RD220-065
3"	DN80	140	100	45.3	120	111	153	152	9.2	RD220-080
4"	DN100	160	100	52.0	165	111	153	152	11.3	RD220-100
5"	DN125	170	125	54.4	182	111	153	152	12.4	RD220-125
6"	DN150	190	140	55.8	216	111	153	200	15.0	RD220-150
8"	DN200	230	175	60.5	260	126	210	300	26.4	RD220-200
10"*	DN250	260	200	66.5	320	126	210	300	34.4	RD220-250
12"*	DN300	300	240	76.9	375	161	252	350	69.5	RD220-300

*Only UL approved

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Installation

Rapidrop Figure 220 Butterfly Valve is suitable for indoor and outdoor use. The valve may be installed in any position and the flow may be from either direction through the valve.

The use of additional flange gaskets is not necessary as the valve is self-sealing when connected to the piping system with appropriate flanges (ANSI/ASME Class 125/150, ISO 2084, DIN 2501 & BS EN 1092 PN16).

Valves should be supported independently to prevent the movement and stresses from the connecting piping system.

1. Ensure that the valve is in closed or almost closed position.
2. Visually inspect the valve, make sure the seating area is not damaged and that the connecting flanges are clean of debris and any foreign materials.
3. Insert the valve between the flanges and hand-tighten all flange bolts. Do not use flange gaskets. Do not apply lubricant to the seat faces as this may damage the seat material. Make sure valve is installed centrally between mating flanges.
4. Before fully tightening the bolts, slowly open the valve and check for any interference with the piping system.
5. If the valve opens freely, tighten all flange bolts using the crossover method. Recommended tightening torque is listed in the table.
6. After tightening the bolts check the operation by fully opening and closing the valve.

Care and Maintenance

Rapidrop butterfly valves require no regular maintenance, however it is advisable to inspect and verify proper operation of the unit annually or in accordance with the authority having jurisdiction.

The inspection should include a visual check for leakage at the pipe connection and body to gearbox connection. Inspection and maintenance should be performed by a competent person in accordance with national codes/ requirements.

Debris in the piping system might cause difficulties in closing the valve, this problem can be fixed by backing off the handwheel and closing the valve again.

Rapidrop Figure 220 Wafer Butterfly Valves are suitable for both indoor and outdoor use. Minor degradations of surface finish should not affect the performance of the valve.

The valve should never be forced to seat by applying a wrench to the hand wheel as this may distort the valve components or score the sealing surface. The use of excessive force to open or close the valve violates all warranties.

The valve should not be used to force a pipeline into position as this may result in the distortion of the valve body.

Recommended Bolt Tightening Torque

Size	Recommended Minimum Torque
2"-4" DN50-DN100	30-40 Nm
5"-8" DN125-DN200	45-70 Nm
10" DN250	75-100 Nm
12" DN300	110-150 Nm

Material Specification

Item	Material
Upper Shaft Sealing Nut	Cast Steel
Shaft Seal	EPDM
Body	Ductile Iron ASTM A536
Upper Shaft	SS416
Disc	Ductile Iron ASTM A536 + EPDM
Lower Shaft	SS416
Lower Shaft Sealing Nut	WCB Steel
End Face Seal	EPDM
Stem Bushing	PTFE 2.5"-6" / C95400 8"-12"
Gear Box	Ductile Iron ASTM A536

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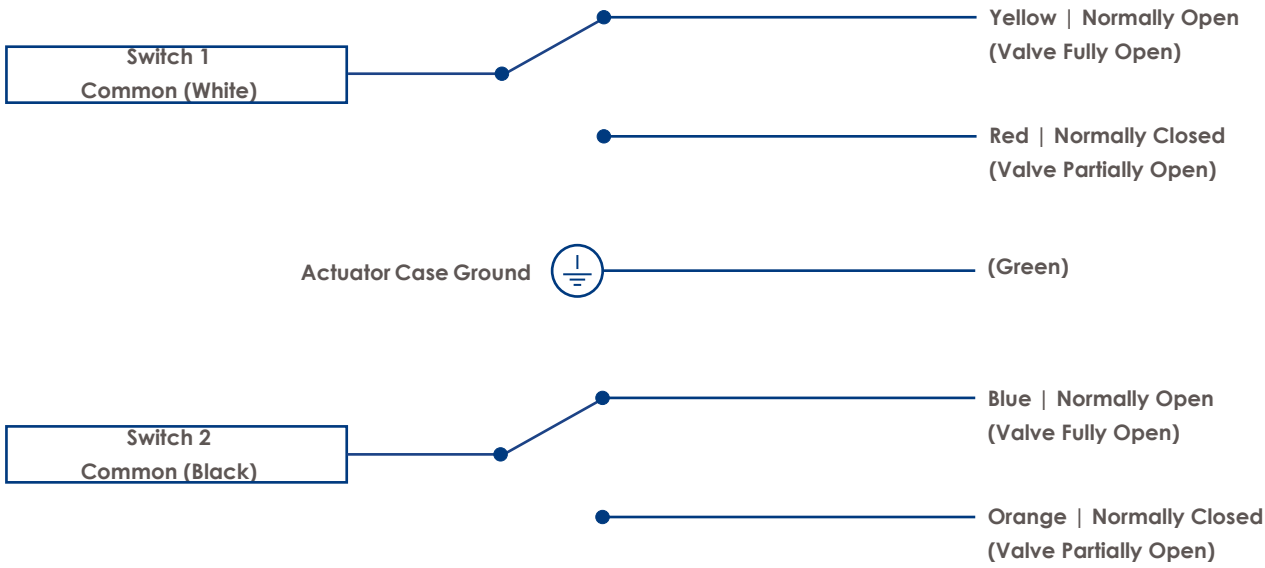
Switch Installation

An internal, factory installed, double tamper switch with 1m cables provide easy supervision of the valve. Within two handwheel turns from the "OPEN" position the switch will close indicating that the valve is not fully open.



Important Installation Information

- Rapidrop *Figure 220 Wafer Butterfly Valve* must only be installed by a competent person in accordance with requirements of the local authority having jurisdiction. Deviations from these standards will invalidate warranty.
- It is the responsibility of the installing contractor to include a copy of this document in the sprinkler system installation, operating and maintenance manual.
- Alterations to Rapidrop products will void any warranty.
- *Figure 220 Wafer Butterfly Valve* should be inspected and maintained during routine sprinkler system inspections by a competent person in accordance with national codes/requirements.
- Failure to follow these instructions could cause improper operation, resulting in personal injury and/or property damage.
- For further details and technical support please contact your Rapidrop sales representative.

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