

Grooved Butterfly Valve Figure 221

Product Description

Rapidrop Figure 221 Grooved 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 operated gearbox.

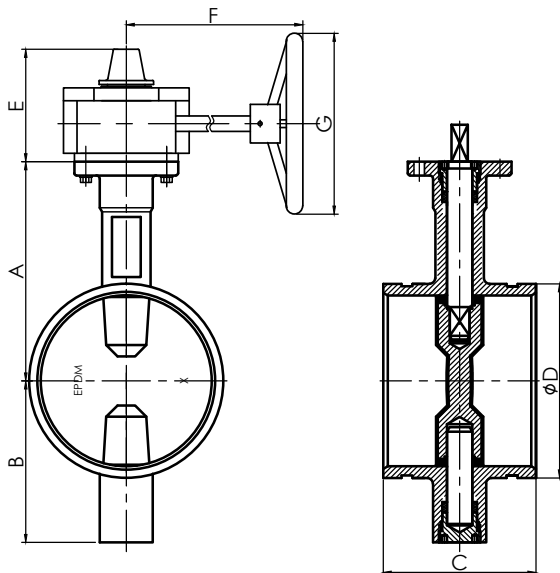
Factory installed double tamper switch for indoor and outdoor use, complete with 1m flying lead.

Maximum Working Pressure

20.7 bar (300 PSI)

Maximum Working Temperature

110°C



Coating

Fusion Bonded Epoxy Coating in accordance with ANSI /AWWA C550

Design Standard

AI609

Face to Face Distance

ASME B16.1

Connections

Groove to ISO6182 / AWWA C606

Gearbox Mounting Flange

ISO 5211

Sizes

| SIZES | | Dimensions (mm) | | | | | | | Weight (Kg) | Product Ordering Code |
|-------|--------|-----------------|-----|-------|-------|-----|-----|-----|-------------|-----------------------|
| Inch | mm | A | B | C | D | E | F | G | | |
| 2.5" | DN 65 | 125 | 95 | 96.4 | 73 | 111 | 153 | 152 | 8.8 | RD221-073 |
| 2.5" | DN 65 | 125 | 95 | 96.4 | 76.1 | 111 | 153 | 152 | 8.8 | RD221-065 |
| 3" | DN 80 | 140 | 100 | 97 | 88.9 | 111 | 153 | 152 | 9.5 | RD221-080 |
| 4" | DN 100 | 160 | 100 | 115.1 | 114.3 | 111 | 153 | 152 | 10.7 | RD221-100 |
| 5" | DN 125 | 170 | 125 | 132.4 | 139.7 | 111 | 153 | 152 | 14.2 | RD221-125 |
| 6" | DN 150 | 190 | 140 | 132.4 | 165.1 | 111 | 153 | 200 | 16.5 | RD221-150 |
| 6" | DN 150 | 190 | 140 | 132.4 | 168.3 | 111 | 153 | 200 | 16.5 | RD221-168 |
| 8" | DN 200 | 230 | 175 | 147.4 | 219.1 | 126 | 210 | 290 | 31.6 | RD221-200 |
| 10"* | DN 250 | 260 | 200 | 159 | 273 | 126 | 210 | 290 | 40.5 | RD221-250 |
| 12"* | DN 300 | 300 | 240 | 165 | 323.8 | 161 | 249 | 350 | 77.5 | RD221-300 |

*Only UL approved

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Figure 221

Installation

Rapidrop Figure 221 Grooved 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. 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 faces are clean of debris and any foreign materials.
3. Using appropriate grooved couplings connect the valve with adjacent pipe or fitting. Follow the instructions supplied by the manufacturer of the couplings.
4. 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.

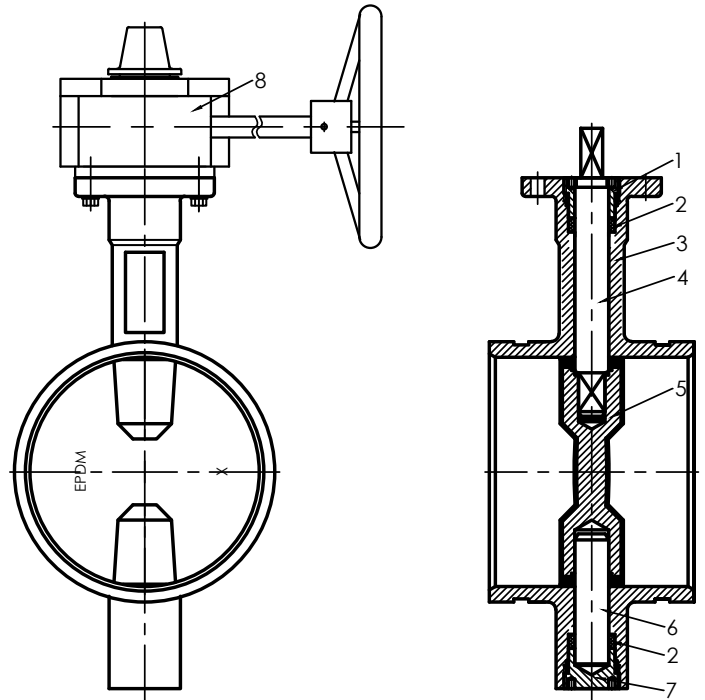
The inspection should include a visual check for leakage at the pipe connection and body to gearbox connection. Inspection and maintenance should be performed by a competent person in accordance with national codes/ requirements.

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 221 Grooved 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. 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.



Material Specification

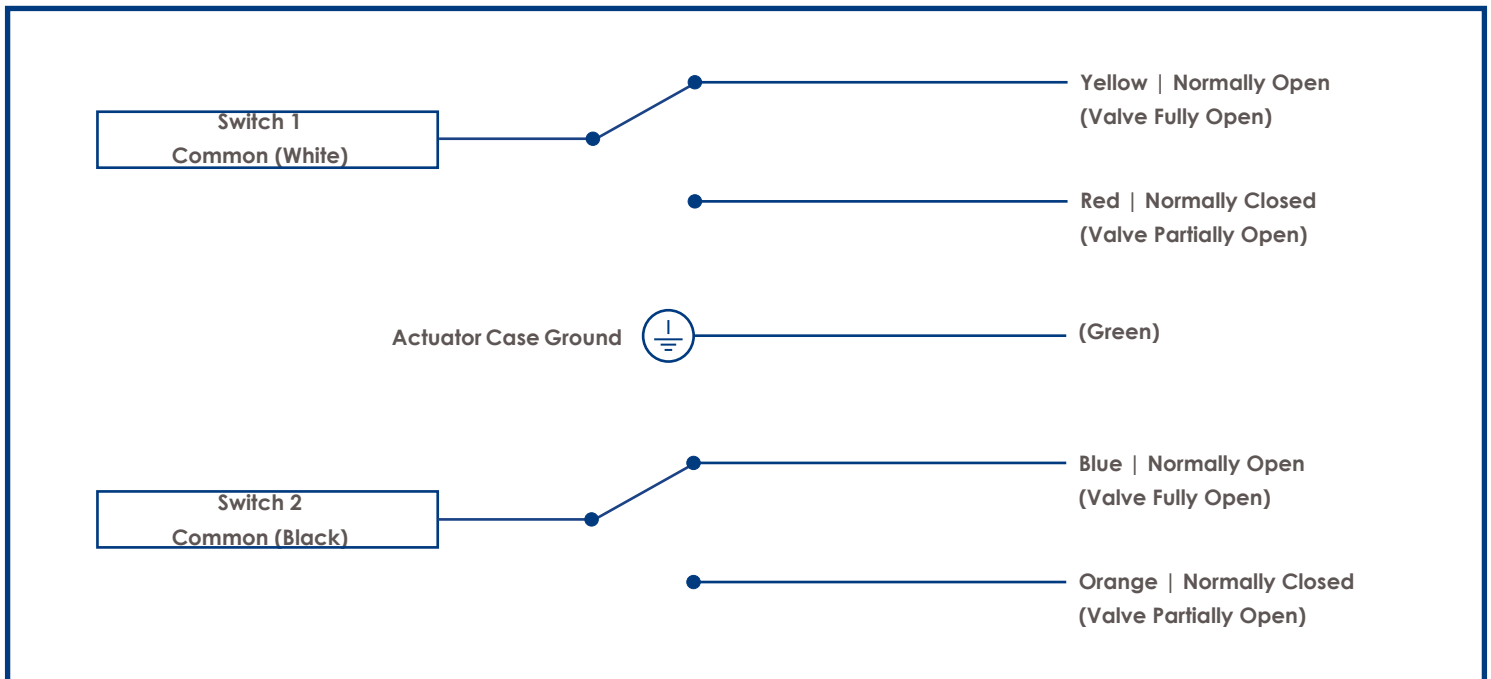
| No. | Item | Material |
|-----|-------------------------|-------------------------------|
| 1 | Upper Shaft Sealing Nut | WCB Steel |
| 2 | Shaft Seal | EPDM |
| 3 | Body | Ductile Iron ASTM A536 |
| 4 | Upper Shaft | SS416 |
| 5 | Disc | Ductile Iron ASTM A536 + EPDM |
| 6 | Lower Shaft | SS416 |
| 7 | Lower Shaft Sealing Nut | WCB Steel |
| 8 | Stem Bushing | PTFE 2.5"-6" / C95400 8"-12" |
| 9 | Gear Box | Ductile Iron ASTM A536 |

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Figure 221

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 221 Grooved 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 221 Grooved 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.