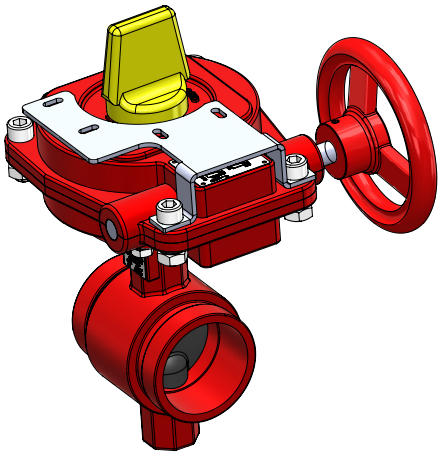
G417018 LPS1185 Issue 3.2
LPCB Cert. ref. 566m
063-UWB-0315

Grooved Butterfly Valve
Fig. 216 with mounting bracket for external monitoring switches

Product Description

Rapidrop Figure 216 Grooved Butterfly Valve is a rotary type valve with a visual indication of whether the valve is in fully open position or not. The mounting bracket is designed for installation of external switches to monitor both open and/or closed position of the valve. 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.



Maximum Working Pressure

20.7 bar (300 psi) FM Approved, UL Listed, CNBOP
16.0 bar (232 psi) LPCB, VdS Certificate

Temperature Range

0°-80°C

Coating

Fusion Bonded Epoxy Coating in accordance with ANSI /AWWA C550

Design Standard

MSS SP-67

Connections

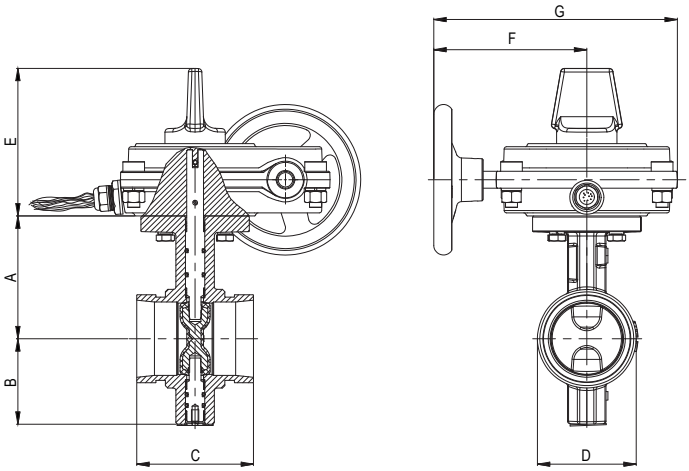
Groove to ISO6182 / AWWA C606

Gearbox Mounting Flange

ISO 5211

Valve Approvals

FM Approved, UL Listed, LPCB, VdS, CNBOP & CE Certified



Dimensions

Sizes		Dimensions (mm)							Weight (Kg)	Valve Ordering Codes (without LPCB)	Valve Ordering Codes (with LPCB)
mm	Inch	A	B	C	D	E	F	G			
DN 50	2"	89	65	81±1.5	60.3	123	127	202	8.0	RD216-050FL	RD216LPCB-050FL
DN65	2 1/2" *	102	71	97±1.5	73.0	123	127	202	8.6	RD216-073FL	RD216LPCB-073FL
DN 65	2 1/2"	102	71	97±1.5	76.1	123	127	202	8.6	RD216-065FL	RD216LPCB-065FL
DN 80	3"	109	81	97±1.5	88.9	123	127	202	9.2	RD216-080FL	RD216LPCB-080FL
DN 100	4"	128	95	116±1.5	114.3	123	127	202	10.7	RD216-100FL	RD216LPCB-100FL
DN 125	5"	141	111	148±1.5	139.7	123	127	202	13.7	RD216-125FL	RD216LPCB-125FL
DN 150*	6" *	153	133	148±1.5	165.1	123	127	202	18.1	RD216-150FL	RD216LPCB-150FL
DN 150	6"	153	133	148±1.5	168.3	123	127	202	18.1	RD216-168FL	RD216LPCB-168FL
DN 200	8"	184	164	133±1.5	219.1	123	185	260	22.7	RD216-200FL	RD216LPCB-200FL
DN 250	10"	216	196	159±1.5	273.0	123	185	260	33.7	RD216-250FL	/
DN 300	12"	254	226	165±1.5	323.9	132	203	298	48.6	RD216-300FL	/

Ordering codes in the table are for butterfly valve only. Mounting bracket and Switch Kit has to be ordered separately.
Switch kit ordering code: **RD215/216SK.** Mounting Bracket ordering code: (2" to 8") **RDMBMS215/216,** (10" and 12") **RDMBMS200215/216**
* Not VdS Approved

Rapidrop Global Ltd
T: +44 (0) 1733 847 510 F: +44 (0) 1733 553 958
e: rapidrop@rapidrop.com
w: www.rapidrop.com

G417018 LPS1185 Issue 3.2
LPCB Cert. ref. 566m
063-UWB-0315

Grooved Butterfly Valve
Fig. 216 with mounting bracket for external monitoring switches

Valve Installation

Rapidrop Figure 216 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.

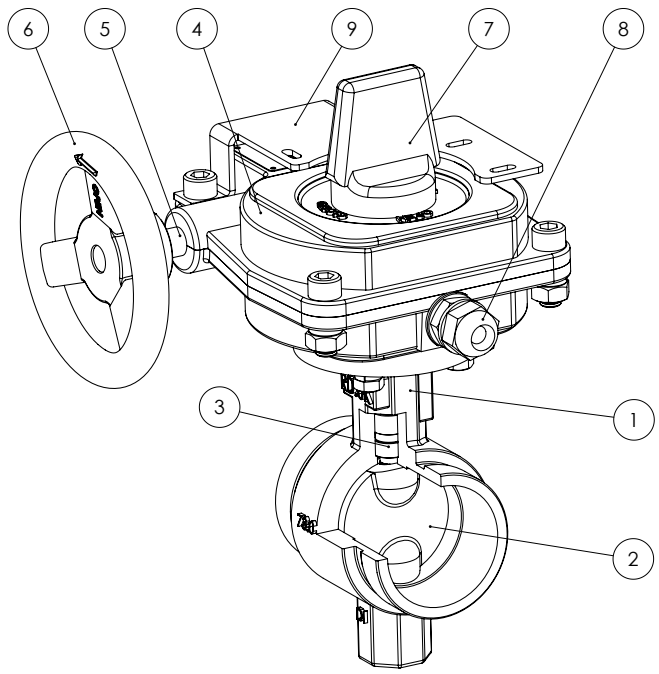
The inspection should include a visual check for leakage at the pipe connection and body to gearbox connection. Inspection and maintenance should be performed by a competent person in accordance with national codes/ requirements.

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 216 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	Description	Materials
1	Valve Body	Ductile Iron
2	Disc	Ductile Iron + EPDM
3	Stem	Stainless Steel
4	Gearbox	Ductile Iron
5	Handwheel Shaft	SS431
6	Handwheel	Ductile Iron
7	Indicator	Ductile Iron
8	Cable Gland	Plastic
9	Switch Mounting Bracket	Galvanised Mild Steel

Rapidrop Global Ltd
T: +44 (0) 1733 847 510 F: +44 (0) 1733 553 958
e: rapidrop@rapidrop.com
w: www.rapidrop.com

G417018 LPS1185 Issue 3.2
LPCB Cert. ref. 566m
063-UWB-0315

Grooved Butterfly Valve
Fig. 216 with mounting bracket for external monitoring switches

Installation of External Switches

Monitoring switch can be installed in 2 positions depending on customer requirements, to monitor OPEN and/or CLOSED position of the valves.

To monitor OPEN position or CLOSED position of the valve 1x monitor switch kit is required.

To monitor OPEN and CLOSED position of the valve simultaneously, 2x monitor switch kits are required.

Mounting Bracket and Switch kit should be ordered separately.

Switch kit ordering code: **RD215/216SK**

Mounting bracket ordering codes:
- 2" to 8" **RDMBMS215/216**
- 10" and 12" **RDMBMS200215/216**

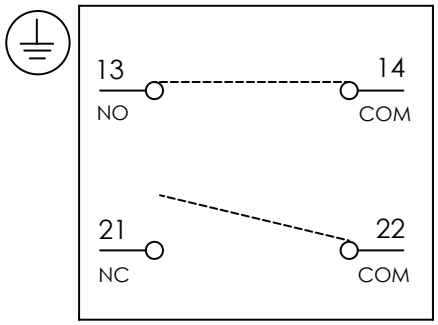
Contact Rating

IEC 60947-5-1: 24V - 6A / 125V - 0.55A / 250V - 0.4A

Switch Ports

3 Ports : PG13.5 Gland Thread

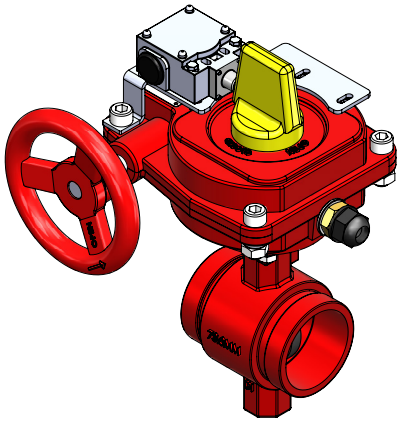
External Switches Wiring Diagram



Wiring diagram above shows the switch with plunger fully pressed

To install OPEN position monitoring switch

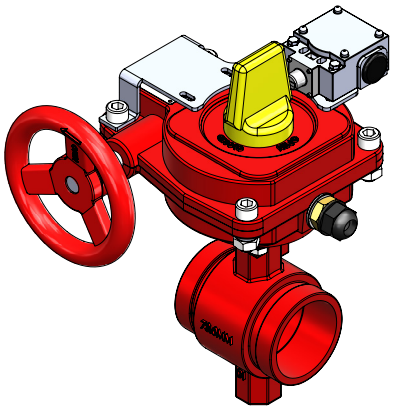
1. Close the valve.
2. Position the switch on the mounting bracket as show on the Drawing below and attach it with supplied M5 bolts, washers and nyloc nuts.
3. Open the valve and check the flag fully presses switch plunger when the valve is fully open. Readjust position of the switch if required.
4. Using multimeter verify correct operation of the switch.



Monitoring Valve in Open Position

To install CLOSED position monitoring switch

1. Open the valve.
2. Position the switch on the mounting bracket as show on the Drawing below and attach it with supplied M5 bolts, washers and nyloc nuts.
3. Close the valve and check the flag fully presses switch plunger when the valve is fully closed. Readjust position of the switch if required.
4. Using multimeter verify correct operation of the switch.



Monitoring Valve in Closed Position

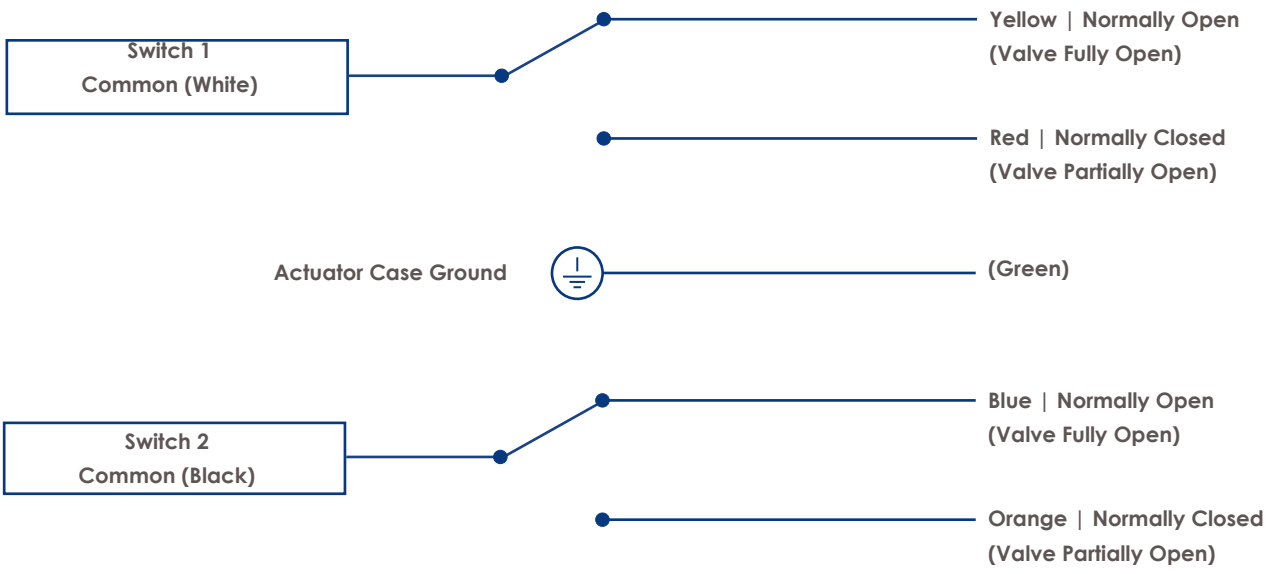
Rapidrop Global Ltd
T: +44 (0) 1733 847 510 F: +44 (0) 1733 553 958
e: rapidrop@rapidrop.com
w: www.rapidrop.com

G417018 LPS1185 Issue 3.2
LPCB Cert. ref. 566m
063-UWB-0315

Grooved Butterfly Valve
Fig. 216 with mounting bracket for external monitoring switches

Internal Switch Wiring Diagram

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 216 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 216 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.

Rapidrop Global Ltd
T: +44 (0) 1733 847 510 F: +44 (0) 1733 553 958
e: rapidrop@rapidrop.com
w: www.rapidrop.com