Model REL363W & REL363WC Wafer Body Butterfly Valve

cULus Listed, FM Approved, LPCB-Certified

Product Description

The Reliable butterfly valves are cULus Listed, FM Approved, and LPCB-Certified for fire protection systems. Reliable REL363W and REL363WC butterfly valves have wafer lug connections compatible with ASME B16.5 Class 125 / 150 flanges and EN 1092-2 PN10 / PN16 flanges. The Model REL363W butterfly valve is supervised in the open position and the Model REL363WC butterfly valve is supervised in the closed position. They are available in 2-1/2" (65 mm), 3" (80 mm), 4" (100 mm), 5" (125 mm), 6" (150 mm), and 8" (200 mm) nominal sizes. The valves are cULus Listed and FM Approved for 363 psi (25 bar) and LPCB-Certifed for 232 psi (16 bar) working pressure. The maximum working temperature for the valves is 158°F (70°C). These valves are available with two options for the wire harness: a standard 9" (0.23 m) set of wire leads, and a 39" (1 m) extended-length set of wire leads. Each valve's tamper switch / gearbox assembly contains two sets of single-pole, double-throw, prewired switches.

Verify compatibility of the Model 363W/WC materials with the water supply and the environment where the valve will be used prior to installation.

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition. Any system maintenance or testing that involves placing a control valve out of service will eliminate the fire protection that is provided by the fire protection system.

The Reliable Supervised Butterfly valves and associated equipment shall periodically be given a thorough inspection and test. NFPA 25, "Inspection, Testing and Maintenance of Water Based Fire Protection Systems," provides minimum maintenance requirements.

2" (50mm) through 8" (200mm) valves require approximately 10 full turns to move the valve from fully open to closed (or vice versa), at which time a mechanical stop will be encountered. Any attempt to further open or close the valve beyond the mechanical stop may result in damage to the valve.

See Technical Bulletin 840 for instructions on adjustment of mechanical stops if the butterfly seal does not fully seat with the valve handle in the closed position.

Guarantee

For Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Model REL363W Butterfly Valve - Supervised Normally Open

Model REL363WC Butterfly Valve - Supervised Normally Closed

Ordering Information

Specify the following when ordering:

Supervision
- Supervised Normally Open (Yellow Indicator, Red Actuator)
- Supervised Normally Closed (Red Indicator, Yellow Actuator)

Valve Size
- 2-1/2" (65mm)
- 3" (80 mm)
- 4" (100 mm)
- 5" (125 mm)
- 6" (150 mm)
- 8" (200 mm)

Wire Harness Length
- Standard: 9" (0.23 m)
- Optional: 39" (1 m)

Reliable Model REL363W and REL363WC Butterfly Valve

Technical Specifications

Pressure Rating:
UL: 363 psi (25 bar)
FM: 363 psi (25 bar)
LPCB: 232 psi (16 bar)

Material Specifications

Upper Stem: Stainless Steel ASTM A 276 Type 420
Upper Bearing: PTFE Bronze Sintered on Steel
Stem Seal O-Ring: EPDM
Body: Ductile Iron ASTM A 395, Epoxy Coated
Disc: Ductile Iron ASTM A 395 with EPDM Encapsulation
Lower Bearing: PTFE Bronze Sintered on Steel
Lower Stem: Stainless Steel ASTM A 276 Type 420
Dust Plug: PVC
Name Plate: Aluminum
Gear Operator: Cast Iron and Steel
Indicator Flag: Steel
Handwheel: Cast Iron
Cable Gland: Nickel plated brass
Plug: Carbon Steel (Zinc-plated)

Specifications

Valve Outlets: Wafer-lug style compatible with ASME B16.5 and EN 1092-2 flanges
Pipe Flanges / Flanged Fittings:
ASME B16.42 Class 150,
ASME B16.1 Class 125,
ASME B16.5 Class 125 / 150,
EN 1092-2 PN10 / PN16

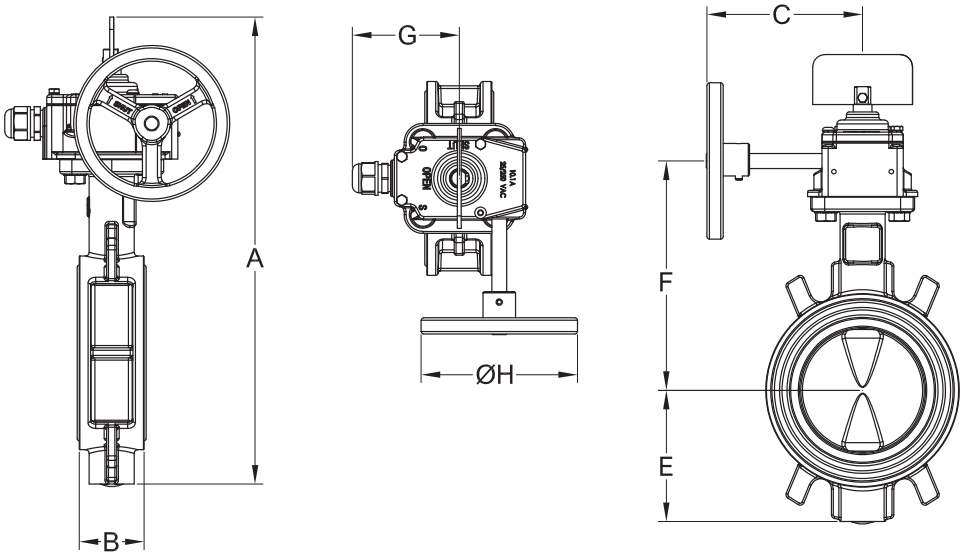
Listings and Approvals

cULus 1091 Listed
FM 1112 Approved
LPCB-Certified

Applications

- Indoor and outdoor use
- Aboveground use only
- For use with grooved-end IPS steel pipe of any wall thickness
- Not for use with ductile iron pipe
- Not for submersible service

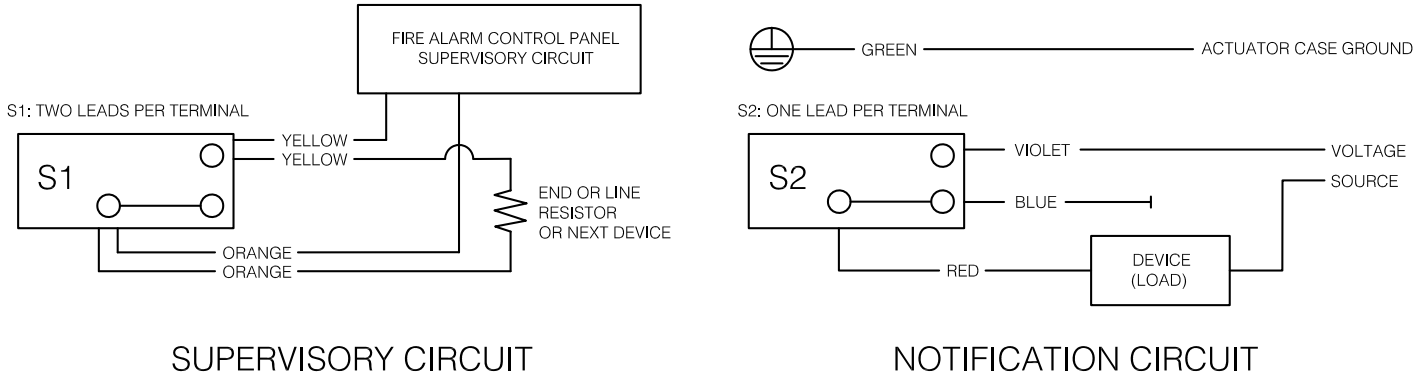
Reliable Model REL363W and REL363WC Butterfly Valve Dimensions — **Figure 1**



Model REL363W and REL363WC Dimensions - in. (mm) — **Table A**

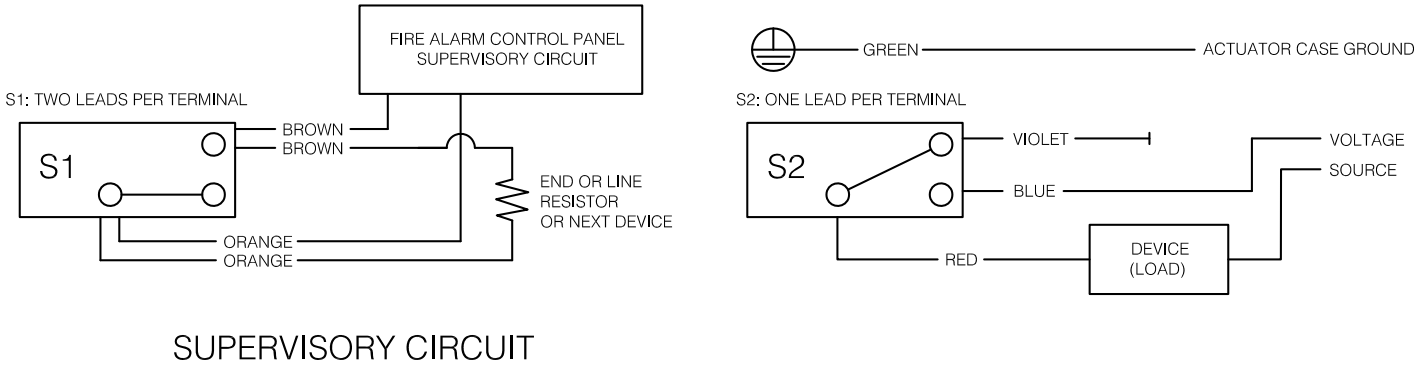
Nominal Size	A	B	C	E	F	G	H	Weight lb (kg)
2-1/2" (65)	12-3/8 (314)	1-7/8 (46)	4-15/16 (125)	2-15/16 (75)	6-1/16 (154)	3-3/8 (85)	4-1/4 (108)	10.8 (4.9)
3" (80)	13-1/4 (337)	1-7/8 (46)	4-15/16 (125)	3-1/2 (90)	6-7/16 (163)	3-3/8 (85)	4-1/4 (108)	12.1 (5.5)
4" (100)	14-5/8 (373)	2-1/16 (52)	4-15/16 (125)	4-1/8 (105)	7-1/4 (183)	3-3/8 (85)	4-15/16 (125)	15.6 (7.1)
5" (125)	16-1/8 (410)	2-1/4 (56)	6-5/8 (168)	4-13/16 (122)	8-1/8 (207)	3-5/8 (92)	5-15/16 (150)	25.4 (11.5)
6" (150)	17-1/8 (435)	2-1/4 (56)	6-5/8 (168)	5-5/16 (135)	8-5/8 (219)	3-5/8 (92)	5-15/16 (150)	28.4 (12.9)
8" (200)	19-7/16 (494)	2-3/8 (60)	6-5/7 (168)	6-1/2 (165)	9-3/4 (248)	3-5/8 (92)	5-15/16 (150)	42.1 (19.1)

Reliable Model REL363W Wiring Diagram - Supervised Normally Open **Figure 2**



NOTES:
1. WIRING SHOWN IS FOR NORMALLY OPEN CIRCUITS.
2. CAP ALL ENDS OF UNUSED WIRES.
3. SWITCH RATING: 10.1A, 125/250 VAC

Reliable Model REL363WC Wiring Diagram - Supervised Normally Closed **Figure 3**



NOTES:
1. WIRING SHOWN IS FOR NORMALLY OPEN CIRCUITS.
2. CAP ALL ENDS OF UNUSED WIRES.
3. SWITCH RATING: 10.1A, 125/250 VAC

Installation Instructions

1. This valve is intended for use in fire protection systems ONLY.

2. Note that a “normally-open” valve (red gearbox / tamper switch housing with yellow flag) will provide no signal to the fire protection system control panel when fully open, when the valve is partially closed it will send a signal and cause an alarm code to display on the fire protection system control panel.

3. Note that a “normally-closed” valve (yellow gearbox / tamper switch housing with red flag) will provide no signal to the fire protection system control panel when fully-closed, when the valve is partially open it will send a signal and cause an alarm code to display on the fire protection system control panel.

4. Ensure that the valve is closed far enough to retract the valve disc fully inside the body to prevent damage during installation of the valve.

5. Valve outlets are wafer-lug type and shall be connected to pipe or fittings with a flanged interface that is compatible with and manufactured to the latest edition of either ASME B16.5 or EN 1092-2.

6. Flanged interface on both the valve and mating connection on pipe or fitting shall be inspected for injurious defects or damage that will prevent sealing prior to installation.

7. Suitable flange fasteners (nuts and bolts) and gaskets shall be used to connect these butterfly valves to pipe or fittings. Fasteners shall be installed using instructions and fastener torque provided by ASME B16.34 or MSS SP-44 or recommendations provided by manufacturer of mating equipment to which this butterfly valves are being installed.

8. It is recommended that any flanged fittings to which this butterfly valve is connected be UL-listed, FM-approved, VdS-certified, or LPCB-certified; it is recommended that any flanges installed on pipe be certified as meeting the requirements of ASME B16.5.

9. Valve contains no user-serviceable parts. For concerns relating to replacement of drive-key, factory-installed tamper switch, valve disc, stem seals, or other factory-installed components, please contact Reliable Automatic Sprinkler Company for a replacement product.

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