

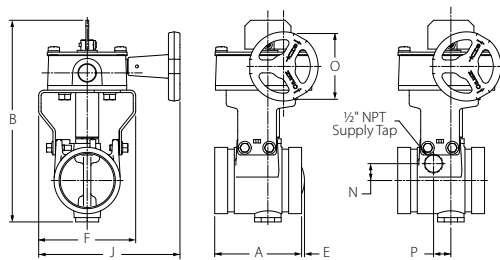
FireLock® Butterfly Valve with Weatherproof Actuator

Series 705W (300-psi/2065-kPa)

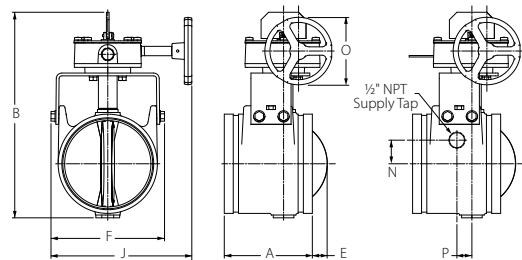
DIMENSIONS

Size		Dimensions – inches/millimeters								Aprx. Wgt. Each
Nominal Size inches/mm	Pipe Outside Diameter inches/mm	End to End "A"	Hgt. "B"	"E"	"F"	"J"	"O"	"N" ‡	"P" ‡	lbs/kg
2½ 65	2.875 73.0	3.77 95.6	8.76 222.5	—	4.21 106.9	6.08 154.4	3.00 76.2	0.00 * 0.0 *	0.75 19.1	8.3 3.8
76.1 mm	3.000 76.1	3.77 95.6	8.76 222.5	—	4.21 106.9	6.08 154.4	3.00 76.2	0.00 * 0.0 *	0.75 19.1	8.3 3.8
3 80	3.500 88.9	3.77 95.6	9.40 238.8	0.08 2.0	4.21 106.9	6.08 154.4	3.00 76.2	0.00 * 0.0 *	0.75 19.1	8.9 4.0
4 100	4.500 114.3	4.63 117.6	10.84 275.3	0.07 1.8	6.01 152.7	6.98 177.3	3.00 76.2	0.73 18.5	1.13 28.7	14.9 6.8
139.7 mm	5.500 139.7	5.88 149.4	12.38 314.5	0.43 10.9	6.01 152.7	8.57 217.7	4.50 114.3	—	—	21.0 9.5
5 125	5.563 141.3	5.88 149.4	12.38 314.5	0.43 10.9	6.01 152.7	8.57 217.7	4.50 114.3	—	—	21.0 9.5
165.1 mm	6.500 165.1	5.88 149.4	13.41 340.6	1.00 25.4	7.51 190.8	9.32 236.7	4.50 114.3	1.60 40.6	1.88 47.8	26.5 12.0
6 150	6.625 168.3	5.88 149.4	13.41 340.6	1.00 25.4	7.51 190.8	9.32 236.7	4.50 114.3	1.60 40.6	1.88 47.8	26.5 12.0
8 200	8.625 219.1	5.33 135.4	16.50 419.1	1.27 32.3	9.65 245.1	10.98 278.9	6.30 160.0	0.00 * 0.0 *	0.68 17.3	43.0 19.5
10 250	10.750 273.0	6.40 162.6	19.14 486.2	1.72 43.7	12.20 309.9	16.19 411.2	9.00 228.6	—	—	80.0 36.3
12 300	12.750 323.9	6.50 165.1	21.54 547.1	2.66 67.6	14.25 362.0	17.22 437.4	9.00 228.6	—	—	102.0 46.3

* On Centerline ‡ These dimensions apply only to a Series 705W Butterfly Valve with a ½-inch NPT, supply-side tap



2 ½ – 4-INCH/73.0 – 114.3-MM SIZES



5 – 12-INCH/141.3 – 323.9-MM SIZES

IMPORTANT INSTALLATION INFORMATION

⚠ WARNING

- Read and understand all instructions before attempting to install any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.

Failure to follow these instructions could result in serious personal injury and/or property damage.

- The Series 705W Butterfly Valve is cUL_{US} Listed and FM Approved for 300-psi/2065-kPa working pressure for indoor or outdoor use.
- Flow performance for Series 705W Butterfly Valves satisfies UL Specification 1091 and FM Approval Standard 1112.
- The standard disc coating is EPDM for water and oil-free air service. DO NOT use EPDM material in petroleum service applications.

- Installation of the Series 705W Butterfly Valve must be made in accordance with NFPA 13 and NFPA 72.
- Series 705W Butterfly Valves are designed for ambient weather conditions. DO NOT use these valves in submersible services.
- DO NOT install valves with the disc in the full-open position. Make sure no part of the disc protrudes beyond the end of the valve body.
- Use ONLY grooved-end, IPS carbon steel pipe with Series 705W Butterfly Valves. DO NOT use plain-end IPS pipe or grooved cast ductile iron pipe.
- To prevent valves from rotating in the system, Victaulic recommends installing the Series 705W Butterfly Valve with at least one Victaulic rigid coupling. If two Victaulic flexible couplings are used, additional support may be required to prevent the valve from rotating. Refer to the instructions, supplied with the couplings, for proper installation.
- Series 705W Butterfly Valves are not designed for use with handle extensions or chain-wheel operators.
- The ½-inch NPT, supply-side tap of the Series 705W Butterfly Valve MUST BE UPSTREAM (away from the device) when supplying pressure to the piston charge line of Series 756 and Series 758 FireLock fire protection valves or the diaphragm charge line of Series 768 and Series 769 FireLock NXT fire protection valves.**
- For outdoor applications, a weatherproof conduit and conduit connection MUST be installed on the housing to protect internal switches. Store the valve in a dry area prior to installation.**

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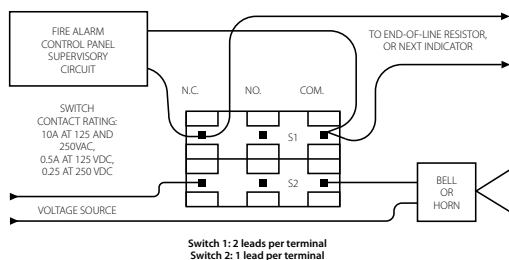
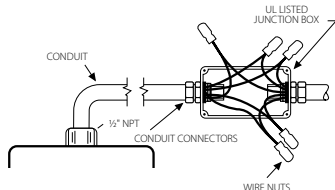
INSTALLATION INSTRUCTIONS

- To prevent damage to the disc during installation, turn the hand wheel so that the disc is in the "closed" position. No portion of the disc should extend beyond the end of the valve body during installation.
- Install the Series 705W Butterfly Valve with at least one Victaulic rigid coupling. Refer to the "Important Information" section on the previous page and the instructions, supplied with the couplings, for proper installation. **NOTE:** When installing rigid, angle-bolt-pad couplings, the nuts must be tightened evenly to obtain metal-to-metal contact with equal offsets at each bolt pad.

SWITCH AND WIRING

- The supervisory switch contains two, single pole, double throw, pre-wired switches.
- Switches are rated:
10 amps @ 125 or 250 VAC/60 Hz
0.50 amps @ 125 VDC
0.25 amps @ 250 VDC
- Switches supervise the valve in the "open" position.**
- One switch has two #18 MTW wires per terminal, which permit complete supervision of leads (refer to diagrams and notes below). The second switch has one #18 MTW wire per terminal. This double circuit provides flexibility to operate two electrical devices at separate locations, such as an indicating light and an audible alarm, in the area that the valve is installed.
- A #14 MTW ground lead (green) is provided.
Switch #1 = S1 For connection to the supervisory circuit of a UL Listed alarm control panel
Switch #2 = S2 Auxiliary switch that may be connected to auxiliary devices, per the authority having jurisdiction

- | | | |
|----|---|--|
| S1 | { | Normally Closed: (2) Blue
Common: (2) Yellow |
| S2 | { | Normally Closed: Blue with Orange Stripe
Normally Open: Brown with Orange Stripe
Common: Yellow with Orange Stripe |



NOTE: The above diagram shows a connection between the common terminal (yellow – S1 and yellow-with-orange stripe – S2) and the normally closed terminal (blue – S1 and blue-with-orange strip – S2). In this example, the indicator light and alarm will stay on until the valve is fully open. When the valve is fully open, the indicator light and alarm will go out. Cap off any unused wires (e.g. brown with orange stripe).

Only S1 (two leads per terminal) may be connected to the fire alarm control panel.

The connection of the alarm switch wiring shall be in accordance with NFPA 72 and the auxiliary switch per NFPA 70 (NEC).

GEAR OPERATOR REPLACEMENT

In the event that a gear operator fails, complete replacement would be required.

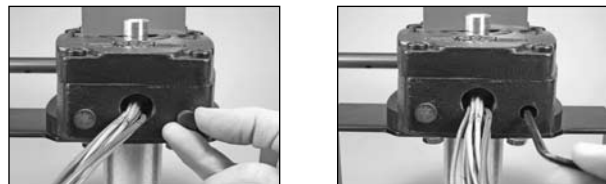
CAUTION

- Use ONLY Victaulic replacement parts.**
- Before removing the gear operator, note the current orientation of the gear operator on the bracket. The new gear operator must be installed on the bracket in the same orientation.**

Failure to follow these instructions may cause in improper valve operation, resulting in property damage.

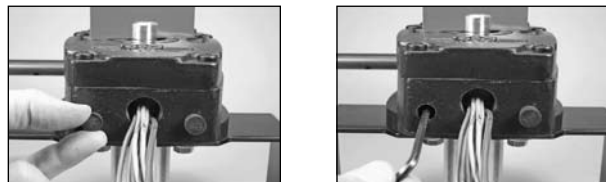
- Remove the mounting hardware from the underside of the gear operator's bracket. Save this hardware for re-assembly.
- Lift the gear operator assembly off the bracket.
- Install the replacement gear operator in the exact orientation as the one removed from the bracket. Line up the slot in the stem adapter with the drive hub on the valve.
- Use the mounting hardware, removed in step 1, to secure the new gear operator onto the bracket.
- Wire the gear operator. Refer to the "Switch and Wiring" section.
- Follow the instructions below to adjust the gear operator's travel limit stops.

Adjusting the Gear Operator's Closed Travel Limit Stops (10 - 12-inch/273.0 - 323.9-mm Sizes)



- Remove the dust cap from the right side of the gear operator.
- Using a 5/32 allen wrench, loosen the internal set screw approximately three turns (counterclockwise).
- Turn the handwheel in the clockwise direction to place the disc in the closed (shut) position. The "closed" position is reached when the pointer on top of the gear operator points to the "shut" marking.
- Using a 5/32 allen wrench, tighten the internal set screw (clockwise) until it contacts the internal quadrant gear.
- Verify proper operation of the gear operator by turning the handwheel.
- Replace the dust cap.

Adjusting the Gear Operator's Open Travel Limit Stops (10 - 12-inch/273.0 - 323.9-mm Sizes)



- Remove the dust cap from the left side of the gear operator.
- Using a 5/32 allen wrench, loosen the internal set screw approximately three turns (counterclockwise).
- Turn the handwheel in the counterclockwise direction to place the disc in the open position. The "open" position is reached when the position indicator is 90° from the correctly adjusted closed position.
- Using a 5/32 allen wrench, tighten the internal set screw (clockwise) until it contacts the internal quadrant gear.
- Verify proper operation of the gear operator by turning the handwheel.
- Replace the dust cap.

For complete contact information, visit www.victaulic.com

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