

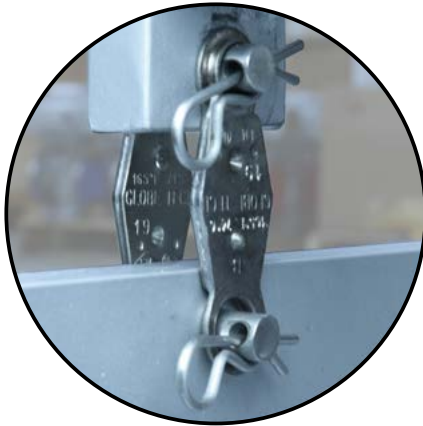


ESOV Series Swing Check Emergency Shut-off for Gas, Liquid, or Vapor



Assured Automation's ESOV series ANSI flanged swing-check valves with fusible links are designed to provide a simple yet effective method of closing in an emergency or hazardous situation.

The valves are designed with an external spring load and held in the open position with the fire-sensitive fusible link. The valve will automatically close when the link melts due to fire or high temperatures. The external lever rotates the hinge pin which drives the disc into the closed position, stopping the flow of the liquid, gas or vapor.



Dual Fusible Link

FEATURES

- Local and/or remote actuation
- Fire-Safe fusible link
- Economical solution for required safety
- Can be used in horizontal and vertical service
- All valves are factory tested to API 598
- Back pressure ensures a tight seal between the disc and seat
- Once closed, the valve can ONLY be reset manually as a safety feature

TYPICAL APPLICATIONS

- Refineries
- Petrochemical
- Off-shore oil rigs
- Chemical process equipment
- Water and Waste applications
- Superheated steam lines on ships

SIZES & END CONNECTIONS

- 150# ANSI Flanged: 2" to 16"
- 300# ANSI Flanged: 2" to 16"

PRESSURE RATING

- 150# ANSI Flanged: 275 PSIG
- 300# ANSI Flanged: 740 PSIG

TEMPERATURE RANGE

-20°F to 475°F

MATERIALS

- Body:** Carbon steel or Stainless Steel
- Disc:** Carbon steel or Stainless Steel
- Hanger Arm:** Carbon steel or Stainless Steel
- Seat:** API 598 Trim 8 or 12
- Cover Seal:** Graphite

[see page 2 for complete material details](#)



FLOW CAPACITIES

Size	C _v (gpm)
2"	120
2 1/2"	190
3"	285
4"	520
5"	745
6"	1,245
8"	2,285
10"	3,570
12"	5,340
14"	6,500
16"	8,620

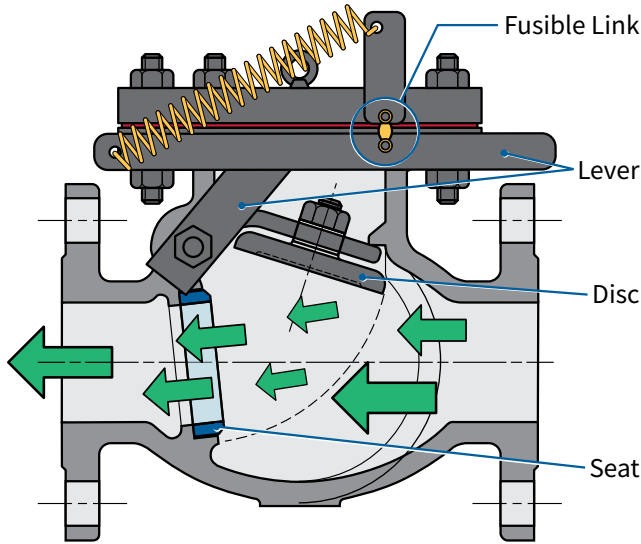


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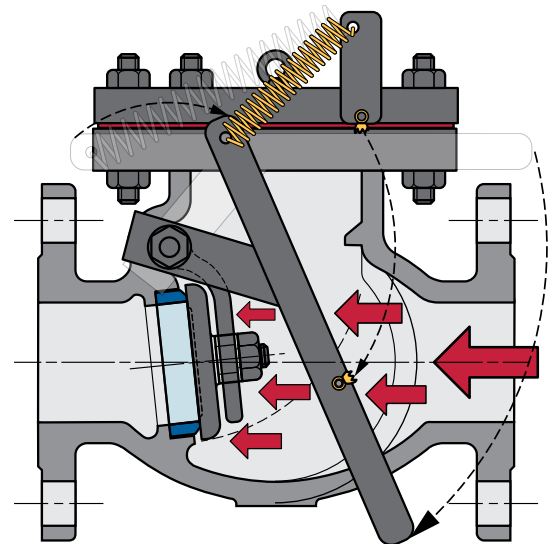
Swing Check Emergency Shut-off for Gas, Liquid & Vapor

OPERATION



Normal Operation

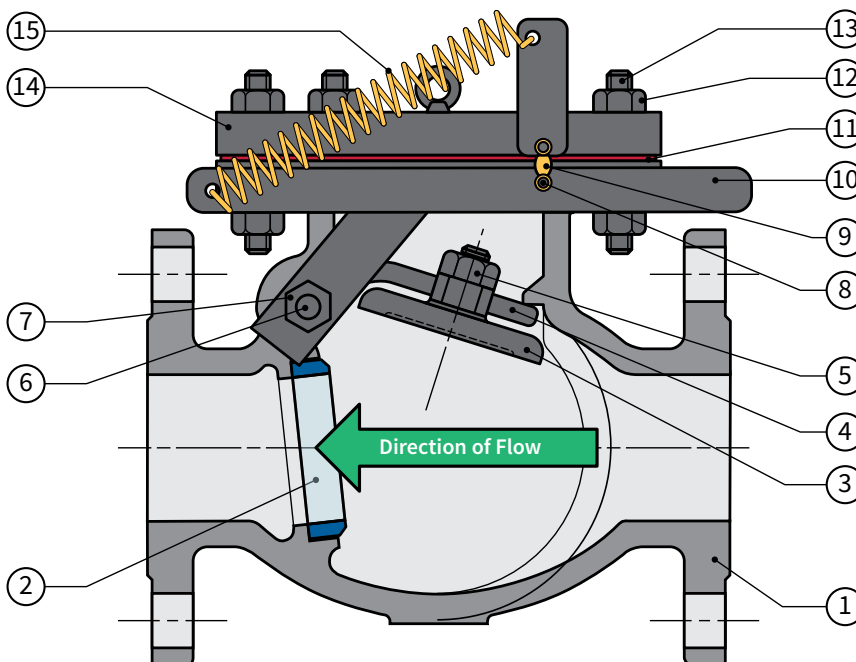
Disc is held up and away from the seat by the lever and fusible link



Emergency Shut-off

Fusible link melts and the spring pulls the lever which moves the disc into the closed position against the seat

MATERIALS OF CONSTRUCTION



Item	Part	
1	Valve Body	ASTM A216 Gr WCB
2	Seat Ring	ASTM A182 Gr F6
3	Disc	ASTM A182 Gr F6
4	Disc Arm	ASTM A216 Gr WCB
5	Disc Nut	ASTM A194 Gr 2H
6	Hinge Pin	ASTM A479 Gr 410
7	Lever Nut	ASTM A194 Gr 2H
8	Link Pin	SS 18-8
9	Fusible Link	Lead
10	Lever	Cold Rolled Steel
11	Cover Gasket	Graphite
12	Cover Stud Nut	ASTM A194 Gr 2H
13	Cover Stud	ASTM A193 Gr B7
14	Cover	ASTM A216 Gr WCB
15	Spring	Steel

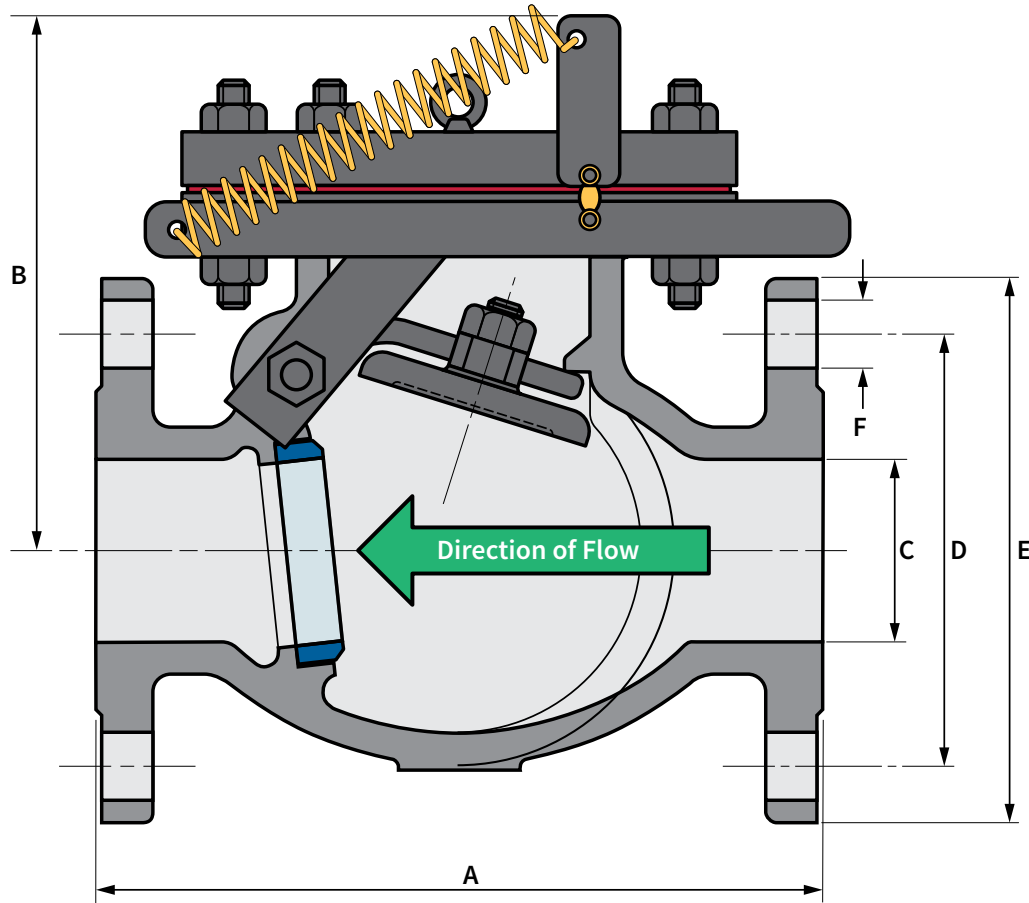


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Swing Check Emergency Shut-off for Gas, Liquid & Vapor

DIMENSIONS ANSI Class 150 (in inches)



Size	A (Face to Face)	B (Height from Pipe Center)	C (Port I.D.)	D (Bolt Circle Ø)	E (Flange O.D.)	F (Bolt Hole Ø)	Number of Bolt Holes
2"	8.00	6.00	2.00	4.75	6.00	0.750	4
2 1/2"	8.50	6.00	2.50	5.50	7.00	0.750	4
3"	9.50	6.25	3.00	6.00	7.50	0.750	4
4"	11.50	7.62	4.00	7.50	9.00	0.750	8
5"	13.00	7.62	5.00	8.50	10.00	0.875	8
6"	14.00	9.50	6.00	9.50	11.00	0.875	8
8"	19.50	11.50	8.00	11.75	13.50	0.875	8
10"	24.50	13.50	10.00	14.25	16.00	1.000	12
12"	27.50	15.00	12.50	17.00	19.00	1.000	12
14"	31.00	15.75	13.25	18.75	21.00	1.125	12
16"	34.00	17.25	15.25	21.25	23.50	1.125	16

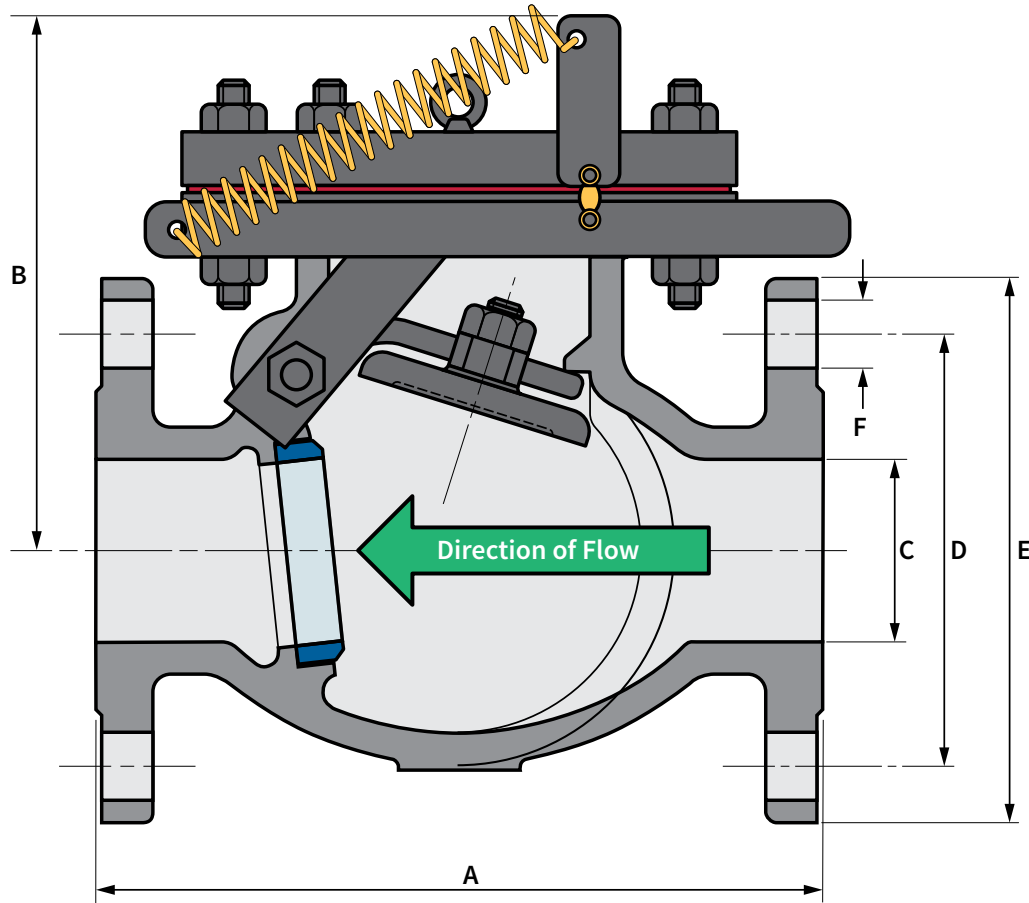


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Swing Check Emergency Shut-off for Gas, Liquid & Vapor

DIMENSIONS ANSI Class 300 (in inches)



Size	A (Face to Face)	B (Height from Pipe Center)	C (Port I.D.)	D (Bolt Circle Ø)	E (Flange O.D.)	F (Bolt Hole Ø)	Number of Bolt Holes
2"	10.50	6.00	2.00	5.00	6.50	0.750	8
2 1/2"	11.50	6.50	2.50	5.87	7.50	0.875	8
3"	12.50	7.00	3.00	6.62	8.25	0.875	8
4"	14.00	7.32	4.00	7.87	10.00	0.875	8
5"	15.70	9.17	5.00	9.25	11.00	0.875	8
6"	17.50	10.32	6.00	10.62	12.50	0.875	12
8"	21.00	12.25	8.00	13.00	15.00	1.00	12
10"	24.50	14.00	10.00	15.25	17.50	1.12	16
12"	28.00	15.47	12.50	17.75	20.50	1.25	16



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Swing Check Emergency Shut-off for Gas, Liquid & Vapor

MODELS AVAILABLE

BPSL

Basic

Spring Assisted Closure with Fusible Link Only



CPSL

Pneumatic Release

Basic PLUS Pneumatic Cylinder for Trigger



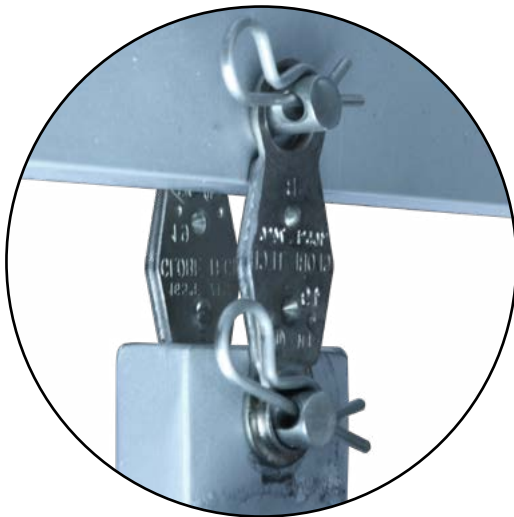
MPSL

Electric Release

Basic PLUS Electro-Magnetic Trigger



REPLACEMENT LINKS



Trigger Temperatures Available:

- 135°F
- 165°F (standard)
- 212°F
- 280°F
- 360°F

Call **1-800-899-0553** for Pricing and Availability of Replacement Links



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Swing Check Emergency Shut-off for Gas, Liquid & Vapor

ORDERING INFORMATION

ESOV - 0200 - BPSL - 150 - C - 08 - 165F

Size	Trigger Type	Flange Class	Body Material	Trim Material	Trim Material
Size: _____ 0200 = 2" 0250 = 2 1/2" 0300 = 3" 0400 = 4" 0500 = 5" 0600 = 6" 0800 = 8" 1000 = 10" 1200 = 12" 1400 = 14" 1600 = 16" *Call for Larger Sizes	Type & Remote Triggering: _____ BPSL = Basic Spring Assisted Closure with Fusible Link Trigger CPSL = Spring Assist Closure w/ Fusible Link Trigger PLUS Pneumatic Cylinder Remote Trigger MPSL = Spring Assist Closure w/ Fusible Link Trigger PLUS Electro-magnetic Remote Trigger	ANSI Flange Class (to ANSI B16.5): _____ 150# = ANSI Class 150# 300# = ANSI Class 300#	Body Material: _____ C = Carbon Steel (ASTM A216 Gr WCB) S = Stainless Steel	Trim (Seat Ring) Material: _____ 08 = API Trim 8 12 = API Trim 12	Trigger Temperature of Fusible Links: _____ 135F = 135°F 165F = 165°F (standard) 212F = 212°F 280F = 280°F 360F = 360°F

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