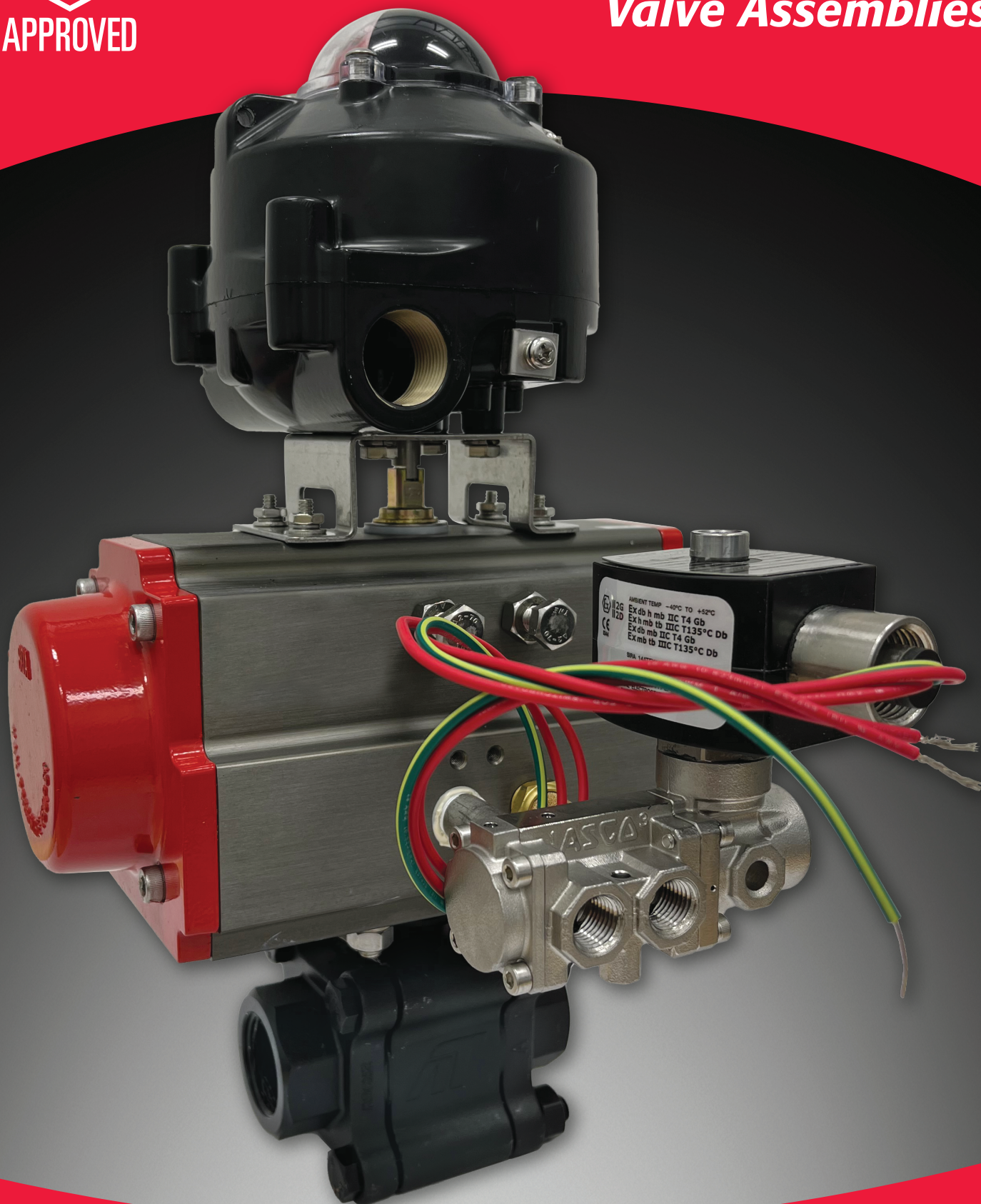




Liquid & Gas Approved Vent & Safety Shut-off Valve Assemblies



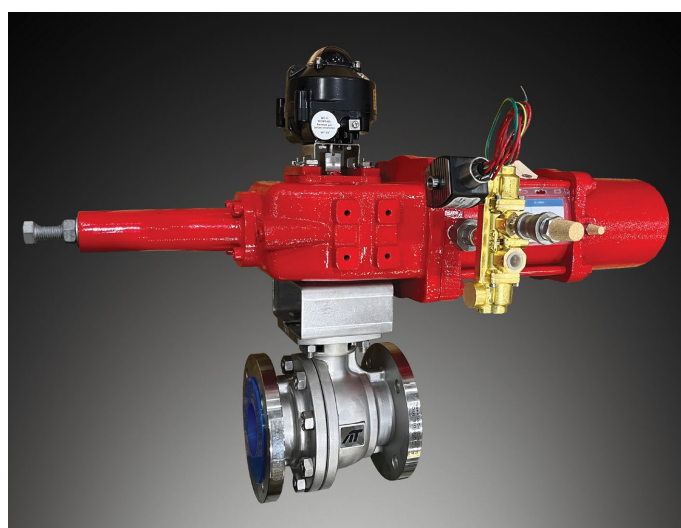
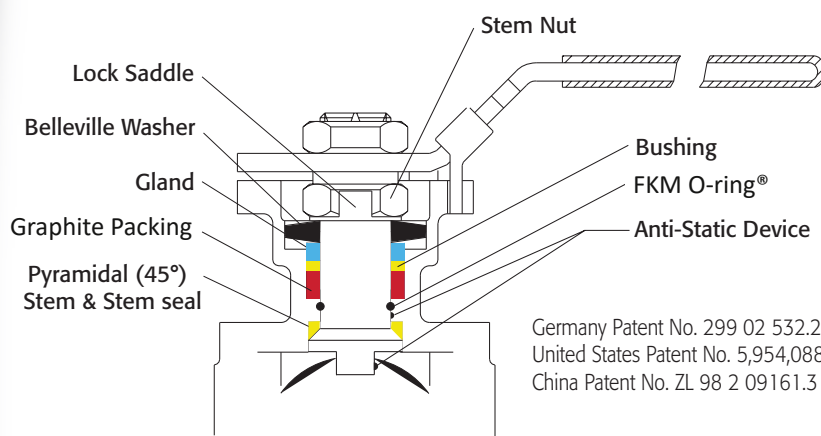
Valve assemblies for liquid & gas vent and safety shut-off

These assemblies are FM approved for applications requiring protection for fuel-burning equipment in accordance with FM classes 7400, 7412, 7420, and 7422. The components include a spring-return automated ball/butterfly valve, explosion-proof limit switch, and solenoid pilot valve. Available valve configurations include a 3-piece ball valve, flanged ball valve, and high-performance butterfly valve. The 3-piece ball valve design features threaded, socket weld, or butt weld end connections, with sizes ranging from 1/4" to 2". Flanged ball valves are offered in ASME Classes 150 and 300, with sizes from 1/4" to 6". Butterfly valves come in both wafer and lug styles, available in sizes 4" to 8".

These assemblies incorporate advanced quarter-turn automation utilizing a rack and pinion actuator. This actuator, coupled with superior valve seating and stem seal design, ensures reliable and consistent closure and venting as required. Overall, these assemblies serve as a compact solution for fuel gas safety shut-off or venting systems.

Valve Assemblies for Liquid & Gas Vent & Safety Shut-off Requirements

- 316 SST or WCB valves
- 3-piece and flanged valves
- Manual safety cocks and automated safety shut-off valves
- Solenoid approved for waterproof and explosion-proof environments
- Ball valves feature pyramidal stem seal system



Safety Shut-Off FM Package
1 Second Assembly

Specifications

Maximum Operating Pressure

Size	Series	Body Material	PSI @ 100F
1/4"-1-1/2"	8C or F88C	WCB	1480
2"	8C or F88C	WCB	986
2-1/2"	8C or F88C	WCB	986
3"	8C or F88C	WCB	740
4"	8C or F88C	WCB	600
1/4"-1-1/2"	8S, F88, 8O, or 88O	CF8M	1440
2"	8S, F88, 8O, or 88O	CF8M	960
2-1/2"	8S, F88, 8O, or 88O	CF8M	960
3"	8S, F88, 8O, or 88O	CF8M	720
4"	8S, F88, 8O, or 88O	CF8M	600
1/2"-6"	9C or FD9C (ASME CLASS 150)	WCB	285
1/2"-6"	9C or FD9C (ASME CLASS 300)	WCB	740
1/2"-6"	9S, FD9, 9O, D9O (ASME CLASS 150)	CF8M	275
1/2"-6"	9S, FD9, 9O, D9O (ASME CLASS 300)	CF8M	720
4"- 8"*	P1FC (ASME CLASS 150)	WCB	285
4"- 8"*	P1F (ASME CLASS 150)	CF8M	275

NOTE: ANY DEVIATIONS FROM STANDARD FM ASSEMBLY OFFERINGS IN THE PRICE BOOK OR LITERATURE WILL VOID THE FM APPROVAL.

Switch Ratings (Amps)

Switch Ratings (Amps unless noted; see limit switch brochure for full ratings)					
	"APL-510N (2-SPDT)"	"APL-514N (2-DPDT)"	"APL-530N (2-SPST Prox)"	APL-516N (2-SPDT, TRANSMITTER)	APL-512N (4-SPDT)
125VAC	16	20	0.4	16	16
250VAC	16	20	-	16	16
30VDC	10	1	-	10	10
125VDC	0.6	1HP	-	0.6	0.6

Flow Data (Cv)

Size	8C/8S/8O/F88C/F88/88O	9C/9S/9O/FD9C/FD9/D9O	P1FC/P1F
1/4"	7	N/A	N/A
3/8"	8	N/A	N/A
1/2"	15	15	N/A
3/4"	40	45	N/A
1"	70	85	N/A
1-1/4"	110	N/A	N/A
1-1/2"	250	275	N/A
2"	430	460	N/A
2-1/2"	600	700	N/A
3"	1100	1100	N/A
4"	2000	2200	440
6"	N/A	N/A	900
8"	N/A	N/A	1900

How To Order - SS & SV Series (Maximum 5 seconds Fail Condition)

Safety Shut-off Assemblies

SS- _ _ _ - _ - _ - _
1 2 3 4 5 6 7 8

1 Valve Series

- 8C** F88C Series, Firesafe, NACE, 3-piece, ASME B16.34 fully conformant, Full Port, Direct Mount, Carbon Steel Body (Sizes 1/4"- 2" NPT, Socket Weld, Butt Weld)
- 8S** F88 Series, Firesafe, NACE, 3-piece, ASME B16.34 fully conformant, Full Port, Direct Mount, Stainless Steel Body (Sizes 1/4"- 2" NPT, Socket Weld, Butt Weld)
- 8O** 88 Series, 3-piece, ASME B16.34 fully conformant, Full Port, Direct Mount, Stainless Steel Body, Oxygen Cleaned and bagged (Sizes 1/4"- 2" NPT, Socket Weld, Butt Weld)
- 9C** FD9C Series, Firesafe, NACE, Flanged, Full Port, Direct Mount, Carbon Steel Body (Sizes 1/2"- 6" ASME Class 150 and ASME Class 300 Flange)
- 9S** FD9 Series, Firesafe, NACE, Flanged, Full Port, Direct Mount, Stainless Steel Body (Sizes 1/2"- 6" ASME Class 150 and ASME Class 300 Flange)
- 9O** D9 Series, Flanged, Full Port, Direct Mount, Stainless Steel Body, Oxygen Cleaned and bagged (Sizes 1/2"- 6" ASME Class 150 and ASME Class 300)
- P1FC** P1FC Series HPBFV, Firesafe, Carbon Steel Body (Sizes 4" - 8" Lug and Wafer Style Class 150)
- P1F** P1F Series HPBFV, Firesafe, Stainless Steel Body (Sizes 4" - 8" Lug and Wafer Style Class 150)

2 End Connection

- T** NPT Connection
- S** Socket Weld
- B** Butt Weld
- F** ASME Class 150 Flange
- 3** ASME Class 300 Flange
- L** Lug Style Class 150
- W** Wafer Style Class 150

3 Seat Material

- X** Valve Series Standard
- T** TFM™-1600

4 Valve Size

- | | | | | | |
|-------------|--------|-------------|--------|-------------|----|
| 0025 | 1/4" | 0150 | 1-1/2" | 0800 | 8" |
| 0038 | 3/8" | 0200 | 2" | | |
| 0050 | 1/2" | 0250 | 2-1/2" | | |
| 0075 | 3/4" | 0300 | 3" | | |
| 0100 | 1" | 0400 | 4" | | |
| 0125 | 1-1/4" | 0600 | 6" | | |

Vent Assemblies

SV- _ _ _ - _ - _ - _
1 2 3 4 5 6 7 8

5 Actuator - Pneumatic-Fail Closed (SS) Pneumatic-Fail Open (SV)

- A** 60 PSIG air supply available -5 °F to 175 °F
- B** 80 PSIG air supply available -5 °F to 175 °F
- C** Low Temperature 60 psig available -45 °F to 175 °F
- D** Low Temperature 80 psig available -45 °F to 175 °F

6 Solenoid

- A** 120 VAC Stainless Solenoid (ASCO 8362A101H181GF0) 10.1W -4 °F to 125 °F
- B** 24 VDC Low Power Stainless Solenoid (ASCO 8362A101H181CF1) 1.4W -4 °F to 131 °F
- C** 120 VAC Low Temperature SST Solenoid (ASCO 8362A101H183GF0) 10.1W -40 °F to 125 °F
- D** 24 VDC Low Power Low Temperature SST Solenoid (ASCO 8362A101H183CF1) 1.4W -40 °F to 140 °F

7 Proof of Closure Limit Switch

- A** APL-510N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (2) SPDT Mechanical, 0.6 amp @ 125 VDC -4 °F to 140 °F
- E** APL-514N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (2) DPDT Mechanical, 1 amp @ 125 VDC -13 °F to 140 °F
- D** APL-530N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full ratings), (2) SPST Proximity, 1 amp @ 24VDC -40 °F to 140 °F
- T** APL-516N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full ratings), (2) SPDT Mechanical, 0.6 amp @ 125 VDC, 4-20 mA position transmitter -4 °F to 140 °F
- S** APL-512N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (4) SPDT Mechanical, 0.6 amp @ 125 VDC -4 °F to 140 °F

8 Orientation

- X** Standard Mount (Parallel to flow, as shown in catalog)
- 1** 90° Clockwise from Standard Mount
- 2** 180° Clockwise from Standard Mount
- 3** 270° Clockwise from Standard Mount

How To Order - SC Series

Manual Safety Cocks Assemblies

SC- _ _ _ - _ - _
1 2 3 4 5

1 Valve Series

- 8C** F88C Series, Firesafe, NACE, 3-piece, Full Port, Direct Mount, Carbon Steel Body
- 8S** F88 Series, Firesafe, NACE, 3-piece, Full Port, Direct Mount, Stainless Steel Body
- 9C** FD9C Series, Firesafe, NACE, Flanged, Full Port, Direct Mount, Carbon Steel Body
- 9S** FD9 Series, Firesafe, NACE, Flanged, Full Port, Direct Mount, Stainless Steel Body
- 9O** D9 Series, Flanged, Full Port, Direct Mount, Stainless Steel Body, Oxygen Cleaned and bagged

2 Ends

- T** NPT Connection
- S** Socket Weld
- B** Butt Weld
- F** ASME Class 150
- 3** ASME Class 300

3 Seat Material

- X** Reinforced TFE

4 Valve Size

- | | | | |
|------------|--------|------------|--------|
| 025 | 1/4" | 150 | 1-1/2" |
| 038 | 3/8" | 200 | 2" |
| 050 | 1/2" | 250 | 2-1/2" |
| 075 | 3/4" | 300 | 3" |
| 100 | 1" | 400 | 4" |
| 125 | 1-1/4" | 600 | 6" |

5 Proof of Closure Limit Switch

- A** EX10A2SBKN Nema 4, 4X, 7 and 9, 2-SPDT Mechanical, 5 amp @ 125 VAC
- E** EX10E2SBKN Nema 4, 4X, 7 and 9, 2-DPDT Mechanical, 5 amp @ 120 VAC
- D** EX11D2SBKN Nema 4, 4X, 7 and 9, 2-SPDT Proximity, 1 amp @ 120 VAC
- T** EX11TA2SBKN Nema 4, 4X, 7 and 9, 2-SPDT Mechanical, 5 amp @ 125 VAC, 4-20 mA position transmitter

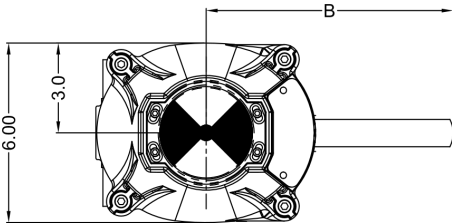
Manual Safety Cocks (SC Series) ASME Class 150 & 300 Flanged

ASME Class 150

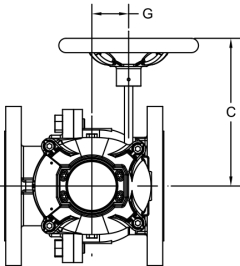
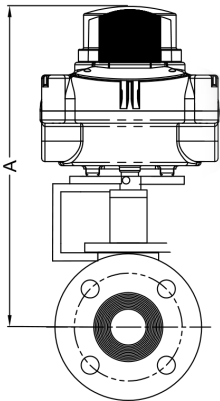
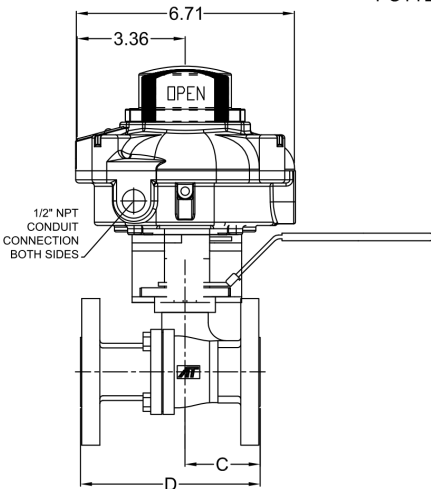
Valve Size	A	B	C	D
1/2"	11.23	6.90	1.84	4.26
3/4"	11.41	6.90	2.18	4.62
1"	11.63	6.90	2.21	5.00
1-1/2"	13.80	10.50	2.83	6.50
2"	14.12	10.50	3.38	7.02

ASME Class 300

Valve Size	A	B	C	D
1/2"	10.36	6.80	2.32	5.50
3/4"	10.94	6.80	2.59	6.00
1"	10.94	6.80	2.78	6.50
1-1/2"	12.95	10.31	3.13	7.50
2"	13.24	10.31	3.81	8.50



CLOSED SWITCH (TOP CAM)
POTTED IN PLACE NOT FIELD
ADJUSTABLE

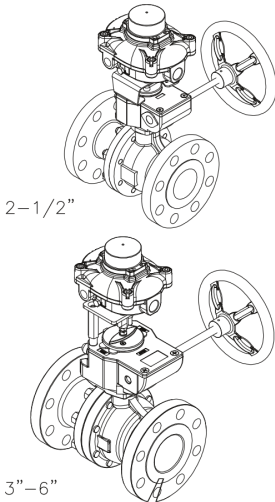
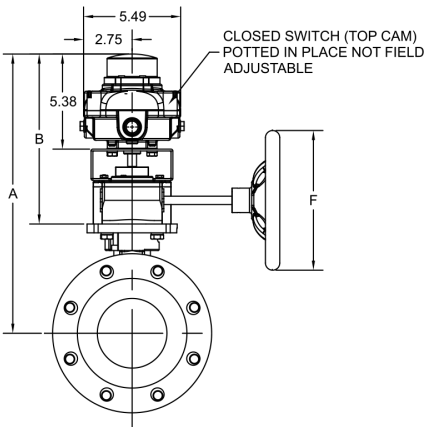
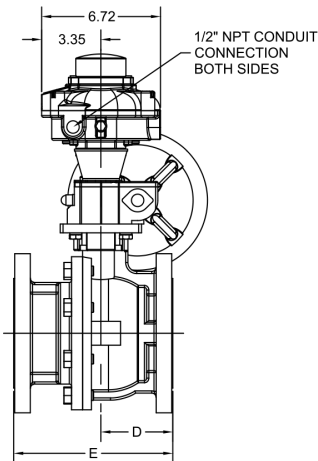


ASME Class 150

Valve Size	GEAR	A	B	C	D	E	F	G
2-1/2"	Q400-4	14.12	9.55	7.12	3.06	7.50	3.94	2.07
3"	Q800-8	17.25	12.01	10.06	4.01	8.00	7.90	2.71
4"	Q800-8	18.19	12.01	10.06	4.07	9.00	7.90	2.71
6"	Q800-12	18.38	10.10	10.73	7.00	15.50	11.81	2.71

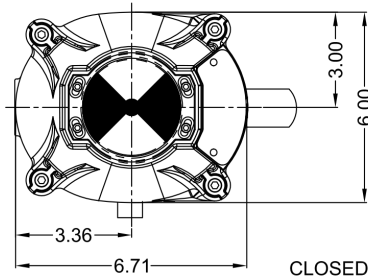
ASME Class 300

Valve Size	GEAR	A	B	C	D	E	F	G
2-1/2"	Q400-4	14.12	9.55	7.12	4.20	9.50	3.94	2.07
3"	Q800-8	17.25	12.03	10.06	5.10	11.12	7.90	2.71
4"	Q800-8	18.21	12.03	10.06	5.50	12.00	7.90	2.71
6"	Q800-12	18.38	10.10	10.73	7.30	15.87	11.81	2.71

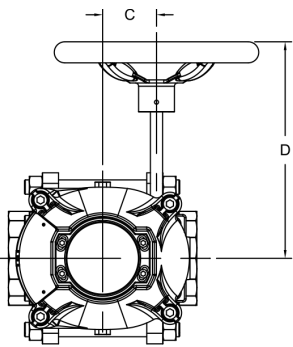
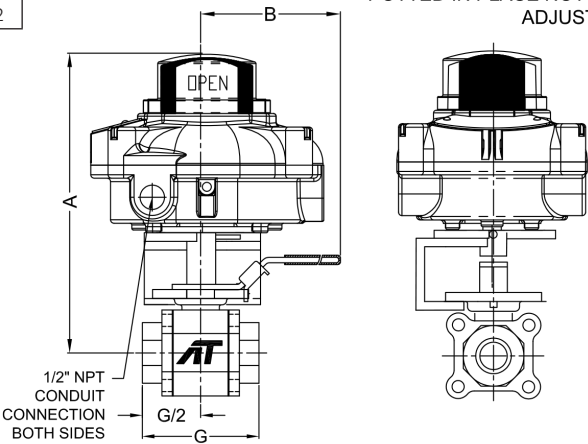
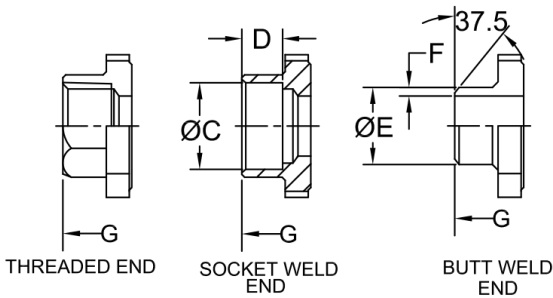


Manual Safety Cocks (SC Series) 3-piece

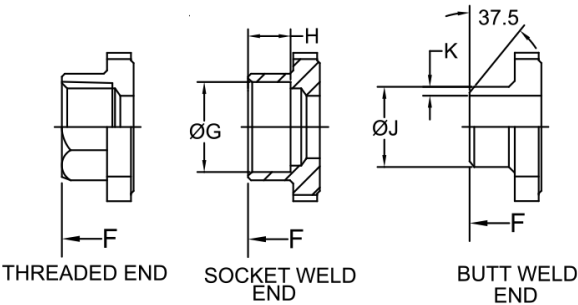
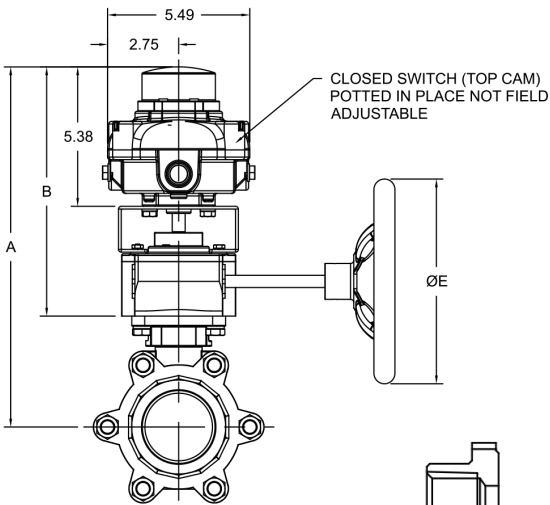
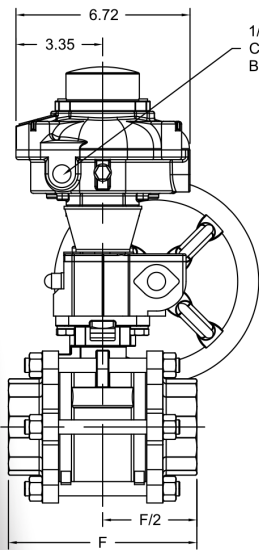
Valve Size	A	B	C	D	E	F	G
1/4"	9.67	5.47	0.55	0.39	0.85	0.13	2.95
3/8"	9.67	5.47	0.69	0.39	0.85	0.13	2.95
1/2"	9.67	5.47	0.85	0.39	0.85	0.06	2.85
3/4"	9.84	5.47	1.07	0.51	1.07	0.06	3.36
1"	10.25	6.50	1.34	0.51	1.34	0.06	4.15
1-1/4"	10.38	6.50	1.69	0.51	1.68	0.06	4.37
1-1/2"	10.95	8.46	1.92	0.51	1.91	0.06	5.01
2"	11.26	8.46	2.40	0.63	2.38	0.06	5.62



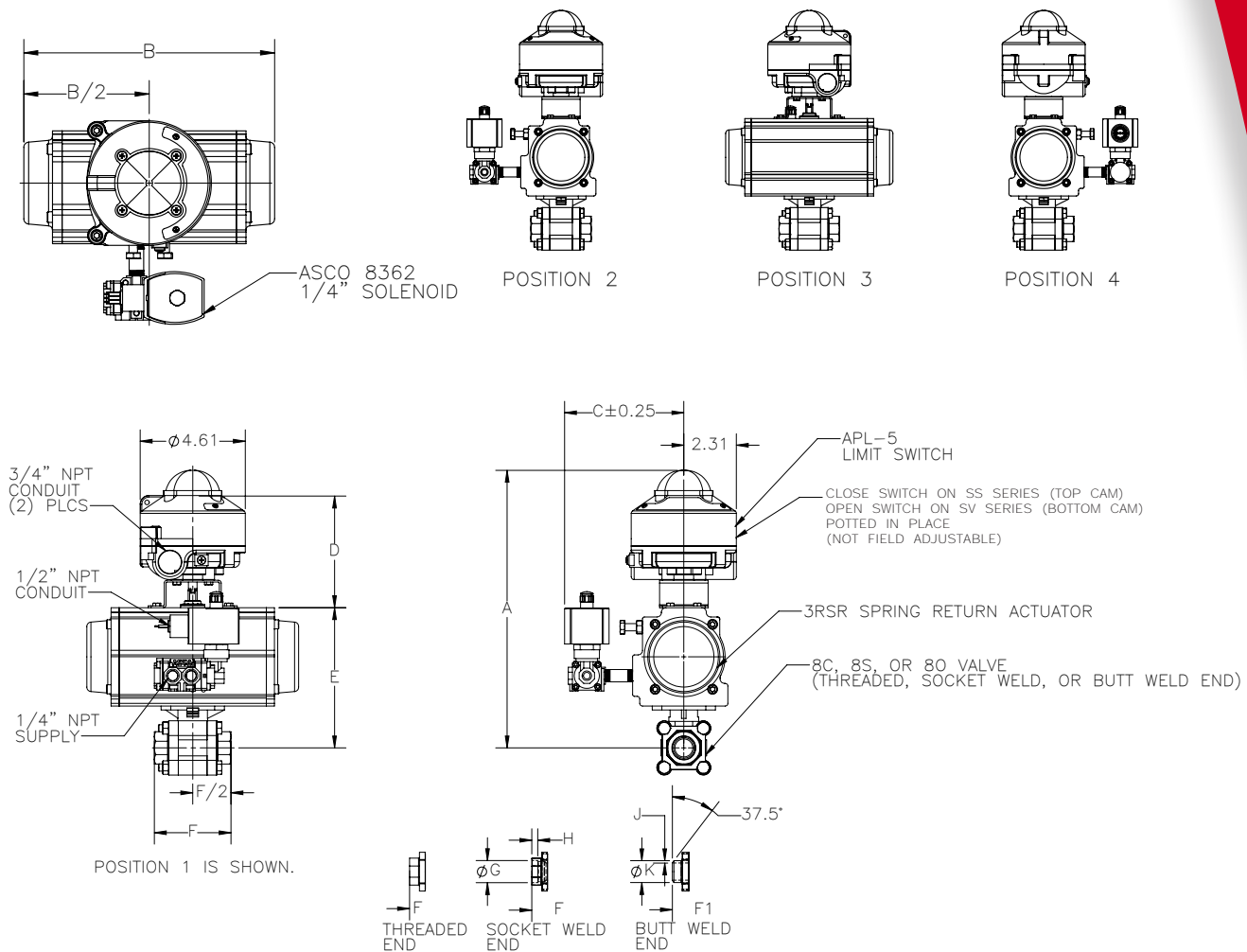
CLOSED SWITCH (TOP CAM)
POTTED IN PLACE NOT FIELD
ADJUSTABLE



Valve Size	GEAR	A	B	C	D	E	F	G	H	J	K
2-1/2"	Q400-4	13.83	9.55	2.07	7.12	3.94	7.28	2.89	0.63	3.00	0.06
3"	Q400-4	14.18	9.55	2.07	7.12	3.94	8.07	3.54	0.63	3.54	0.06
4"	Q400-6	14.81	9.55	2.07	7.28	6.30	9.45	4.54	0.79	4.57	0.06



SS Series & SV Series Gas Vent & Safety Shut-off Assemblies 3-piece



60 PSI Air Supply

Valve Size	Actuator (SR4 for SS) (SO4 for SV)	NPT Air Supply Actuator	A	B	C	D	E	F	F1	ØG	H	J	ØK
1/4"	3R40	1/8"	11.11	7.60	5.23	5.99	5.12	2.95	2.95	0.55	0.55	0.13	0.39
3/8"	3R40	1/8"	11.11	7.60	5.23	5.99	5.12	2.95	2.95	0.69	0.69	0.11	0.39
1/2"	3R40	1/8"	11.11	7.60	5.23	5.99	5.12	2.85	2.85	0.85	0.85	0.06	0.39
3/4"	3R80	1/4"	12.12	9.29	5.23	5.99	6.13	3.36	3.36	1.07	1.07	0.06	0.51
1"	3R80	1/4"	12.60	9.29	5.23	5.99	6.61	4.15	4.15	1.34	1.34	0.06	0.51
1-1/4"	3R130	1/4"	13.06	11.02	5.29	5.99	7.07	4.37	4.37	1.69	1.69	0.06	0.51
1-1/2"	3R130	1/4"	13.71	11.50	5.29	5.99	7.72	5.01	5.12	1.92	1.92	0.06	0.51
2"	3R200	1/4"	14.69	13.39	5.51	5.99	8.70	5.62	5.62	2.40	2.40	0.06	0.63

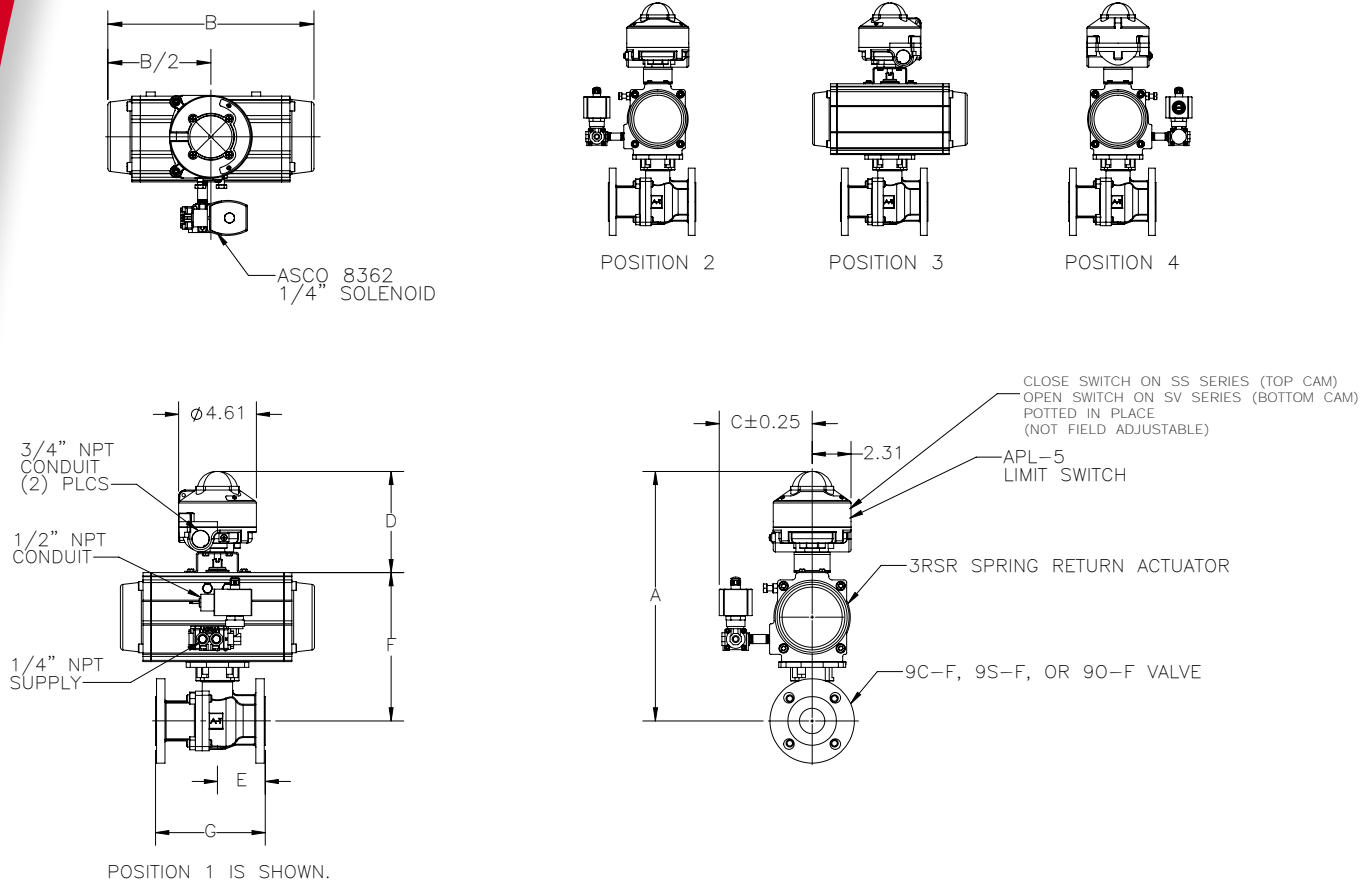
NOTE: These valve packages are tested for 1-second closure speed.

80 PSI Air Supply

Valve Size	Actuator (SR for SS) (SO for SV)	NPT Air Supply Actuator	A	B	C	D	E	F	F1	ØG	H	J	ØK
1/4"	3R40	1/8"	11.11	7.60	5.23	5.99	5.12	2.95	2.95	0.55	0.55	0.13	0.39
3/8"	3R40	1/8"	11.11	7.60	5.23	5.99	5.12	2.95	2.95	0.69	0.69	0.11	0.39
1/2"	3R40	1/8"	11.11	7.60	5.23	5.99	5.12	2.85	2.85	0.85	0.85	0.06	0.39
3/4"	3R80	1/4"	12.12	9.29	5.23	5.99	6.13	3.36	3.36	1.07	1.07	0.06	0.51
1"	3R80	1/4"	12.60	9.29	5.23	5.99	6.61	4.15	4.15	1.34	1.34	0.06	0.51
1-1/4"	3R80	1/4"	12.75	9.29	5.23	5.99	6.76	4.37	4.37	1.69	1.69	0.06	0.51
1-1/2"	3R130	1/4"	13.71	11.02	5.29	5.99	7.72	5.01	5.12	1.92	1.92	0.06	0.51
2"	3R200	1/4"	14.69	11.50	5.51	5.99	8.70	5.62	5.62	2.40	2.40	0.06	0.63

NOTE: These valve packages are tested for 1-second closure speed.

SS Series & SV Series Gas Vent & Safety Shut-off Assemblies ASME Class 150 & 300 Flanged



ASME Class 150

60 PSI Air Supply

Valve Size	Actuator (SR4 for SS) (SO4 for SV)	NPT Air Supply Actuator	A	B	C	D	E	F	G
1/2"	3R80*	1/4"	11.29	9.29	5.23	5.99	1.84	5.30	4.26
3/4"	3R80*	1/4"	11.47	9.29	5.23	5.99	2.18	5.48	4.62
1"	3R80*	1/4"	11.76	9.29	5.23	5.99	2.21	5.77	5.00
1-1/2"	3R200	1/4"	14.78	11.50	5.51	5.99	2.83	8.79	6.50
2"	3R300	1/4"	15.93	13.39	5.92	5.99	3.38	9.94	7.02
2-1/2"	3R300	1/4"	16.70	13.39	5.92	5.99	3.06	10.71	7.48
3"	3R500	1/4"	18.43	15.35	6.02	6.40	4.01	12.03	8.01
4"	3R850	1/4"	20.39	19.37	6.41	6.40	4.07	13.99	9.00
6"	3R1750	1/4"	24.76	23.54	7.44	6.40	7.00	18.36	15.50

ASME Class 150

80 PSI Air Supply

Valve Size	Actuator (SR for SS) (SO for SV)	NPT Air Supply Actuator	A	B	C	D	E	F	G
1/2"	3R40*	1/4"	11.47	9.29	5.23	5.99	1.84	5.48	4.26
3/4"	3R80*	1/4"	12.31	9.29	5.23	5.99	2.18	6.32	4.62
1"	3R80*	1/4"	12.60	9.29	5.23	5.99	2.21	6.61	5.00
1-1/2"	3R200	1/4"	14.78	11.50	5.51	5.99	2.83	8.79	6.50
2"	3R200	1/4"	15.07	11.50	5.51	5.99	3.38	9.08	7.02
2-1/2"	3R300	1/4"	16.70	13.39	5.92	5.99	3.06	10.71	7.48
3"	3R500	1/4"	18.43	15.35	6.02	6.40	4.01	12.03	8.01
4"	3R700	1/4"	19.94	16.89	6.18	6.40	4.07	13.54	9.00
6"	3R1200	1/4"	23.74	22.13	7.04	6.40	7.00	17.34	15.50

ASME Class 300

60 PSI Air Supply

Valve Size	Actuator (SR4 for SS) (SO4 for SV)	NPT Air Supply Actuator	A	B	C	D	E	F	G
1/2"	3R80*	1/4"	12.21	9.29	5.23	5.99	2.32	6.22	5.50
3/4"	3R80*	1/4"	12.79	9.29	5.23	5.99	2.59	6.80	6.00
1"	3R80*	1/4"	12.80	9.29	5.23	5.99	2.78	6.80	6.50
1-1/2"	3R300	1/4"	15.64	13.39	5.92	5.99	3.13	9.65	7.50
2"	3R300	1/4"	15.93	13.39	5.92	5.99	3.81	9.94	8.50
2-1/2"	3R500	1/4"	17.37	15.35	6.02	5.99	4.20	11.38	9.50
3"	3R700	1/4"	18.98	19.37	6.18	6.40	5.10	12.58	11.12
4"	3R1000	1/4"	21.04	19.15	6.73	6.40	5.50	14.64	12.00
6"	3R1750	1/4"	24.76	23.54	7.44	6.40	7.30	18.36	15.87

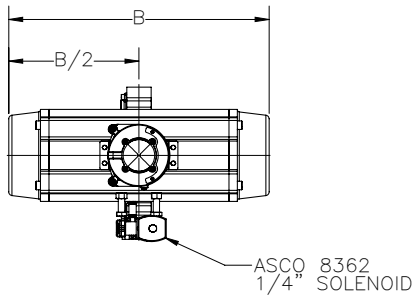
ASME Class 300

80 PSI Air Supply

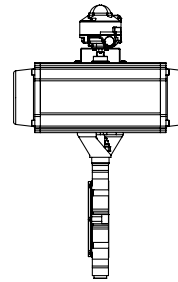
Valve Size	Actuator (SR for SS) (SO for SV)	NPT Air Supply Actuator	A	B	C	D	E	F	G
1/2"	3R80*	1/4"	12.21	9.29	5.23	5.99	2.32	6.22	5.50
3/4"	3R80*	1/4"	12.79	9.29	5.23	5.99	2.59	6.80	6.00
1"	3R80*	1/4"	12.79	9.29	5.23	5.99	2.78	6.80	6.50
1-1/2"	3R200	1/4"	14.78	11.50	5.51	5.99	3.13	8.79	7.50
2"	3R200	1/4"	15.07	11.50	5.51	5.99	3.81	9.08	8.50
2-1/2"	3R300	1/4"	16.70	13.39	5.92	5.99	4.20	10.71	9.50
3"	3R500	1/4"	18.43	15.35	6.02	6.40	5.10	12.03	11.12
4"	3R850	1/4"	20.39	19.37	6.41	6.40	5.50	13.99	12.00
6"	3R1200	1/4"	23.74	22.13	7.04	6.40	7.30	17.34	15.87

***NOTE:** These valve packages are tested for 1-second closure speed.

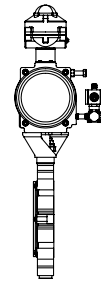
SS Series & SV Series Gas Vent & Safety Shut-off Assemblies P1F Series Lug Style ASME Class 150 4" - 8"



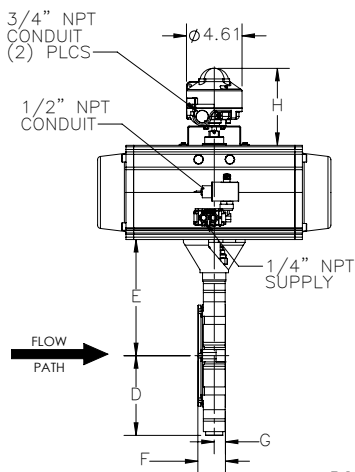
POSITION 2



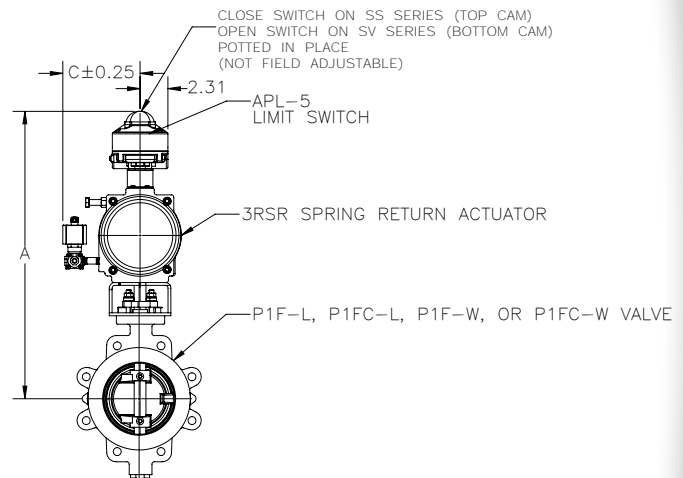
POSITION 3



POSITION 4



POSITION 1 IS SHOWN. LUG STYLE VALVE SHOWN.



ASME Class 150

80 PSI Air Supply

Valve Size	Actuator (SR for SS) (SO for SV)	NPT Air Supply	A	B	C	D	E	F	G	H
4"	3R300	1/4"	20.60	13.39	5.92	5.31	8.47	2.13	0.87	5.99
6"	3R700	1/4"	23.41	16.89	6.18	6.61	9.65	2.24	0.94	6.40
8"	3R1750	1/4"	27.11	23.54	7.44	7.68	10.63	2.52	1.06	6.40

ASME Class 150

60 PSI Air Supply

Valve Size	Actuator (SR4 for SS) (SO4 for SV)	NPT Air Supply	A	B	C	D	E	F	G	H
4"	3R500	1/4"	21.68	15.35	6.02	5.31	8.47	2.13	0.87	6.40
6"	3R850	1/4"	23.87	19.37	6.41	6.38	9.65	2.24	0.94	6.40
8"	3R1750	1/4"	27.11	23.54	7.44	6.61	10.63	2.52	1.06	6.40

How-To-Order SS1 & SV1 Series (Maximum 1 second Fail Condition)

1	Prefix
SS1	Safety Shutoff Assembly 1 Second Closure
SV1	Safety Vent Assembly 1 Second Venting

2	Valve Series
FD9C	FD9C Series, Firesafe, NACE, Flanged, Full Port, Direct Mount, Carbon Steel Body (Sizes 1-1/2"-4" Class 150 and Class 300)
FD9	FD9 Series, Firesafe, NACE, Flanged, Full Port, Direct Mount, Stainless Steel Body (Sizes 1-1/2"-4" Class 150 and Class 300)
D9O	D9 Series, Flanged, Full Port, Direct Mount, Stainless Steel Body, Oxygen Cleaned and bagged (Sizes 1-1/2"-4" Class 150 and Class 300)
P1FC	P1FC Series, Flanged, Lug Style, Firesafe, Carbon Steel Body (4"- 8" Class 150 Only)
P1F	P1F Series, Flanged, Lug Style, Firesafe, Stainless Steel Body (4"- 8" Class 150 Only)

3	End Connection
F	ASME Class 150
3	ASME Class 300

4	Seat Material
X	Valve Series Standard
T	TFM™-1600

5	Valve Size
0150	1-1/2"
0200	2"
0250	2-1/2"
0300	3"
0400	4"
0600	6"
0800	8"

6	Actuator Supply Pressure - Fail Closed (SS1 Series) Fail Open (SV1 Series)
6	60 psig

7	Solenoid (size will vary per assembly)
A	120 VAC Brass Solenoid
B	24 VDC Brass Solenoid
C	120 VAC SST Solenoid
D	24 VDC SST Solenoid

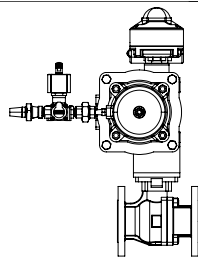
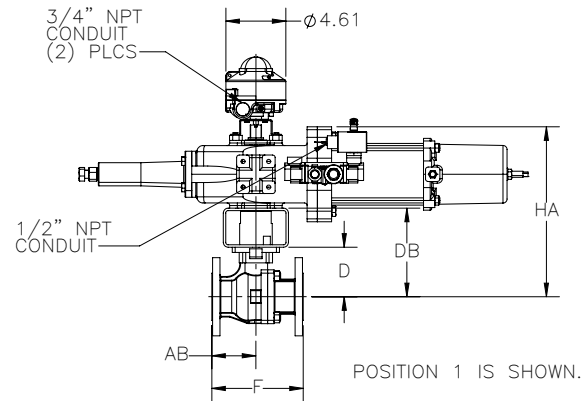
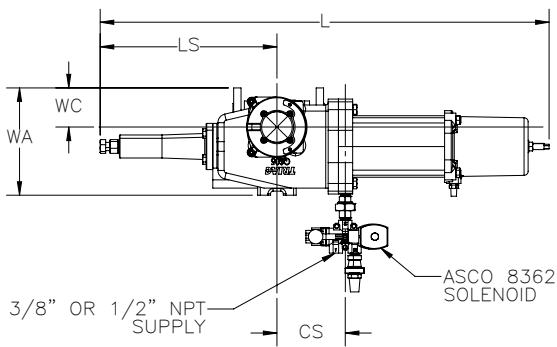
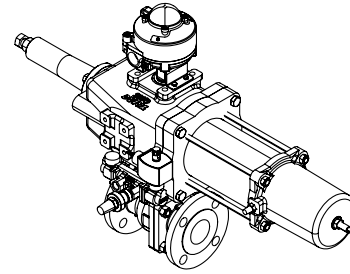
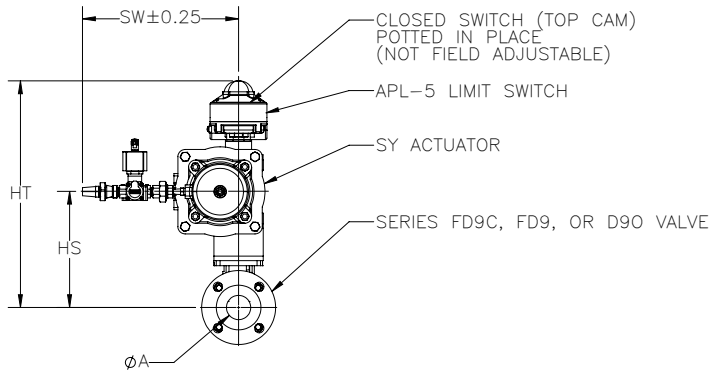
8	Proof of Closure Limit Switch
A	APL-510N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (2) SPDT Mechanical, 0.6 amp @ 125 VDC
E	APL-514N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (2) DPDT Mechanical, 1 amp @ 125 VDC
D	APL-530N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings) (2) SPST Proximity, 1 amp @ 24VDC
T	APL-516N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (2) SPDT Mechanical, 0.6 amp @ 125 VDC, 4-20 mA position transmitter
S	APL-512N Type 4X/6, IP 66/67, CSA approved (see limit switch literature for full detail on ratings), (4) SPDT Mechanical, 0.6 amp @ 125 VDC

9	Orientation
X	Standard Mount (Parallel to flow, as shown in catalog)
1	90° Clockwise from Standard Mount
2	180° Clockwise from Standard Mount
3	270° Clockwise from Standard Mount

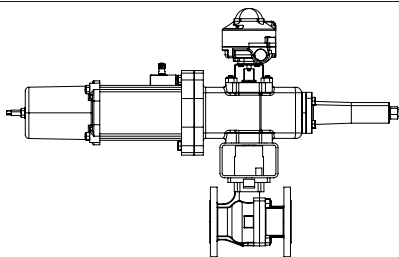
NOTE: The SS/SV 3-piece ball valves (1/4" to 2") and flanged ball valves (1/2" to 1") are both tested for 1-second closure times (see pages 7 & 8).

HOW TO ORDER SS1/ SV1 Example									
1	-	2	3	4	-	5	-	6	7 8 - 9
↓		↓	↓	↓		↓		↓	↓
SS1	-	FD9C	F	X	-	0150	-	6	A A - X

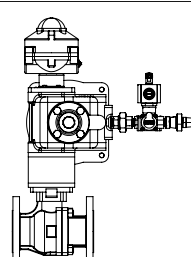
SS1 Series Gas Safety Shut-off Assemblies ASME Class 150 Flanged 1-1/2"-4"



POSITION 2



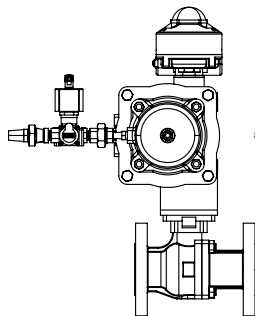
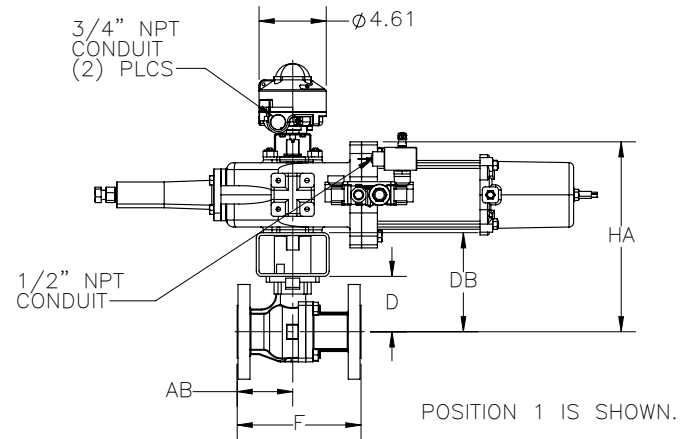
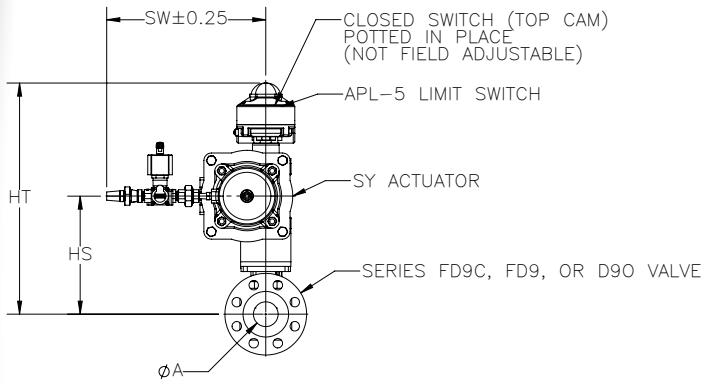
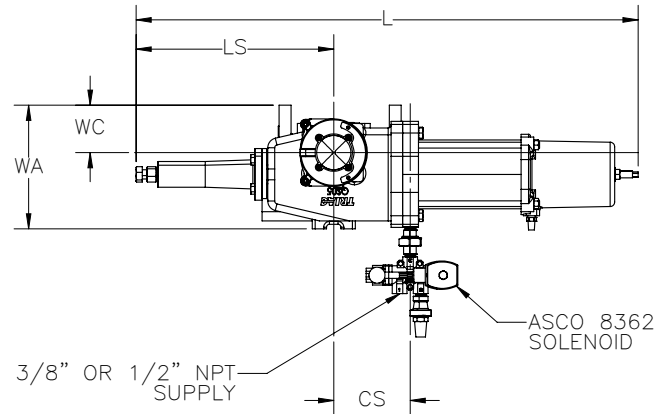
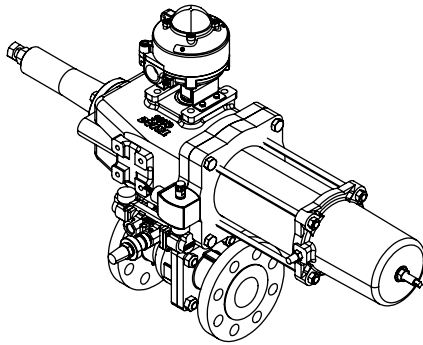
POSITION 3



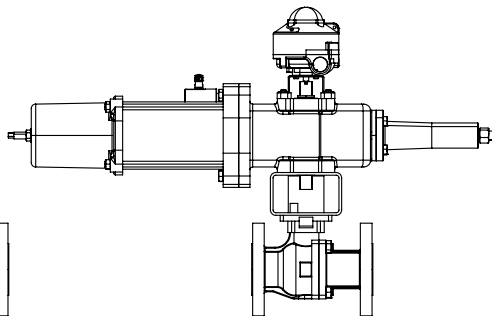
POSITION 4

Size	ØA	AB	CS	D	DB	F	L	LS	HA	HS	HT	SW	WA	WC	Actuator	Solenoid
1-1/2"	1.50	2.83	5.24	3.51	6.51	6.50	34.46	13.57	12.75	9.11	18.10	12.66	7.74	2.50	S05SR10560	3/8"
2"	1.97	3.39	5.24	3.80	6.80	7.02	34.46	13.57	13.04	9.40	18.39	12.66	8.24	3.01	S05SR10560	3/8"
2-1/2"	2.56	3.06	5.24	4.57	7.57	7.48	34.46	13.57	13.81	10.17	19.16	12.66	8.74	3.50	S05SR10560	3/8"
3"	3.15	4.01	5.24	5.22	7.84	8.01	35.22	13.57	14.08	10.44	19.43	12.63	8.99	3.78	S05SR13060	3/8"
4"	3.94	4.07	5.87	6.18	10.18	9.00	40.71	15.78	17.27	13.13	22.80	13.39	10.52	4.50	S06SR18060	1/2"

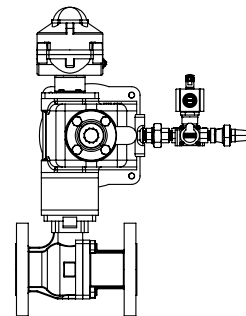
SS1 Series Gas Safety Shut-off Assemblies ASME Class 300 Flanged 1-1/2"-4"



POSITION 2



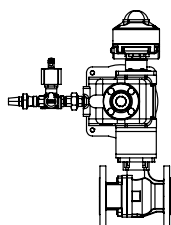
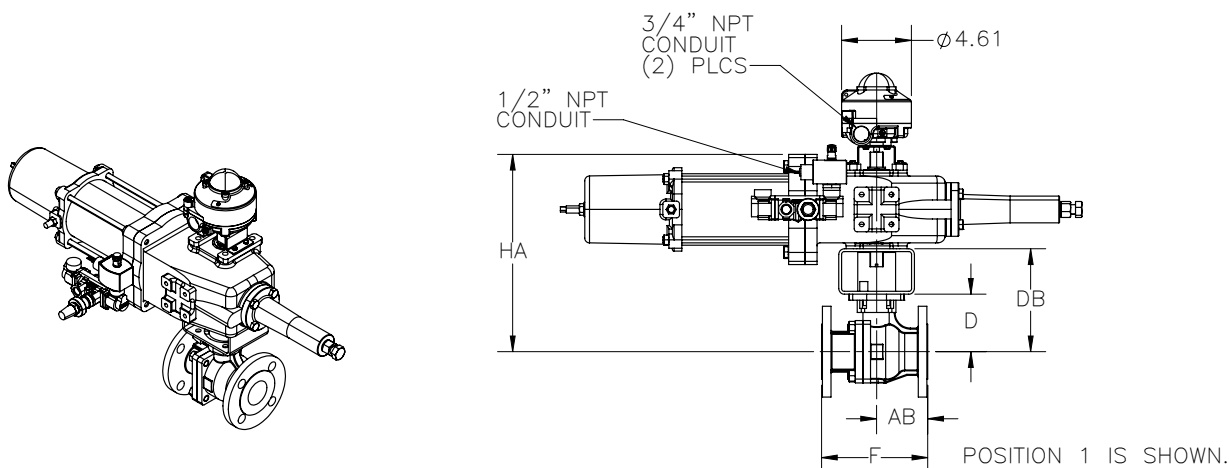
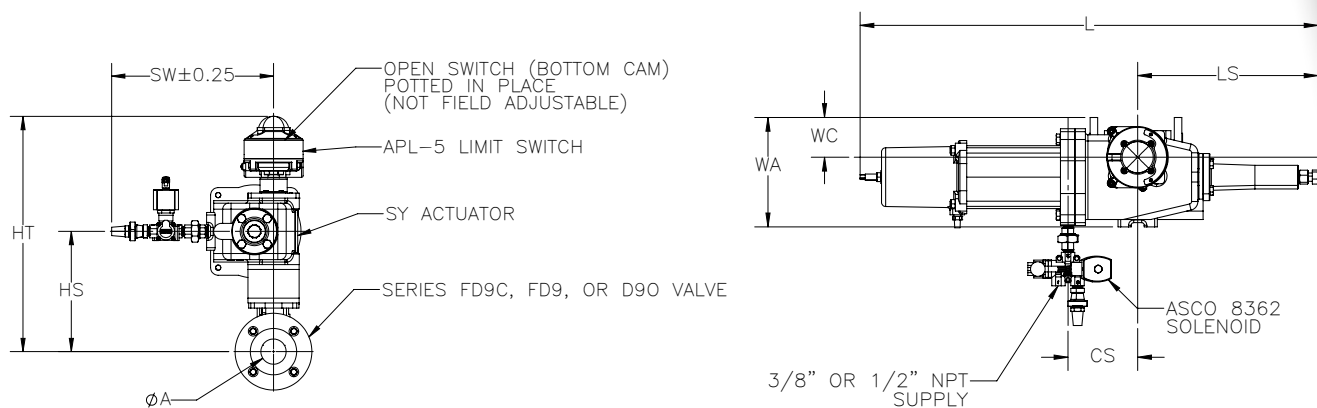
POSITION 3



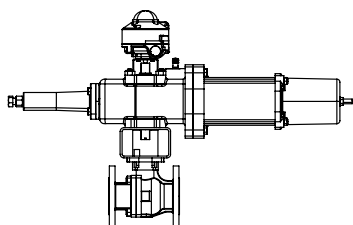
POSITION 4

Size	ØA	AB	CS	D	DB	F	L	LS	HA	HS	HT	SW	WA	WC	Actuator	Solenoid
1-1/2"	1.50	3.13	5.24	3.51	6.51	7.50	34.46	13.57	12.75	9.11	18.10	12.66	8.30	3.06	S05SR10560	3/8"
2"	1.97	3.81	5.24	3.80	6.80	8.50	34.46	13.57	13.04	9.40	18.39	12.66	8.49	3.25	S05SR10560	3/8"
2-1/2"	2.56	4.20	5.24	4.57	7.57	9.50	34.46	13.57	13.81	10.17	19.16	12.66	8.99	3.75	S05SR10560	3/8"
3"	3.15	5.10	5.24	5.22	7.84	11.12	35.22	13.57	14.08	10.44	19.43	12.63	9.36	4.15	S05SR13060	3/8"
4"	3.94	5.50	5.87	6.18	10.18	12.00	40.71	15.78	17.27	13.13	22.80	13.39	11.02	5.00	S06SR18060	1/2"

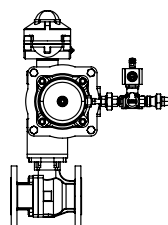
SV1 Series Gas Safety Vent Assemblies ASME Class 150 Flanged 1-1/2"-4"



POSITION 2



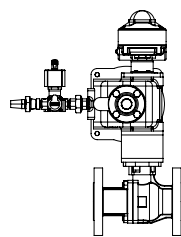
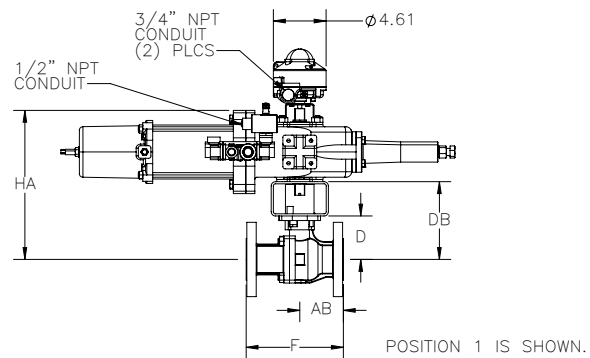
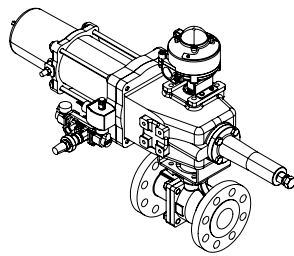
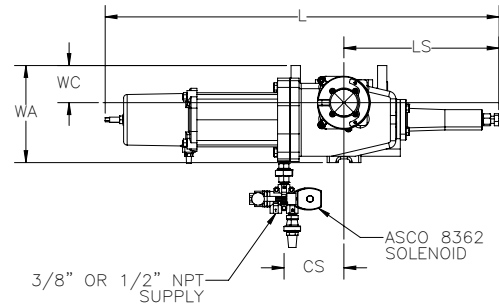
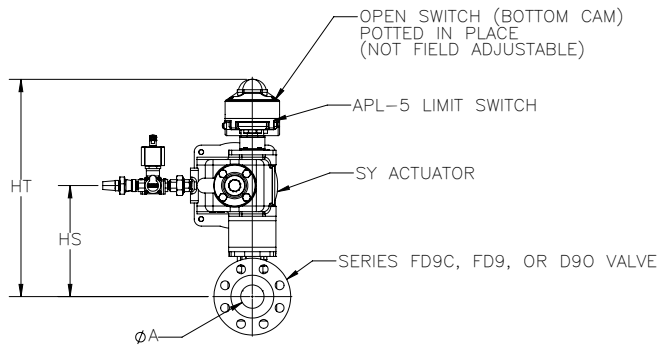
POSITION 3



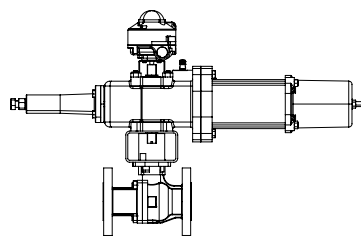
POSITION 4

Size	ϕA	AB	CS	D	DB	F	L	LS	HA	HS	HT	SW	WA	WC	Actuator	Solenoid
1-1/2"	1.50	2.83	5.24	3.51	6.51	6.50	34.46	13.57	12.75	9.11	18.10	12.66	7.74	2.50	S05SR10560	3/8"
2"	1.97	3.38	5.24	3.80	6.80	7.02	34.46	13.57	13.04	9.40	18.39	12.66	8.24	3.01	S05SR10560	3/8"
2-1/2"	2.56	3.06	5.24	4.57	7.57	7.48	34.46	13.57	13.81	10.17	19.16	12.66	8.74	3.50	S05SR10560	3/8"
3"	3.15	4.01	5.24	5.22	7.84	8.01	35.22	13.57	14.08	10.44	19.43	12.63	8.99	3.78	S05SR13060	3/8"
4"	3.94	4.07	5.87	6.18	10.18	9.00	40.71	15.78	17.27	13.13	22.80	13.39	10.52	4.50	S06SR18060	1/2"

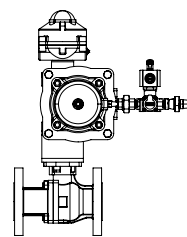
SV1 Series Gas Safety Vent Assemblies ASME Class 300 Flanged 1-1/2"-4"



POSITION 2



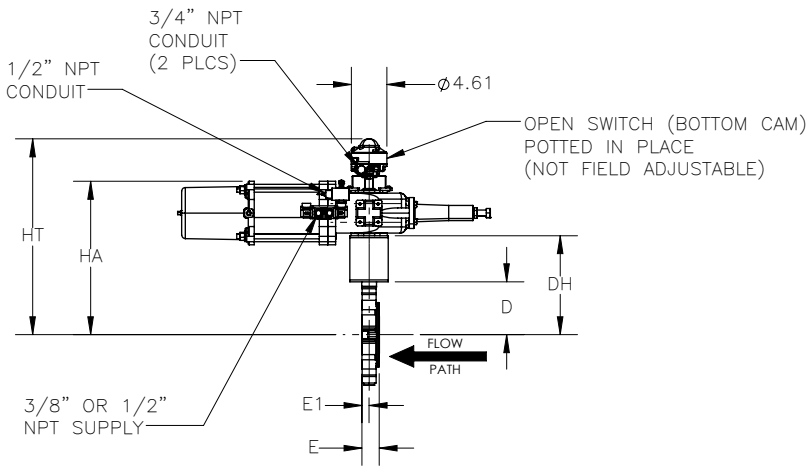
POSITION 3



POSITION 4

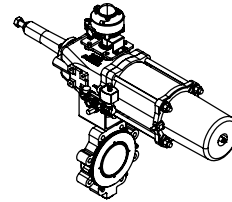
Size	ØA	AB	CS	D	DB	F	L	LS	HA	HS	HT	SW	WA	WC	Actuator	Solenoid
1-1/2"	1.50	3.13	5.24	3.51	6.51	7.50	34.46	13.57	12.75	9.11	18.10	12.66	8.30	3.06	S05SR10560	3/8"
2"	1.97	3.81	5.24	3.80	6.80	8.50	34.46	13.57	13.04	9.40	18.39	12.66	8.49	3.25	S05SR10560	3/8"
2-1/2"	2.56	4.20	5.24	4.57	7.57	9.50	34.46	13.57	13.81	10.17	19.16	12.66	8.99	3.75	S05SR10560	3/8"
3"	3.15	5.10	5.24	5.22	7.84	11.10	35.22	13.57	14.08	10.44	19.43	12.63	9.36	4.15	S05SR13060	3/8"
4"	3.94	5.50	5.87	6.18	10.18	12.00	40.71	15.78	17.27	13.13	22.80	13.39	11.02	5.00	S06SR18060	1/2"

SS1/SV1 Series Gas Safety Shutoff Assemblies P1F Series Lug Style ASME Class 150 4" - 8"

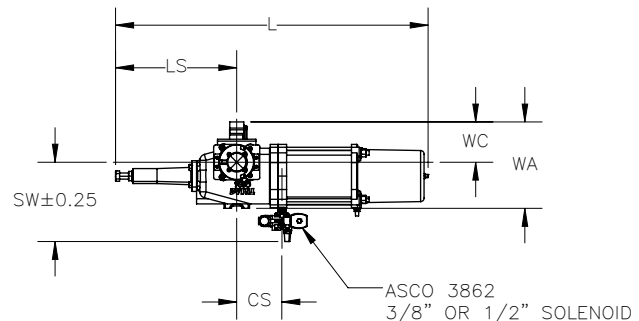
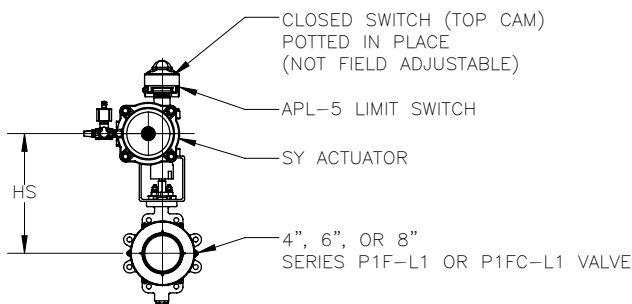


POSITION 1 IS SHOWN

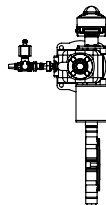
SS1



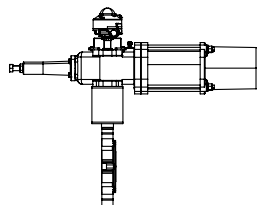
POSITION 1 IS SHOWN



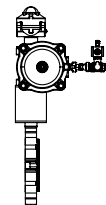
SV1



POSITION 2

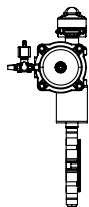


POSITION 3

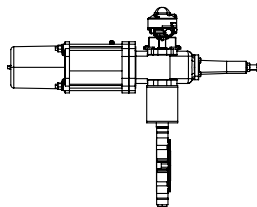


POSITION 4

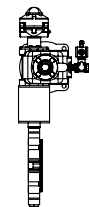
SS1



POSITION 2



POSITION 3



POSITION 4

NOTE: DIMENSIONS ARE FOR SS1 AND SV1. ACTUATORS FOR SV1 ARE ORIENTED UPSIDE DOWN FOR FAIL OPEN (CCW) ROTATION.

Size	CS	D	DH	E	E1	HA	HS	HT	L	LS	SW	WA	WC	Actuator	Solenoid
4"	5.24	5.71	11.71	2.13	0.87	17.95	14.31	23.30	35.22	13.57	12.63	9.39	4.15	S05SR13060	3/8"
6"	5.87	6.89	12.89	2.22	0.91	19.98	15.84	25.51	40.71	15.78	10.33	11.25	5.23	S06SR18060	1/2"
8"	5.87	7.87	14.87	2.52	1.06	21.96	17.83	27.49	40.71	15.78	10.33	12.36	6.33	S06SR18060	1/2"



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