

Universal
Components
Inc.



Automated
Valves



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Pneumatic Actuated Valve Ordering Matrix

Pneumatic Actuator Aluminum, Standard

- PD** = Double Acting
- PC** = Spring Closed
- PO** = Spring Open
- ***PS** = Spring Return

Nickel, *Optional* Stainless, *Optional*

- NPD** = Double Acting **SPD** = Double Acting
- NPC** = Spring Closed **SPC** = Spring Closed
- NPO** = Spring Open **SPO** = Spring Open
- ***NPS** = Spring Return ***SPS** = Spring Return

* 3-Way Valves Only

Ball Valves

- B2F** = Brass 2pc. Full Port, 600PSI
 - B2S TT-TL** = Brass 3-Way Std. Port, 600PSI
 - S2F** = Stainless Steel 2pc. Full Port, 1000PSI
 - S2S** = Stainless Steel 2pc. Std Port, 2000PSI
 - S2S TT-TL** = Stainless Steel 3-Way, 1500PSI
 - S6M** = Stainless Steel Seal Welded, 6000PSI
 - 2F3M** = NACE MR-0175, 3000PSI
 - S3F** = Stainless Steel 3pc. 1000PSI
 - SF22** = Fire Safe, 2250PSI
 - S3FV** = Stainless Steel 2-Way 3-Piece V-Cut
 - STC** = Sanitary Tri-Clamp, 2-Way
 - STC TT-TL** = Sanitary Tri-Clamp, 3-Way
 - CFM** = Carbon Steel 2-Way Hydraulic High Pressure
 - CFM TT-TL** = Carbon Steel 3-Way Hydraulic High Pressure
 - FF150-300** = Flanged Valve, ANSI Class 150-300
 - FF150 TT-TL** = Flanged Valve, ANSI Class 150, 3-Way
 - FF150DM** = Flanged Valve, ANSI Class 150, Direct Mount
 - WFF150-300** = Wafer Valve, ANSI Class 150-300
- Reference Butterfly Matrix for Industrial and Sanitary Butterfly

PD / B2S - 16 TL C1 S2 M3

Valve Size

- 2** = 1/4"
- 3** = 3/8"
- 4** = 1/2"
- 6** = 3/4"
- 8** = 1"
- 10** = 1-1/4"
- 12** = 1-1/2"
- 16** = 2"
- 20** = 2-1/2"
- 24** = 3"
- 32** = 4"
- 48** = 6"
- 64** = 8"

T = 3-Way Valve

3-Way Port

- L** = L-port
- T** = T-port

Positioner

- M3** = 3-15 PSI
- M4** = 4-20 mA

Namur Solenoid

- | Conduit | Din |
|---------------------|---------------------|
| C1 = 110VAC | D1 = 110VAC |
| C2 = 24VDC | D2 = 24VDC |
| C12 = 12VDC | D12 = 12VDC |
| C22 = 220VAC | D22 = 220VAC |
| C24 = 24VAC | D24 = 24VAC |

Explosion Proof

- EX1** = 110VAC
- EX2** = 24VDC
- EX12** = 12VDC
- EX22** = 220VAC

Limit Switch

- S2** = IP67/NEMA 4X
- S4** = NEMA 4
- S7** = NEMA 7



Electric Actuated Valve Ordering Matrix

Ball Valves

- B2F** = Brass 2pc. Full Port, 600PSI
- B2S TT-TL** = Brass 3-Way Std. Port, 600PSI
- S2F** = Stainless Steel 2pc. Full Port, 1000PSI
- S2S** = Stainless Steel 2pc. Std Port, 2000PSI
- S2S TT-TL** = Stainless Steel 3-Way, 1500PSI
- S6M** = Stainless Steel Seal Welded, 6000PSI
- 2F3M** = NACE MR-0175, 3000PSI
- S3F** = Stainless Steel 3pc. 1000PSI
- SF22** = Fire Safe, 2250PSI
- S3FV** = Stainless Steel 2-Way 3-Piece V-Cut
- STC** = Sanitary Tri-Clamp, 2-Way
- STC TT-TL** = Sanitary Tri-Clamp, 3-Way
- CFM** = Carbon Steel 2-Way Hydraulic High Pressure
- CFM TT-TL** = Carbon Steel 3-Way Hydraulic High Pressure
- FF150-300** = Flanged Valve, ANSI Class 150-300
- FF150 TT-TL** = Flanged Valve, ANSI Class 150, 3-Way
- FF150DM** = Flanged Valve, ANSI Class 150, Direct Mount
- WFF150-300** = Wafer Valve, ANSI Class 150-300

Referance Butterfly Matrix for Industrial and Sanitary Butterfly

Voltage

- E115V** = 115 Volts AC
- E240V** = 240 Volts AC
- E012D** = 12 Volts DC
- E024D** = 24 Volts DC

E115V

- 42

M

- S3FV30

- 16

Options

- SR** = Spring Return Fail Safe C/F
- 42** = 4-20mA Positioning Circuit Board w/Feedback
- N7** = NEMA 7 Enclosure C/F
- SBO** = Battery Back-Up Fail Open
- SBC** = Battery Back-Up Fail Close

Actuator Housing

- None** = ABS
- M** = Aluminum

Valve Size

- 1** = 1/8"
- 2** = 1/4"
- 3** = 3/8"
- 4** = 1/2"
- 6** = 3/4"
- 8** = 1"
- 10** = 1-1/4"
- 12** = 1-1/2"
- 16** = 2"
- 20** = 2-1/2"
- 24** = 3"
- 32** = 4"
- 48** = 6"
- 64** = 8"



B2F Series Pneumatic Actuated Valves



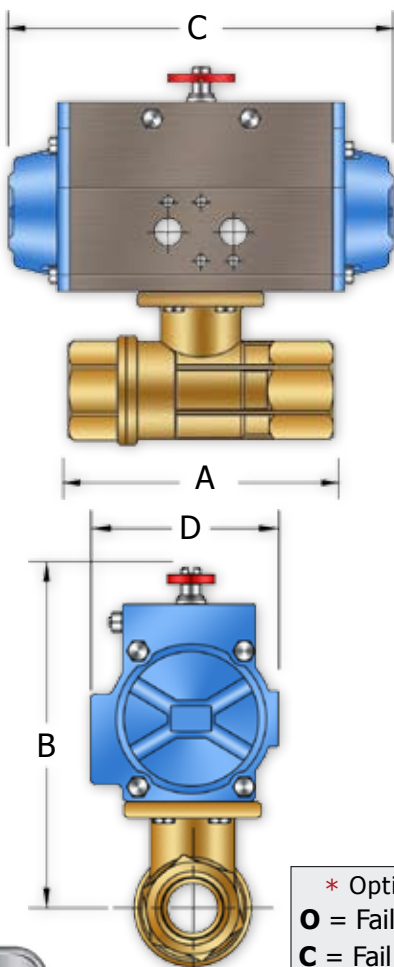
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- 2-Way Brass Full Port
- 29 Hg-600 PSI W.O.G. Cold Non-Shock
- 0°F to 366°F



* Option
O = Fail open
C = Fail Close

Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D
PD/B2F-2	1/4"	DA32	2.64	3.82	4.33	2.02
PD/B2F-3	3/8"	DA32	2.64	3.82	4.33	2.02
PD/B2F-4	1/2"	DA32	2.64	3.82	4.33	2.02
PD/B2F-6	3/4"	DA32	3.00	3.90	4.33	2.02
PD/B2F-8	1"	DA32	3.35	4.33	4.33	2.02
PD/B2F-10	1-1/4"	DA32	3.66	4.47	4.33	2.02
PD/B2F-12	1-1/2"	DA52	4.13	6.15	5.55	2.80
PD/B2F-16	2"	DA52	4.80	6.51	5.55	2.80
PD/B2F-20	2-1/2"	DA63	6.10	7.76	6.46	3.17
PD/B2F-24	3"	DA63	6.89	8.13	6.46	3.17
PD/B2F-32	4"	DA85	8.03	9.51	9.47	4.17

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D
P*/B2F-2	1/4"	SR52	2.64	4.91	5.88	2.82
P*/B2F-3	3/8"	SR52	2.64	4.91	5.88	2.82
P*/B2F-4	1/2"	SR52	2.64	4.91	5.88	2.82
P*/B2F-6	3/4"	SR52	3.00	4.99	5.88	2.82
P*/B2F-8	1"	SR52	3.35	5.42	5.88	2.82
P*/B2F-10	1-1/4"	SR52	3.66	5.56	5.88	2.82
P*/B2F-12	1-1/2"	SR63	4.13	6.80	6.61	3.29
P*/B2F-16	2"	SR63	4.80	7.64	6.61	3.29
P*/B2F-20	2-1/2"	SR85	6.10	8.76	9.47	4.17
P*/B2F-24	3"	SR85	6.89	8.40	9.47	4.17
P*/B2F-32	4"	SR100	8.03	9.28	10.83	4.84



B2F Series Electric Actuated Valves



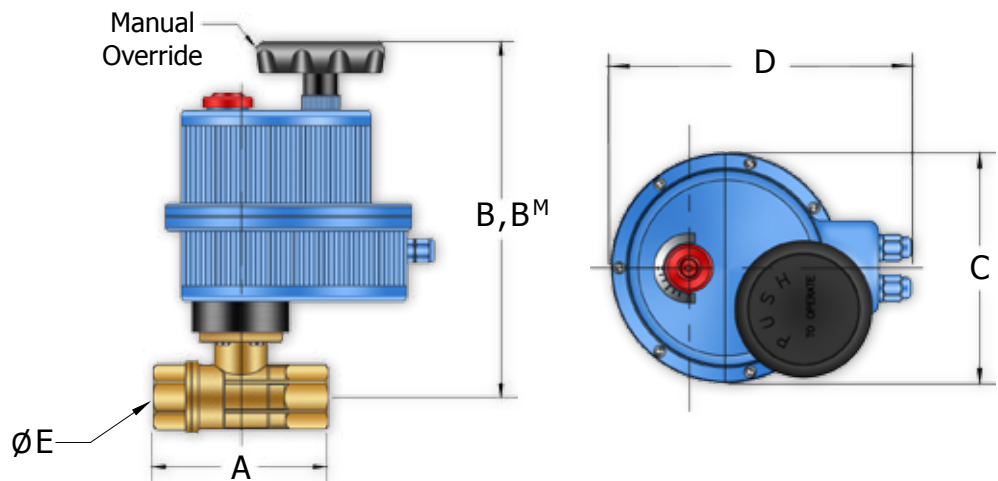
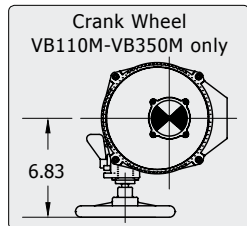
Features:

Actuator

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- 2-Way Brass Full Port
- 29 Hg-600 PSI W.O.G. Cold Non-Shock
- 0°F to 366°F



Dimensions:

*** Actuator Voltage

115V = 115VAC

240V = 240VAC

012D = 12VDC

024D = 24VDC

B^M = Optional Metal Actuator

Part No.	Size	Actuator		A	B	C	D	E	B ^M
		Standard	Optional						
E***/B2F-2	1/4"	VB015	VB030M	2.64	6.85	4.84	6.41	0.39	9.31
E***/B2F-3	3/8"	VB015	VB030M	2.64	6.85	4.84	6.41	0.39	9.31
E***/B2F-4	1/2"	VB015	VB030M	2.64	6.85	4.84	6.41	0.59	9.31
E***/B2F-6	3/4"	VB015	VB030M	3.00	6.93	4.84	6.41	0.78	9.39
E***/B2F-8	1"	VB015	VB030M	3.35	7.36	4.84	6.41	0.98	9.82
E***/B2F-10	1-1/4"	VB015	VB030M	3.66	7.50	4.84	6.41	1.25	9.96
E***/B2F-12	1-1/2"	VB030	VB030M	4.13	9.92	6.18	7.48	1.49	10.55
E***/B2F-16	2"	VB030	VB030M	4.80	11.24	6.18	7.48	1.96	10.91
E***/B2F-20	2-1/2"	VB060	VB060M	6.10	11.94	7.28	8.43	2.55	12.20
E***/B2F-24	3"	VB060	VB060M	6.89	12.30	7.28	8.43	3.15	12.56
E***/B2F-32	4"	VB0110	VB0110M	8.03	14.00	8.31	9.33	3.93	14.26



B2S Series Pneumatic Actuated Valves

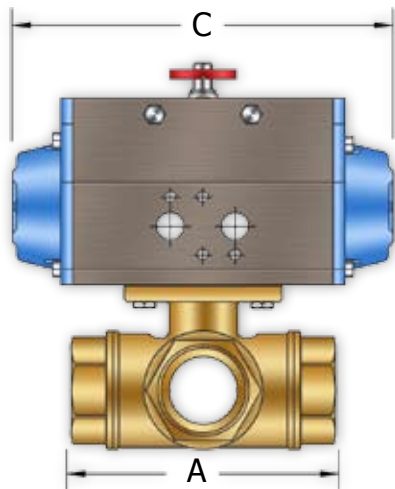
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

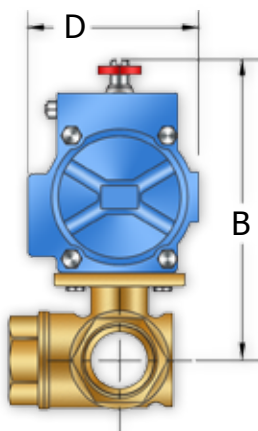
Valve

- 3-Way Brass Full Port
- 29 Hg-400 PSI W.O.G. Cold Non-Shock
- -20°F to 344°F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D
PD/B2S-2T*	1/4"	DA32	2.64	3.74	5.10	2.02
PD/B2S-3T*	3/8"	DA32	2.64	3.74	5.10	2.02
PD/B2S-4T*	1/2"	DA32	2.87	3.74	5.10	2.02
PD/B2S-6T*	3/4"	DA32	3.90	3.83	5.10	2.02
PD/B2S-8T*	1"	DA52	4.33	5.26	5.88	2.82
PD/B2S-10T*	1-1/4"	DA52	4.47	5.48	5.88	2.82
PD/B2S-12T*	1-1/2"	DA52	6.15	5.97	5.88	2.82
PD/B2S-16T*	2"	DA63	6.51	7.18	6.61	3.29
PD/B2S-20T*	2-1/2"	DA63	7.76	7.63	6.61	3.29
PD/B2S-24T*	3"	DA63	8.13	7.63	6.61	3.29



Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D
P*/B2S-2T*	1/4"	SR52	2.64	4.91	5.88	2.82
P*/B2S-3T*	3/8"	SR52	2.64	4.91	5.88	2.82
P*/B2S-4T*	1/2"	SR52	2.87	4.91	5.88	2.82
P*/B2S-6T*	3/4"	SR52	3.19	4.99	5.88	2.82
P*/B2S-8T*	1"	SR52	3.74	5.25	5.88	2.82
P*/B2S-10T*	1-1/4"	SR52	4.39	5.48	5.88	2.82
P*/B2S-12T*	1-1/2"	SR63	4.86	6.13	6.61	3.29
P*/B2S-16T*	2"	SR85	5.73	7.82	9.47	4.17
P*/B2S-20T*	2-1/2"	SR85	6.93	8.27	9.47	4.17
P*/B2S-24T*	3"	SR85	7.08	8.27	9.47	4.17

* Option
O = Fail open
C = Fail Close

* Option
T = T-Port
L = L-Port



B2S Series Electric Actuated Valves



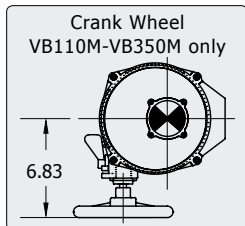
Features:

Actuator

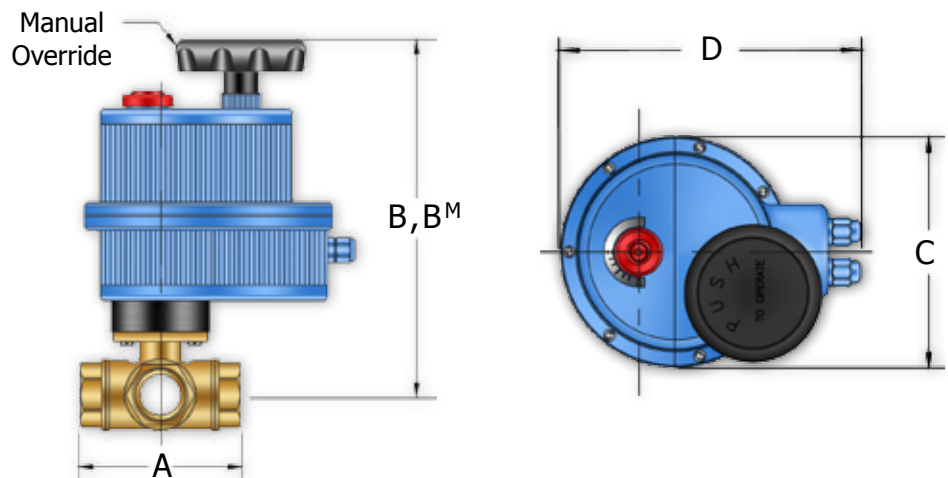
- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- 2-Way Brass Full Port
- 29 Hg-400 PSI W.O.G. Cold Non-Shock
- -20°F to 344°F



* Option
T = T-Port
L = L-Port



Dimensions:

*** Actuator Voltage

115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC

B^M = Optional Metal Actuator

Part No.	Size	Actuator		A	B	C	D	B ^M
		Standard	Optional					
E***/B2F-2T*	1/4"	VB015	VB030M	2.64	6.67	4.84	6.41	8.03
E***/B2F-3T*	3/8"	VB015	VB030M	2.64	6.67	4.84	6.41	8.03
E***/B2F-4T*	1/2"	VB015	VB030M	2.87	6.67	4.84	6.41	8.03
E***/B2F-6T*	3/4"	VB015	VB030M	3.19	6.86	4.84	6.41	8.03
E***/B2F-8T*	1"	VB030	VB030M	3.74	7.38	6.18	7.48	7.64
E***/B2F-10T*	1-1/4"	VB030	VB030M	4.39	7.60	6.18	7.48	7.86
E***/B2F-12T*	1-1/2"	VB030	VB030M	4.86	8.09	6.18	7.48	8.35
E***/B2F-16T*	2"	VB060	VB060M	5.73	11.36	6.94	8.43	11.62
E***/B2F-20T*	2-1/2"	VB060	VB060M	6.93	11.81	6.94	8.43	12.07
E***/B2F-24T*	3"	VB060	VB060M	7.08	11.81	6.94	8.43	12.07



S2F Series Pneumatic Actuated Valves

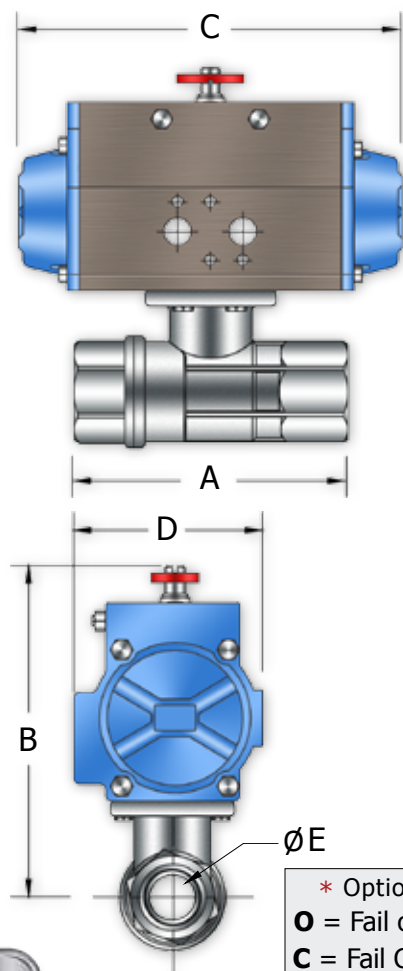
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- 316 Stainless Steel Full Port Ball Valve
- ISO 5211 Mounting Pad
- 1000psi WOG – 150psi Steam
- PTFE Seats with Viton® O-Ring Backed Seat
- Temperature 0°F to 366°F



* Option
O = Fail open
C = Fail Close

Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE
PD/S2F-2	1/4"	DA32	2.64	3.82	4.33	2.02	0.39
PD/S2F-3	3/8"	DA32	2.64	3.82	4.33	2.02	0.39
PD/S2F-4	1/2"	DA32	2.64	3.82	4.33	2.02	0.59
PD/S2F-6	3/4"	DA32	3.00	3.90	4.33	2.02	0.78
PD/S2F-8	1"	DA32	3.35	4.33	4.33	2.02	0.98
PD/S2F-10	1-1/4"	DA32	3.66	4.47	4.33	2.02	1.25
PD/S2F-12	1-1/2"	DA52	4.13	6.15	5.88	2.82	1.49
PD/S2F-16	2"	DA52	4.80	7.63	5.88	2.82	1.96
PD/S2F-20	2-1/2"	DA75	6.10	7.65	8.27	3.72	2.55
PD/S2F-24	3"	DA85	6.89	8.77	9.47	4.92	3.15

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE
P*/S2F-2	1/4"	SR52	2.64	4.91	5.88	2.82	0.39
P*/S2F-3	3/8"	SR52	2.64	4.91	5.88	2.82	0.39
P*/S2F-4	1/2"	SR52	2.64	4.91	5.88	2.82	0.59
P*/S2F-6	3/4"	SR52	3.00	4.99	5.88	2.82	0.78
P*/S2F-8	1"	SR52	3.35	5.42	5.88	2.82	0.98
P*/S2F-10	1-1/4"	SR52	3.66	5.56	5.88	2.82	1.25
P*/S2F-12	1-1/2"	SR63	4.13	7.18	6.61	3.29	1.49
P*/S2F-16	2"	SR63	4.80	7.57	6.61	3.29	1.96
P*/S2F-20	2-1/2"	SR115	6.10	9.87	13.11	5.39	2.55
P*/S2F-24	3"	SR125	6.89	10.72	14.65	5.83	3.15



S2F Series Electric Actuated Valves



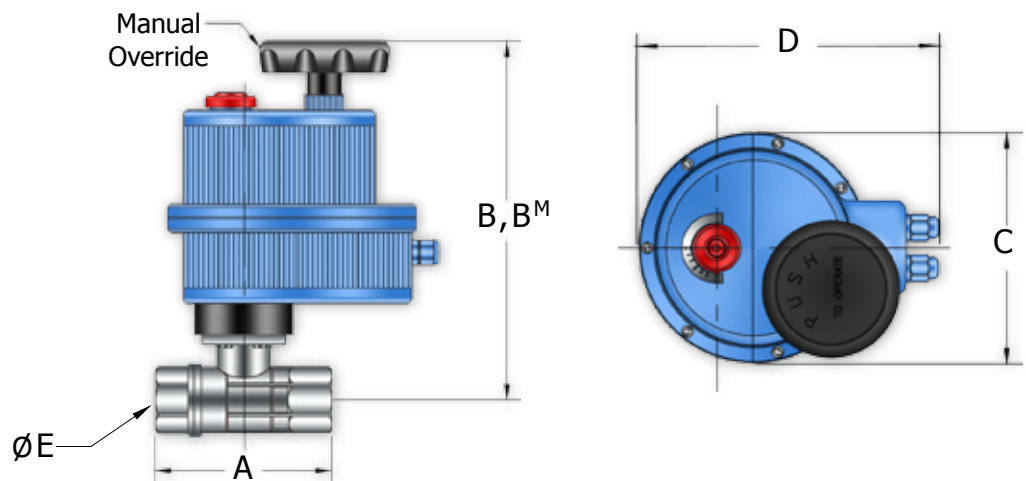
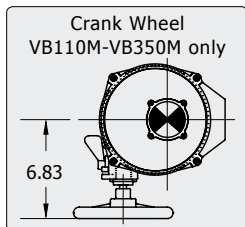
Features:

Actuator

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- 316 Stainless Steel Full Port Ball Valve
- ISO 5211 Mounting Pad
- 1000psi WOG – 150psi Steam
- PTFE Seats with Viton® O-Ring Backed Seat
- Temperature 0°F to 366°F



Dimensions:

*** Actuator Voltage

115V = 115VAC

240V = 240VAC

012D = 12VDC

024D = 24VDC

B^M = Optional Metal Actuator

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M
		Standard	Optional						
E***/S2F-2	1/4"	VB015	VB030M	2.64	6.85	4.84	6.41	0.39	9.30
E***/S2F-3	3/8"	VB015	VB030M	2.64	6.85	4.84	6.41	0.39	9.30
E***/S2F-4	1/2"	VB015	VB030M	2.64	6.85	4.84	6.41	0.59	9.30
E***/S2F-6	3/4"	VB015	VB030M	3.00	6.93	4.84	6.41	0.78	9.39
E***/S2F-8	1"	VB015	VB030M	3.35	7.36	4.84	6.41	0.98	9.82
E***/S2F-10	1-1/4"	VB015	VB030M	3.66	7.50	4.84	6.41	1.25	9.96
E***/S2F-12	1-1/2"	VB030	VB030M	4.13	9.92	6.18	7.48	1.49	10.55
E***/S2F-16	2"	VB030	VB030M	4.80	10.91	6.18	7.48	1.96	10.91
E***/S2F-20	2-1/2"	VB110	VB110M	6.10	11.52	8.31	9.33	2.55	12.71
E***/S2F-24	3"	VB110	VB110M	6.89	13.24	8.31	9.33	3.15	13.50



S2S Series Pneumatic Actuated Valves

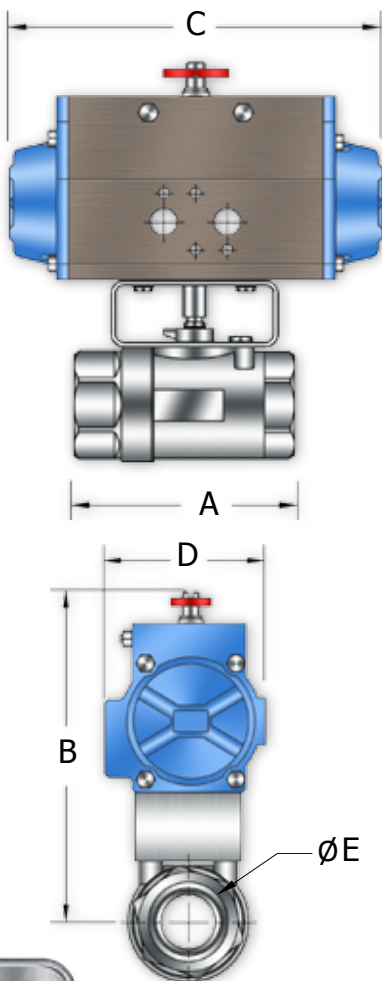
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Stainless Steel
- Standard Port 2-Piece Ball Valve
- 29"Hg-2000PSI WOG
- RTFE Seats and PTE Seals
- Temperature -20°F to 450°F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE	Bracket Kit
PD/S2S-2	1/4"	DA32	2.00	5.61	5.10	2.02	0.39	MK2050
PD/S2S-3	3/8"	DA32	2.00	5.61	5.10	2.02	0.39	MK2050
PD/S2S-4	1/2"	DA32	2.40	5.61	5.10	2.02	0.59	MK2050
PD/S2S-6	3/4"	DA52	2.67	6.72	5.88	2.82	0.78	MK2052
PD/S2S-8	1"	DA52	3.26	7.15	5.88	2.82	0.98	MK2052
PD/S2S-10	1-1/4"	DA63	3.54	7.88	6.61	3.59	1.25	MK2061
PD/S2S-12	1-1/2"	DA63	4.09	8.13	6.61	3.59	1.49	MK2061
PD/S2S-16	2"	DA75	4.60	9.27	7.32	3.73	1.96	MK2064

* Option
O = Fail open
C = Fail Close

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE	Bracket Kit
P*/S2S-2	1/4"	SR52	2.00	6.60	5.88	2.82	0.39	MK2051
P*/S2S-3	3/8"	SR52	2.00	6.60	5.88	2.82	0.39	MK2051
P*/S2S-4	1/2"	SR52	2.40	6.60	5.88	2.82	0.59	MK2051
P*/S2S-6	3/4"	SR52	2.67	6.72	5.88	2.82	0.78	MK2052
P*/S2S-8	1"	SR63	3.26	7.72	6.61	3.29	0.98	MK2052
P*/S2S-10	1-1/4"	SR75	3.54	8.35	7.32	3.73	1.25	MK2059
P*/S2S-12	1-1/2"	SR85	4.09	9.27	9.47	4.17	1.49	MK2060
P*/S2S-16	2"	SR100	4.60	9.70	10.83	4.84	1.96	MK2064



S2S Series Electric Actuated Valves



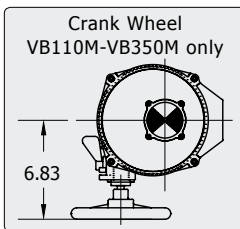
Features:

Actuator

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- Stainless Steel
- Standard Port 2-Piece Ball Valve
- 29"Hg-2000PSI WOG
- RTFE Seats and PTE Seals
- Temperature -20°F to 450°F



*** Actuator Voltage

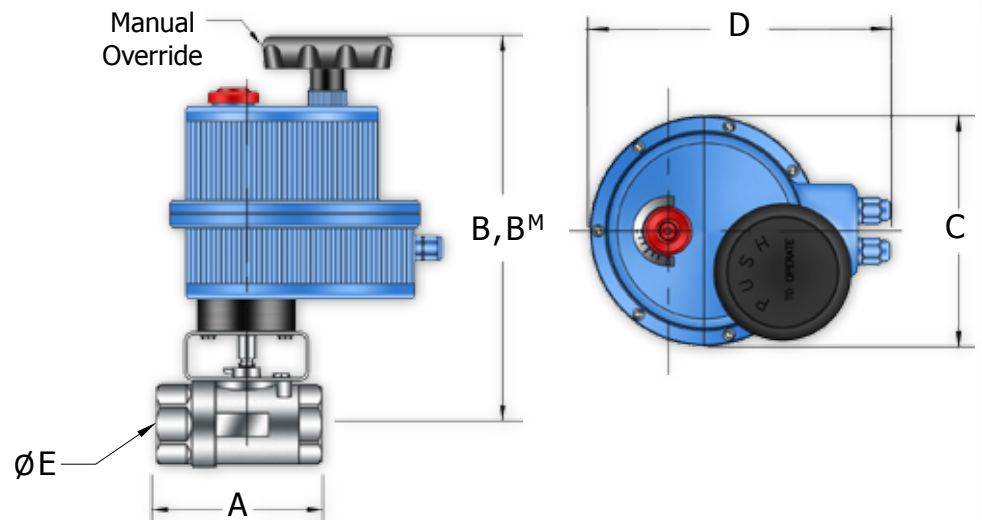
115V = 115VAC

240V = 240VAC

012D = 12VDC

024D = 24VDC

B^M = Optional Metal Actuator



Dimensions:

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M	Bracket Kit
		Standard	Optional							
E***/S2S-2	1/4"	VB015	VB030M	2.00	8.64	4.84	6.41	0.39	11.10	MK2051
E***/S2S-3	3/8"	VB015	VB030M	2.00	8.64	4.84	6.41	0.39	11.10	MK2051
E***/S2S-4	1/2"	VB015	VB030M	2.40	9.07	4.84	6.41	0.59	11.53	MK2051
E***/S2S-6	3/4"	VB015	VB030M	2.67	9.34	4.84	6.41	0.78	11.79	MK2052
E***/S2S-8	1"	VB030	VB030M	3.26	10.90	6.18	7.48	0.98	11.54	MK2052
E***/S2S-10	1-1/4"	VB030	VB030M	3.54	11.02	6.18	7.48	1.25	11.65	MK2059
E***/S2S-12	1-1/2"	VB030	VB030M	4.09	11.49	7.28	8.43	1.49	12.12	MK2060
E***/S2S-16	2"	VB060	VB060M	4.60	12.73	7.28	8.43	1.96	12.99	MK2064



S2S TL & TT Series Pneumatic Actuated Valves



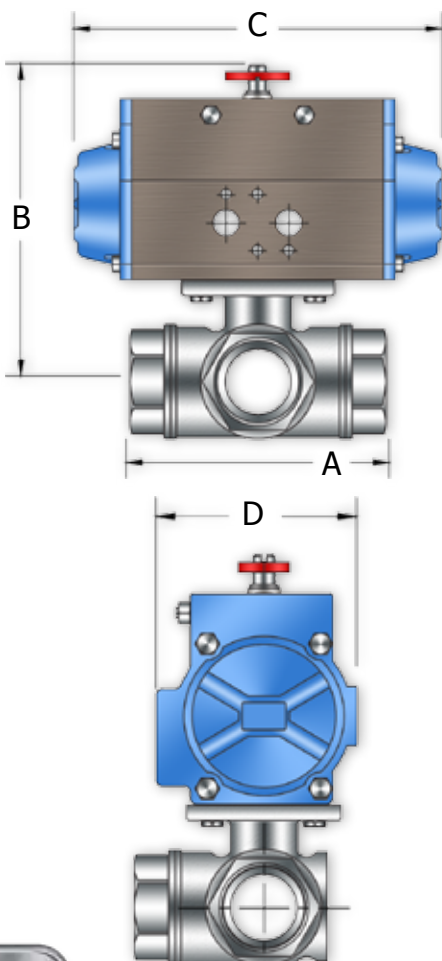
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Stainless Steel 3-Way Std. Port Ball Valve
- 29"Hg-1000PSI WOG (1/4" to 1") 800PSI (1-1/4" to 2")
- ISO 5211 Mounting Pad
- Four Seat Design for Sealing Between Pressurized Ports
- RTFE Seats with Viton® O-Rings
- Temperature -20°F to 450°F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D
PD/S2S-4T*	1/2"	DA52	2.64	5.03	5.88	2.82
PD/S2S-6T*	3/4"	DA52	2.87	5.28	5.88	2.82
PD/S2S-8T*	1"	DA63	3.19	6.18	6.61	3.29
PD/S2S-10T*	1-1/4"	DA63	3.74	6.46	6.61	3.29
PD/S2S-12T*	1-1/2"	DA75	4.39	6.85	8.27	3.72
PD/S2S-16T*	2"	DA85	4.86	7.80	9.47	4.17

* Option

O = Fail open

C = Fail Close

* Option

T = T-Port

L = L-Port

Spring Return Dimensions:

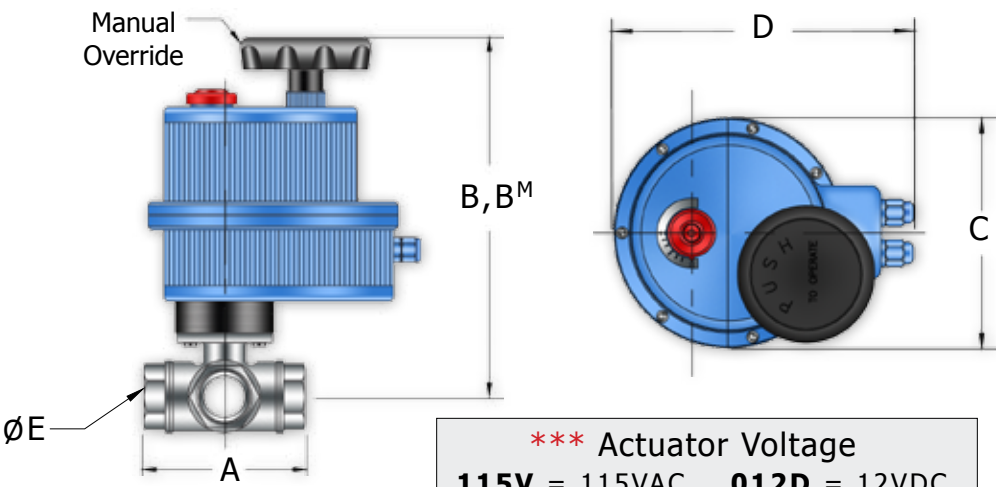
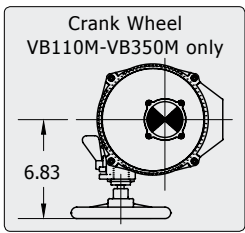
Part No.	Size	Actuator	A	B	C	D
P*/S2S-4T*	1/2"	SR63	2.64	5.73	6.61	3.29
P*/S2S-6T*	3/4"	SR63	2.87	6.31	6.61	3.29
P*/S2S-8T*	1"	SR75	3.19	6.27	8.27	4.37
P*/S2S-10T*	1-1/4"	SR75	3.74	6.55	8.27	4.37
P*/S2S-12T*	1-1/2"	SR00	4.39	7.91	10.83	4.84
P*/S2S-16T*	2"	SR100	4.86	8.31	10.83	4.84



S2S TL & TT Series Electric Actuated Valves



- ### Features:
- Actuator**
- VO Self Extinguishing Class Techno-Polymer
 - Metal Available on request
 - All Actuators IP67 (VB015 IP65)
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
- Valve**
- Stainless Steel 3-Way Std. Port Ball Valve
 - 29"Hg-1000PSI WOG (1/4" to 1") 800PSI (1-1/4" to 2")
 - ISO 5211 Mounting Pad
 - Four Seat Design for Sealing Between Pressurized Ports
 - RTFE Seats with Viton® O-Rings
 - Temperature -20°F to 450°F



* Option
T = T-Port
L = L-Port

*** Actuator Voltage
115V = 115VAC **012D** = 12VDC
240V = 240VAC **024D** = 24VDC
B^M = Optional Metal Actuator

Dimensions:

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M
		Standard	Optional						
E***/S2S-4T*	1/2"	VB015	VB030M	2.83	7.02	4.84	6.41	0.47	9.48
E***/S2S-6T*	3/4"	VB030	VB030M	3.26	9.05	6.18	7.48	0.59	9.68
E***/S2S-8T*	1"	VB030	VB030M	3.89	9.05	6.18	7.48	0.78	9.68
E***/S2S-10T*	1-1/4"	VB060	VB060M	4.40	10.64	7.28	7.82	0.96	10.90
E***/S2S-12T*	1-1/2"	VB060	VB060M	4.92	10.94	7.28	7.82	1.25	11.20
E***/S2S-16T*	2"	VB110	VB110M	4.92	12.02	8.31	7.82	1.25	12.53



S2F TL & TT Series Pneumatic Actuated Valves



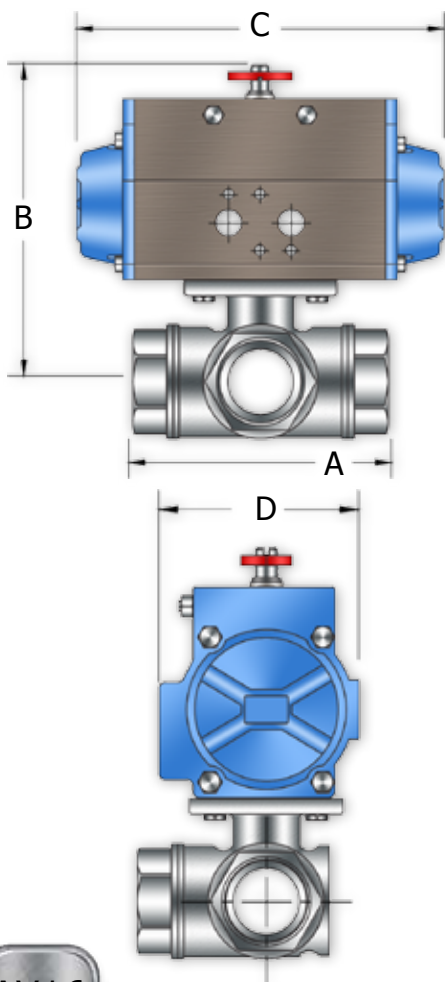
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Stainless Steel 3-Way Full Port Ball Valve
- 29"Hg-1000PSI WOG (1/4" to 1") 800PSI (1-1/4" to 2")
- ISO 5211 Mounting Pad
- Four Seat Design for Sealing Between Pressurized Ports
- RTFE Seats with Viton® O-Rings
- Temperature -20°F to 450°F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D
PD/S2F-2T*	1/4"	DA52	2.64	5.03	5.88	2.82
PD/S2F-3T*	3/8"	DA52	2.64	5.03	5.88	2.82
PD/S2F-4T*	1/2"	DA52	2.87	5.28	5.88	2.82
PD/S2F-6T*	3/4"	DA63	3.19	6.18	6.61	3.29
PD/S2F-8T*	1"	DA63	3.74	6.46	6.61	3.29
PD/S2F-10T*	1-1/4"	DA75	4.39	6.85	8.27	3.72
PD/S2F-12T*	1-1/2"	DA85	4.86	7.80	9.47	3.72
PD/S2f-16T*	2"	DA100	5.73	9.06	10.83	4.84

* Option

O = Fail open

C = Fail Close

* Option

T = T-Port

L = L-Port

Spring Return Dimensions:

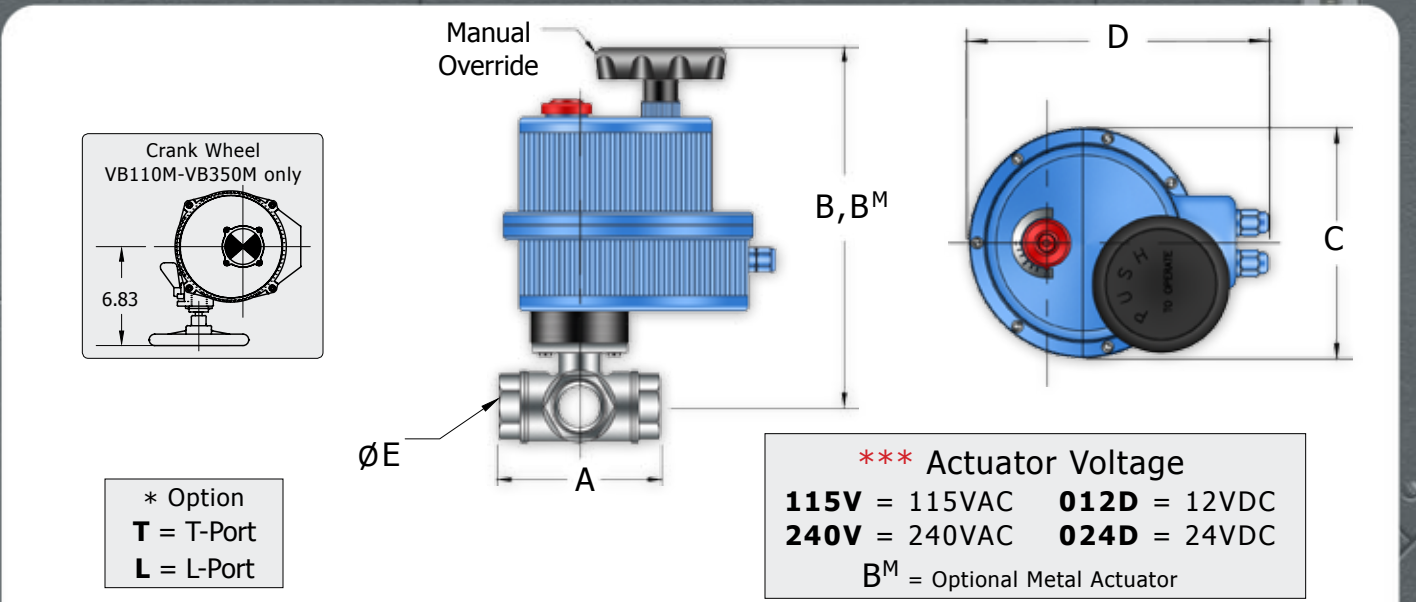
Part No.	Size	Actuator	A	B	C	D
PD/S2F-2T*	1/4"	SR63	2.64	5.73	6.61	3.29
PD/S2F-3T*	3/8"	SR63	2.64	5.73	6.61	3.29
P*/S2F-4T*	1/2"	SR63	2.87	5.73	6.61	3.29
P*/S2F-6T*	3/4"	SR75	3.19	6.47	8.27	3.73
P*/S2F-8T*	1"	SR75	3.74	6.75	8.27	3.73
P*/S2F-10T*	1-1/4"	SR100	4.39	7.91	10.83	4.84
P*/S2F-12T*	1-1/2"	SR100	4.86	8.31	10.83	4.84
P*/S2F-16T*	2"	SR125	5.73	10.50	17.65	5.83



S2F TL & TT Series Electric Actuated Valves



- ### Features:
- Actuator**
 - VO Self Extinguishing Class Techno-Polymer
 - Metal Available on request
 - All Actuators IP67 (VB015 IP65)
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
 - Valve**
 - Stainless Steel 3-Way Full Port Ball Valve
 - 29"Hg-1000PSI WOG (1/4" to 1") 800PSI (1-1/4" to 2")
 - ISO 5211 Mounting Pad
 - Four Seat Design for Sealing Between Pressurized Ports
 - RTFE Seats with Viton® O-Rings
 - Temperature -20°F to 450°F



Dimensions:

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M
		Standard	Optional						
E***/S2F-2T*	1/4"	VB015	VB030M	2.83	7.02	4.84	6.41	0.43	9.48
E***/S2F-3T*	3/8"	VB015	VB030M	2.83	7.02	4.84	6.41	0.47	9.48
E***/S2F-4T*	1/2"	VB030	VB030M	3.26	9.05	6.18	7.48	0.59	9.68
E***/S2F-6T*	3/4"	VB030	VB030M	3.89	9.05	6.18	7.48	0.78	9.68
E***/S2F-8T*	1"	VB060	VB060M	4.40	10.64	7.28	7.82	0.96	10.90
E***/S2F-10T*	1-1/4"	VB060	VB060M	4.92	10.94	7.28	7.82	1.25	11.20
E***/S2F-12T*	1-1/2"	VB110	VB110M	5.86	12.02	8.31	5.86	1.49	12.53
E***/S2F-16T*	2"	VB190	VB190M	6.85	12.77	8.31	6.85	1.96	13.28



S6M Series Pneumatic Actuated Valves

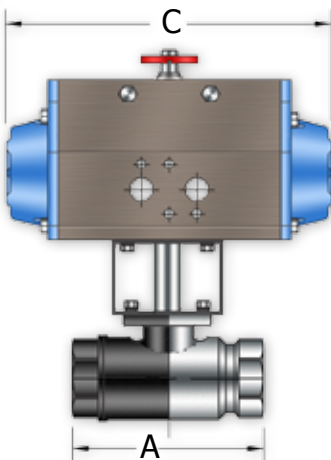
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Seal Welded, Full Port Ball Valve
- Available in Stainless Steel and Carbon Steel
- 6000PSI WOG
- Delrin® Seats with Viton® O-Rings
- NACE MR-0175-90
- API 607-4 Fire Safe / API 608 Compliance
- API Standard 6D



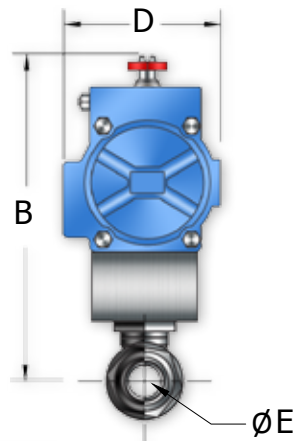
Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	Bracket Kit
PD/*S6M-2	1/4"	DA63	2.80	6.18	5.88	2.82	0.37	BK1/050I
PD/*S6M-3	3/8"	DA63	2.80	6.83	6.61	3.29	0.37	BK1/063I
PD/*S6M-4	1/2"	DA63	3.19	6.83	6.61	3.29	0.49	BK1/063I
PD/*S6M-6	3/4"	DA75	3.78	7.58	8.27	3.72	0.79	BK1/063B*
PD/*S6M-8	1"	DA100	4.25	8.62	10.83	4.84	0.98	BK2/075C*
PD/*S6M-10	1-1/4"	DA100	4.72	9.12	10.83	4.84	1.26	BK2/075C*
PD/*S6M-12	1-1/2"	DA100	5.12	9.72	10.83	4.84	1.50	BK2/075C*
PD/*S6M-16	2"	DA115	5.91	10.68	13.11	5.39	1.50	BK2/075C*

* Option
S = Stainless
C = Carbon

* Option
O = Fail open
C = Fail Close

* Coupler will be custom fit to valve



Spring Return Dimensions:

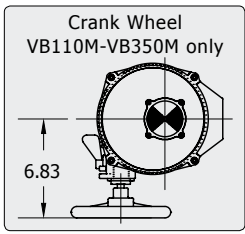
Part No.	Size	Actuator	A	B	C	D	ØE	Bracket Kit
P*/*S6M-2	1/4"	SR85	2.80	7.30	7.32	3.73	0.37	BK1/063I
P*/*S6M-3	3/8"	SR85	2.80	7.30	7.32	3.73	0.37	BK1/063I
P*/*S6M-4	1/2"	SR100	3.19	7.98	10.83	4.84	0.49	BK1/063I
P*/*S6M-6	3/4"	SR115	3.78	9.96	13.11	5.39	0.79	BK1/075A*
P*/*S6M-8	1"	SR140	4.25	11.38	19.69	7.32	0.98	BK2/125C*
P*/*S6M-10	1-1/4"	SR160	4.72	12.39	19.69	7.32	1.26	BK2/125C*
P*/*S6M-12	1-1/2"	SR160	5.12	12.98	19.69	7.32	1.50	BK2/100C*
P*/*S6M-16	2"	SR200	5.91	12.98	19.69	7.32	1.50	BK2/100C*



S6M Series Electric Actuated Valves

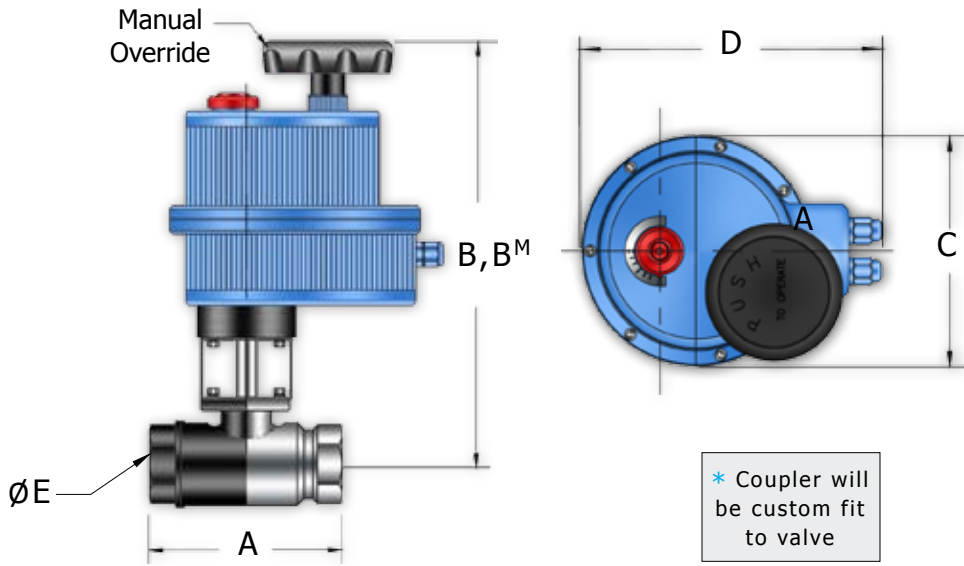


- ## Features:
- Actuator**
 - VO Self Extinguishing Class Techno-Polymer
 - Metal Available on request
 - All Actuators IP67 (VB015 IP65)
 - Heater Thermostat and Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
 - Valve**
 - Seal Welded, Full Port Ball Valve
 - Available in Stainless Steel and Carbon Steel
 - 6000PSI WOG
 - Delrin® Seats with Viton® O-Rings
 - NACE MR-0175-90
 - API 607-4 Fire Safe / API 608 Compliance
 - API Standard 6D



***** Actuator Voltage**
115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC
B^M = Optional Metal Actuator

* Option
S = Stainless
C = Carbon



Dimensions:

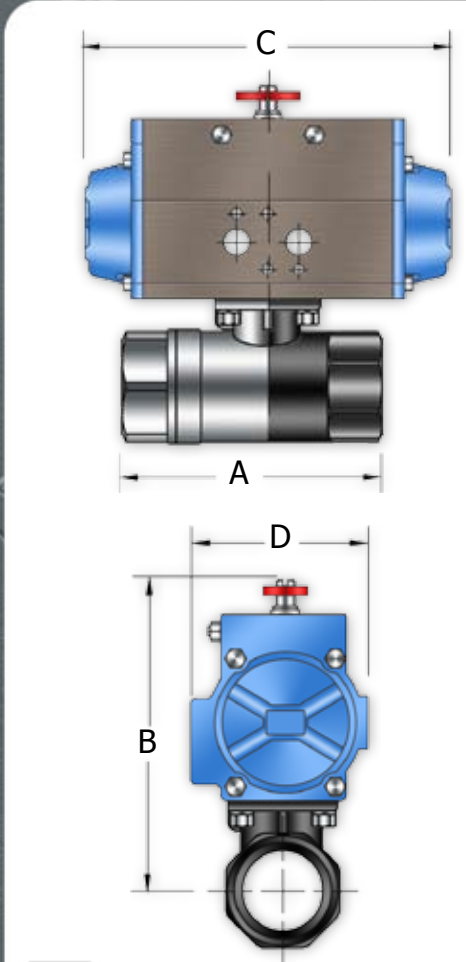
Part No.	Size	Actuator		A	B	C	D	ØE	B ^M	Bracket Kit
		Standard	Optional							
E***/*S6M-2	1/4"	VB030	VB030M	2.80	9.95	6.18	7.48	0.37	10.58	BK1/050I
E***/*S6M-3	3/8"	VB030	VB030M	2.80	9.95	6.18	7.48	0.37	10.58	BK1/063I
E***/*S6M-4	1/2"	VB030	VB030M	3.19	9.95	6.18	7.48	0.49	10.58	BK1/063I
E***/*S6M-6	3/4"	VB060	VB060M	3.78	11.29	7.28	8.43	0.79	11.55	BK1/063B*
E***/*S6M-8	1"	VB110	VB110M	4.25	11.65	8.31	9.33	0.98	12.16	BK2/075C*
E***/*S6M-10	1-1/4"	VB190	VB190M	4.72	12.54	8.31	9.33	1.26	13.05	BK2/075C*
E***/*S6M-12	1-1/2"	VB190	VB190M	5.12	13.42	8.31	9.33	1.50	13.93	BK2/075C*
E***/*S6M-16	2"	VB270	VB270M	5.91	13.47	8.74	10.08	1.50	14.08	BK2/075C*



2F3M Series Pneumatic Actuated Valves



- ## Features:
- ### Actuator
- 80 PSI Minimum, 120 PSI Max.
 - Aluminum Construction
 - Nitril Seals, Polyamide Friction Guides
 - -4°F to 185°F
- ### Valve
- Stainless Steel and Carbon Steel
 - ISO 5211 Mounting Pad
 - 29"Hg-3000PSI (100°F)
 - Full Port Ball Valve
 - Delrin® Seats with Viton® O-Rings
 - NACE MR-0175
 - Temperature -20°F to 450°F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D
PD/*2F3M-2	1/4"	DA52	2.95	5.23	5.79	2.82
PD/*2F3M-3	3/8"	DA52	2.95	5.23	5.79	2.82
PD/*2F3M-4	1/2"	DA52	2.95	5.23	5.79	2.82
PD/*2F3M-6	3/4"	DA52	3.19	5.35	5.79	2.82
PD/*2F3M-8	1"	DA63	3.58	6.34	6.61	3.29
PD/*2F3M-10	1-1/4"	DA75	4.33	7.06	7.24	3.73
PD/*2F3M-12	1-1/2"	DA75	4.76	7.33	8.27	3.72
PD/*2F3M-16	2"	DA75	5.71	7.33	8.27	3.72

* Option
O = Fail open
C = Fail Close

* Option
S = Stainless
C = Carbon

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D
P*/*2F3M-2	1/4"	SR63	2.95	5.84	6.61	3.29
P*/*2F3M-3	3/8"	SR63	2.95	5.84	6.61	3.29
P*/*2F3M-4	1/2"*	SR75	2.95	7.91	7.24	3.73
P*/*2F3M-6	3/4"*	SR75	3.19	8.02	7.24	3.73
P*/*2F3M-8	1"	SR85	3.58	7.54	10.83	4.84
P*/*2F3M-10	1-1/4"*	SR110	4.33	10.59	13.11	5.39
P*/*2F3M-12	1-1/2"	SR115	4.76	9.35	13.11	5.39
P*/*2F3M-16	2"	SR115	5.71	9.35	13.11	5.39

* Note: These sizes use a bracket in the assembly



2F3M Series Electric Actuated Valves



Features:

Actuator

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat and Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- Stainless Steel and Carbon Steel
- ISO 5211 Mounting Pad
- 29"Hg-3000PSI (100°F)
- Full Port Ball Valve
- Delrin® Seats with Viton® O-Rings
- NACE MR-0175
- Temperature -20°F to 450°F

*** Actuator Voltage

115V = 115VAC

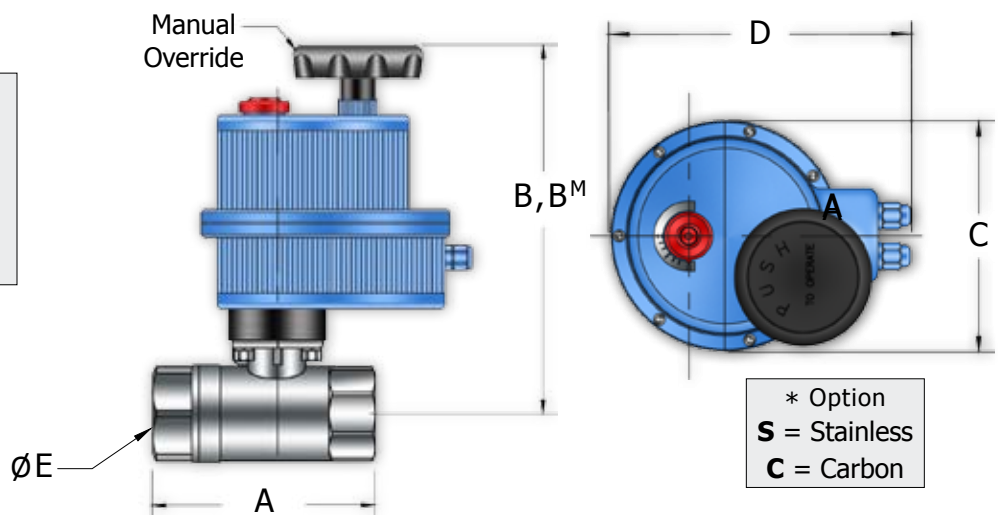
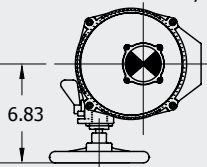
240V = 240VAC

012D = 12VDC

024D = 24VDC

B^M = Optional Metal Actuator

Crank Wheel
VB110M-VB350M only



* Option

S = Stainless

C = Carbon

Dimensions:

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M
		Standard	Optional						
E***/*2F3M-2	1/4"	VB015	VB030M	2.51	7.18	4.84	6.41	0.37	9.64
E***/*2F3M-3	3/8"	VB015	VB030M	2.51	7.18	4.84	6.41	0.37	9.64
E***/*2F3M-4	1/2"	VB030	VB030M	2.57	9.01	6.18	7.48	0.49	9.65
E***/*2F3M-6	3/4"	VB030	VB030M	3.11	9.12	6.18	7.48	0.79	9.75
E***/*2F3M-8	1"	VB030	VB030M	3.38	10.57	7.28	8.43	0.98	10.83
E***/*2F3M-10	1-1/4"	VB060	VB060M	4.13	10.78	7.28	8.43	1.26	11.04
E***/*2F3M-12	1-1/2"	VB060	VB060M	4.68	11.42	7.28	8.43	1.50	11.68
E***/*2F3M-16	2"	VB060	VB060M	5.23	11.42	7.28	8.43	1.50	11.68



S3FDM Series Pneumatic Actuated Valves

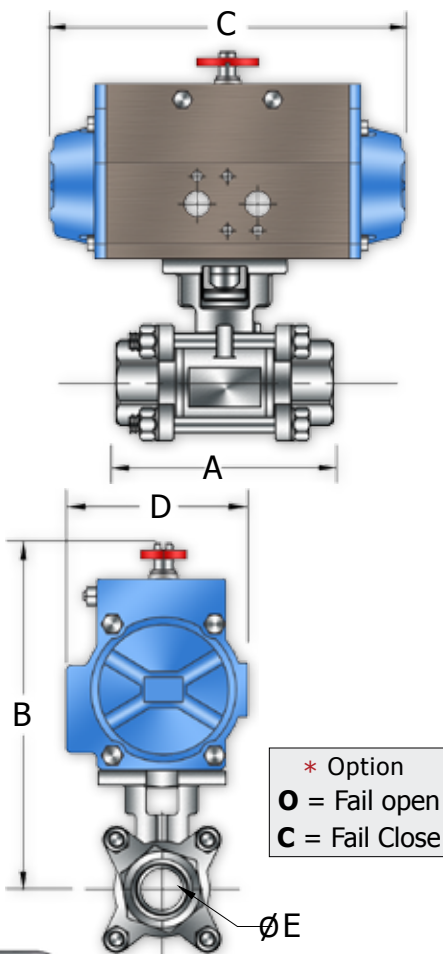
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Stainless Steel 3-Piece Full Port Ball Valve
- ISO 5211 Mounting Pad
- 1000PSI WOG 1/4" - 2" (2-1/2" - 4" 800psi)
- PTFE Seats and Viton® O-Ring
- Temperature -40°F to 440°F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE
PD/S3FDM-2	1/4"	DA32	2.51	4.20	6.41	2.02	0.39
PD/S3FDM-3	3/8"	DA32	2.51	4.20	6.41	2.02	0.39
PD/S3FDM-4	1/2"	DA32	2.57	4.20	6.41	2.02	0.59
PD/S3FDM-6	3/4"	DA32	3.11	5.52	5.88	2.82	0.78
PD/S3FDM-8	1"	DA52	3.38	5.86	5.88	2.82	0.98
PD/S3FDM-10	1-1/4"	DA52	4.13	5.97	5.88	2.82	1.25
PD/S3FDM-12	1-1/2"	DA63	4.68	7.33	6.61	3.29	1.49
PD/S3FDM-16	2"	DA75	5.23	8.10	7.32	3.73	1.96
PD/S3FDM-20	2-1/2"	DA75	6.46	9.14	9.47	4.17	2.55
PD/S3FDM-24	3"	DA85	7.19	9.77	10.83	4.84	3.15
PD/S3FDM-32	4"	DA100	9.28	11.61	13.11	4.39	4.04

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE
P*/S3FDM-2	1/4"	SR52	2.51	5.29	5.58	2.82	0.39
P*/S3FDM-3	3/8"	SR52	2.51	5.29	5.58	2.82	0.39
P*/S3FDM-4	1/2"	SR52	2.57	5.29	5.58	2.82	0.59
P*/S3FDM-6	3/4"	SR63-04	3.11	6.11	6.61	3.29	0.78
P*/S3FDM-8	1"	SR75	3.38	6.98	7.32	3.73	0.98
P*/S3FDM-10	1-1/4"	SR75	4.13	7.09	7.32	3.73	1.25
P*/S3FDM-12	1-1/2"	SR85	4.68	8.48	10.83	4.84	1.49
P*/S3FDM-16	2"	SR100	5.23	9.74	13.11	5.39	1.96
P*/S3FDM-20	2-1/2"	SR115	6.46	11.15	14.65	5.83	2.55
P*/S3FDM-24	3"	SR125	7.19	12.39	17.13	6.46	3.15
P*/S3FDM-32	4"	SR140	9.28	13.92	19.69	7.32	4.04



S3FDM Series Electric Actuated Valves



Features:

Actuator

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat and Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

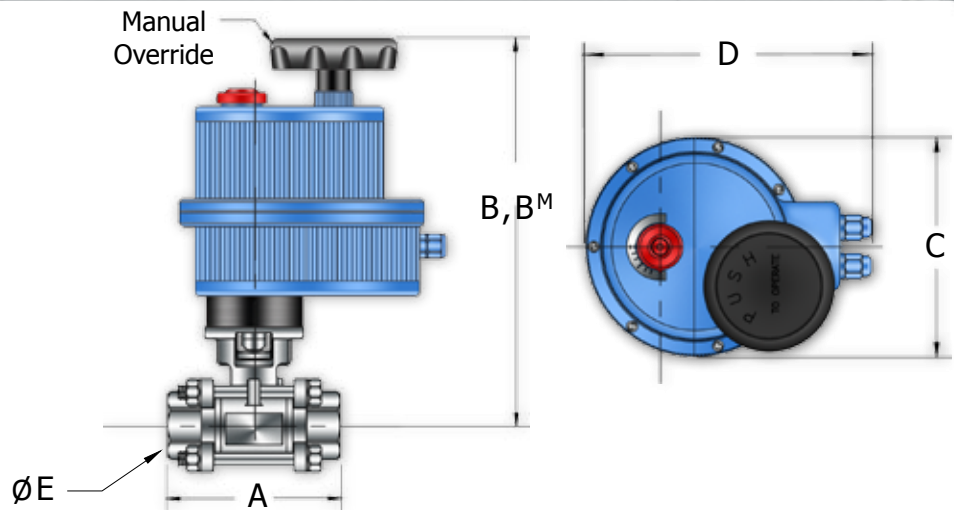
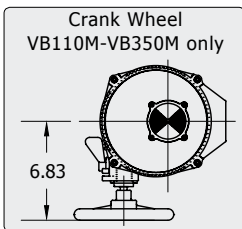
Valve

- Stainless Steel 3-Piece Full Port Ball Valve
- ISO 5211 Mounting Pad
- 1000PSI WOG 1/4" - 2" (2-1/2" - 4" 800psi)
- PTFE Seats and Viton® O-Ring
- Temperature -40°F to 440°F

*** Actuator Voltage

- 115V** = 115VAC
- 240V** = 240VAC
- 012D** = 12VDC
- 024D** = 24VDC

B^M = Optional Metal Actuator



Dimensions:

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M
		Standard	Optional						
E***/S3FDM-2	1/4"	VB015	VB030M	2.51	7.23	4.84	6.41	0.39	9.69
E***/S3FDM-3	3/8"	VB015	VB030M	2.51	7.23	4.84	6.41	0.39	9.69
E***/S3FDM-4	1/2"	VB015	VB030M	2.57	7.23	4.84	6.41	0.59	9.69
E***/S3FDM-6	3/4"	VB015	VB030M	3.11	7.46	4.84	6.41	0.78	9.92
E***/S3FDM-8	1"	VB030	VB030M	3.38	9.63	6.18	7.48	0.98	10.26
E***/S3FDM-10	1-1/4"	VB030	VB030M	4.13	9.74	6.18	7.48	1.25	10.37
E***/S3FDM-12	1-1/2"	VB030	VB030M	4.68	10.45	6.18	7.48	1.49	10.71
E***/S3FDM-16	2"	VB060	VB060M	5.23	11.81	7.28	7.82	1.96	12.07
E***/S3FDM-20	2-1/2"	VB110	VB110M	6.46	13.67	8.31	9.33	2.55	13.93
E***/S3FDM-24	3"	VB190	VB190M	7.19	14.02	8.31	9.33	3.15	14.28
E***/S3FDM-32	4"	VB190	VB190M	9.28	14.61	8.31	9.33	4.04	14.87



S3F22 Series Pneumatic Actuated Valves



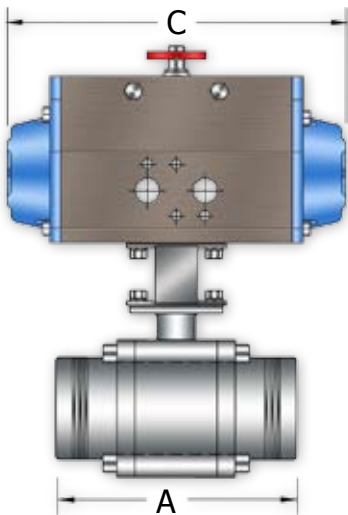
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- 3-Piece Stainless or Carbon Steel Ball Valve
- 25Hg-2250psi WOG Cold Non-Shock, 250psi WSP
- Seats, TFM Standard
- Fire Safe to API607-4
- Weld in Place Design or NPT Available
- ASME/ANSI B16-34 Class 600
- NACE MRO175

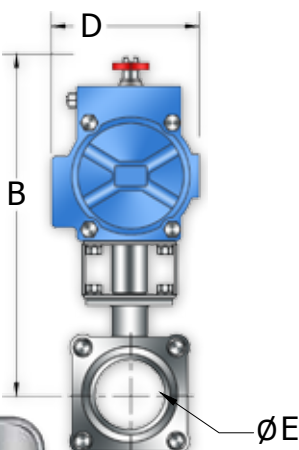


Double Acting Dimensions:

Part No.	Size	Actuator	A (SW)	A (NPT)	B	C	D	ØE	Bracket Kit
PD/S3F22-2*	1/4"	DA52	4.81	2.72	6.76	5.88	2.82	0.56	BK1/050I
PD/S3F22-3*	3/8"	DA52	4.81	2.72	6.76	5.88	2.82	0.69	BK1/050I
PD/S3F22-4*	1/2"	DA52	4.89	2.91	6.76	5.88	2.82	0.85	BK1/050I
PD/S3F22-6*	3/4"	DA52	5.17	3.38	6.92	5.88	2.82	1.07	BK1/050A
PD/S3F22-8*	1"	DA52	5.24	3.70	7.75	6.61	3.29	1.33	BK2/050B
PD/S3F22-10*	1-1/4"	DA75	5.72	4.09	8.81	7.32	3.73	1.67	BK2/075B
PD/S3F22-12*	1-1/2"	DA75	6.19	4.61	8.90	8.27	3.72	1.91	BK2/075B
PD/S3F22-16*	2"	DA85	6.62	5.20	9.70	9.47	4.17	2.41	BK2/075B

* Option
O = Fail open
C = Fail Close

* Option
W = Socket Weld
Blank = NPT



Spring Return Dimensions:

Part No.	Size	Actuator	A (SW)	A (NPT)	B	C	D	ØE	Bracket Kit
P*/S3F22-2*	1/4"	SR63	4.81	2.72	7.41	6.61	3.29	0.56	BK1/063I
P*/S3F22-3*	3/8"	SR63	4.81	2.72	7.41	6.61	3.29	0.69	BK1/063I
P*/S3F22-4*	1/2"	SR63	4.89	2.91	7.41	6.61	3.29	0.85	BK1/063I
P*/S3F22-6*	3/4"	SR75	5.17	3.38	8.04	7.32	3.73	1.07	BK1/050A
P*/S3F22-8*	1"	SR85	5.24	3.70	8.86	9.47	4.17	1.33	BK2/050B
P*/S3F22-10*	1-1/4"	SR115	5.72	4.09	10.46	13.11	5.39	1.67	BK2/075B
P*/S3F22-12*	1-1/2"	SR115	6.19	4.61	10.82	13.11	5.39	1.91	BK2/075B
P*/S3F22-16*	2"	SR125	6.62	5.20	11.65	14.65	5.83	2.41	BK2/075B

Note: consult ordering matrix for options and materials



S3F22 Series Electric Actuated Valves



Actuator Features:

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat and Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- 3-Piece Stainless or Carbon Steel Ball Valve
- 25Hg-2250psi WOG Cold Non-Shock, 250psi WSP
- Seats, TFM Standard
- Fire Safe to API607-4
- Weld in Place Design or NPT Available
- ASME/ANSI B16-34 Class 600
- NACE MRO175

*** Actuator Voltage

115V = 115VAC

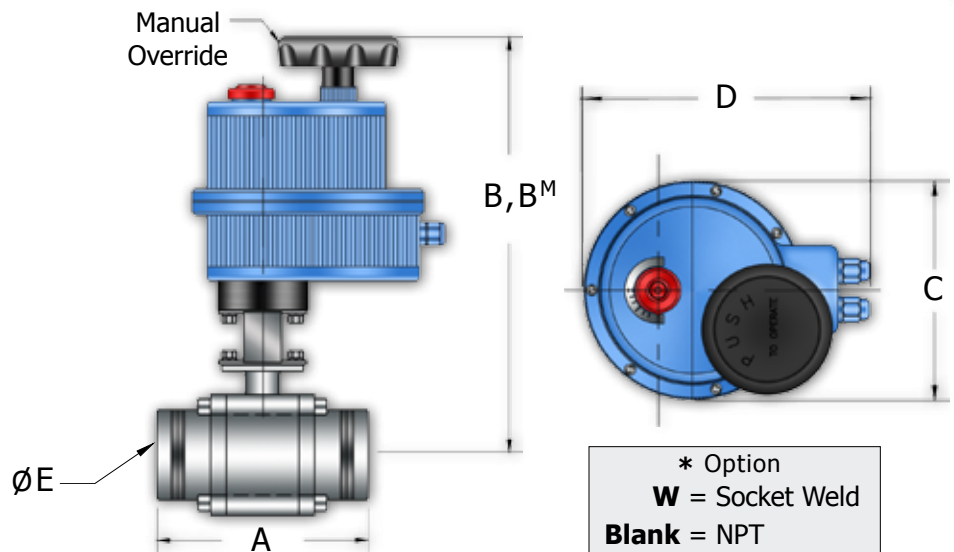
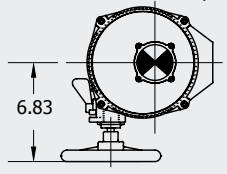
240V = 240VAC

012D = 12VDC

024D = 24VDC

B^M = Optional Metal Actuator

Crank Wheel
VB110M-VB350M only

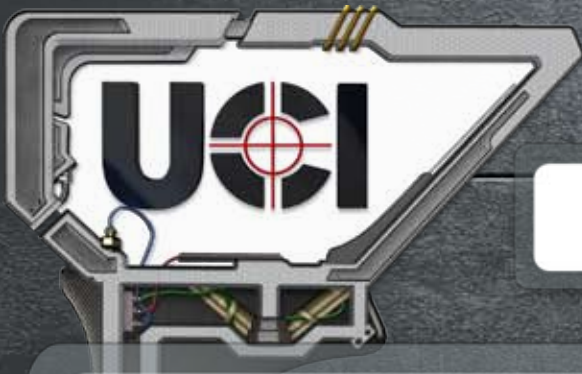


* Option
W = Socket Weld
Blank = NPT

Dimensions:

Part No.	Size	Actuator		A (SW)	A (NPT)	B	C	D	ØE	B ^M	Bracket Kit
		Standard	Optional								
E***/S3F22-2*	1/4"	VB015	VB030M	4.81	2.72	8.70	4.84	6.41	0.56	11.16	BK1/050I
E***/S3F22-3*	3/8"	VB015	VB030M	4.81	2.72	8.70	4.84	6.41	0.69	11.16	BK1/050I
E***/S3F22-4*	1/2"	VB015	VB030M	4.89	2.91	8.70	4.84	6.41	0.85	11.16	BK1/050I
E***/S3F22-6*	3/4"	VB030	VB030M	5.17	3.38	8.86	6.18	7.48	1.07	11.32	BK1/050A
E***/S3F22-8*	1"	VB030	VB030M	5.24	3.70	9.22	6.18	7.48	1.33	11.68	BK2/050B
E***/S3F22-10*	1-1/4"	VB060	VB060M	5.72	4.09	12.53	7.28	8.43	1.67	12.79	BK2/075B
E***/S3F22-12*	1-1/2"	VB110	VB110M	6.19	4.61	13.67	8.31	9.33	1.91	14.18	BK2/075B
E***/S3F22-16*	2"	VB110	VB110M	6.62	5.20	13.67	8.31	9.33	2.41	14.43	BK2/075B

Note: consult ordering matrix for options and materials



S3FV Series Pneumatic Actuated Valves

Features:

Valve

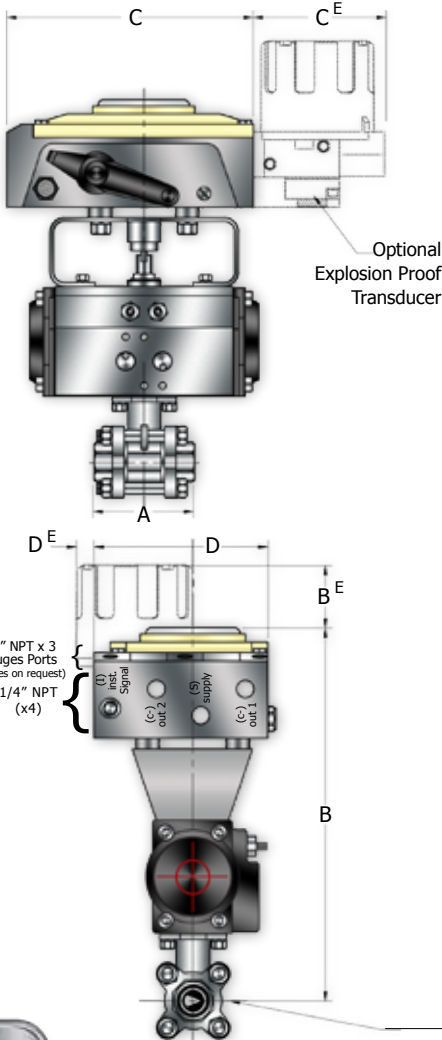
- Stainless Steel, Three-Piece, V-Cut Ball Valve
- ISO 5211 Mounting Pad, Blow Out Proof Stem, Anti-static Design
- 50% Stainless Steel / 50% PTFE Seats
- Temperature -18°F to 428°F
- Pressure: 1/2" to 2"-1000 PSI, 2 1/4" to 4"- 800 PSI
- Available in NPT and Socket Weld (dimensions same as NPT valves)

Positioner

- NEMA 4X IP66 Base, Modular Compact Design, 100% Duty
- Available Intrinsically Safe and Explosion Safe, Single and Double Acting
- Maximum Supply Pressure 145 PSI,
- External Zero Adjustment

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Adjustable Stroke Adjustment
- Double Acting or Spring Return



Double Acting Dimensions:

Part No.	Size NPT	Actuator	A	B	C	D	B ^E	C ^E	D ^E
PD/S3FV-4**	1/2"	DA52	2.57	9.29	5.88	2.82	1.57	3.42	0.44
PD/S3FV-6**	3/4"	DA52	3.11	9.52	5.88	2.82	1.57	3.42	0.44
PD/S3FV-8**	1"	DA52	3.38	9.86	5.88	2.82	1.57	3.42	0.44
PD/S3FV-10**	1-1/4"	DA63	4.13	10.62	6.61	3.29	1.57	3.42	0.44
PD/S3FV-12**	1-1/2"	DA63	4.68	11.33	6.61	3.29	1.57	3.42	0.44
PD/S3FV-16**	2"	DA63	5.23	11.63	6.61	3.29	1.57	3.42	0.44
PD/S3FV-20**	2-1/2"	DA85	6.46	13.20	9.47	4.17	1.57	3.42	0.44
PD/S3FV-24**	3"	DA85	7.19	13.58	9.47	4.17	1.57	3.42	0.44
PD/S3FV-32**	4"	DA100	9.28	14.65	10.83	4.84	1.57	3.42	0.44

Spring Return Dimensions:

Part No.	Size NPT	Actuator	A	B	C	D	B ^E	C ^E	D ^E
P*/S3FV-4**	1/2"	SR63	2.57	10.38	6.61	3.29	1.57	3.42	0.44
P*/S3FV-6**	3/4"	SR63	3.11	10.17	6.61	3.29	1.57	3.42	0.44
P*/S3FV-8**	1"	SR75	3.38	10.98	7.32	3.73	1.57	3.42	0.44
P*/S3FV-10**	1-1/4"	SR85	4.13	11.26	9.47	4.17	1.57	3.42	0.44
P*/S3FV-12**	1-1/2"	SR85	4.68	11.86	9.47	4.17	1.57	3.42	0.44
P*/S3FV-16**	2"	SR100	5.23	12.72	10.83	4.84	1.57	3.42	0.44
P*/S3FV-20**	2-1/2"	SR115	6.46	14.67	13.11	5.39	1.57	3.42	0.44
P*/S3FV-24**	3"	SR125	7.19	15.50	14.65	5.83	1.57	3.42	0.44
P*/S3FV-32**	4"	SR160	9.28	17.92	19.69	7.32	1.57	3.42	0.44

Note: for flow chart see pg 23 in the manual ball valve catalog

** Option

Available V-Port Configurations:



30 = 30°



60 = 60°



90 = 90°

* Option

O = Fail open

C = Fail Close



S3FV Series Electric Actuated Valves

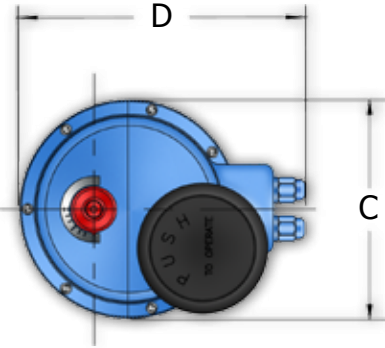
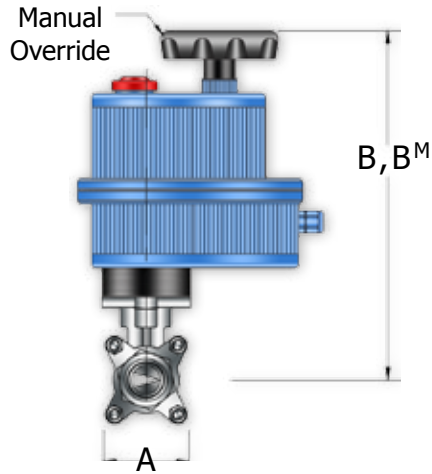
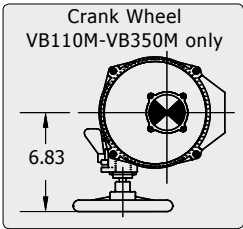


- Actuator Features:**
- VO Self Extinguishing Class Techno-Polymer
 - Metal Available on request
 - All Actuators IP67 (VB015 IP65)
 - Heater Thermostat and Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
- Valve Features:**
- Stainless Steel, Three-Piece, V-Cut Ball Valve
 - ISO 5211 Mounting Pad
 - 50% Stainless Steel / 50% PTFE Seats
 - Class VI Shut-off
 - Available in NPT and Socket Weld
 - Temperature -18°F to 428°F

*** Actuator Voltage

115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC

B^M = Optional Metal Actuator



*** Option

Available V-Port Configurations:

30 = 30° **60** = 60° **90** = 90°

Dimensions:

Part No.	Size	Actuator		A	B	C	D	B ^M
		Standard	Optional					
E***42/S3FV**-4	1/2"	VB030	VB030M	2.57	7.03	4.84	6.41	9.49
E***42/S3FV**-6	3/4"	VB030	VB030M	3.11	7.34	4.84	6.41	9.80
E***42/S3FV**-8	1"	VB030	VB030M	3.38	9.21	6.18	7.48	9.84
E***42/S3FV**-10	1-1/4"	VB030	VB030M	4.13	9.72	6.18	7.48	10.35
E***42/S3FV**-12	1-1/2"	VB060	VB060M	4.68	11.40	7.28	8.43	11.66
E***42/S3FV**-16	2"	VB060	VB060M	5.23	11.75	7.28	8.43	12.01
E***42/S3FV**-20	2-1/2"	VB110	VB110M	6.46	13.78	8.31	9.33	13.93
E***42/S3FV**-24	3"	VB110	VB110M	7.19	13.78	8.31	9.33	14.29
E***42/S3FV**-32	4"	VB270	VB270M	9.28	14.79	8.31	9.33	14.18



STC Series Pneumatic Actuated Valves

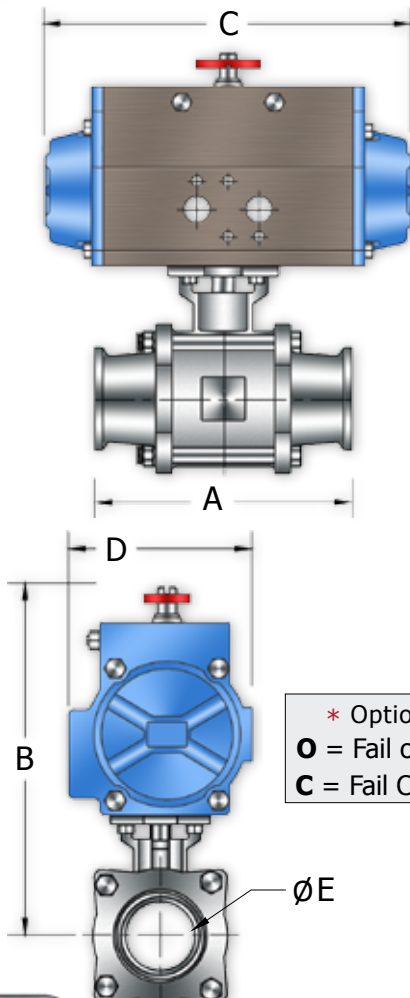
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Stainless Steel Full Port
- Sanitary Tri-Clamp Ball Valve
- ISO 5211 Mounting Pad
- 29Hg – 1000psi WOG Cold Non-Shock
- Cavity Filled Teflon Seats (Standard Seats Optional)
- Temperature 0°F to 400°F
- Complies With FDA, USDA, and 3A



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE
PD/STC-4	1/2"	DA52	3.50	5.30	5.88	2.82	0.37
PD/STC-6	3/4"	DA52	4.00	5.39	5.88	2.82	0.63
PD/STC-8	1"	DA52	4.50	5.76	5.88	2.82	0.87
PD/STC-12	1-1/2"	DA63	5.50	7.17	6.61	3.29	1.37
PD/STC-16	2"	DA75	6.25	7.63	8.27	3.72	1.87
PD/STC-20	2-1/2"	DA85	7.00	9.64	10.83	4.84	2.37
PD/STC-24	3"	DA100	9.00	10.34	10.83	4.84	2.88
PD/STC-32	4"	DA115	9.50	11.60	13.11	5.39	3.84
PD/STC-48	6"	C/F	15.50	C/F	C/F	C/F	5.78

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	ØE
P*/STC-4	1/2"	SR63-04	3.50	5.95	6.61	3.29	0.37
P*/STC-6	3/4"	SR63-04	4.00	6.04	6.61	3.29	0.63
P*/STC-8	1"	SR85	4.50	7.29	9.47	4.17	0.87
P*/STC-12	1-1/2"	SR100	5.50	9.28	13.11	5.39	1.37
P*/STC-16	2"	SR115	6.25	9.65	13.11	5.39	1.87
P*/STC-20	2-1/2"	SR125	7.00	12.91	19.69	7.32	2.37
P*/STC-24	3"	SR140	9.00	13.22	19.69	7.32	2.88
P*/STC-32	4"	SR160	9.50	13.91	19.69	7.32	3.84
P*/STC-48	6"	C/F	15.50	C/F	C/F	C/F	C/F



STC Series Electric Actuated Valves



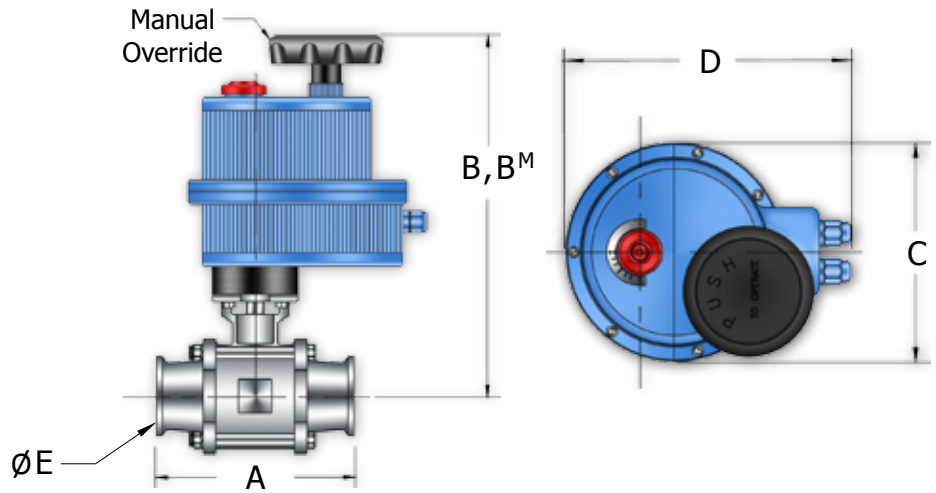
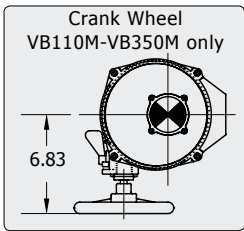
Actuator Features:

- VO Self Extinguishing Class Techno-Polymer
- Metal Available on request
- All Actuators IP67 (VB015 IP65)
- Heater Thermostat and Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- Stainless Steel Full Port
- Sanitary Tri-Clamp Ball Valve
- ISO 5211 Mounting Pad
- 29Hg – 1000psi WOG Cold Non-Shock
- Cavity Filled Teflon Seats (Standard Seats Optional)
- Temperature 0°F to 400°F
- Complies With FDA, USDA, and 3A

*** Actuator Voltage
115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC
 B^M = Optional Metal Actuator



Dimensions:

Part No.	Size	Actuator		A	B	C	D	ØE	B ^M
		Standard	Optional						
E***/STC-4	1/2"	VB015	VB030M	3.50	7.24	4.84	6.41	0.37	9.70
E***/STC-6	3/4"	VB015	VB030M	3.50	7.33	4.84	6.41	0.63	9.79
E***/STC-8	1"	VB030	VB030M	4.50	7.70	4.84	6.41	0.87	10.16
E***/STC-12	1-1/2"	VB030	VB030M	5.50	10.29	6.18	7.48	1.37	10.92
E***/STC-16	2"	VB060	VB060M	6.25	11.72	6.94	7.82	1.87	11.98
E***/STC-20	2-1/2"	VB110	VB110M	7.00	13.35	10.68	9.71	2.37	13.86
E***/STC-24	3"	VB190	VB190M	9.00	13.91	10.68	9.71	2.88	14.42
E***/STC-32	4"	VB270	VB270M	9.50	14.40	10.89	10.08	3.84	15.01
E***/STC-48	6"	C/F	C/F	15.50	C/F	C/F	C/F	5.78	C/F



STC TT & TL Series Pneumatic Actuated Valves



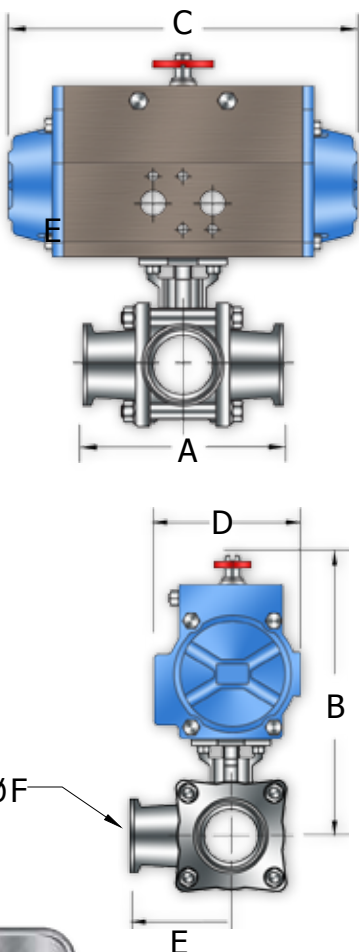
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Stainless Steel 3-way
- Sanitary Tri-Clamp Ball Valve
- ISO 5211 Mounting Pad
- Temperature 0°F to 400°F
- Cavity Filled Teflon Seats Standard (Non-Cavity Filled Seats Optional)
- Meets FDA, USDA, and 3A Requirements (Cavity Filled Only)



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	ØF
PD/STC-8T*	1"	DA63	4.50	5.76	5.88	2.82	2.23	0.87
PD/STC-12T*	1-1/2"	DA63	5.50	7.17	6.61	3.29	2.44	1.37
PD/STC-16T*	2"	DA75	6.25	7.63	8.27	3.72	3.13	1.87
PD/STC-24T*	3"	DA100	9.00	10.34	10.83	4.84	4.75	2.88
PD/STC-32T*	4"	DA115	9.50	11.60	13.11	5.39	3.84	3.84

* Option
T = T-Port
L = L-Port

* Option
O = Fail open
C = Fail Close

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	ØF
P*/STC-8T*	1"	SR85	4.50	7.29	9.47	4.17	2.23	0.87
P*/STC-12T*	1-1/2"	SR100	5.50	9.28	13.11	5.39	2.44	1.37
P*/STC-16T*	2"	SR115	6.25	9.65	13.11	5.39	3.13	1.87
P*/STC-24T*	3"	SR140	9.00	13.22	19.69	7.32	4.75	2.88
P*/STC-32T*	4"	SR160	9.50	13.91	19.69	7.32	3.84	3.84

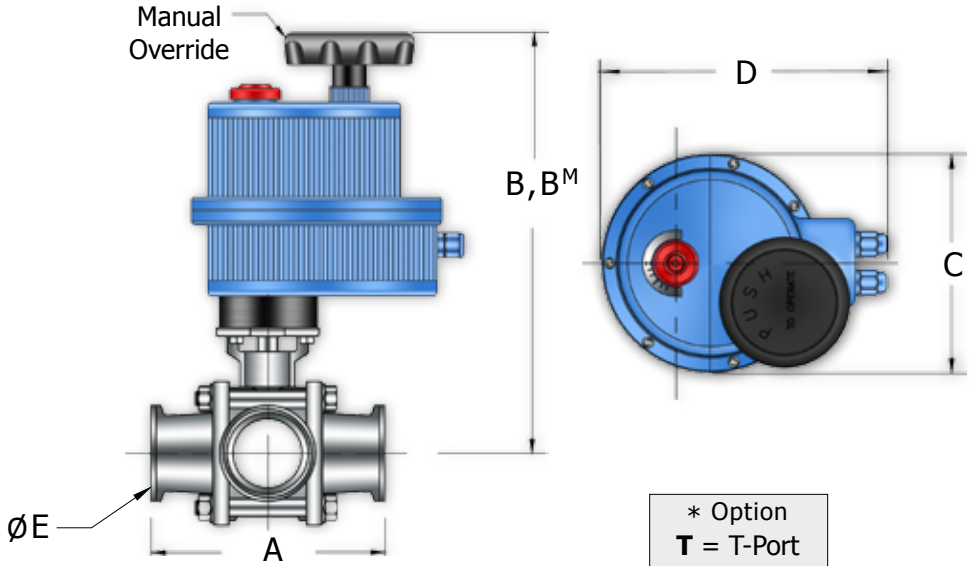
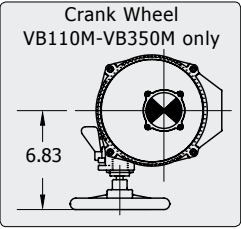


STC TT & TL Series Electric Actuated Valves



- ### Actuator Features:
- VO Self Extinguishing Class Techno-Polymer
 - All Actuators IP67 (VB015 IP65)
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
- ### Valve
- Stainless Steel 3-way
 - Sanitary Tri-Clamp Ball Valve
 - ISO 5211 Mounting Pad
 - Cavity Filled Teflon Seats Standard (Non-Cavity Filled Seats Optional)
 - Meets FDA, USDA, and 3A Requirements (Cavity Filled Only)

*** Actuator Voltage
115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC
 B^M = Optional Metal Actuator



* Option
T = T-Port
L = L-Port

Dimensions:

Part No.	Size	Actuator		A	B	C	D	E	ØE	B ^M
		Standard	Optional							
E ^{***} /STC-8T*	1"	VB030	VB030M	4.50	10.16	7.48	6.18	0.87	0.87	10.16
E ^{***} /STC-12T*	1-1/2"	VB060	VB060M	5.50	11.35	8.43	7.28	1.37	1.37	11.01
E ^{***} /STC-16T*	2"	VB060	VB060M	6.25	11.72	6.94	7.82	1.87	1.87	11.38
E ^{***} /STC-24T*	3"	VB110	VB110M	9.00	13.91	9.33	8.31	2.88	2.88	14.42
E ^{***} /STC-32T*	4"	VB190	VB190M	9.50	14.35	9.33	8.31	3.84	3.84	15.01



CFM Series Pneumatic Actuated Valves



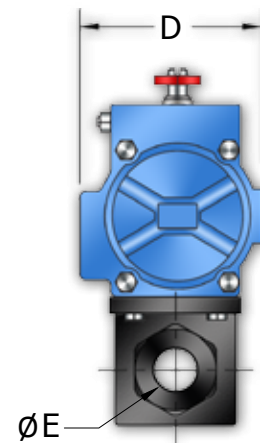
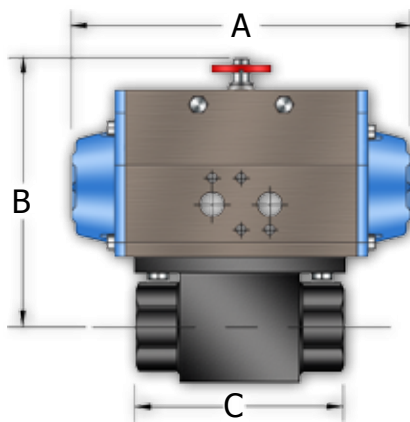
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- 2-way Carbon Steel Full Port
- ¼" - ½" 7350 psi WOG
- 1" - 1-½" 5145 psi WOG
- ¾" & 2" 5880 psi WOG
- Delrin® Seats and Viton® O-rings
- -20°F to 215°F



* Option
O = Fail open
C = Fail Close

Double Acting Dimensions:

NPT Part No.	Size	SAE Part No.	Size	Actuator	A	B	C	D	ØE	PSI
PD/CFM-2	1/4"	PD/CFM-S4	7/16"-20	DA52	2.72	4.58	5.88	2.82	0.24	7350
PD/CFM-3	3/8"	PD/CFM-S6	9/16"-18	DA52	2.87	4.67	5.88	2.82	0.39	7350
PD/CFM-4	1/2"	PD/CFM-S8	3/4"-16	DA52	3.62	4.69	5.58	2.82	0.51	7350
PD/CFM-6	3/4"	PD/CFM-S12	1-1/16"-12	DA63	3.82	5.94	6.61	3.29	0.78	6000
PD/CFM-8	1"	PD/CFM-S16	1-5/16"-12	DA63	4.45	5.98	6.61	3.29	0.94	6000
PD/CFM-10	1-1/4"	PD/CFM-S20	1-5/8"-12	DA100	5.16	5.84	10.83	4.84	1.18	6000
PD/CFM-12	1-1/2"	PD/CFM-S24	1-7/8"-12	DA115	5.47	6.46	13.11	5.39	1.37	6000
PD/CFM-16	2"	PD/CFM-S32	2-1/2"-12	DA140	5.50	10.66	17.13	6.46	1.73	6000

Spring Return Dimensions:

NPT Part No.	Size	SAE Part No.	Size	Actuator	A	B	C	D	ØE	PSI
P*/CFM-2	1/4"	P*/CFM-S4	7/16"-20	SR75	2.72	5.70	7.32	3.73	0.24	7350
P*/CFM-3	3/8"	P*/CFM-S6	9/16"-18	SR75	2.87	5.79	7.32	3.73	0.39	7350
P*/CFM-4	1/2"	P*/CFM-S8	3/4"-16	SR85	3.62	5.98	9.47	4.17	0.51	7350
P*/CFM-6	3/4"	P*/CFM-S12	1-1/16"-12	SR85	3.82	6.58	9.47	4.17	0.78	6000
P*/CFM-8	1"	P*/CFM-S16	1-5/16"-12	SR100	4.45	6.58	10.83	4.84	0.94	6000
P*/CFM-10	1-1/4"	P*/CFM-S20	1-5/8"-12	SR140	5.16	9.46	17.13	6.46	1.18	6000
P*/CFM-12	1-1/2"	P*/CFM-S24	1-7/8"-12	SR160	5.47	10.40	19.69	8.70	1.37	6000
P*/CFM-16	2"	P*/CFM-S32	2-1/2"-12	SR200	5.50	14.10	22.76	8.54	1.73	6000



CFM TT & TL Series Pneumatic Actuated Valves



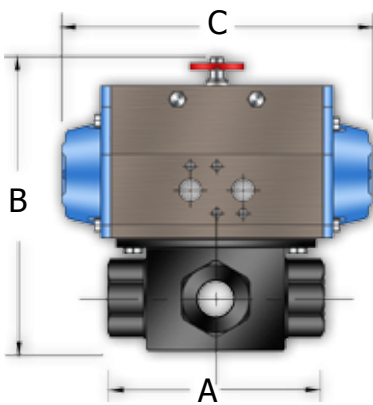
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

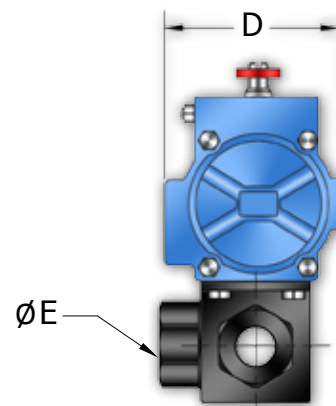
Valve

- 3-way Carbon Steel Full Port
- ¼" – 3/8" 5880 psi WOG
- ½" - 2" 5145psi WOG
- Delrin® Seats and Viton® O-rings
- -20°F to 215°F



* Option
T = T-Port
L = L-Port

* Option
O = Fail open
C = Fail Close



Double Acting Dimensions:

NPT Part No.	Size	SAE Part No.	Size	Actuator	A	B	C	D	ØE	PSI
PD/CFM-2T*	1/4"	PD/CFM-S4T*	7/16"-20	DA52	2.72	4.58	5.88	2.82	0.24	7350
PD/CFM-3T*	3/8"	PD/CFM-S6T*	9/16"-18	DA52	2.87	4.67	5.88	2.82	0.39	7350
PD/CFM-4T*	1/2"	PD/CFM-S8T*	3/4"-16	DA52	3.62	4.69	5.58	2.82	0.51	7350
PD/CFM-6T*	3/4"	PD/CFM-S12T*	1-1/16"-12	DA63	3.82	5.94	6.61	3.29	0.78	6000
PD/CFM-8T*	1"	PD/CFM-S16T*	1-5/16"-12	DA63	4.45	5.98	6.61	3.29	0.94	6000
PD/CFM-10T*	1-1/4"	PD/CFM-S20T*	1-5/8"-12	DA100	5.16	5.84	10.83	4.84	1.18	6000
PD/CFM-12T*	1-1/2"	PD/CFM-S24T*	1-7/8"-12	DA115	5.47	6.46	13.11	5.39	1.37	6000
PD/CFM-16T*	2"	PD/CFM-S32T*	2-1/2"-12	DA140	5.50	10.66	17.13	6.46	1.73	6000

Spring Return Dimensions:

NPT Part No.	Size	SAE Part No.	Size	Actuator	A	B	C	D	ØE	PSI
P*/CFM-2T*	1/4"	P*/CFM-S4T*	7/16"-20	SR75	2.72	5.70	7.32	3.73	0.24	7350
P*/CFM-3T*	3/8"	P*/CFM-S6T*	9/16"-18	SR75	2.87	5.79	7.32	3.73	0.39	7350
P*/CFM-4T*	1/2"	P*/CFM-S8T*	3/4"-16	SR85	3.62	5.98	9.47	4.17	0.51	7350
P*/CFM-6T*	3/4"	P*/CFM-S12T*	1-1/16"-12	SR85	3.82	6.58	9.47	4.17	0.78	6000
P*/CFM-8T*	1"	P*/CFM-S16T*	1-5/16"-12	SR100	4.45	6.58	10.83	4.84	0.94	6000
P*/CFM-10T*	1-1/4"	P*/CFM-S20T*	1-5/8"-12	SR140	5.16	9.46	17.13	6.46	1.18	6000
P*/CFM-12T*	1-1/2"	P*/CFM-S24T*	1-7/8"-12	SR160	5.47	10.40	19.69	8.70	1.37	6000
P*/CFM-16T*	2"	P*/CFM-S32T*	2-1/2"-12	SR200	5.50	14.10	22.76	8.54	1.73	6000



FF150 Series Pneumatic Actuated Valves

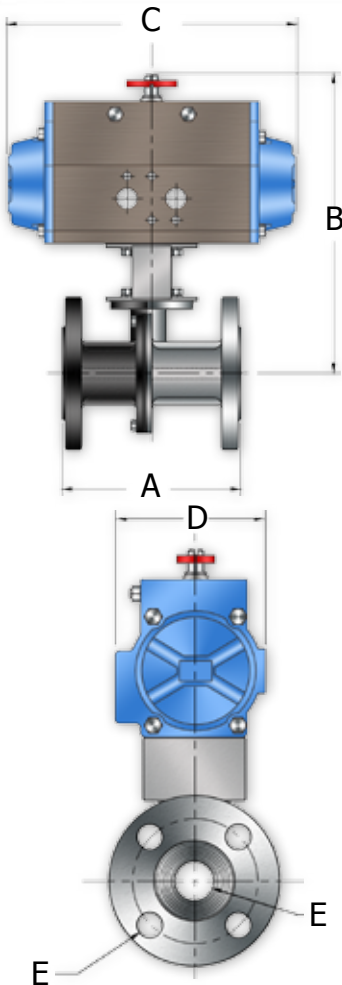
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Full Port Split Body ANSI Class 150
- Class 150 29Hg – 285psi, Cold Non-Shock
- Live Loaded Stem Design, Anti-Static Device
- Temp -50°F to 400°F
- Fire Safe Approved API 607-4
- Available with Optional Seats and V-Ball Option C/F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F	Bracket Kit
PD/*2FF150-4	1/2"	DA52	4.25	6.74	5.88	2.82	0.59	0.63x4	BK1-050A
PD/*2FF150-6	3/4"	DA52	4.62	6.74	5.88	2.82	0.79	0.63x4	BK1-050A
PD/*2FF150-8	1"	DA52	5.00	7.26	5.88	2.82	0.98	0.63x4	BK1-050B
PD/*2FF150-12	1-1/2"	DA63	6.50	8.15	6.61	3.29	1.50	0.63x4	BK1-063B
PD/*2FF150-16	2"	DA75	7.00	9.52	7.32	3.73	1.97	0.63x4	BK2-063C
PD/*2FF150-24	3"	DA100	8.00	13.60	10.83	4.84	3.00	0.75x4	BK2-063C
PD/*2FF150-32	4"	DA115	9.00	17.81	13.11	5.39	4.00	0.75x4	BK3-100D
PD/*2FF150-48	6"	DA180	15.50	21.19	19.41	8.38	5.98	0.88x8	BK3-C/F
PD/*2FF150-64	8"	DA230	18.00	23.29	27.17	9.78	7.87	0.88x8	BK4-C/F

* Option
S = Stainless
C = Carbon

* Option
O = Fail open
C = Fail Close

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F	Bracket Kit
P*/*2FF150-4	1/2"	SR63	4.25	7.55	6.61	3.29	0.59	0.63x4	BK1-063A
P*/*2FF150-6	3/4"	SR63	4.62	7.85	6.61	3.29	0.79	0.63x4	BK1-075A
P*/*2FF150-8	1"	SR63	5.00	7.91	6.61	3.29	0.98	0.63x4	BK1-075B
P*/*2FF150-12	1-1/2"	SR100	6.50	9.88	10.83	4.84	1.50	0.63x4	BK1-075B
P*/*2FF150-16	2"	SR115	7.00	11.29	13.11	5.39	1.97	0.63x4	BK2-075DM
P*/*2FF150-24	3"	SR140	8.00	16.42	17.13	6.46	3.00	0.88x8	BK3-100D
P*/*2FF150-32	4"	SR180	9.00	18.48	19.69	7.32	4.00	0.88x8	BK4-270EL
P*/*2FF150-48	6"	SR270	15.50	26.94	28.46	11.42	5.98	0.88x8	BK3-C/F
P*/*2FF150-64	8"	C/F	18.00	C/F	C/F	C/F	7.87	0.88x8	C/F



FF150 Series Electric Actuated Valves



Actuator Features:

- Aluminum Alloy Enclosure w/Poly Powder Coating
- All Actuators IP67
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- Full Port Split Body ANSI Class 150
- Class 150 29Hg – 285psi, Cold Non-Shock
- Live Loaded Stem Design, Anti-Static Device
- Temp -50°F to 400°F
- Fire Safe Approved API 607-4
- Available with Optional Seats and V-Ball Option C/F

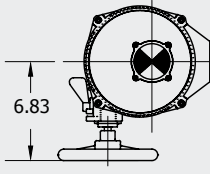
*** Actuator Voltage

- 115V** = 115VAC
- 240V** = 240VAC
- 012D** = 12VDC
- 024D** = 24VDC

B^M = Metal Actuator Std.

B = Optional ABS Actuator

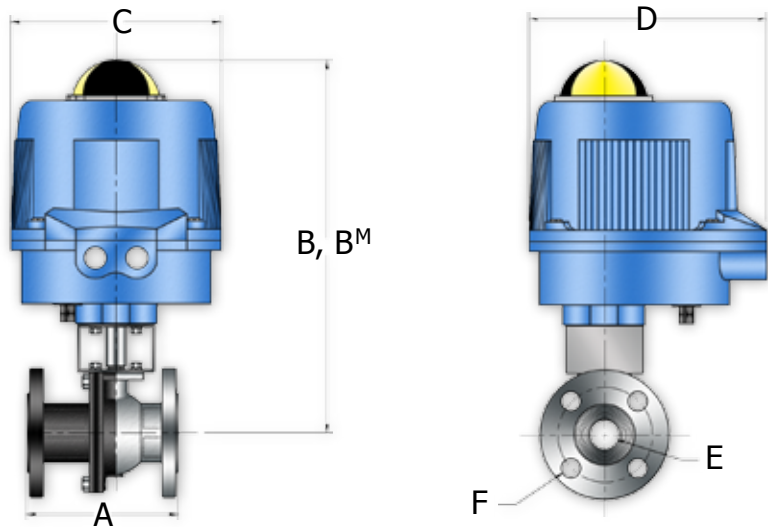
Crank Wheel
VB110M-VB350M only



* Option

S = Stainless

C = Carbon



Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	F	Bracket Kit
		Standard	Optional								
E***M/*2FF150-4	1/2"	VB030M	VB030	5.50	12.20	12.06	6.33	7.34	0.59	0.63x4	BK1-050A
E***M/*2FF150-6	3/4"	VB030M	VB030	6.00	12.51	12.37	6.33	7.34	0.79	0.63x4	BK1-050A
E***M/*2FF150-8	1"	VB030M	VB030	6.50	13.03	12.89	6.33	7.34	0.98	0.63x4	BK1-050B
E***M/*2FF150-12	1-1/2"	VB060M	VB060	7.50	14.72	14.11	6.94	7.82	1.50	0.63x4	BK2-063C
E***M/*2FF150-16	2"	VB060M	VB060	8.50	15.12	14.51	6.94	7.82	1.97	0.63x4	BK2-075C
E***M/*2FF150-24	3"	VB190M	VB190	11.12	17.32	17.70	10.68	9.71	3.00	0.88x8	BK3-075D
E***M/*2FF150-32	4"	VB270M	VB270	12.00	18.20	18.56	10.89	10.08	4.00	0.88x8	BK3-075D



FF300 Series Pneumatic Actuated Valves

Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Full Port Split Body ANSI Class 300
- Class 300 29Hg - 740psi, Cold Non-Shock
- Live Loaded Stem Design, Anti-Static Device
- Temp -50°F to 400°F
- Fire Safe Approved API 607-4
- Available with Optional Seats and V-Ball Option C/F



Double Acting Dimensions:

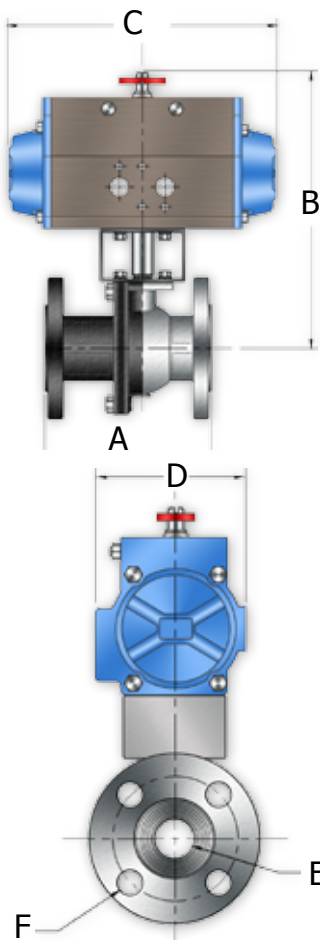
Part No.	Size	Actuator	A	B	C	D	E	F	Bracket Kit
PD/*2FF300-4	1/2"	DA52	5.50	6.74	5.88	2.82	0.59	0.63x4	BK1-050A
PD/*2FF300-6	3/4"	DA52	6.00	6.74	5.88	2.82	0.79	0.63x4	BK1-050A
PD/*2FF300-8	1"	DA52	6.50	7.26	5.88	2.82	0.98	0.63x4	BK1-050B
PD/*2FF300-12	1-1/2"	DA63	7.50	8.15	6.61	3.29	1.50	0.63x4	BK2-063C
PD/*2FF300-16	2"	DA75	8.50	9.52	7.32	3.73	1.97	0.63x4	BK2-075C
PD/*2FF300-24	3"	DA100	11.12	13.12	10.83	4.84	3.00	0.88x8	BK2-075D
PD/*2FF300-32	4"	DA125	12.00	14.28	14.65	5.83	4.00	0.88x8	BK2-075D
PD/*2FF300-48	6"	DA180	15.88	21.20	19.41	8.38	5.98	0.88x12	BK3-C/F
PD/*2FF300-64	8"	DA230	19.75	26.31	27.17	9.78	7.87	1.00x12	BK4-C/F

* Option
S = Stainless
C = Carbon

* Option
O = Fail open
C = Fail Close

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F	Bracket Kit
P*/*2FF300-4	1/2"	SR63	5.50	7.55	6.61	3.29	0.59	0.63x4	BK1-063A
P*/*2FF300-6	3/4"	SR63	6.00	7.85	6.61	3.29	0.79	0.63x4	BK1-075A
P*/*2FF300-8	1"	SR63	6.50	7.91	6.61	3.29	0.98	0.63x4	BK1-075B
P*/*2FF300-12	1-1/2"	SR100	7.50	9.96	10.83	4.84	1.50	0.63x4	BK2-075C
P*/*2FF300-16	2"	SR115	8.50	12.17	13.11	5.39	1.97	0.63x4	BK2-075C
P*/*2FF300-24	3"	SR140	11.12	16.39	19.69	7.32	3.00	0.88x8	BK3-125D
P*/*2FF300-32	4"	SR180	12.00	18.38	19.41	8.38	4.00	0.88x8	BK3-125D
P*/*2FF300-48	6"	SR270	15.88	26.94	28.46	11.42	5.98	0.88x12	BK4-C/F
P*/*2FF300-64	8"	C/F	19.75	C/F	C/F	C/F	7.87	1.00x12	C/F





FF300 Series Electric Actuated Valves



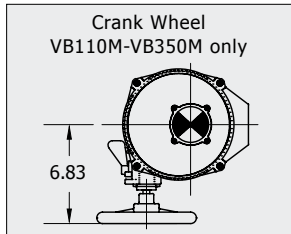
Features:

Actuator

- Aluminum Alloy Enclosure w/Poly Powder Coating
- All Actuators IP67
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- Full Port Split Body ANSI Class 300
- Class 300 29Hg - 740psi, Cold Non-Shock
- Live Loaded Stem Design, Anti-Static Device
- Temp -50°F to 400°F
- Fire Safe Approved API 607-4
- Available with Optional Seats and V-Ball Option C/F



*** Actuator Voltage

- 115V** = 115VAC
- 240V** = 240VAC
- 012D** = 12VDC
- 024D** = 24VDC

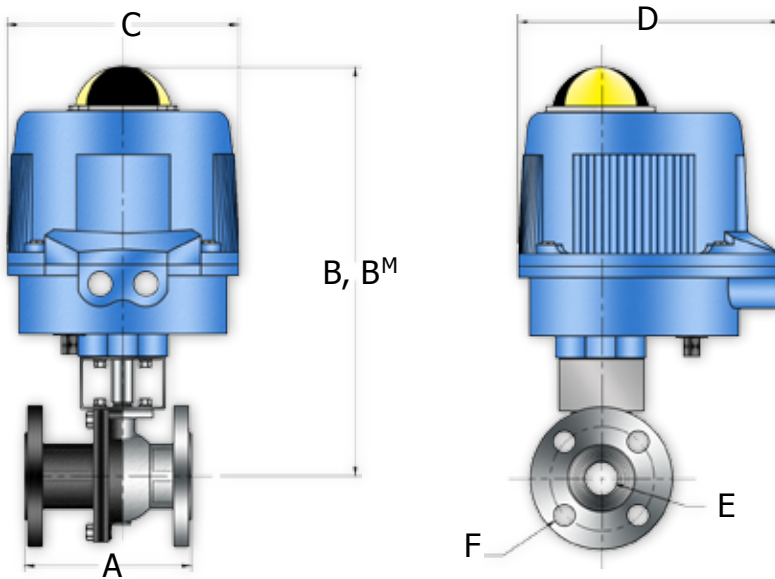
B^M = Metal Actuator Std.

B = Optional ABS Actuator

* Option

S = Stainless

C = Carbon



Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	E	Bracket Kit
		Standard	Optional								
E**M/*2FF300-4	1/2"	VB030M	VB030	5.50	12.20	12.06	6.33	7.34	0.59	0.63x4	BK1-050A
E**M/*2FF300-6	3/4"	VB030M	VB030	6.00	12.51	12.36	6.33	7.34	0.79	0.63x4	BK1-050A
E**M/*2FF300-8	1"	VB030M	VB030	6.50	13.03	12.89	6.33	7.34	0.98	0.63x4	BK1-050B
E**M/*2FF300-12	1-1/2"	VB060M	VB060	7.50	14.72	14.11	6.94	7.82	1.50	0.63x4	BK2-063C
E**M/*2FF300-16	2"	VB060M	VB060	8.50	15.12	14.51	6.94	7.82	1.97	0.63x4	BK2-075C
E**M/*2FF300-24	3"	VB190M	VB190	11.12	17.32	17.70	10.68	9.71	3.00	0.88x8	BK3-075D
E**M/*2FF300-32	4"	VB270M	VB270	12.00	18.20	18.56	10.89	10.08	4.00	0.88x8	BK3-075D



FF150 TT & TL Series Pneumatic Actuated Valves



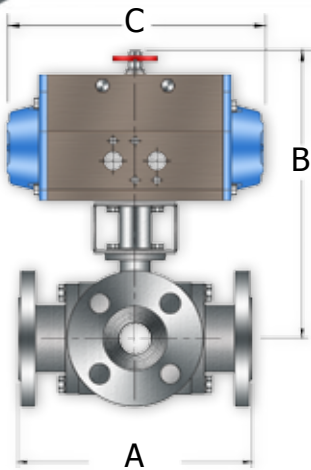
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Full Port 3-Way ANSI Class 150 Flange Valve
- Available in T and L Port
- 3 Seat Design Maintains Proper Ball Position
- Available with Optional Seats



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F	G	Bracket Kit
PD/*2FF150T*-6	3/4"	DA63	6.65	8.47	6.61	3.29	0.63x4	3.33	2.75	BK1-050A
PD/*2FF150T*-8	1"	DA75	7.30	8.98	7.32	3.73	0.63x4	3.65	3.12	BK1-050A
PD/*2FF150T*-12	1-1/2"	DA85	7.17	9.28	9.47	4.17	0.63x4	3.57	3.88	BK1-050B
PD/*2FF150T*-16	2"	DA100	8.66	10.18	10.83	4.84	0.75x4	5.99	4.75	BK2-075C
PD/*2FF150T*-24	3"	DA115	11.26	11.89	13.11	5.39	0.75x4	6.83	5.62	BK3-075D
PD/*2FF150T*-32	4"	DA140	13.66	15.40	17.13	6.46	0.75x8	6.83	7.50	BK3-075D
PD/*2FF150T*-48	6"	DA230	16.77	23.32	27.17	12.80	0.90x8	8.38	9.50	BK3-125D
PD/*2FF150T*-64	8"	DA270	20.94	27.33	27.80	11.58	0.90x8	10.47	11.75	BK4-270EL

* Option

O = Fail open

C = Fail Close

* Option

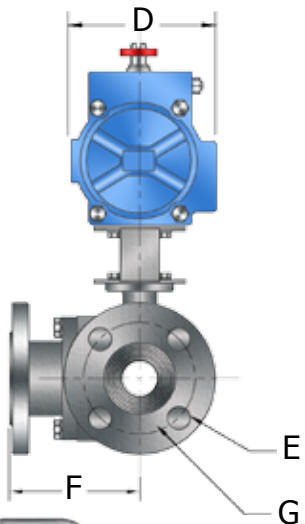
S = Stainless

C = Carbon

* Option

T = T-Port

L = L-Port



Spring Return Dimensions:

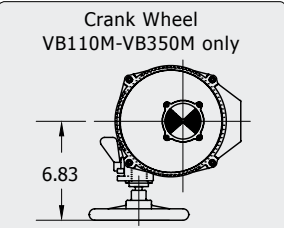
Part No.	Size	Actuator	A	B	C	D	E	F	G	Bracket Kit
P*/*2FF150-6T*	3/4"	SR100	6.65	9.93	10.83	4.84	0.63x4	3.33	2.75	BK1-063A
P*/*2FF150-8T*	1"	SR115	7.30	10.75	13.11	5.39	0.63x4	3.65	3.12	BK1-075A
P*/*2FF150-12T*	1-1/2"	SR115	7.17	11.09	13.11	5.39	0.63x4	3.57	3.88	BK1-075B
P*/*2FF150-16T*	2"	SR140	8.66	15.40	17.13	6.46	0.75x4	4.33	4.75	BK2-075C
P*/*2FF150-24T*	3"	SR180	11.26	16.34	16.69	7.32	0.75x4	5.62	6.00	BK3-125D
P*/*2FF150-32T*	4"	SR230	13.66	21.70	21.17	9.78	0.75x8	6.83	7.50	BK3-125D



FF150 TT & TL Series Electric Actuated Valves



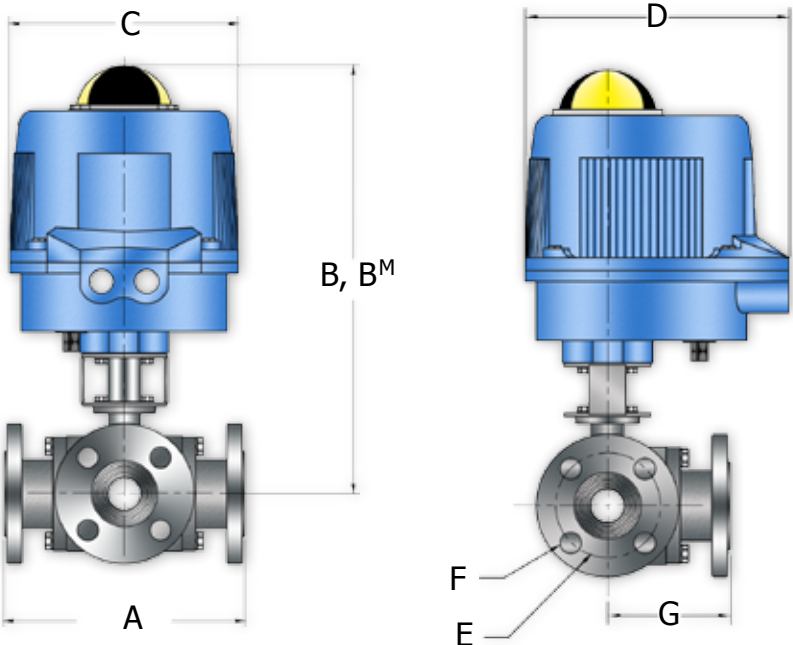
- ### Features:
- Actuator**
- Aluminum Alloy Enclosure w/Poly Powder Coating
 - All Actuators IP67
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
- Valve**
- Full Port 3-Way ANSI Class 150 Flange Valve
 - Available in T and L Port
 - 3 Seat Design Maintains Proper Ball Position
 - Available with Optional Seats



*** Option
Actuator Voltage
115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC
B^M = Metal Actuator Std.
B = Optional ABS Actuator

* Option
S = Stainless
C = Carbon

* Option
T = T-Port
L = L-Port



Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	F	G	Bracket Kit
		Standard	Optional									
E***M/*2FF150T*-6	3/4"	VB060M	VB060	6.65	13.52	12.91	6.94	7.82	2.75	0.63x4	3.33	BK1-050A
E***M/*2FF150T*-8	1"	VB060M	VB060	7.30	13.56	12.95	6.94	7.82	3.12	0.63x4	3.65	BK1-050B
E***M/*2FF150T*-12	1-1/2"	VB110M	VB110	7.17	14.00	14.38	10.68	9.71	3.88	0.63x4	3.57	BK2-063C
E***M/*2FF150T*-16	2"	VB110M	VB110	8.66	14.39	14.77	10.68	9.71	4.75	0.63x4	4.33	BK2-075C
E***M/*2FF150T*-24	3"	VB270M	VB270	11.26	17.42	17.78	10.89	10.08	6.00	0.75x4	5.62	BKS-075D



FF150DM Series Pneumatic Actuated Valves

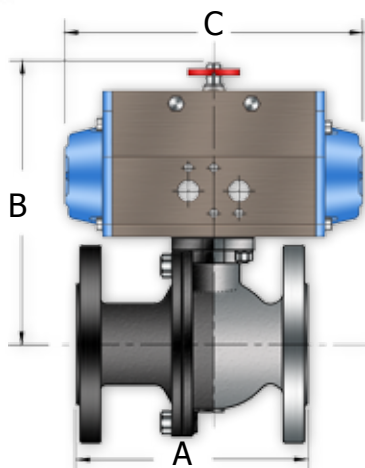
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Full Port ANSI Class 150 Flange Valve
- ISO 5211 Mounting Pad
- Available with V-Ball Option C/F
- Fire Safe Certified to API607, 6TH Edition
- Designed to ANSI B16.5, B16.10, B16.34
- Complies with NACE MR 0175/ISO 15156 and NACE MR 0103

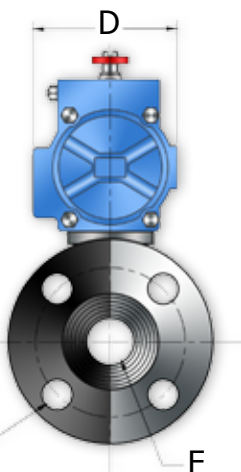


Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F
PD/*2FF150DM-8	1"	DA52	5.00	5.92	5.88	2.82	0.63x4	0.98
PD/*2FF150DM-12	1-1/2"	DA63	6.50	7.43	6.61	3.29	0.63x4	1.50
PD/*2FF150DM-16	2"	DA75	7.01	8.28	7.32	3.73	0.63x4	1.97
PD/*2FF150DM-24	3"	DA85	7.99	9.64	9.47	4.17	0.75x4	3.00
PD/*2FF150DM-32	4"	DA100	10.05	10.72	10.83	4.84	0.75x8	4.00

* Option
S = Stainless
C = Carbon

* Option
O = Fail open
C = Fail Close



Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F
P*/*2FF150DM-8	1"	SR63	5.00	6.53	6.61	3.29	0.63x4	0.98
P*/*2FF150DM-12	1-1/2"	SR85	6.50	8.07	9.47	4.17	0.63x4	1.50
P*/*2FF150DM-16	2"	SR100	7.01	8.96	10.83	4.84	0.63x4	1.97
P*/*2FF150DM-24	3"	SR125	7.99	11.59	14.65	5.83	0.75x4	3.00
P*/*2FF150DM-32	4"	SR125	9.02	12.16	14.65	5.83	0.75x8	4.00



FF150DM Series Electric Actuated Valves

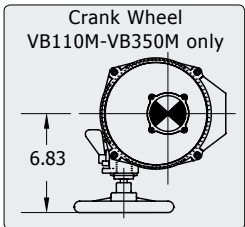


- ### Features:
- Actuator**
- Aluminum Alloy Enclosure w/Poly Powder Coating
 - All Actuators IP67
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
- Valve**
- Full Port ANSI Class 150 Flange Valve
 - ISO 5211 Mounting Pad
 - Available with V-Ball Option C/F
 - Fire Safe Certified to API607, 6TH Edition
 - Designed to ANSI B16.5, B16.10, B16.34
 - Complies with NACE MR 0175/ISO 15156 and NACE MR 0103

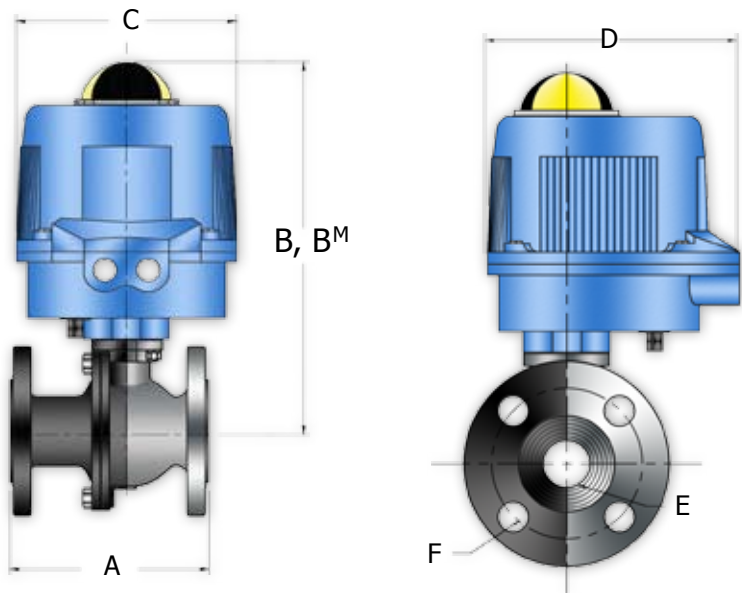
***** Actuator Voltage**

115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC

B^M = Metal Actuator Std.
B = Optional ABS Actuator



* Option
S = Stainless
C = Carbon



Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	F
		Standard	Optional							
E***M/*2FF150DM-8	1"	VB030M	VB030	5.00	10.32	9.69	6.33	7.34	0.98	0.63x4
E***M/*2FF150DM-12	1-1/2"	VB060M	VB060	6.50	11.87	11.61	6.94	7.82	1.50	0.63x4
E***M/*2FF150DM-16	2"	VB060M	VB060	7.00	12.25	11.99	6.94	7.82	1.97	0.63x4
E***M/*2FF150DM-24	3"	VB110M	VB110	8.00	14.37	13.86	10.68	9.71	3.00	0.75x4
E***M/*2FF150DM-32	4"	VB190M	VB190	9.00	14.94	14.43	10.89	9.71	4.00	0.75x8



WFF 150 Series Pneumatic Actuated Valves



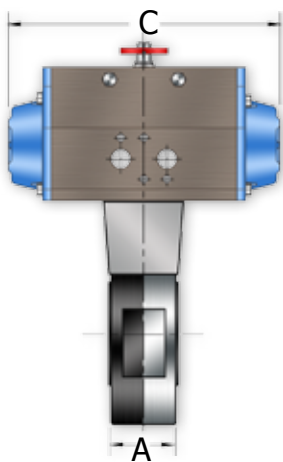
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Full Port Wafer ANSI Class 150
- Class 150 29Hg – 285psi, Cold Non-Shock
- Stainless Steel Ball and Stem
- Blow-Out Proof Stem with Adjustable Stem Packing
- Temperature -4°F to 366°F
- Available with V-Ball Option C/F



Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F	G	Bracket Kit
PD/*WFF150-4	1/2"	DA32	1.37	5.78	5.10	2.02	0.59	4 x 0.50	3.50	RI3012
PD/*WFF150-6	3/4"	DA52	1.57	7.04	5.10	2.82	0.78	4 x 0.50	3.88	RI3013
PD/*WFF150-8	1"	DA52	1.81	7.27	5.10	2.82	0.98	4 x 0.50	4.25	RI3001
PD/*WFF150-10	1-1/4"	DA52	2.12	7.52	5.10	2.82	1.26	4 x 0.50	4.62	RI3008
PD/*WFF150-12	1-1/2"	DA63	2.50	8.79	6.61	3.29	1.57	4 x 0.50	5.00	RI3002
PD/*WFF150-16	2"	DA75	3.22	9.59	7.32	3.73	1.97	4 x 0.63	6.00	RI3009
PD/*WFF150-20	2-1/2"	DA85	4.05	10.33	9.47	4.17	2.52	4 x 0.63	7.00	RI3003
PD/*WFF150-24	3"	DA85	4.80	10.72	9.47	4.17	2.99	4 x 0.63	7.50	RI3003
PD/*WFF150-32	4"	DA100	5.98	11.87	10.83	4.84	3.74	8 x 0.63	9.00	RI3004
PD/*WFF150-40	5"	DA115	7.71	14.51	13.11	5.39	4.92	8 x 0.75	10.00	RI3005
PD/*WFF150-48	6"	DA125	9.13	15.98	14.65	5.83	5.91	8 x 0.75	11.00	RI3006

* Option

- = Fail open
- = Fail Close

* Option

- S = Stainless
- C = Carbon

Spring Return Dimensions:

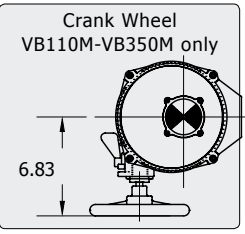
Part No.	Size	Actuator	A	B	C	D	E	F	G	Bracket Kit
P*/*WFF150-4	1/2"	SR52	1.37	6.87	5.10	2.82	0.59	4 x 0.50	3.50	RI3780
P*/*WFF150-6	3/4"	SR63	1.57	7.77	6.61	3.29	0.78	4 x 0.50	3.88	RI3014
P*/*WFF150-8	1"	SR63	1.81	8.24	6.61	3.29	0.98	4 x 0.50	4.25	RI3007
P*/*WFF150-10	1-1/4"	SR63	2.12	8.05	6.61	3.29	1.26	4 x 0.50	4.62	RI3048
P*/*WFF150-12	1-1/2"	SR85	2.50	9.43	9.47	4.17	1.57	4 x 0.50	5.00	RI3009
P*/*WFF150-16	2"	SR100	3.22	10.27	10.83	4.84	1.97	4 x 0.63	6.00	RI3009
P*/*WFF150-20	2-1/2"	SR115	4.05	11.80	13.11	5.39	2.52	4 x 0.63	7.00	RI3010
P*/*WFF150-24	3"	SR125	4.80	12.37	14.65	5.83	2.99	4 x 0.63	7.50	RI3010
P*/*WFF150-32	4"	SR125	5.98	13.28	14.65	5.83	3.74	8 x 0.63	9.00	RI3005
P*/*WFF150-40	5"	SR140	7.71	15.56	17.13	6.46	4.92	8 x 0.75	10.00	RI3037
P*/*WFF150-48	6"	SR160	9.13	17.49	19.69	7.32	5.91	8 x 0.75	11.00	RI3037



WFF 150 Series Electric Actuated Valves



- ## Features:
- Actuator**
- Aluminum Alloy Enclosure w/Poly Powder Coating
 - All Actuators IP67
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
- Valve**
- Full Port Wafer ANSI Class 150
 - Class 150 29Hg – 285psi, Cold Non-Shock
 - Stainless Steel Ball and Stem
 - Blow-Out Proof Stem with Adjustable Stem Packing
 - Temperature -4°F to 366°F
 -

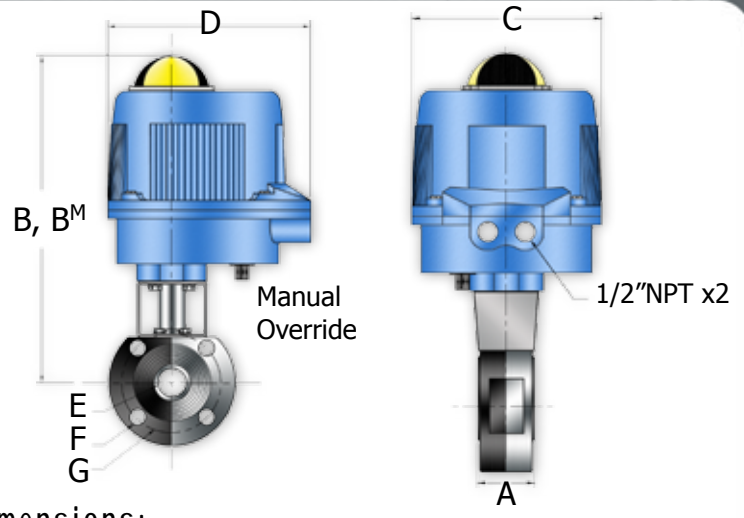


*** Option Actuator Voltage

115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC

B^M = Metal Actuator Std.
 B = Optional ABS Actuator

* Option
 S = Stainless
 C = Carbon



Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	F	G	Bracket Kit
		Standard	Optional									
E***M/*WFF150-4	1/2"	VB015M	VB015	1.37	11.27	8.81	4.84	6.41	0.59	4x0.50	3.50	RI3780
E***M/*WFF150-6	3/4"	VB015M	VB015	1.57	11.44	8.98	4.84	6.41	0.78	4x0.50	3.88	RI3013
E***M/*WFF150-8	1"	VB030M	VB030	1.81	11.67	11.04	6.18	7.48	0.98	4x0.50	4.25	RI3001
E***M/*WFF150-10	1-1/4"	VB030M	VB030	2.12	11.91	11.28	6.18	7.48	1.26	4x0.50	4.62	RI3008
E***M/*WFF150-12	1-1/2"	VB060M	VB060	2.50	13.22	12.96	7.28	8.43	1.57	4x0.50	5.00	RI3002
E***M/*WFF150-16	2"	VB060M	VB060	3.22	12.66	12.40	7.28	8.43	1.97	4x0.63	6.00	RI3002
E***M/*WFF150-20	2-1/2"	VB110M	VB110	4.05	15.15	14.64	8.31	9.33	2.52	4x0.63	7.00	RI3003
E***M/*WFF150-24	3"	VB110M	VB110	4.80	15.45	14.94	8.31	9.33	2.99	4x0.63	7.50	RI3003
E***M/*WFF150-32	4"	VB190M	VB190	5.98	16.24	15.63	8.74	9.72	3.74	8x0.63	9.00	RI3004
E***M/*WFF150-40	5"	VB190M	VB190	7.71	17.92	17.31	8.74	9.72	4.92	8x0.75	10.00	RI3004
E***M/*WFF150-64	6"	VB350M	VB350	9.13	18.91	18.30	8.74	9.72	5.91	8x0.75	11.00	RI3006



WFF 300 Series Pneumatic Actuated Valves



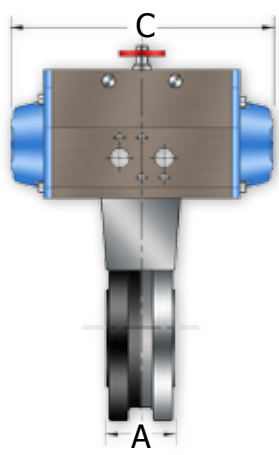
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- Full Port Wafer ANSI Class 300
- Class 300 29Hg - 740psi, Cold Non-Shock
- Stainless Steel Ball and Stem
- Blow-Out Proof Stem with Adjustable Stem Packing
- Temperature -4°F to 366°F
- Available with V-Ball Option C/F

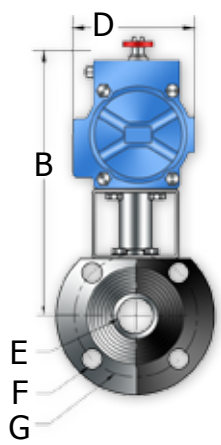


Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	F	G	Bracket Kit
PD/*WFF300-4	1/2"	DA52	1.38	7.03	5.10	2.02	0.59	4 x 0.50	3.75	RI3780
PD/*WFF300-6	3/4"	DA63	1.57	7.94	6.61	3.29	0.78	4 x 0.63	4.62	RI3014
PD/*WFF300-8	1"	DA63	1.81	8.17	6.61	3.29	0.98	4 x 0.63	4.88	RI3007
PD/*WFF300-10	1-1/4"	DA63	2.12	8.17	6.61	3.29	1.26	4 x 0.63	5.25	RI3048
PD/*WFF300-12	1-1/2"	DA85	2.50	8.83	9.47	4.17	1.57	4 x 0.75	6.12	RI3009
PD/*WFF300-16	2"	DA100	3.22	10.90	10.83	4.84	1.97	8 x 0.63	6.50	RI3009
PD/*WFF300-20	2-1/2"	DA115	4.05	12.17	13.11	5.39	2.52	8 x 0.75	7.50	RI3010
PD/*WFF300-24	3"	DA125	4.80	14.11	14.65	5.83	2.99	8 x 0.75	8.25	RI3010
PD/*WFF300-32	4"	DA125	5.98	14.55	14.65	5.83	3.74	8 x 0.75	10.00	RI3005
PD/*WFF300-64	6"	DA160	9.13	19.13	19.69	7.32	5.91	12 x 0.75	12.50	RI3039

- * Option
 O = Fail open
 C = Fail Close

- * Option
 S = Stainless
 C = Carbon



Spring Return Dimensions:

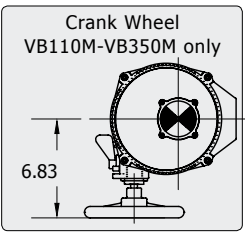
Part No.	Size	Actuator	A	B	C	D	E	F	G	Bracket Kit
P*/*WFF300-4	1/2"	SR63	1.37	7.68	6.61	3.29	0.59	4 x 0.50	3.75	RI3780
P*/*WFF300-6	3/4"	SR85	1.57	7.82	9.47	4.17	0.78	4 x 0.63	4.62	RI3014
P*/*WFF300-8	1"	SR85	1.81	8.05	9.47	4.17	0.98	4 x 0.63	4.88	RI3007
P*/*WFF300-10	1-1/4"	SR100	2.12	9.32	10.83	4.84	1.26	4 x 0.63	5.25	RI3048
P*/*WFF300-12	1-1/2"	SR100	2.50	10.10	10.83	4.84	1.57	4 x 0.75	6.12	RI3009
P*/*WFF300-16	2"	SR115	3.22	11.59	13.11	5.39	1.97	8 x 0.63	6.50	RI3009
P*/*WFF300-20	2-1/2"	SR125	4.05	12.65	14.65	5.83	2.52	8 x 0.75	7.50	RI3010
P*/*WFF300-24	3"	SR140	4.80	13.85	17.13	6.46	2.99	8 x 0.75	8.25	RI3010
P*/*WFF300-32	4"	SR160	5.98	16.20	18.03	6.86	3.74	8 x 0.75	10.00	RI3005
P*/*WFF300-64	6"	SR270	9.13	22.11	28.46	11.42	5.91	12 x 0.75	12.50	RI3039



WFF 300 Series Electric Actuated Valves



- ## Features:
- Actuator**
 - Aluminum Alloy Enclosure w/Poly Powder Coating
 - All Actuators IP67
 - Heater Thermostat Standard
 - Manual Override Standard
 - Two Auxiliary Limit Switches Standard
 - Battery Backup or 4-20mA Positioner Optional
 - Valve**
 - Full Port Wafer ANSI Class 300
 - Class 300 29Hg - 740psi, Cold Non-Shock
 - Stainless Steel Ball and Stem
 - Blow-Out Proof Stem with Adjustable Stem Packing
 - Temperature -4°F to 366°F
 - Available with V-Ball Option C/F

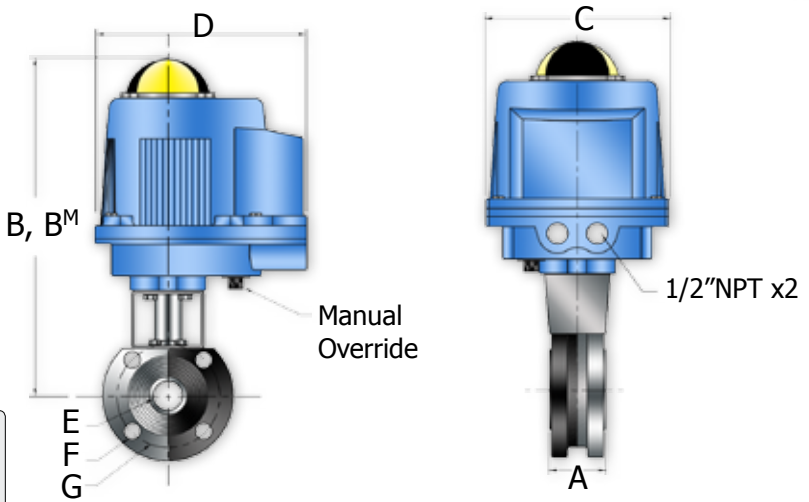


*** Option Actuator Voltage

115V = 115VAC
240V = 240VAC
012D = 12VDC
024D = 24VDC

B^M = Metal Actuator Std.
 B = Optional ABS Actuator

* Option
 S = Stainless
 C = Carbon

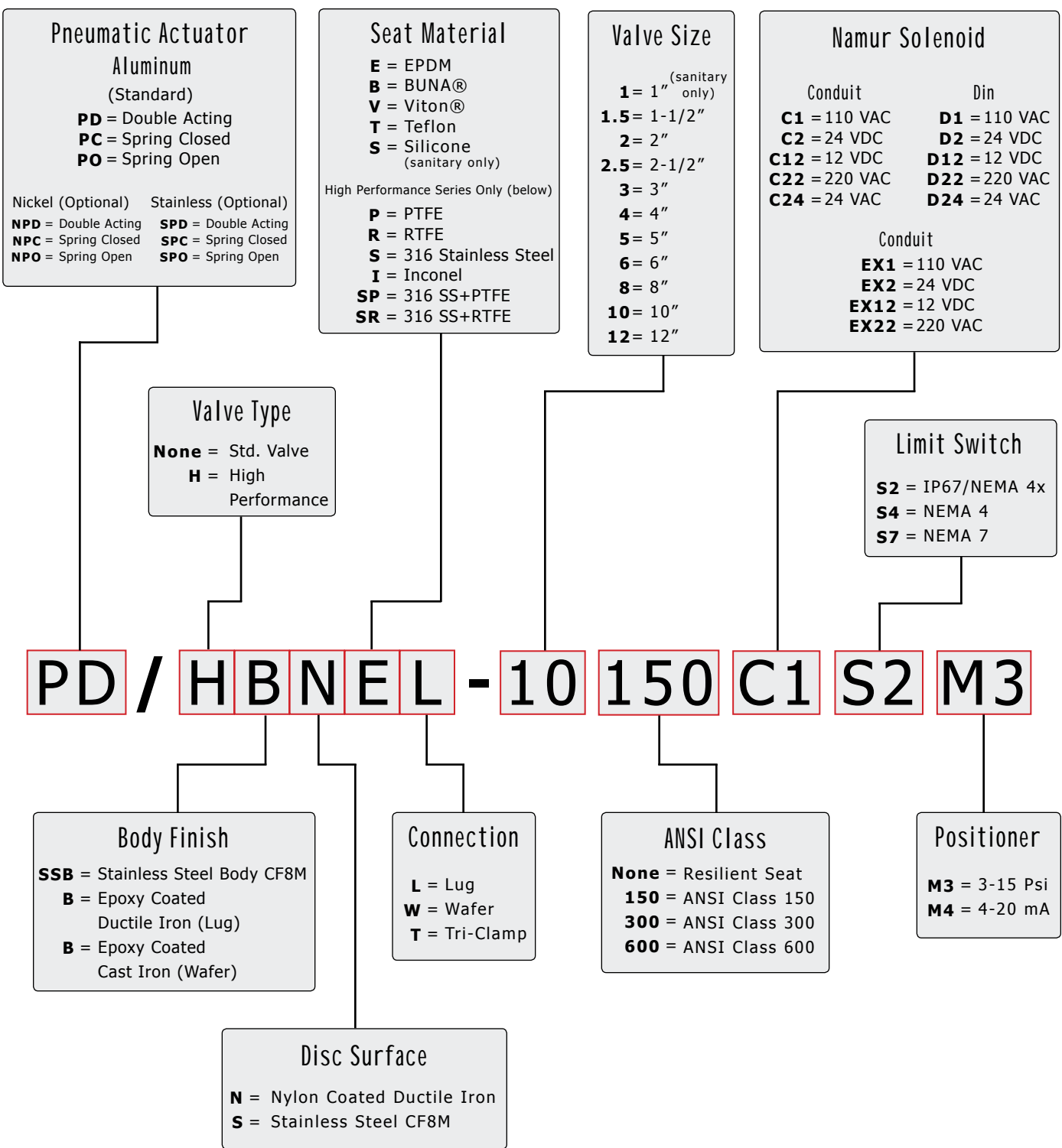


Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	F	G	Bracket Kit
		Standard	Optional									
E***M/*WFF300-4	1/2"	VB030M	VB030	1.38	11.43	10.80	6.18	7.48	0.59	4x0.50	3.75	RI3780
E***M/*WFF300-6	3/4"	VB060M	VB060	1.57	12.38	12.12	7.28	8.43	0.78	4x0.63	4.62	RI3013
E***M/*WFF300-8	1"	VB060M	VB060	1.81	12.60	12.34	7.28	8.43	0.98	4x0.63	4.88	RI3001
E***M/*WFF300-10	1-1/4"	VB060M	VB060	2.12	12.60	12.34	7.28	8.43	1.26	4x0.63	5.25	RI3008
E***M/*WFF300-12	1-1/2"	VB110M	VB110	2.50	14.32	13.81	8.31	9.33	1.57	4x0.75	6.12	RI3002
E***M/*WFF300-16	2"	VB110M	VB110	3.22	14.85	14.34	8.31	9.33	1.97	8x0.63	6.50	RI3002
E***M/*WFF300-20	2-1/2"	VB270M	VB270	4.05	15.43	14.82	8.74	9.72	2.52	8x0.75	7.50	RI3003
E***M/*WFF300-24	3"	VB270M	VB270	4.80	15.90	15.29	8.74	9.72	2.99	8x0.75	8.25	RI3003
E***M/*WFF300-32	4"	VB350M	VB350	5.98	17.46	16.85	8.74	9.72	3.74	8x0.75	10.00	RI3004

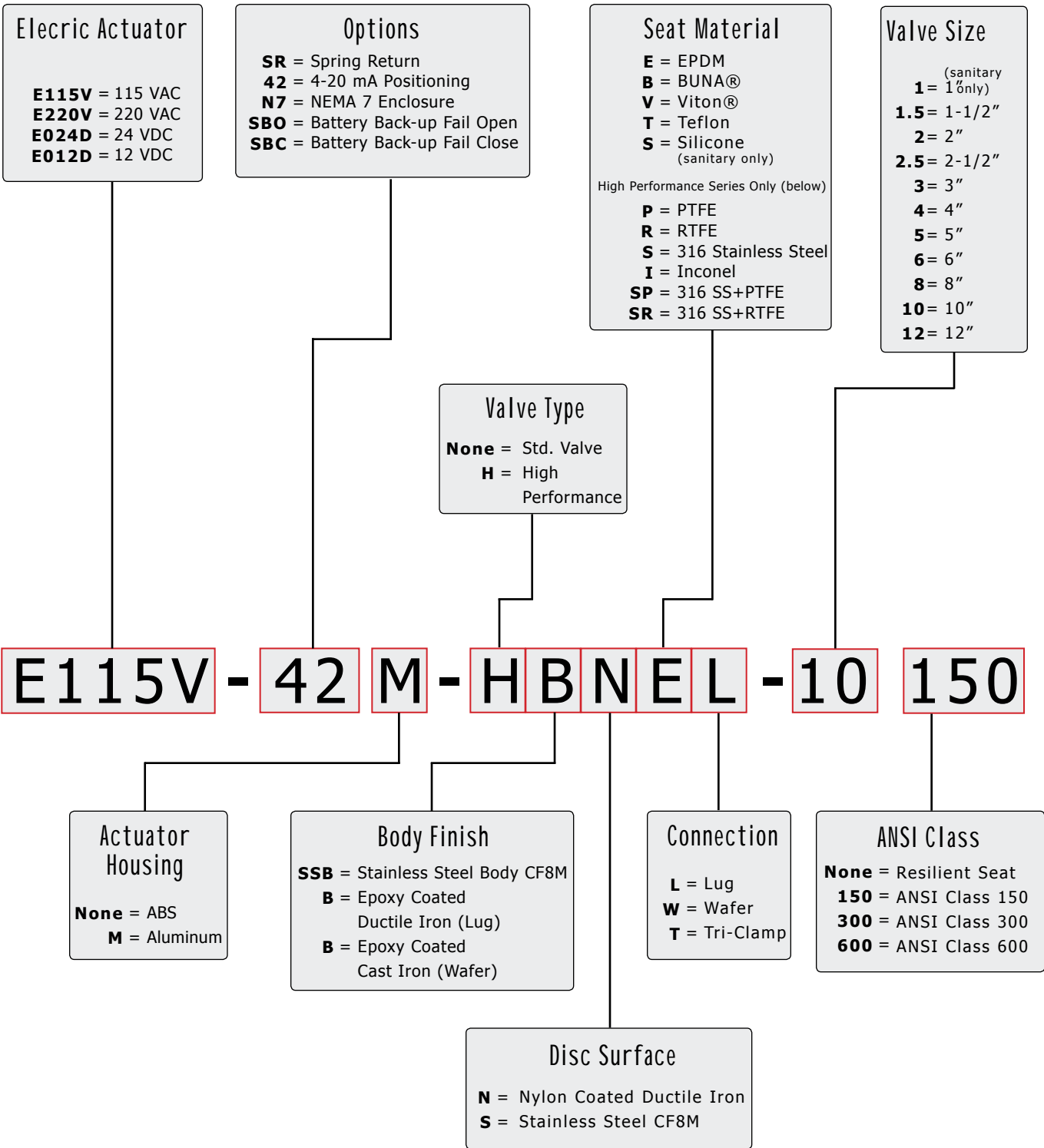


Pneumatic Actuated Butterfly Valve Ordering Matrix





Electric Actuated Butterfly Valve Ordering Matrix





RS Butterfly Series Pneumatic Actuated Valves



Lug

Wafer

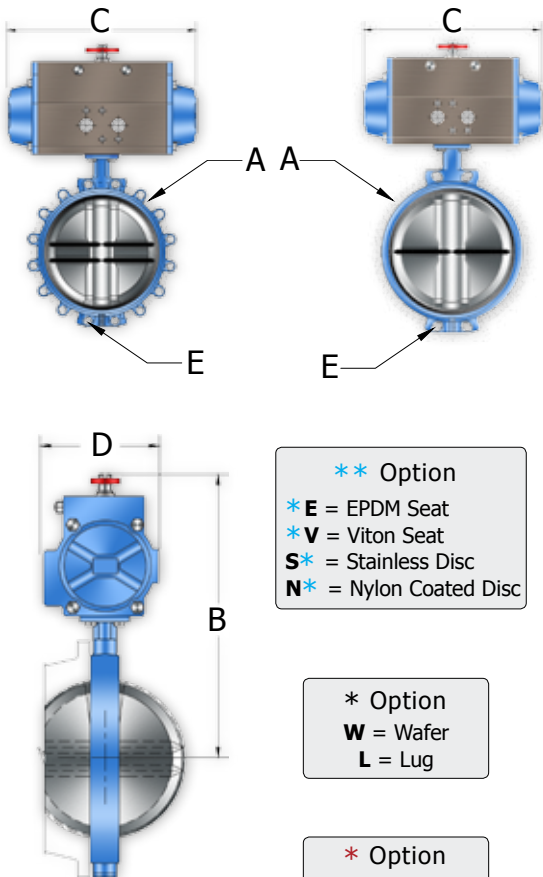
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- ANSI 125 & ANSI 150 CLASS
- ISO 5211 Mounting Pad
- Epoxy Coated Cast Iron Body
- EPDM Resilient Seat (Standard)
- API609 Face to Face Flange
- Temperature -30°F to 250°F



- ** Option
- * E = EPDM Seat
- * V = Viton Seat
- S* = Stainless Disc
- N* = Nylon Coated Disc

- * Option
- W = Wafer
- L = Lug

- * Option
- O = Fail open
- C = Fail Close

Double Acting Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	
							Lug	Wafer
PD/B***-1.5	1-1/2"	DA52	3.88	8.63	5.88	2.82	4x5/8-11	4 x 0.75
PD/B***-2	2"	DA52	4.75	9.13	5.88	2.82	4x5/8-11	4 x 0.75
PD/B***-2.5	2-1/2"	DA52	5.50	9.61	5.88	2.82	4x5/8-11	4 x 0.75
PD/B***-3	3"	DA 63	6.00	10.54	6.61	3.29	4x5/8-11	4 x 0.75
PD/B***-4	4"	DA75	7.50	12.24	8.27	3.72	8x3/4-10	4 x 0.75
PD/B***-5	5"	DA75	8.50	12.71	8.27	3.72	8x3/4-10	4 x 0.87
PD/B***-6	6"	DA85	9.50	15.12	9.47	4.17	8x3/4-10	4 x 0.87
PD/B***-8	8"	DA100	11.75	17.63	10.83	4.84	8x3/4-10	4 x 0.87
PD/B***-10	10"	DA125	14.25	19.55	14.65	5.83	12x7/8-9	4 x 1.00
PD/B***-12	12"	DA140	17.00	22.21	17.13	6.46	12x7/8-9	4 x 1.00

Spring Return Dimensions:

Part No.	Size	Actuator	A	B	C	D	E	
							Lug	Wafer
P*/B***-1.5	1-1/2"	SR75	3.88	10.46	7.32	3.73	4x5/8-11	4 x 0.75
P*/B***-2	2"	SR75	4.75	11.09	7.32	3.73	4x5/8-11	4 x 0.75
P*/B***-2.5	2-1/2"	SR75	5.50	12.05	8.27	3.72	4x5/8-11	4 x 0.75
P*/B***-3	3"	SR85	6.00	12.84	9.47	4.17	4x5/8-11	4 x 0.75
P*/B***-4	4"	SR100	7.50	14.08	10.83	4.84	8x3/4-10	4 x 0.75
P*/B***-5	5"	SR115	8.50	15.91	13.11	5.39	8x3/4-10	4 x 0.87
P*/B***-6	6"	SR125	9.50	17.84	14.65	5.83	8x3/4-10	4 x 0.87
P*/B***-8	8"	SR160	11.75	20.12	19.69	7.32	8x3/4-10	4 x 0.87
P*/B***-10	10"	SR200	14.25	23.63	22.76	8.54	12x7/8-9	4 x 1.00
P*/B***-12	12"	C/F	17.00	C/F	C/F	C/F	12x7/8-9	4 x 1.00



RS Butterfly Series Electric Actuated Valves



Lug

Wafer

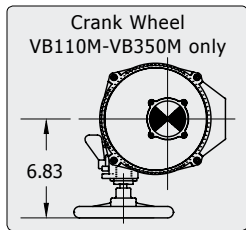
Actuator

- Aluminum Alloy Enclosure w/Poly Powder Coating
- All Actuators IP67
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Features:

Valve

- ANSI 125 & ANSI 150 CLASS
- ISO 5211 Mounting Pad
- Epoxy Coated Cast Iron Body
- EPDM Resilient Seat (Standard)
- API609 Face to Face Flange
- Temperature -30°F to 250°F



*** Option
Actuator Voltage

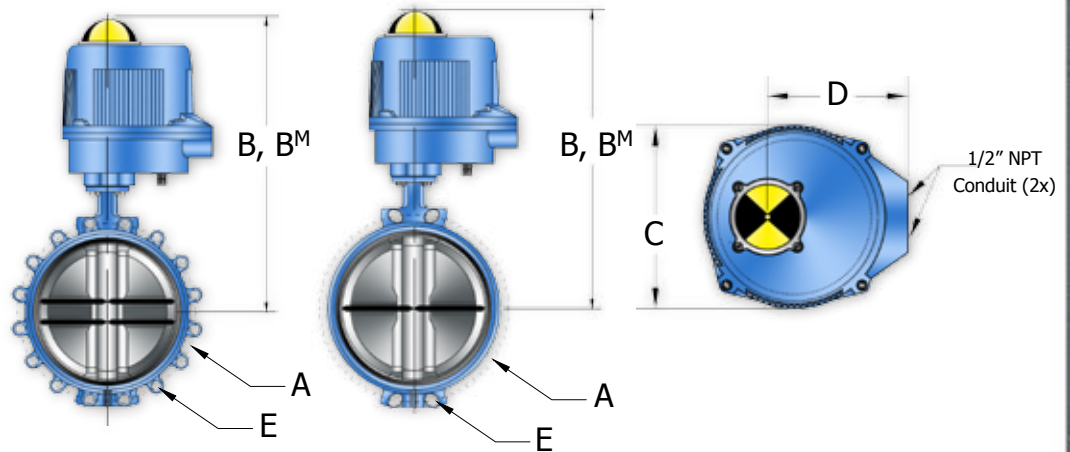
- 115V** = 115VAC
- 240V** = 240VAC
- 012D** = 12VDC
- 024D** = 24VDC

B^M = Metal Actuator Std.

B = Optional ABS Actuator

- ** Option
- * **E** = EPDM Seat
 - * **V** = Viton Seat
 - S*** = Stainless Disc
 - N*** = Nylon Coated Disc

- * Option
- W** = Wafer
 - L** = Lug



Dimensions:

Part No.	Size	Actuator		A	B ^M	B	C	D	E	
		Standard	Optional						Lug	Wafer
E***M/B***-1.5	1-1/2"	VB030M	VB030	3.88	13.74	14.37	7.34	6.33	4x5/8-11	4 x 0.75
E***M/B***-2	2"	VB030M	VB030	4.75	14.37	15.00	7.34	6.33	4x5/8-11	4 x 0.75
E***M/B***-2.5	2-1/2"	VB030M	VB030	5.50	14.92	15.55	7.34	6.33	4x5/8-11	4 x 0.75
E***M/B***-3	3"	VB030M	VB030	6.00	15.16	15.79	7.34	6.33	4x5/8-11	4 x 0.75
E***M/B***-4	4"	VB060M	VB060	7.50	16.59	16.85	7.82	6.94	8x5/8-11	4 x 0.75
E***M/B***-5	5"	VB110M	VB110	8.50	17.99	18.55	10.68	4.00	8x3/4-10	4 x 0.87
E***M/B***-6	6"	VB190M	VB190	9.50	18.55	19.06	10.68	4.00	8x3/4-10	4 x 0.87
E***M/B***-8	8"	VB270M	VB270	11.75	20.04	20.65	10.89	10.08	8x3/4-10	4 x 0.87
E***M/B***-10	10"	VB350M	VB350	14.25	21.30	21.91	10.89	10.08	12x7/8-9	4 x 1.00
E***M/B***-12	12"	VB350M	VB350	17.00	C/F	C/F	C/F	C/F	12x7/8-9	4 x 1.00



HBCL & HBSL 150 Series Pneumatic Actuated Valves

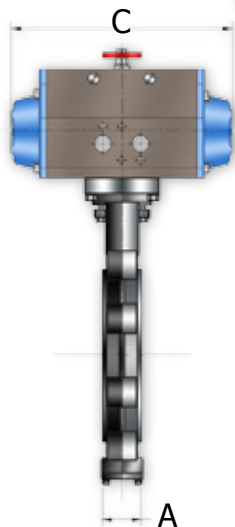
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- ANSI Class 150
- ISO 5211 Mounting Pad
- V-Ring Stem Packing with Easy Access Adjustment
- Cast Disc Stop to Prevent Seat Damage
- RPTFE/SS Self Lubricating Stem Bearing on Top and Bottom
- Compatible with both Standard and Spiral Wound Gasket Design
- All Valves are Leak tested per API 598, and Tagged per MSS-SP25 & API 609B
- Fire Safe Available C/F



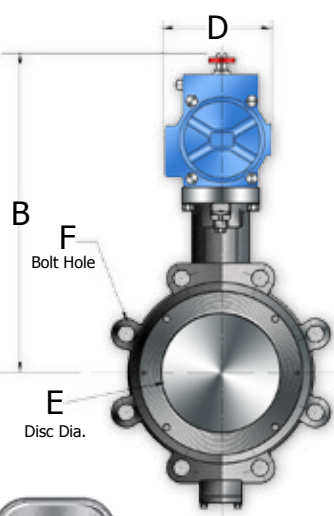
150 Class Lug Double Acting Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
PD/HB*L150-2	2"	DA63	DA75	1.69	9.87	9.96	6.61	7.32	3.29	3.73	1.93	5/8-11x4	
PD/HB*L150-2.5	2-1/2"	DA75	DA85	1.81	10.79	11.34	7.32	9.47	3.73	4.17	2.44	5/8-11x4	
PD/HB*L150-3	3"	DA75	DA100	1.89	11.18	12.34	7.32	10.83	3.73	4.84	2.87	5/8-11x4	
PD/HB*L150-4	4"	DA75	DA100	2.13	11.97	13.03	7.32	10.83	3.73	4.84	3.74	5/8-11x8	
PD/HB*L150-5	5"	DA100	DA115	2.20	13.54	14.50	10.83	13.11	4.84	5.39	4.72	3/4-10x8	
PD/HB*L150-6	6"	DA100	DA125	2.24	14.84	16.28	10.83	14.65	4.84	5.83	5.55	3/4-10x8	
PD/HB*L150-8	8"	DA115	DA140	2.52	17.89	18.78	13.11	17.13	5.39	6.46	7.64	3/4-10x8	
PD/HB*L150-10	10"	DA125	DA160	2.83	19.88	20.82	14.63	19.69	5.83	7.32	9.41	7/8-9x12	
PD/HB*L150-12	12"	DA140	DA180	3.19	21.50	23.70	17.13	19.41	6.46	8.38	11.30	7/8-9x12	
PD/HB*L150-14	14"	DA160	DA200	3.62	23.82	26.49	19.69	22.76	7.32	8.54	13.03	1.0-8x12	
PD/HB*L150-16	16"	DA180	DA230	4.02	27.48	30.32	19.41	27.17	8.38	9.78	15.08	1.0-8x16	
PD/HB*L150-18	18"	DA200	DA230	4.49	29.44	31.32	22.76	27.17	8.54	9.78	17.09	1 1/8-8x16	
PD/HB*L150-20	20"	DA230	DA270	5.00	33.07	35.98	27.17	28.46	9.78	11.42	18.98	1 1/8-8x20	
PD/HB*L150-24	24"	DA270	DA330	6.06	38.54	44.63	28.46	34.69	11.42	15.83	22.83	1 1/8-8x20	

* Option S = Stainless
 C = Carbon

150 Class Lug Spring Return Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
PS/HB*L150-2	2"	SR100	SR115	1.65	11.02	11.98	10.83	7.32	4.84	5.39	1.93	5/8-11x4	
PS/HB*L150-2.5	2-1/2"	SR115	SR140	1.81	12.81	14.18	13.11	9.47	5.39	6.46	2.44	5/8-11x4	
PS/HB*L150-3	3"	SR115	SR140	1.89	13.20	14.57	13.11	10.83	5.39	6.46	2.87	5/8-11x4	
PS/HB*L150-4	4"	SR115	SR160	2.13	13.99	16.53	13.11	10.83	5.39	7.32	3.74	5/8-11x8	
PS/HB*L150-5	5"	SR140	SR180	2.20	15.87	18.30	17.13	13.11	6.46	8.38	4.72	3/4-10x8	
PS/HB*L150-6	6"	SR160	SR200	2.24	18.11	20.58	19.69	14.65	7.32	8.54	5.55	3/4-10x8	
PS/HB*L150-8	8"	SR180	SR230	2.52	20.98	23.82	19.41	17.13	8.38	9.78	7.64	3/4-10x8	
PS/HB*L150-10	10"	SR200	SR230	2.83	23.06	24.92	22.76	19.69	8.54	9.78	9.41	7/8-9x12	
PS/HB*L150-12	12"	SR230	SR270	3.19	26.50	29.45	27.17	19.41	9.78	11.42	11.30	7/8-9x12	
PS/HB*L150-14	14"	SR270	N/A	3.62	31.26	26.49	28.46	22.76	11.42	N/A	13.03	1.0-8x12	
PS/HB*L150-16	16"	SR270	N/A	4.02	33.22	30.32	28.46	27.17	11.42	N/A	15.08	1.0-8x16	



AV50



HBCL & HBSL 300 Series Pneumatic Actuated Valves



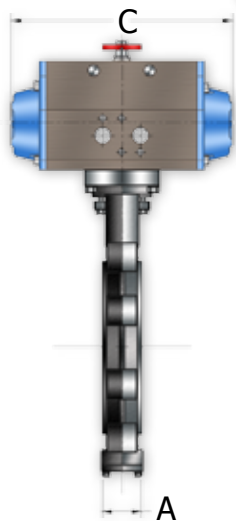
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

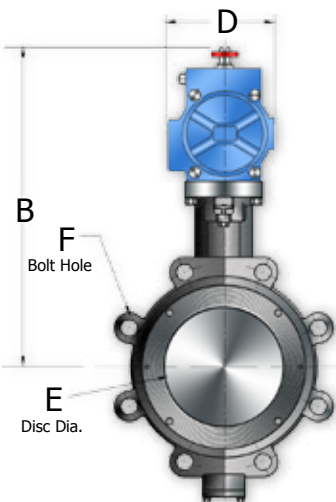
- ANSI Class 300
- ISO 5211 Mounting Pad
- V-Ring Stem Packing with Easy Access Adjustment
- Cast Disc Stop to Prevent Seat Damage
- RPTFE/SS Self Lubricating Stem Bearing on Top and Bottom
- Compatible with both Standard and Spiral Wound Gasket Design
- All Valves are Leak tested per API 598, and Tagged per MSS-SP25 & API 609B
- Fire Safe Available C/F



300 Class Lug Double Acting Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	Soft	Metal	All
PD/HB*L300-2	2"	DA75	DA85	1.69	9.87	10.84	8.27	9.47	3.72	4.17	1.93	5/8-11x8	
PD/HB*L300-2.5	2-1/2"	DA75	DA100	1.81	10.79	11.88	8.27	10.83	3.72	4.84	2.44	3/4-10x8	
PD/HB*L300-3	3"	DA85	DA100	1.89	11.76	12.47	9.47	10.83	4.17	4.84	2.87	5/8-11x8	
PD/HB*L300-4	4"	DA85	DA115	2.13	12.75	14.22	7.32	13.11	3.73	5.39	3.74	5/8-11x8	
PD/HB*L300-5	5"	DA100	DA125	2.20	13.54	15.21	10.83	14.65	4.84	5.83	4.72	3/4-10x8	
PD/HB*L300-6	6"	DA115	DA125	2.24	16.23	16.91	13.11	14.65	5.39	5.83	5.55	3/4-10x12	
PD/HB*L300-8	8"	DA125	DA160	2.52	18.43	20.31	14.63	19.69	5.83	7.32	7.64	7/8-9x12	
PD/HB*L300-10	10"	DA140	DA180	2.83	19.88	23.22	17.13	19.41	6.46	8.38	9.41	1.0-8x16	
PD/HB*L300-12	12"	DA160	DA180	3.19	23.97	25.23	19.69	22.76	7.32	8.38	11.30	1 1/8-8x16	
PD/HB*L300-14	14"	DA180	DA230	3.62	26.49	29.33	19.69	27.17	8.38	9.78	13.03	1 1/8-8x20	
PD/HB*L300-16	16"	DA230	DA270	4.02	31.10	34.01	27.17	28.46	9.78	11.42	15.08	1.0-8x20	
PD/HB*L300-18	18"	DA230	DA270	4.49	32.87	35.78	22.76	28.46	8.54	11.42	17.09	1 1/8-8x24	
PD/HB*L300-20	20"	DA270	N/A	5.00	37.95	N/A	28.46	N/A	11.42	N/A	18.98	1 1/8-8x24	

* Option S = Stainless
 C = Carbon



300 Class Lug Spring Return Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
PS/HB*L300-2	2"	SR115	SR140	1.69	12.01	13.38	13.11	17.13	5.39	6.46	1.93	5/8-11x4	
PS/HB*L300-2.5	2-1/2"	SR115	SR160	1.81	12.81	15.15	13.11	19.69	5.39	7.32	2.44	5/8-11x4	
PS/HB*L300-3	3"	SR115	SR160	1.89	13.20	15.54	13.11	19.69	5.39	7.32	2.87	5/8-11x4	
PS/HB*L300-4	4"	SR140	SR180	2.13	15.39	17.59	17.13	19.41	6.46	8.38	3.74	5/8-11x8	
PS/HB*L300-5	5"	SR160	SR200	2.20	16.84	19.28	19.69	22.76	7.32	8.54	4.72	3/4-10x8	
PS/HB*L300-6	6"	SR160	SR200	2.24	18.11	20.58	19.69	14.65	7.32	8.54	5.55	3/4-10x8	
PS/HB*L300-8	8"	SR200	SR230	2.52	22.55	23.82	22.76	17.13	8.54	9.78	7.64	3/4-10x8	
PS/HB*L300-10	10"	SR230	SR270	2.83	26.06	28.97	27.17	28.46	9.78	11.42	9.41	7/8-9x12	
PS/HB*L300-12	12"	SR270	SR270	3.19	30.98	30.98	28.46	28.46	11.42	11.42	11.30	7/8-9x12	
PS/HB*L300-14	14"	SR270	N/A	3.62	32.24	N/A	28.46	N/A	11.42	N/A	13.03	1.0-8x12	



HBCL & HBSL 150/300 Series Electric Actuated Valves

Features:

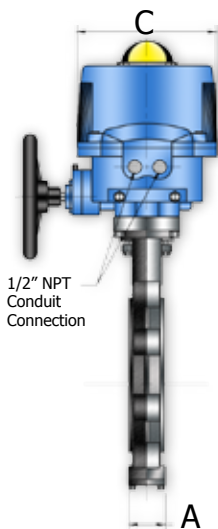


Actuator

- Aluminum Alloy Enclosure w/Poly Powder Coating
- All Actuators IP67
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- ANSI Class 150/300
- ISO 5211 Mounting Pad
- V-Ring Stem Packing with Easy Access Adjustment
- Cast Disc Stop to Prevent Seat Damage
- RPTFE/SS Self Lubricating Stem Bearing on Top and Bottom
- Compatible with both Standard and Spiral Wound Gasket Design
- All Valves are Leak tested per API 598, and Tagged per MSS-SP25 & API 609B
- Fire Safe Available C/F



150 Class Lug Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
E***M/HB*L150-2	2"	VB060M	VB110M	1.69	14.34	15.27	6.94	10.68	7.82	9.71	1.93	5/8-11x4	
E***M/HB*L150-2.5	2-1/2"	VB060M	VB110M	1.81	15.17	16.10	6.94	10.68	7.82	9.71	2.44	5/8-11x4	
E***M/HB*L150-3	3"	VB060M	VB190M	1.89	15.56	16.49	6.94	10.68	7.82	9.71	2.87	5/8-11x4	
E***M/HB*L150-4	4"	VB110M	VB190M	2.13	17.48	17.28	10.68	10.68	9.71	9.71	3.74	5/8-11x8	
E***M/HB*L150-5	5"	VB190M	VB270M	2.20	17.99	17.94	10.68	10.89	9.71	10.08	4.72	3/4-10x8	
E***M/HB*L150-6	6"	VB190M	VB270M	2.24	19.29	19.44	10.68	10.89	9.71	10.08	5.55	3/4-10x8	
E***M/HB*L150-8	8"	VB190M	N/A	2.52	20.67	N/A	10.68	N/A	9.71	N/A	7.64	3/4-10x8	
E***M/HB*L150-10	10"	VB350M	N/A	2.83	11.14	N/A	10.89	N/A	10.08	N/A	9.41	7/8-9x12	

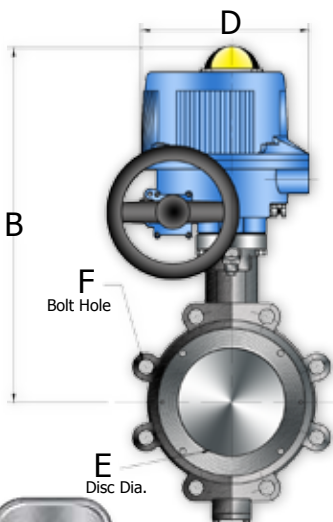
*** Actuator Voltage

115V = 115VAC **012D** = 12VDC
240V = 240VAC **024D** = 24VDC

* Option **S** = Stainless
 C = Carbon

300 Class Lug Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
E***M/HB*L300-2	2"	VB060M	VB110M	1.69	14.34	15.27	6.94	10.68	7.82	9.71	1.93	5/8-11x8	
E***M/HB*L300-2.5	2-1/2"	VB110M	VB190M	1.81	16.10	16.10	6.94	10.68	9.71	9.71	2.44	3/4-10x8	
E***M/HB*L300-3	3"	VB110M	VB190M	1.89	16.49	16.49	6.94	10.68	9.71	9.71	2.87	5/8-11x8	
E***M/HB*L300-4	4"	VB110M	VB270M	2.13	17.48	17.83	10.68	10.68	9.71	9.71	3.74	5/8-11x8	
E***M/HB*L300-5	5"	VB190M	N/A	2.20	17.99	N/A	10.68	N/A	9.71	N/A	4.72	3/4-10x8	
E***M/HB*L300-6	6"	VB190M	N/A	2.32	19.29	N/A	10.68	N/A	9.71	N/A	5.55	3/4-10x12	
E***M/HB*L300-8	8"	VB350M	N/A	2.87	21.41	N/A	10.68	N/A	9.71	N/A	7.64	7/8-9x12	



HBCW & HBSW 150/300 Series Electric Actuated Valves



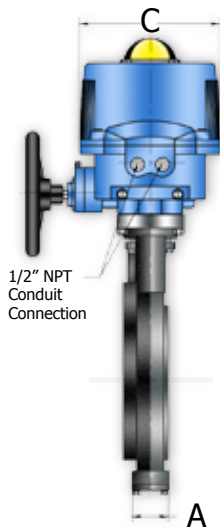
Features:

Actuator

- Aluminum Alloy Enclosure w/Poly Powder Coating
- All Actuators IP67
- Heater Thermostat Standard
- Manual Override Standard
- Two Auxiliary Limit Switches Standard
- Battery Backup or 4-20mA Positioner Optional

Valve

- ANSI Class 150/300
- ISO 5211 Mounting Pad
- V-Ring Stem Packing with Easy Access Adjustment
- Cast Disc Stop to Prevent Seat Damage
- RPTFE/SS Self Lubricating Stem Bearing on Top and Bottom
- Compatible with both Standard and Spiral Wound Gasket Design
- All Valves are Leak tested per API 598, and Tagged per MSS-SP25 & API 609B
- Fire Safe Available C/F



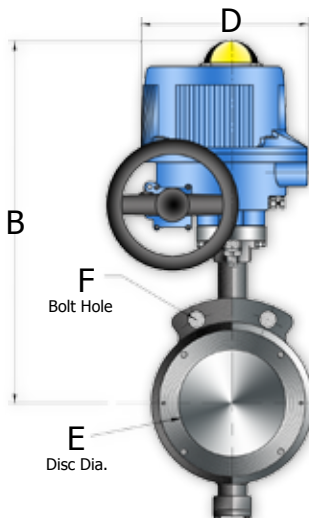
150 Class Wafer Dimensions:

Part No.	Size	Actuator		A			B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All		
E***M/HB*W150-2	2"	VB060M	VB110M	1.69	14.34	15.27	6.94	10.68	7.82	9.71	1.93	0.79x2		
E***M/HB*W150-2.5	2-1/2"	VB060M	VB110M	1.81	15.17	16.10	6.94	10.68	7.82	9.71	2.44	0.79x2		
E***M/HB*W150-3	3"	VB060M	VB190M	1.89	15.56	16.49	6.94	10.68	7.82	9.71	2.87	0.79x2		
E***M/HB*W150-4	4"	VB110M	VB190M	2.13	17.48	17.28	10.68	10.68	9.71	9.71	3.74	0.79x2		
E***M/HB*W150-5	5"	VB190M	VB270M	2.20	17.99	17.94	10.68	10.89	9.71	10.08	4.72	0.91x2		
E***M/HB*W150-6	6"	VB190M	VB270M	2.24	19.29	19.44	10.68	10.89	9.71	10.08	5.55	0.91x2		
E***M/HB*W150-8	8"	VB190M	N/A	2.52	20.67	N/A	10.68	N/A	9.71	N/A	7.64	0.91x2		
E***M/HB*W150-10	10"	VB350M	N/A	2.83	11.14	N/A	10.89	N/A	10.08	N/A	9.41	1.02x4		

*** Actuator Voltage
 115V = 115VAC 012D = 12VDC
 240V = 240VAC 024D = 24VDC

300 Class Wafer Dimensions:

Part No.	Size	Actuator		A			B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All		
E***M/HB*W300-2	2"	VB060M	VB110M	1.69	14.34	15.27	6.94	10.68	7.82	9.71	1.93	0.79x2		
E***M/HB*W300-2.5	2-1/2"	VB110M	VB190M	1.81	16.10	16.10	6.94	10.68	9.71	9.71	2.44	0.91x2		
E***M/HB*W300-3	3"	VB110M	VB190M	1.89	16.49	16.49	6.94	10.68	9.71	9.71	2.87	0.91x2		
E***M/HB*W300-4	4"	VB110M	VB270M	2.13	17.48	17.83	10.68	10.68	9.71	9.71	3.74	0.91x2		
E***M/HB*W300-5	5"	VB190M	N/A	2.20	17.99	N/A	10.68	N/A	9.71	N/A	4.72	0.91x2		
E***M/HB*W300-6	6"	VB190M	N/A	2.32	19.29	N/A	10.68	N/A	9.71	N/A	5.55	0.91x2		
E***M/HB*W300-8	8"	VB350M	N/A	2.87	21.41	N/A	10.68	N/A	9.71	N/A	7.64	1.02x4		





HBCW & HBSW 150 Series Pneumatic Actuated Valves

Features:



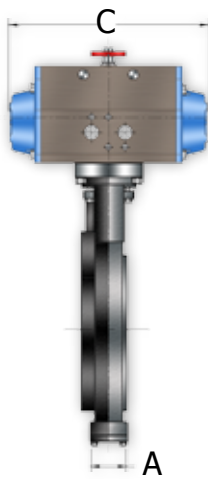
Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

- ANSI Class 150
- ISO 5211 Mounting Pad
- V-Ring Stem Packing with Easy Access Adjustment
- Cast Disc Stop to Prevent Seat Damage
- RPTFE/SS Self Lubricating Stem Bearing on Top and Bottom
- Compatible with both Standard and Spiral Wound Gasket Design
- All Valves are Leak tested per API 598, and Tagged per MSS-SP25 & API 609B
- Fire Safe Available C/F

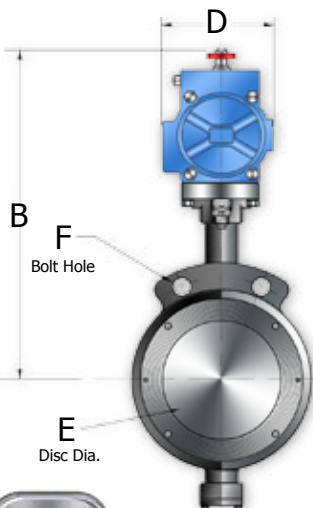
150 Class Wafer Double Acting Dimensions:



Part No.	Size	Actuator		A		B		C		D		E		F	
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All			
PD/HB*W150-2	2"	DA63	DA75	1.69	9.87	9.96	6.61	7.32	3.29	3.73	1.93	0.79x2			
PD/HB*W150-2.5	2-1/2"	DA75	DA85	1.81	10.79	11.34	7.32	9.47	3.73	4.17	2.44	0.79x2			
PD/HB*W150-3	3"	DA75	DA100	1.89	11.18	12.34	7.32	10.83	3.73	4.84	2.87	0.79x2			
PD/HB*W150-4	4"	DA75	DA100	2.13	11.97	13.03	7.32	10.83	3.73	4.84	3.74	0.79x2			
PD/HB*W150-5	5"	DA100	DA115	2.20	13.54	14.50	10.83	13.11	4.84	5.39	4.72	0.91x2			
PD/HB*W150-6	6"	DA100	DA125	2.24	14.84	16.28	10.83	14.65	4.84	5.83	5.55	0.91x2			
PD/HB*W150-8	8"	DA115	DA140	2.52	17.89	18.78	13.11	17.13	5.39	6.46	7.64	0.91x2			
PD/HB*W150-10	10"	DA125	DA160	2.83	19.88	20.82	14.63	19.69	5.83	7.32	9.41	1.02x4			
PD/HB*W150-12	12"	DA140	DA180	3.19	21.50	23.70	17.13	19.41	6.46	8.38	11.30	1.02x4			
PD/HB*W150-14	14"	DA160	DA200	3.62	23.82	26.49	19.69	22.76	7.32	8.54	13.03	1.14x4			
PD/HB*W150-16	16"	DA180	DA230	4.02	27.48	30.32	19.41	27.17	8.38	9.78	15.08	1.14x4			
PD/HB*W150-18	18"	DA200	DA230	4.49	29.44	31.32	22.76	27.17	8.54	9.78	17.09	1 1/8-8x4			
PD/HB*W150-20	20"	DA230	DA270	5.00	33.07	35.98	27.17	28.46	9.78	11.42	18.98	1 1/8-8x4			
PD/HB*W150-24	24"	DA270	DA330	6.06	38.54	44.63	28.46	34.69	11.42	15.83	22.83	1 1/8-8x6			

* Option **S** = Stainless
 C = Carbon

150 Class Wafer Spring Return Dimensions:



Part No.	Size	Actuator		A		B		C		D		E		F	
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All			
PS/HB*W150-2	2"	SR100	SR115	1.69	11.02	11.98	10.83	7.32	4.84	5.39	1.93	0.79x2			
PS/HB*W150-2.5	2-1/2"	SR115	SR140	1.81	12.81	14.18	13.11	9.47	5.39	6.46	2.44	0.79x2			
PS/HB*W150-3	3"	SR115	SR140	1.89	13.20	14.57	13.11	10.83	5.39	6.46	2.87	0.79x2			
PS/HB*W150-4	4"	SR115	SR160	2.13	13.99	16.53	13.11	10.83	5.39	7.32	3.74	0.79x2			
PS/HB*W150-5	5"	SR140	SR180	2.20	15.87	18.30	17.13	13.11	6.46	8.38	4.72	0.91x2			
PS/HB*W150-6	6"	SR160	SR200	2.24	18.11	20.58	19.69	14.65	7.32	8.54	5.55	0.91x2			
PS/HB*W150-8	8"	SR180	SR230	2.52	20.98	23.82	19.41	17.13	8.38	9.78	7.64	0.91x2			
PS/HB*W150-10	10"	SR200	SR230	2.83	23.06	24.92	22.76	19.69	8.54	9.78	9.41	1.02x4			
PS/HB*W150-12	12"	SR230	SR270	3.19	26.50	29.45	27.17	19.41	9.78	11.42	11.30	1.02x4			
PS/HB*W150-14	14"	SR270	N/A	3.62	31.26	26.49	28.46	22.76	11.42	N/A	13.03	1.14x4			
PS/HB*W150-16	16"	SR270	N/A	4.02	33.22	30.32	28.46	27.17	11.42	N/A	15.08	1.14x4			

HBCW & HBSW 300 Series Pneumatic Actuated Valves



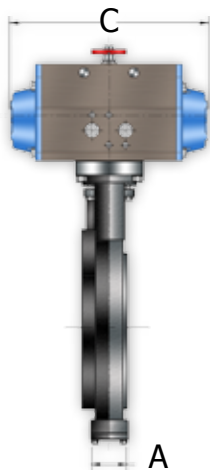
Features:

Actuator

- 80 PSI Minimum, 120 PSI Max.
- Aluminum Construction
- Nitril Seals, Polyamide Friction Guides
- -4°F to 185°F

Valve

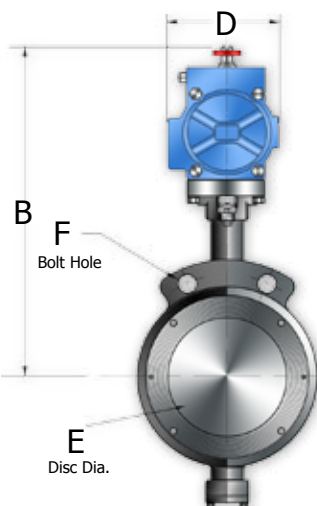
- ANSI Class 300
- ISO 5211 Mounting Pad
- V-Ring Stem Packing with Easy Access Adjustment
- Cast Disc Stop to Prevent Seat Damage
- RPTFE/SS Self Lubricating Stem Bearing on Top and Bottom
- Compatible with both Standard and Spiral Wound Gasket Design
- All Valves are Leak tested per API 598, and Tagged per MSS-SP25 & API 609B
- Fire Safe Available C/F



300 Class Wafer Double Acting Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
PD/HB*W300-2	2"	DA75	DA85	1.69	9.87	10.84	8.27	9.47	3.72	4.17	1.93	0.79x2	
PD/HB*W300-2.5	2-1/2"	DA75	DA100	1.81	10.79	11.88	8.27	10.83	3.72	4.84	2.44	0.79x2	
PD/HB*W300-3	3"	DA85	DA100	1.89	11.76	12.47	9.47	10.83	4.17	4.84	2.87	0.79x2	
PD/HB*W300-4	4"	DA85	DA115	2.13	12.75	14.22	7.32	13.11	3.73	5.39	3.74	0.79x2	
PD/HB*W300-5	5"	DA100	DA125	2.20	13.54	15.21	10.83	14.65	4.84	5.83	4.72	0.79x2	
PD/HB*W300-6	6"	DA115	DA125	2.24	16.23	16.91	13.11	14.65	5.39	5.83	5.55	0.79x2	
PD/HB*W300-8	8"	DA125	DA160	2.52	18.43	20.31	14.63	10.69	5.83	7.32	7.64	0.79x2	
PD/HB*W300-10	10"	DA140	DA180	2.83	19.88	23.22	17.13	19.41	6.46	8.38	9.41	1 1/4-8x4	
PD/HB*W300-12	12"	DA160	DA180	3.19	23.97	25.23	19.69	22.76	7.32	8.38	11.30	1-8x4	
PD/HB*W300-14	14"	DA180	DA230	3.62	26.49	29.33	19.69	27.17	8.38	9.78	13.03	1 1/8-8x4	
PD/HB*W300-16	16"	DA230	DA270	4.02	31.10	34.01	27.17	28.46	9.78	11.42	15.08	1-8x4	
PD/HB*W300-18	18"	DA230	DA270	4.49	32.87	35.78	22.76	28.46	8.54	11.42	17.09	1 1/8-8x4	
PD/HB*W300-20	20"	DA270	N/A	5.00	37.95	N/A	28.46	N/A	N/A	N/A	18.98	1 1/8-8x4	

* Option S = Stainless
 C = Carbon



300 Class Wafer Spring Return Dimensions:

Part No.	Size	Actuator		A		B		C		D		E	F
		Soft Seat	Metal Seat	All	Soft	Metal	Soft	Metal	Soft	Metal	All	All	
PS/HB*W300-2	2"	SR115	SR140	1.69	12.01	13.38	13.11	17.13	5.39	6.46	1.93	0.79x2	
PS/HB*W300-2.5	2-1/2"	SR115	SR160	1.81	12.81	15.15	13.11	19.69	5.39	7.32	2.44	0.79x2	
PS/HB*W300-3	3"	SR115	SR180	1.89	13.20	15.54	13.11	19.69	5.39	7.32	2.87	0.79x2	
PS/HB*W300-4	4"	SR140	SR200	2.13	15.39	17.59	17.13	19.41	6.46	8.38	3.74	0.79x2	
PS/HB*W300-5	5"	SR160	SR200	2.20	16.84	19.28	19.69	22.76	7.32	8.54	4.72	0.79x2	
PS/HB*W300-6	6"	SR160	SR230	2.24	18.11	20.58	19.69	14.65	7.32	8.54	5.55	0.79x2	
PS/HB*W300-8	8"	SR200	SR270	2.52	22.55	23.82	22.76	17.13	8.54	9.78	7.64	0.79x2	
PS/HB*W300-10	10"	SR230	SR270	2.83	26.06	28.97	27.17	28.46	9.78	11.42	9.41	1 1/4-8x4	
PS/HB*W300-12	12"	SR270	N/A	3.19	30.98	30.98	28.46	28.46	11.42	11.42	11.30	1-8x4	
PS/HB*W300-14	14"	SR270		3.62	32.24	N/A	28.46	N/A	11.42	N/A	13.03	1 1/8-8x4	

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