



## B5102-Series Butterfly Valve

Used in hygienic applications when you need a valve for isolation or control of the flow of product. The body acts as the clamp and the seat acts as the ferrule gasket.

They are found in the food processing, beverage, dairy, winery, brewery, pet products, and industrial markets.

**Sizes**

- 1", 1-1/2", 2", 2-1/2", 3", 4"

**Features**

- Bi-directional flow
- All sizes use only 3/4" of line space
- 3-position reversible handle
- No need for clamps, gaskets, or welding
- Quick and easy installation (no special tools required)

**Materials**

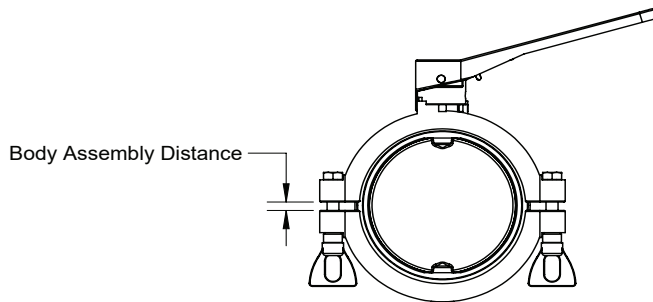
- Product contact metal components: 316L stainless steel
- Non-product contact metal components: 304 stainless steel
- Non-product contact other: PTFE
- Product contact seals: EPDM, silicone, or FKM

**Specifications**

- Standard connections: for use with clamp ferrules
- Maximum pressure of valve:
  - 1" to 1-1/2" **140 PSI**
  - 2" to 2-1/2": **120 PSI**
  - 3": **100 PSI**
  - 4" **70 PSI**
- Minimum line pressure (all sizes): 0.4" Hg vacuum at **68°F (-20°C)**
- Operating temperature range: **15°F to 200°F (-9°C to 93°C)**
- Surface Finish
  - Product Contact Metal Components: ≤ 32 Ra
  - Non-Product Contact Metal Components: ≤ 64 Ra



### B5102-Series Butterfly Valve - Break Torque, Pressure Rating, Flow Coefficient, Body Assembly, and Weight



Size	Break Torque (in-lbs)	Pressure Rating (PSI)	Flow Coefficient (Cv)	Body Assembly Distance (in)	Weight with Handle (lbs)
1"	35	<b>140</b>	23	0.084	1.5
1-1/2"	40	<b>140</b>	80	0.088	2
2"	60	<b>120</b>	230	0.094	2.5
2-1/2"	80	<b>120</b>	264	0.082	3
3"	215	<b>100</b>	372	0.109	4
4"	495	<b>70</b>	800	0.083	6

### B5102-Series Butterfly Valve - Part Number Key

B5102-Series Butterfly Valve Part Number Key Example: B5102E150-A		Series	Seat Material	Size	*	Actuation	Control Unit/ Feedback	Finish Options
		B5102	E	150	-	A		
<b>Series</b>	<b>Code</b>							
B5102	B5102							
<b>Seat Material</b>	<b>Code</b>							
EPDM	E							
Silicone	S							
FKM	V							
<b>Size</b>	<b>Code</b>							
1"	100							
1-1/2"	150							
2"	200							
2-1/2"	250							
3"	300							
4"	400							
<b>Actuation</b>	<b>Code</b>							
Manual handle -3 position standard handle	A							
24VDC electric (power open/ power close)	D							
110VAC electric (power open/ power close)	E							
Normally open linear pneumatic vertical canister	F							
Normally closed linear pneumatic vertical canister	G							
Air to air linear pneumatic vertical canister	H							
Air to air pneumatic rack & pinion SS	J							
Normally closed pneumatic rack & pinion stainless steel	K							
Normally open pneumatic rack & pinion stainless steel	L							
Air to air pneumatic rack & pinion AL	M							
Normally closed pneumatic rack & pinion AL	N							
Normally open pneumatic rack & pinion AL	P							
Normally closed, dead man handle	Q							
220VAC electric (power open/ power close)	R							
Normally closed pneumatic rack & pinion AL (oversized)	S							
24VAC electric (power open/ power close)	T							
110VAC electric (4-20mA input/ output modulating controller)	U							
24VDC electric (4-20mA input/ output modulating controller)	V							
24VDC electric (power open/power close, 2 extra switches)	W							
24VDC electric (4-20mA input/ output modulating controller, oversized)	X							

\*Only use a dash (-) in the part number if using a manual handle with no options, otherwise the dash is eliminated.

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		B5102	E	150	-	A		
24VDC electric (75% duty cycle, oversized)	Y							
Normally closed pneumatic rack & pinion TP	Z							
12VDC electric (power open/power close)	1							
110VAC electric (power open/power close, undersized)	2							
Air to air pneumatic rack & pinion AL (oversized)	3							
Air to air pneumatic rack & pinion AL (double oversized)	4							
Normally closed pneumatic rack & pinion AL (double oversized)	5							
24VDC electric (4-20mA input/0-10V output modulating controller)	6							
<b>Control Unit/Feedback</b>	<b>Code</b>							
None	blank							
<b>Only available to be used with the following actuation codes: F, G, and H</b>								
10-30VDC 12mm external prox, PNP, open/close, (qty 2), flying leads	01							
10-30 VDC 12mm external prox, NPN, open/close, (qty 2), flying leads	02							
10-30VDC 12mm external prox, PNP, open, (Qty 1), flying leads	03							
10-30VDC 12mm external prox, PNP, close, (Qty 1), flying leads	04							
10-30 VDC 12mm external prox, NPN, open, (qty 1), flying leads	05							
10-30VDC 12mm external prox, PNP, open/close, (Qty 2), M12 quick disconnect	06							
10-30 VDC 12mm external prox, NPN, open/close, (qty 2), M12 quick disconnect	07							
10-30VDC 12mm external prox, PNP, open, (Qty 1), M12 quick disconnect	08							
10-30VDC 12mm external prox, PNP, close, (qty 1), M12 quick disconnect	09							
10-30 VDC 12mm external prox, NPN, open, (qty 1), M12 quick disconnect	10							
<b>Only available to be used with the following actuation codes: F, G, and H</b>								
Burkert 8691, single acting, DeviceNet, multipin	11							
Burkert 8691, single acting, AS-i, multipin	12							
Burkert 8691, single acting, 24VDC, multipin	13							
Burkert 8691, double acting, DeviceNet, multipin	14							
Burkert 8691, double acting, AS-i, multipin	15							
Burkert 8691, double acting, 24VDC, multipin	16							

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		B5102	E	150	-	A		
Burkert 8691, without solenoid, 24VDC, multipin	17							
Burkert 8692 positioner, 24VDC, 4-20mA, multipin	18							
Burkert 8692 positioner, 24VDC, ATEX, multipin	62							
Burkert 8691, single acting, IO link, multipin	64							
<b>Only available to be used with the following actuation codes: J, K, L, M, N, and P</b>								
Limit switch box, OPEN/CLOSE beacon, (2) SPDT mech. switches	19							
Limit switch box, OPEN/CLOSE beacon, (2) proximity SPDT switches	20							
Limit switch box, OPEN/CLOSE beacon, AS-I interface	21							
<b>Only available to be used with the following actuation codes: J, K, L, M, N, and P</b>								
Rotary pneumatic positioner <b>3-15 PSI</b> input, no feedback	22							
Rotary pneumatic positioner <b>3-15 PSI</b> input, (2) SPDT mech. switches for feedback	23							
Rotary pneumatic positioner <b>3-15 PSI</b> input, 4-20mA for feedback	24							
Rotary electropneumatic positioner 4-20mA input, no feedback	25							
Rotary electropneumatic positioner 4-20mA input, (2) SPDT mech. switches for feedback	26							
Rotary electropneumatic positioner 4-20mA input, 4-20mA for feedback	27							
Rotary electropneumatic positioner 0-10v input, no feedback	28							
Rotary electropneumatic positioner 0-10v input, (2) SPDT mech. switches for feedback	29							
Rotary electropneumatic positioner 0-10v input, 4-20mA for feedback	30							
Single coil solenoid, 12VDC	31							
Single coil solenoid, 24VDC	32							
Single coil solenoid, 24VAC	33							
Single coil solenoid, 110VAC	34							
Single coil solenoid, 220VAC	35							
Single coil solenoid, 12VDC + option 19 limit switch	36							
Single coil solenoid, 12VDC + option 20 limit switch	37							
Single coil solenoid, 24VDC + option 19 limit switch	38							
Single coil solenoid, 24VDC + option 20 limit switch	39							
Single coil solenoid, 24VAC + option 19 limit switch	40							

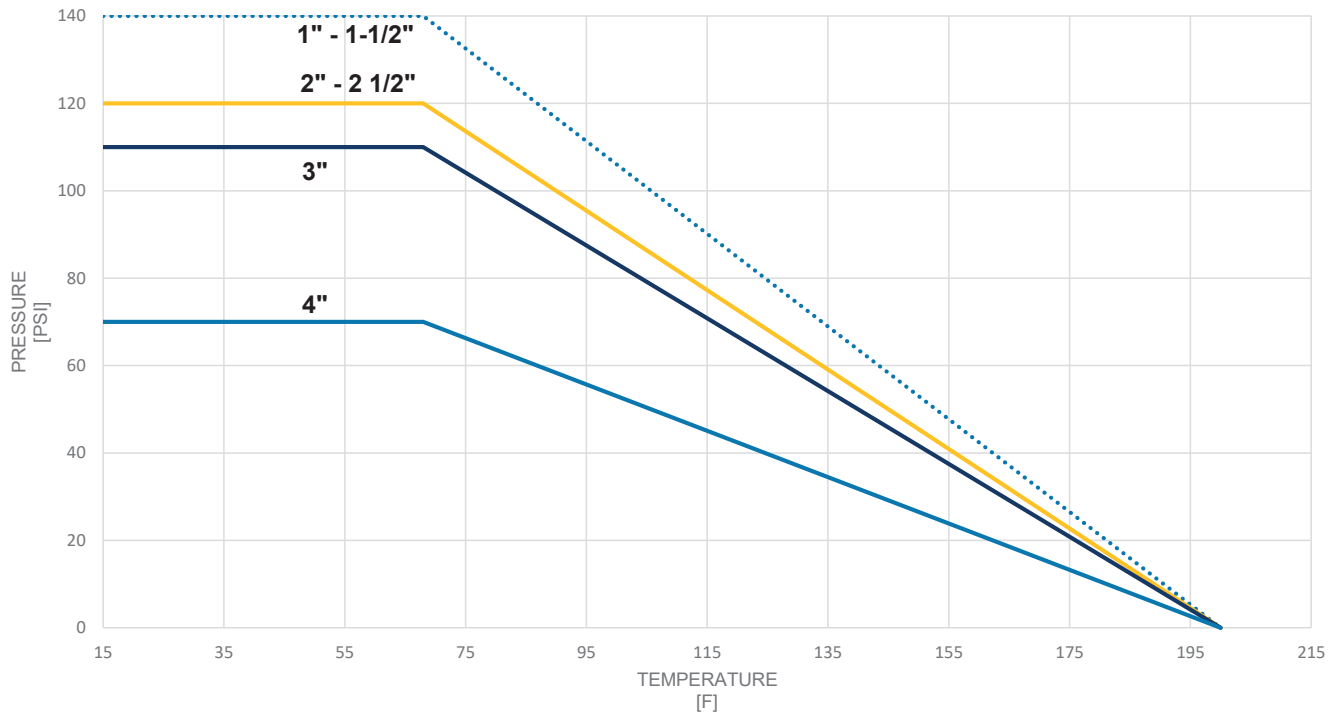
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		B5102	E	150	-	A									
Single coil solenoid, 24VAC + option 20 limit switch	41														
Single coil solenoid, 110VAC + option 19 limit switch	42														
Single coil solenoid, 110VAC + option 20 limit switch	43														
Single coil solenoid, 220VAC + option 19 limit switch	44														
Single coil solenoid, 220VAC + option 20 limit switch	45														
Limit switch box with integral solenoid, AS-i, 24VDC	46														
Rotary electropneumatic positioner 4-20mA input, no feedback, explosion proof	48														
V200 rotary electropneumatic positioner 4-20mA input, 4-20mA feedback	49														
Limit switch box, OPEN/CLOSE beacon, (2) proximity SPDT switches, explosion proof	50														
Single coil solenoid, 12VDC + option 19 limit switch+ pre-wired	51														
Single coil solenoid, 12VDC + option 20 limit switch+ pre-wired	52														
Single coil solenoid, 24VDC + option 19 limit switch+ pre-wired	53														
Single coil solenoid, 24VDC + option 20 limit switch+ pre-wired	54														
Single coil solenoid, 24VAC + option 19 limit switch+ pre-wired	55														
Single coil solenoid, 24VAC + option 20 limit switch+ pre-wired	56														
Single coil solenoid, 110VAC + option 19 limit switch+ pre-wired	57														
Single coil solenoid, 110VAC + option 20 limit switch+ pre-wired	58														
Single coil solenoid, 220VAC + option 19 limit switch+ pre-wired	59														
Single coil solenoid, 220VAC + option 20 limit switch+ pre-wired	60														
Mount actuator rotated 90 degrees	61														
Limit switch box, OPEN/CLOSE beacon, (2) proximity SPDT switches, 24VDC single coil solenoid, explosion proof	63														
Limit switch box, OPEN/CLOSE beacon, (2) mechanical SPDT switches, explosion proof	65														
<b>Finish Options</b>	<b>Code</b>														
32 Ra mechanical (standard)	blank														
25 Ra mechanical	B														
20 Ra mechanical	C														
15 Ra mechanical	D														

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### B5102-Series Butterfly Valve - Pressure Temperature Chart



#### 1" - 1-1/2" Pressure Temperature Relation

Temperature (°F)	Pressure PSI
15	140
68	140
200	0

#### 2" - 2-1/2" Pressure Temperature Relation

Temperature (°F)	Pressure PSI
15	120
68	120
200	0

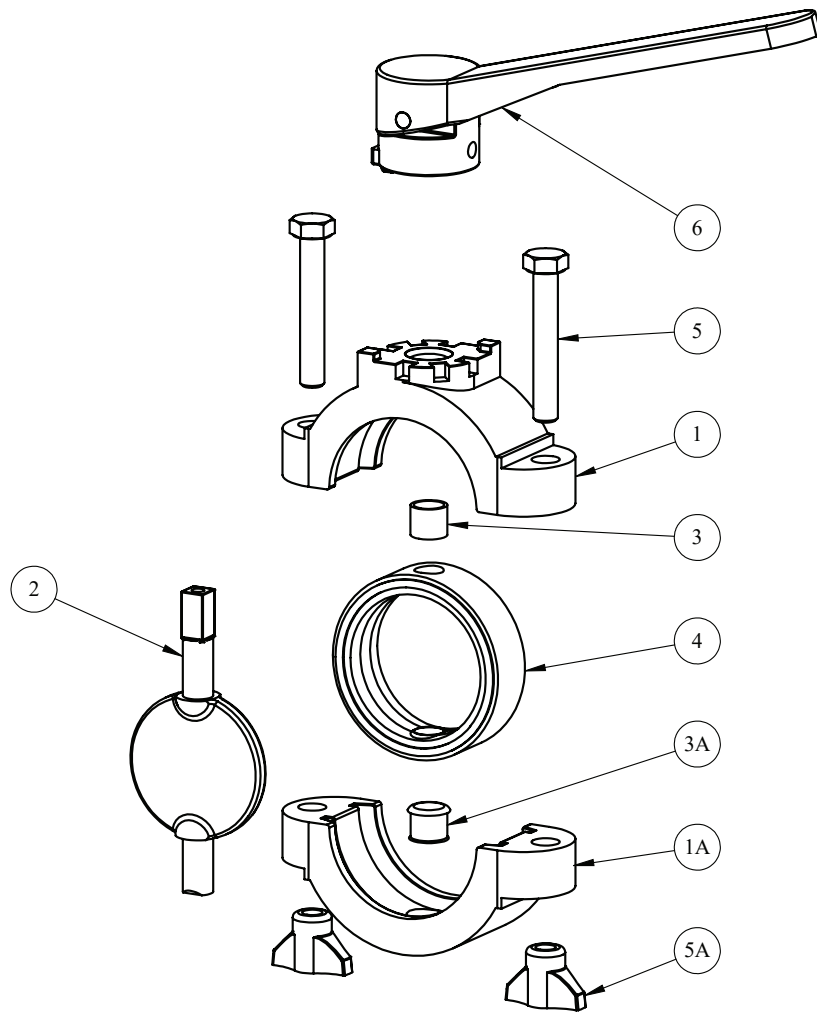
#### 3" Pressure Temperature Relation

Temperature (°F)	Pressure PSI
15	110
68	110
200	0

#### 4" Pressure Temperature Relation

Temperature (°F)	Pressure PSI
15	70
68	70
200	0

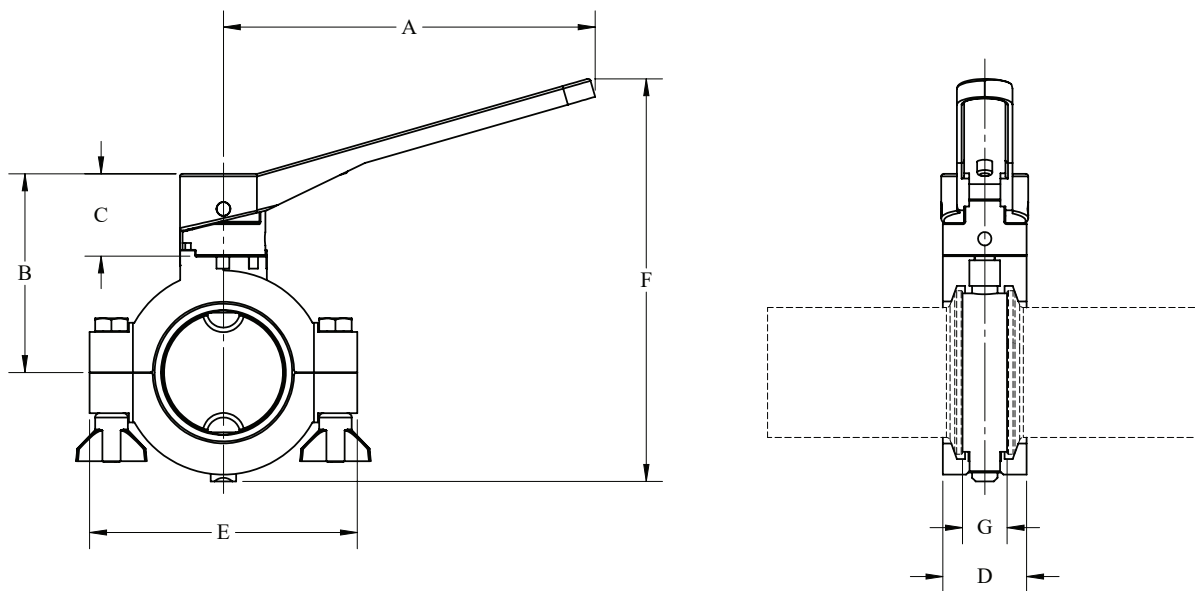
**B5102-Series Butterfly Valve - Bill of Materials**



Item #	Size	Part #	Description	Material	Qty
1	all	see repair kit	upper body half	CF8	1
1a	all	see repair kit	lower body half	CF8	1
2	1"	B5102-DSC100	disc	316L SS	1
	1-1/2"	B5102-DSC150	disc	316L SS	1
	2"	B5102-DSC200	disc	316L SS	1
	2-1/2"	B5102-DSC250	disc	316L SS	1
	3"	B5102-DSC300	disc	316L SS	1
	4"	B5102-DSC400	disc	316L SS	1
3	1" - 2-1/2"	B5102-100-250UB	upper bushing	PTFE	1
	3" - 4"	B5102-300-400UB	upper bushing	PTFE	1
3a	1" - 2-1/2"	B5102-100-250LB	lower bushing	PTFE	1
	3" - 4"	B5102-300-400LB	lower bushing	PTFE	1
4	all	see repair kit	seat	see repair kit	1
5	all	see repair kit	bolts	see repair kit	2
5a	all	see repair kit	wing nuts	see repair kit	2
6	1" - 2-1/2"	B5102-SH100-250	handle assembly	CF8	1
	3" - 4"	B5102-SH300-400	handle assembly	CF8	1



### B5102-Series Butterfly Valve - Dimensions



Size	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	G (in)
1"	5.6	2.8	1.3	1.3	3.6	5.6	0.7
1-1/2"	5.6	2.8	1.3	1.3	3.6	5.6	0.7
2"	5.6	3	1.3	1.3	4.1	6.1	0.7
2-1/2"	5.6	3.3	1.3	1.3	4.6	6.6	0.7
3"	5.6	3.6	1.3	1.3	5.3	7.1	0.7
4"	5.6	4.1	1.3	1.3	6.4	8.2	0.7

### B5102-Series Butterfly Valve - Repair Kits

Valve Size	Red Silicone	Black EPDM	Brown FKM	Replacement Handle Part #	Replacement Bolt/Nut Kit Part #	Replacement Housing Kit Pat #
1"	B5102-RKS100	B5102-RKE100	B5102-RKV100	B5102-SH100-250	B5102-BN100-250	B5102-HSG100
1-1/2"	B5102-RKS150	B5102-RKE150	B5102-RKV150	B5102-SH100-250	B5102-BN100-250	B5102-HSG150
2"	B5102-RKS200	B5102-RKE200	B5102-RKV200	B5102-SH100-250	B5102-BN100-250	B5102-HSG200
2-1/2"	B5102-RKS250	B5102-RKE250	B5102-RKV250	B5102-SH100-250	B5102-BN100-250	B5102-HSG250
3"	B5102-RKS300	B5102-RKE300	B5102-RKV300	B5102-SH300-400	B5102-BN300-400	B5102-HSG300
4"	B5102-RKS400	B5102-RKE400	B5102-RKV400	B5102-SH300-400	B5102-BN300-400	B5102-HSG400

Red silicone kit contains: (1) silicone seat, (2) PTFE bushings

Black EPDM kit contains: (1) EPDM seat, (2) PTFE bushings

Brown FKM kit contains: (1) FKM seat, (2) PTFE bushings

Handle kit contains: (1) CF8M handle

Bolt/nut kit contains: (2) 304 wing nuts, (2) 304 steel bolts

Housing kit contains: (1) upper body half, (1) lower body half



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