

L5107-Series Butterfly Valve

Quarter-turn valve used to isolate and regulate the flow of fluid in processing pipelines.

They are found in the pharmaceutical, biochemical, cosmetic, food processing, beverage, and some dairy markets.

Certifications

- FDA 21 CFR 177.2600
- 3A sanitary standard 18-03 Class II (low fat) compliant
- United States Pharmacopeia (USP) 87 and 88 Class VI
- European regulation EC 1935/2004
- REACH
 - In accordance with regulation EC 1907/2006
 - Does not contain any substances above 0.1% (w/w)
 - Source: The Candidate List of Substances of Very High Concern, Annex XVII
- Animal derived ingredient free
- Phthalate free

Sizes

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

Features

- Compact design with face-to-face dimensions being 3" for all sizes
- High performance rubber seat design
 - Same seat design as our premium B5107-series butterfly valve line
 - Seats are interchangeable
- 360° trigger sprocket allows handle to be easily rotated to both sides of the valve without disassembly and reassembly of the valve handle
- Hex head body bolts eliminate cavities of socket head screws for cleaner exterior design
- Durable high performance polyamide handle with stainless trigger reduces weight of overall assembly
- Manual valves ship complete with handle installed and ready for operation

Materials

- Product contact metal components: 304 forged stainless steel
- Non-product contact metal components: 304 stainless steel
- Product contact seals: EPDM, silicone, or FKM

Specifications

- Standard connection: clamp (2022 ASME BPE DT-4.1.4-1)
- Optional connection: weld
- Maximum pressure
 - 1/2" to 2": **140 PSI**
 - 2-1/2" to 3": **110 PSI**
 - 4": **85 PSI**
- Minimum product line pressure: 0.4" Hg vacuum (absolute) at **68°F (20°C)**
- Maximum operating temperature: **200°F (93°C)**
- Minimum operating temperature: **15°F (-9°C)**
- Valve stem square size: 10mm (all valve sizes)
- Surface finish
 - Product contact metal components: ≤ 32 Ra (standard)
- Seat lubricant: MOLYKOTE® 111



L5107-Series Butterfly Valve - Flow Coefficients (Cv)

Valve Size	Flow Coefficient (Cv)	Valve Size	Flow Coefficient (Cv)
1"	23	2-1/2"	264
1-1/2"	80	3"	372
2"	230	4"	800

L5107-Series Butterfly Valve - Valve Break Torque

(Based on water at 68°F)

Valve Size	Break Torque (in-lbs) Silicone	Break Torque (in-lbs) EPDM	Break Torque (in-lbs) FKM
1"	20	13	70
1-1/2"	35	20	125
2"	35	48	175
2-1/2"	133	98	220
3"	133	146	310
4"	266	341	450

L5107-Series Butterfly Valve - Pressure Drop Chart (PSI)

(Based on water at 68°F)

Capacity (USGPM)	1"	1-1/2"	2"	2-1/2"	3"	4"
5						
10	0.2	0.0				
50	4.7	0.4				
90	15.3	1.3	0.2			
130		2.6	0.3	0.2		
170		4.5	0.5	0.4	0.2	
210		6.9	0.8	0.6	0.3	
250		9.8	1.2	0.9	0.5	
290			1.6	1.2	0.6	
330			2.1	1.6	0.8	0.2
370			2.6	2.0	1.0	0.2
410			3.2	2.4	1.2	0.3
450			3.8	2.9	1.5	0.3
490			4.5	3.4	1.7	0.4
530				4.0	2.0	0.4
570				4.7	2.3	0.5
610				5.3	2.7	0.6
650				6.1	3.1	0.7
690				6.8	3.4	0.7
730					3.9	0.8
770					4.3	0.9
810					4.7	1.0
850					5.2	1.1
890					5.7	1.2
930					6.3	1.4
970						1.5
1010						1.6
1050						1.7
1090						1.9
1130						2.0
1170						2.1
1210						2.3
1250						2.4
1290						2.6
1330						2.8
1370						2.9
1410						3.1
1450						3.3
1490						3.5
1530						3.7
1570						3.9
1610						4.1
1650						4.3

$$\Delta P = \left[\frac{\text{GPM}}{C_v} \right]^2 G$$

L5107-Series Butterfly Valve - Operating Devices

Multiposition Trigger Handle Lock-out Tag-out	Stainless Steel Canister Actuator (spring return or double acting)	Stainless Steel Canister Actuator with External Proximity Position Detection
		

Stainless Steel Canister Actuator
with Burkert Control Top



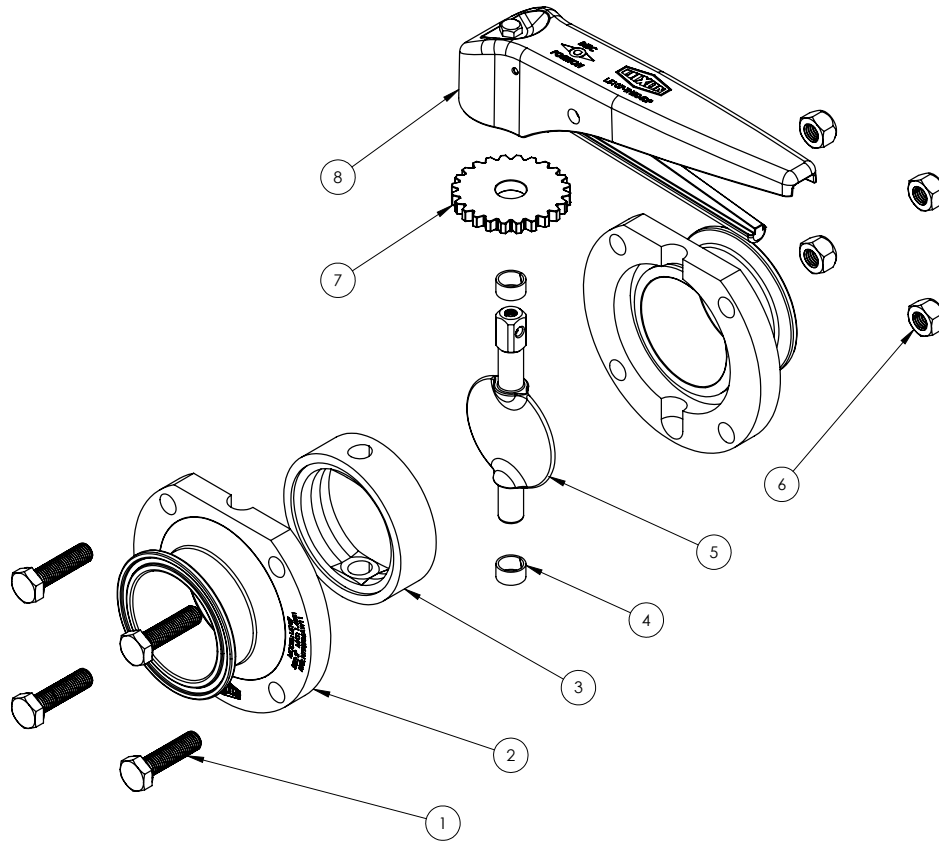
L5107-Series Butterfly Valve - Part Number Key

L5107-Series Butterfly Valve Part Number Key Example: L5107E150CC-P		Series	Seat Material	Size	Connection End	Connection End	*	Actuation	Control Unit/ Feedback	Finish Options
		L5107	E	150	C	C	-	P		
Series	Code									
L5107	L5107									
Seat Material	Code									
EPDM	E									
Silicone	S									
FKM	V									
Size	Code									
1"	100									
1-1/2"	150									
2"	200									
2-1/2"	250									
3"	300									
4"	400									
Connection End	Code									
Clamp (standard)	C									
Weld	B									
Actuation	Code									
Manual handle - 24 position trigger handle (ships assembled)	P									
Normally open linear pneumatic vertical canister actuator	F									
Normally closed linear pneumatic vertical canister actuator	G									
Air to air linear pneumatic vertical canister actuator	H									
Control Unit/Feedback	Code									
Only available to be used with the following actuation codes: F, G, and H										
None	blank									
10-30 VDC 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									
10-30 VDC 12mm external prox, PNP, open, (qty 1), flying leads	03									
10-30 VDC 12mm external prox, PNP, close, (qty 1), flying leads	04									
10-30 VDC 12mm external prox, NPN, open, (qty 1), flying leads	05									
10-30 VDC 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									
10-30 VDC 12mm external prox, PNP, open, (qty 1), M12 quick disconnect	08									
10-30 VDC 12mm external prox, PNP, close, (qty 1), M12 quick disconnect	09									

* Only use a dash (-) in the part number if using a manual handle, otherwise the dash is eliminated.

NOTE: Part number key continues on the next page.

L5107-Series Butterfly Valve - Bill of Materials



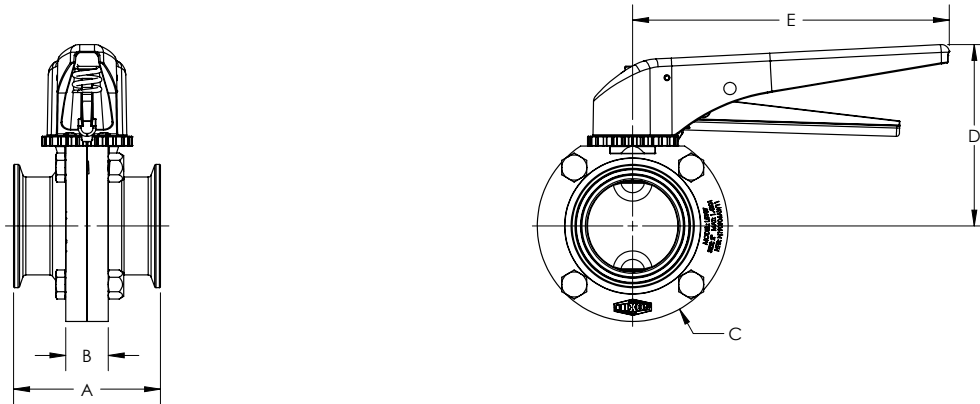
Item #	Description	Part #			Material	Qty
		1"	1-1/2"	2"		
1	body bolt	M6x1x30 hex head		M8X1.25X30 hex head	18-8	4
2	body housing	L5107-HSG10	L5107-HSG15	L5107-HSG20	304	2
3	valve seat	see repair kit			-	1
4	bushing	n/a (included with item no. 3)			polyacetal	2
5	disc	L5107-DSC10	L5107-DSC15	L5107-DSC20	304	1
6	body nut	M6x1 nylock		M8x1.25 nylock	18-8	4
7	sprocket	L5107-THS-5025			304	1
8	handle	L5107-TH5040P			PA55-GF30 / 304	1

Item #	Description	Part #			Material	Qty
		2-1/2"	3"	4"		
1	body bolt	M8x1.25x30 hex head	M8x1.25x40 hex head		18-8	4 ¹
2	body housing	L5107-HSG25	L5107-HSG30	L5107-HSG40	304	2
3	valve seat	see repair kits			-	1
4	bushing	n/a (included with item no. 3)			polyacetal	2
5	disc	L5107-DSC25	L5107-DSC30	L5107-DSC40	304	1
6	body nut	M8x1.25 nylock			18-8	4 ¹
7	sprocket	L5107-THS-5025	L5107-THS-3040		304	1
8	handle	L5107-TH5040P			PA55-GF30 / 304	1

¹4" valves have a quantity of 6 bolts and nuts

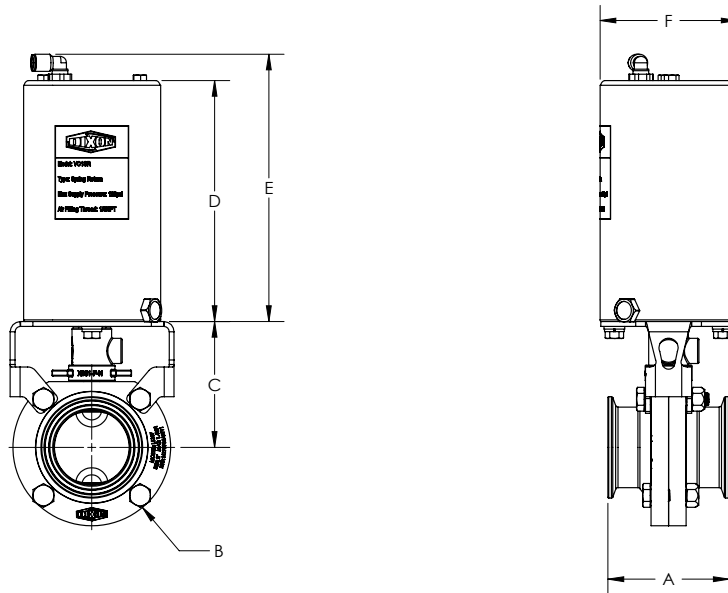
L5107-Series Butterfly Valve - Dimensions

Manual Handle



Valve Size	A (in)	B (in)	C (in)	D (in)	E (in)
1"	3.00	0.866	3.071	3.363	6.469
1-1/2"		0.866	3.071	3.363	
2"		0.866	3.898	3.707	
2-1/2"		0.866	4.606	4.119	
3"		1.181	5.197	4.312	
4"		1.181	6.657	5.109	

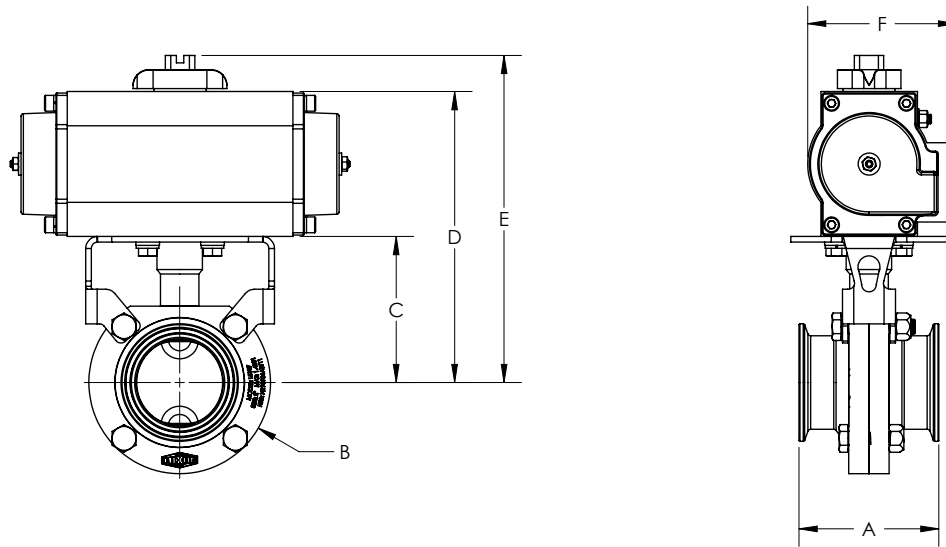
Vertical Canister Actuator



Valve Size	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)
1"	3.00	3.071	2.834	5.984	6.638	3.386
1-1/2"		3.071	2.834			
2"		3.898	3.124			
2-1/2"		4.606	3.542			
3"		5.197	3.683			
4"		6.657	4.557			

L5107-Series Butterfly Valve - Dimensions

Rack and Pinion Actuator



Valve Size	A (in)	B (in)	C (in)	D (in)		E (in)		F (in)	
				SR	DA	SR	DA	SR	DA
1"	3.00	3.071	2.834	5.934	5.934	6.707	6.707	3.197	3.197
1-1/2"		3.071	2.834	5.934	5.934	6.707	6.707	3.197	3.197
2"		3.898	3.124	6.224	6.224	6.997	6.997	3.197	3.197
2-1/2"		4.606	3.542	6.642	6.642	7.415	7.415	3.197	3.197
3"		5.197	3.683	7.543	7.543	8.308	8.308	3.717	3.717
4"		6.657	4.557	9.343	8.417	10.098	9.182	4.679	3.717

Repair Kits

Repair Kit Part #	Part Description	Kit Contains
B5107-RKV100	L5107/B5107 FKM repair kit, for 1" valves	Items 3, 4, and seat lubricant pack
B5107-RKV150	L5107/B5107 FKM repair kit, for 1-1/2" valves	
B5107-RKV200	L5107/B5107 FKM repair kit, for 2" valves	
B5107-RKV250	L5107/B5107 FKM repair kit, for 2-1/2" valves	
B5107-RKV300	L5107/B5107 FKM repair kit, for 3" valves	
B5107-RKV400	L5107/B5107 FKM repair kit, for 4" valves	
B5107-RKS100	L5107/B5107 silicone repair kit, for 1" valves	
B5107-RKS150	L5107/B5107 silicone repair kit, for 1-1/2" valves	
B5107-RKS200	L5107/B5107 silicone repair kit, for 2" valves	
B5107-RKS250	L5107/B5107 silicone repair kit, for 2-1/2" valves	
B5107-RKS300	L5107/B5107 silicone repair kit, for 3" valves	
B5107-RKS400	L5107/B5107 silicone repair kit, for 4" valves	
B5107-RKE100	L5107/B5107 EPDM repair kit, for 1" valves	
B5107-RKE150	L5107/B5107 EPDM repair kit, for 1-1/2" valves	
B5107-RKE200	L5107/B5107 EPDM repair kit, for 2" valves	
B5107-RKE250	L5107/B5107 EPDM repair kit, for 2-1/2" valves	
B5107-RKE300	L5107/B5107 EPDM repair kit, for 3" valves	
B5107-RKE400	L5107/B5107 EPDM repair kit, for 4" valves	

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