

HIGH PERFORMANCE BUTTERFLY VALVES - Class 300

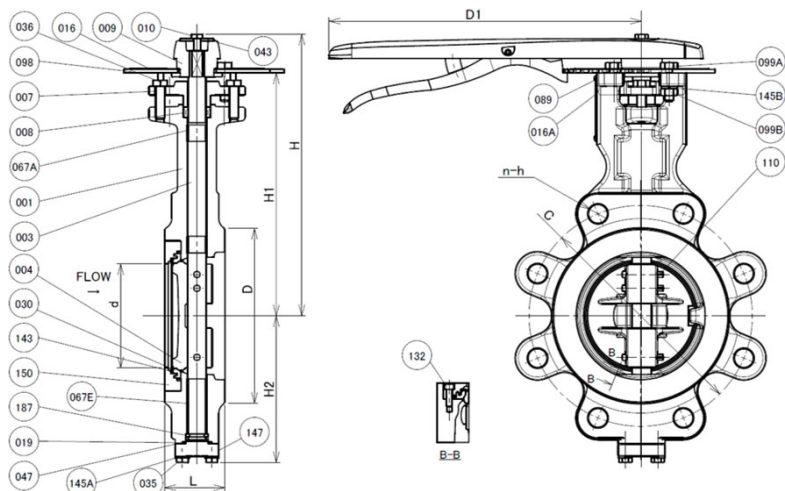
Dual offset design • Lug design • Carbon steel body • One-piece stem • Stainless steel disc and stem

Bi-Directional dead end service • ISO5211 mounting pad • Direct mount actuation

SIZE 2-1/2" to 12"

END CONNECTION: ASME B16.5 WALL THICKNESS: ASME B16.34 TEST: MSS SP-68

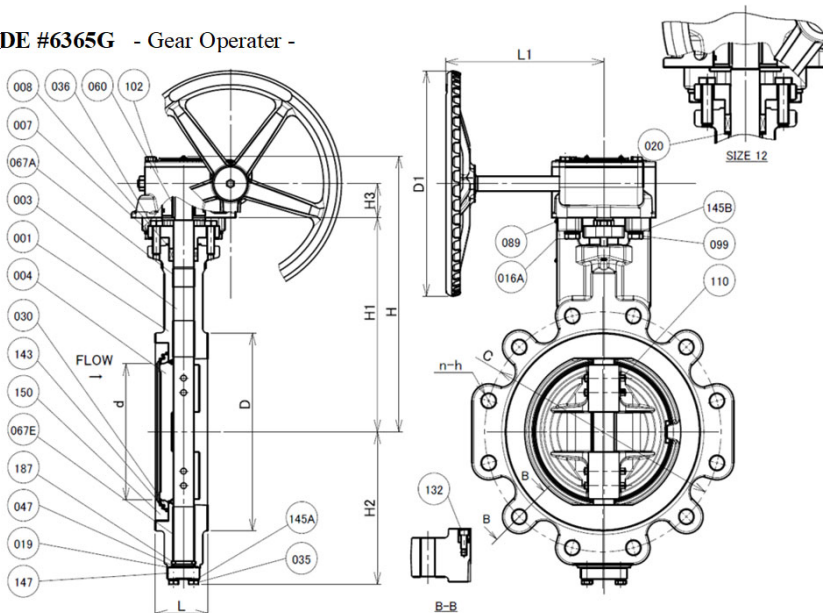
CODE #6365L - Locking Lever -



DIMENSIONS											
SIZE	d	H	H1	H2	L	D	C	D1	n	h	
in. 2 1/2	2.20	8.70	7.36	4.17	1.81	4.76	5.88	9.06	8	3/4-	
mm 65	56	221	187	106	46	121	149.4	230		10UNC	
in. 3	2.91	9.25	7.80	4.61	1.88	5.24	6.62	11.02	8	3/4-	
mm 80	74	235	198	117	48	133	168.1	280		10UNC	
in. 4	3.70	10.04	8.66	5.24	2.12	6.22	7.88	11.02	8	3/4-	
mm 100	94	255	220	133	54	158	200.2	280		10UNC	
in. 5	4.65	10.75	9.33	6.10	2.31	7.44	9.25	13.78	8	3/4-	
mm 125	118	273	237	155	59	189	235.0	350		10UNC	

MATERIAL LIST		
NO.	NAME OF PART	SPECIFICATION
1	BODY	A216 Gr.WCB/SCPH2
3	STEM	SUS420J2
4	DISC	A351 Gr.CF8M/SCS14A+HCr
7	GLAND	A351 Gr.CF8/SCS13A
8	GLAND PACKING	PTFE
9	HANDLE	
10	HANDLE BOLT	STAINLESS STEEL
16	NAME PLATE	ALUMINUM
16A	NAME PLATE	STAINLESS STEEL
19	GASKET	PTFE
30	SEAT RING	C/F PTFE
35	END PLATE BOLT	STAINLESS STEEL
36	GLAND BOLT	STAINLESS STEEL
43	WASHER	STAINLESS STEEL
47	THRUST WASHER	PTFE
67A	STEM BEARING	METAL BACKED PTFE
67E	STEM BEARING	G/F PTFE
89	PARKER TAC	STAINLESS STEEL
98	INDEX PLATE	CARBON STEEL
99A	BOLT	STAINLESS STEEL
99B	NUT	STAINLESS STEEL
110	TAPER PIN	STAINLESS STEEL
132	RETAINER BOLT	ALLOY STEEL (ZINC PLATED)
143	SEAT SPRING	STAINLESS STEEL
145A	SPRING WASHER	STAINLESS STEEL
145B	SPRING WASHER	STAINLESS STEEL
147	END PLATE	A351 Gr.CF8/SCS13A
150	SEAT RETAINER	CARBON STEEL
187	SPLIT RING	STAINLESS STEEL

CODE #6365G - Gear Operator -



DIMENSIONS											
SIZE	d	H	H1	H2	L	D	C	D1	n	h	
in. 6	5.51	12.40	10.08	6.93	2.31	8.62	10.62	6.69	12	3/4-	
mm 150	140	315	256	176	59	219	269.7	170		10UNC	
in. 8	7.40	14.92	11.61	8.27	2.88	10.71	13.00	12.20	12	7/8-	
mm 200	188	379	295	210	73	272	330.2	310		9UNC	
in. 10	9.17	16.61	13.31	10.12	3.25	13.03	15.25	12.20	16	1-	
mm 250	233	422	338	257	83	331	387.4	310		8UNC	
in. 12	11.10	18.78	14.80	11.26	3.62	15.24	17.75	14.17	16	11/8-	
mm 300	282	477	376	286	92	387	450.8	360		8UN	

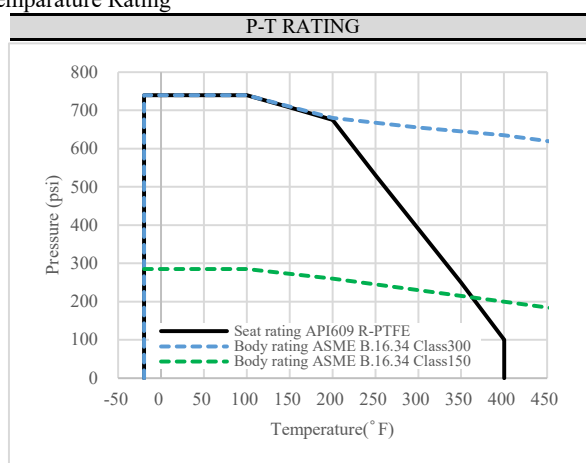
MATERIAL LIST		
NO.	NAME OF PART	SPECIFICATION
1	BODY	A216 Gr.WCB/SCPH2
3	STEM	SUS420J2
4	DISC	A351 Gr.CF8M/SCS14A+HCr
7	GLAND	A351 Gr.CF8/SCS13A
8	GLAND PACKING	PTFE
16A	NAME PLATE	STAINLESS STEEL
19	GASKET	PTFE
20	PACKING WASHER	STAINLESS STEEL(SIZE 12")
30	SEAT RING	C/F PTFE
35	END PLATE BOLT	STAINLESS STEEL
36	GLAND BOLT	STAINLESS STEEL
47	THRUST WASHER	PTFE
60	KEY	CARBON STEEL
67A	STEM BEARING	METAL BACKED PTFE
67E	STEM BEARING	G/F PTFE
89	PARKER TAC	STAINLESS STEEL
99	BOLT	STAINLESS STEEL
102	GEAR UNIT	
110	TAPER PIN	STAINLESS STEEL
132	RETAINER BOLT	ALLOY STEEL (ZINC PLATED)
143	SEAT SPRING	STAINLESS STEEL
145A	SPRING WASHER	STAINLESS STEEL
145B	SPRING WASHER	STAINLESS STEEL
147	END PLATE	A351 Gr.CF8/SCS13A
150	SEAT RETAINER	CARBON STEEL
187	SPLIT RING	STAINLESS STEEL

 State of California Prop 65 WARNING : Cancer and Reproductive Harm.
For more information visit www.p65warnings.co.gov

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Technical Data

Pressure - Temperature Rating



Temperature (°F)	Class 150	Class 300
	Pressure (psi)	Pressure (psi)
-20	285	740
0	285	740
50	285	740
100	285	740
150	273	708
200	260	675
250	245	630
300	230	590
350	215	550
400	100	100

Operating Torques

Positive pressure

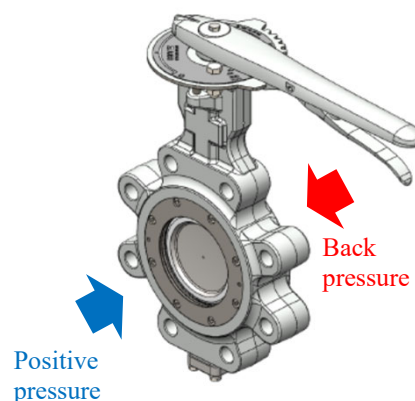
Operating torque (in. lbs.)

SIZE	ΔP (psi)				
	145	290	435	580	740
2 1/2	159	177	195	212	239
3	257	292	327	363	398
4	398	451	504	558	611
5	646	752	859	974	1080
6	912	1089	1266	1452	1629
8	1708	2098	2478	2868	3248
10	2699	3381	4062	4744	5426
12	4054	5178	6302	7426	8550

Back pressure

Operating torque (in. lbs.)

SIZE	ΔP (psi)				
	145	290	435	580	740
2 1/2	168	195	221	257	283
3	274	327	372	425	469
4	416	496	575	655	726
5	682	823	965	1115	1257
6	956	1186	1416	1646	1876
8	1797	2266	2735	3213	3682
10	2832	3647	4461	5266	6080
12	4248	5567	6877	8196	9515



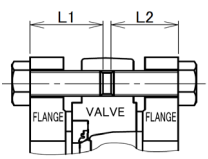
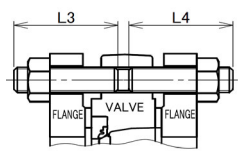
Flow Data

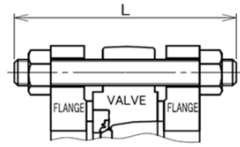
Flow Coefficient (Cv)										
Size	Degree Open[°]									
	10	20	30	40	50	60	70	80	90	
2 1/2	3	16	31	48	66	82	92	95	91	
3	5	24	49	79	96	116	141	166	177	
4	10	44	89	138	175	219	267	311	320	
5	13	66	136	196	249	318	389	467	487	
6	22	113	211	286	386	489	618	751	775	
8	36	186	347	483	677	911	1169	1477	1505	
10	69	291	521	747	1058	1499	2056	2654	2791	
12	129	481	748	1087	1579	2265	3217	4285	4458	

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Technical Data

Flange bolt

Bolt Dimensions									
									
Flange		ASME Class 300				ASME Class 300			
Size	Thread size	Hex head bolt (L1)		Hex head bolt (L2)		Stud (L3) & Nut		Stud (L4) & Nut	
		Q'ty	Length (in.)	Number	Length (in.)	Number	Length (in.)	Number	Length (in.)
2 1/2	3/4-10UNC	8	1.875	8	1.875	8	3.000	8	3.000
3	3/4-10UNC	8	2.000	8	2.000	8	3.250	8	3.250
4	3/4-11UNC	8	2.250	8	2.250	8	3.500	8	3.500
5	3/4-12UNC	8	2.625	8	2.375	8	3.750	8	3.500
6	3/4-13UNC	12	2.750	12	2.500	12	3.750	12	3.750
8	7/8-9UNC	12	3.125	12	3.000	12	4.500	12	4.250
10	1-8UNC	16	3.500	16	3.375	16	5.000	16	4.750
12	1 1/8-8UN	16	4.000	16	3.500	16	5.500	16	5.000

				
Flange		ASME Class 300		
Size	Thread size	Stud (L)		Nut
		Number	Length (in.)	Number
2 1/2	3/4-10UNC	8	6.375	16
3	3/4-10UNC	8	6.750	16
4	3/4-11UNC	8	7.250	16
5	3/4-12UNC	8	7.625	16
6	3/4-13UNC	12	7.750	24
8	7/8-9UNC	12	9.000	24
10	1-8UNC	16	10.250	32
12	1 1/8-8UN	16	11.000	32

* Nut : ASME B18.22 Heavy Hex Nut

* Bolt lengths are set based on the following conditions

- Gasket thickness of 0.06 inches (1.6mm).
- Minimum flange thickness of weld neck flanges per ASME B16.5