

max. permissible closing pressures for parabolic plug on flow-to-open $P_2 = 0$

(Observe pressure-temperature-limits on page 13. Plug design acc. to „Selection of flow restrictors“, refer to page 13.)

Spring closes on air failure

Size		1"						1 1/2"		2"		3"		4"		6"									
Standard ²⁾ Cv-values	Seat-Ø (in)						0.98			1.57			1.97			3.15			3.94			5.91			
	Cv-value						12			29			46			116			185			462			
	Travel (in)						0.79			1.18			1.18			1.18			1.18			1.97			
Reduced Cv-values	Seat-Ø (in)	0.12	0.2	0.47	0.71	0.87		0.98	1.26		1.26	1.57		1.97	2.56		2.56	3.15		3.94	4.92				
	Cv-value	0.29 0.18 0.12	0.73 0.46	2.9 1.8 1.2	4.6	7.3		12	18		18	29		46	73		73	116		185	289				
	Travel (in)	0.79	0.79	0.79	0.79	0.79		0.79	0.79		0.79	1.18		1.18	1.18		1.18	1.18		1.18	1.97				
Actuator DP 32	Control signal (psi)	Air supply pressure min. (psi)	3 - 15	I.	444	423	308	118	69	47	36														
				II.	290	269	173	55	26	14															
				III.																					
			6 - 17	I.	740	740	740	374	243	183	172	97	55	97	55	30	29								
				II.	740	740	724	311	200	150	128	69	38	69	38	19	16								
				III.	141	137	122	109	101	95	95	52	27	52	27										
	12 - 35	I.				740	592	455	444	265	164	265	164	100	99	54	32	54	32	18	18				
		II.				740	740	549	422	399	238	146	238	146	89	86	46	27	46	27	15	15			
		III.	398	394	379	367	358	352	352	220	135	220	135	82	82	44	25	44	25						
	22 - 36	I.					740	740	740	559		559													
		II.					740	740	740	532		532													
		III.	580	580	580	580	580	580	580	515		515													
29 - 48	I.								740		740														
	II.								740		740														
	III.								580		580														
Actuator DP 33	Control signal (psi)	Air supply pressure min. (psi)	3 - 15	I.	740 ^{c)}	740 ^{c)}	634 ^{c)}	269 ^{c)}	172 ^{c)}	128 ^{c)}	116 ^{a)}	62 ^{a)}	33 ^{a)}	62 ^{a)}	33 ^{a)}	16 ^{a)}	14								
				II.	662 ^{c)}	641 ^{c)}	499 ^{c)}	207 ^{c)}	129 ^{c)}	94 ^{c)}	72 ^{a)}	35 ^{a)}	16 ^{a)}	35 ^{a)}	16 ^{a)}										
				III.	88 ^{a)}	84 ^{a)}	69 ^{a)}	57 ^{a)}	48 ^{a)}	42 ^{a)}	42 ^{a)}	18 ^{a)}		18 ^{a)}											
			6 - 17	I.			740 ^{c)}	580 ^{c)}	449 ^{c)}	344 ^{c)}	333 ^{a)}	196 ^{a)}	120 ^{a)}	196 ^{a)}	120 ^{a)}	72 ^{a)}	70	37	21	37	21				
				II.	740 ^{c)}	740 ^{c)}	740 ^{c)}	580 ^{c)}	407 ^{c)}	311 ^{c)}	288 ^{a)}	169 ^{a)}	102 ^{a)}	169 ^{a)}	102 ^{a)}	60 ^{a)}	57	29	16	29	16				
				III.	293 ^{a)}	289 ^{a)}	274 ^{a)}	262 ^{a)}	253 ^{a)}	247 ^{a)}	247 ^{a)}	152 ^{a)}	91 ^{a)}	152 ^{a)}	91 ^{a)}	53 ^{a)}	53	26	14	26	14				
			12 - 35	I.				740 ^{a)}	740 ^{a)}	740 ^{a)}	740	464	293	464	293	183	182	103	65	103	65	39	39		
				II.				740 ^{a)}	740 ^{a)}	740 ^{a)}	721	437	275	437	275	172	169	96	60	96	60	36	36		
				III.	580	580	580	580	580	580	580	420	264	420	264	165	165	93	58	93	58	35	32		
	22 - 44	I.									596		596	379	377	220	142	220	142	89	89				
		II.									578		578	367	364	212	137	212	137	85	85				
		III.									567		567	360	360	209	135	209	135	84	81				
	25 - 39	I.								740		740													
		II.								740	740		740												
		III.								580		580													
	29 - 58	I.									740		740	518	517	303	197	303	197	124	124				
		II.									740		740	507	504	295	192	295	192	121	121				
		III.									580		580	499	499	293	191	293	191	120	117				

I. Fig. 470: PTFE-V-ring unit	II. Fig. 470: PTFE- / pure graphite-packing	III. Fig. 471: Bellows seal
Air supply pressure max. of pneumatic actuators DP: 87 psi		
Air supply pressure max. limit of control valve: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi		

²⁾ Not for perforated plug (presentation refer to page 13). Please find the Cv-values on page 11.

max. permissible closing pressures for parabolic plug on flow-to-open $P_2 = 0$
(Observe pressure-temperature-limits on page 13. Plug design acc. to „Selection of flow restrictors“, refer to page 13.)

Spring opens on air failure																								
Size		1"		1 1/2"		2"		3"		4"		6"		8"										
Standard ²⁾ Cv-values	Seat-∅ (in)			0.98			1.57			1.97			3.15			3.94			5.91			7.87		
	Cv-value			12			29			46			116			185			462			728		
	Travel (in)			0.79			1.18			1.18			1.18			1.18			1.97			2.56		
Reduced Cv-values	Seat-∅ (in)	0.71	0.87		0.98	1.26		1.26	1.57		1.97	2.56		2.56	3.15		3.94	4.92		4.92	5.91			
	Cv-value	4.6	7.3		12	18		18	29		46	73		73	116		185	289		289	462			
	Travel (in)	0.79	0.79		0.79	0.79		0.79	1.18		1.18	1.18		1.18	1.18		1.18	1.97		1.97	1.97			
Actuator DP 34	Air supply pressure (psi)	20	I.							295 ^{e)}	295 ^{e)}	185 ^{e)}	183	104	66	104	66	39	39	23	14			
			II.						277 ^{e)}	277 ^{e)}	173 ^{e)}	170	96	61	96	61	36	36	21		18			
			III.						266 ^{e)}	266 ^{e)}	166 ^{e)}	166 ^{b)}	94 ^{b)}	59 ^{b)}	94 ^{b)}	59 ^{b)}	35 ^{b)}	32	18		18			
		29	I.						740 ^{e)}	740 ^{e)}	522 ^{e)}	520	305	199	305	199	125	125	78	53				
			II.						740 ^{e)}	740 ^{e)}	510 ^{e)}	507	297	194	297	194	122	122	76	51	73	49	26	
			III.						580 ^{e)}	580 ^{e)}	503 ^{e)}	503 ^{b)}	295 ^{b)}	192 ^{b)}	295 ^{b)}	192 ^{b)}	121 ^{b)}	118	73	49	73	49	26	
		44	I.								740 ^{e)}	740	640	421	640	421	268	268	169	116				
			II.								740 ^{e)}	740	632	416	632	416	264	264	167	115	165	113	62	
			III.								580 ^{e)}	580 ^{b)}	580 ^{b)}	414 ^{b)}	580 ^{b)}	414 ^{b)}	263 ^{b)}	260	165	113	165	113	62	
		58	I.										740	643	740	643	410	410	261	180				
			II.										740	638	740	638	407	407	259	179	256	177	98	
			III.											580 ^{b)}		580 ^{b)}	406 ^{b)}	403	256	177	256	177	98	
		73	I.											740		740	553	553	353	244				
			II.	Higher closing pressures for 6"/8" with DP34T on request.										740		740	550	550	351	242	348	240	134	
			III.																546	348	241	348	241	134
		87	I.	2) Not for perforated plug (presentation refer to page 13). Please find the Cv-values on page 11.														696	696	444	308			
			II.															692	692	442	306	439	304	170
			III.															580	440	304	440	304	170	

I. Fig. 470: PTFE-V-ring unit; II. Fig. 470: PTFE- / pure graphite-packing III. Fig. 471: Bellows seal
Air supply pressure max. of pneumatic actuators DP: 87 psi
Air supply pressure max. limit of control valve: a) 73 psi b) 65 psi c) 58 psi d) 51 psi e) 44 psi

Cv-value chart

Size	1"	1 1/2"	2"	3"	4"	6"	8"	Travel (in)	
	Seat- ∅ (in)								
with parabolic plug	0.46	0.2						0.79	
	0.73	0.2							
	1.2	0.47							
	1.8	0.47							
	2.9	0.47							
	4.6	0.71							
	7.3	0.87						1.18	
	12	0.98	0.98						
	18		1.26	1.26					1.97
	29		1.57	1.57					
	46			1.97	1.97				
	73				2.56	2.56			
	116					3.15	3.15	2.56	
	185						3.94		
	289						4.92		4.92
	462						5.91		5.91
728							7.87		

Size	1"	1 1/2"	2"	3"	4"	6"	8"	Travel (in)	
	Seat- ∅ (in)								
with v-port plug	73				2.56	2.56		1.18	
	116				3.15	3.15			
	185					3.94	3.94		
	289						4.92	4.92	1.97
	462						5.91	5.91	
	728							7.87	
with perforated plug	2.9	0.71						0.79	
	4.6	0.87							
	7.3	0.98	0.98						
	12		1.26	1.26				1.18	
	18		1.57	1.57					
	29			1.97	1.97				
	46				2.56	2.56			
	73					3.15	3.15		
	116						3.94		3.94
	185						4.92		4.92
289						5.91	5.91		
462							7.87		