

T 8086 EN

Series 240 and 250 · Valves with perforated plug DIN and ANSI versions



Application

Optimized trim for critical conditions in applications

Nominal size DN 25 to 500 · NPS 1 to 20
Nominal pressure PN 16 to 400 · Class 150 to 2500
Medium temperature -273 to +550 °C · -459 to +1022 °F

The perforated plug is mainly used for valves in steam applications, particularly for operation in the wet steam region. Additional fields of application include the control of two-phase medium flow, liquid media which vaporize on the outlet side (flashing valves) or emergency relief valves (blow-off valves) involving gas relief in which flow velocities lower than 0.3 Mach cannot be kept.

Special features

- Used in Series 240 and 250 Valves with bodies made of 1.0619/A216 WCC or higher grade steel
- Combined with seats of Series 240 and 250 Valves
- Permissible actuator forces correspond to those of standard valve trims
- Use with media containing solids is to be avoided

Versions

Valves with leakage class IV

- **Type 3241** · Globe valves up to DN 300 and PN 40 (NPS 12, Class 300) · Trim and characteristic according to Table 1 · See Data Sheet ▶ T 8015/▶ T 8012
- **Type 3248** · Cryogenic valves with globe or angle-pattern body up to DN 150 and PN 100 (NPS 6, Class 600) See Table 1 and Table 2 See Data Sheet ▶ T 8093/▶ T 8093-1
- **Type 3251** (Fig. 1) · Globe valves up to DN 500 and PN 400 (NPS 20, Class 2500) · See Table 3 See Data Sheet ▶ T 8051/▶ T 8052
- **Type 3254** · Globe valves up to DN 500 and PN 400 (NPS 20, Class 2500) · See Table 4 See Data Sheet ▶ T 8060/▶ T 8061
- **Type 3256** (Fig. 2) · Angle valves up to DN 300 and PN 400 (NPS 12, Class 2500) · See Table 3 to Table 5 See Data Sheet ▶ T 8065/▶ T 8066

Options

- Higher leakage classes (on request)
- Perforated plug for Type 3246 (on request)

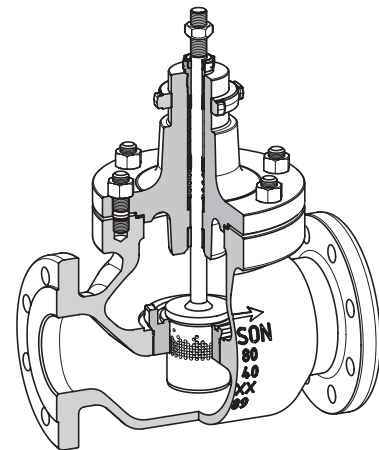


Fig. 1: Type 3251 Globe Valve with perforated plug

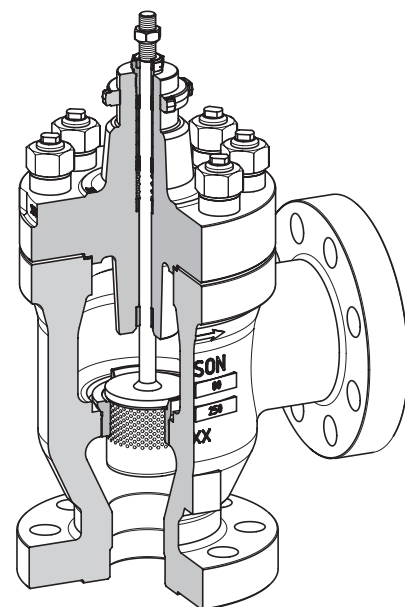


Fig. 2: Type 3256 Angle Valve with perforated plug

Principle of operation

The medium flows through the perforated plug, splitting up the jet stream into numerous smaller jets to ensure low-noise energy transfer to the surrounding medium.

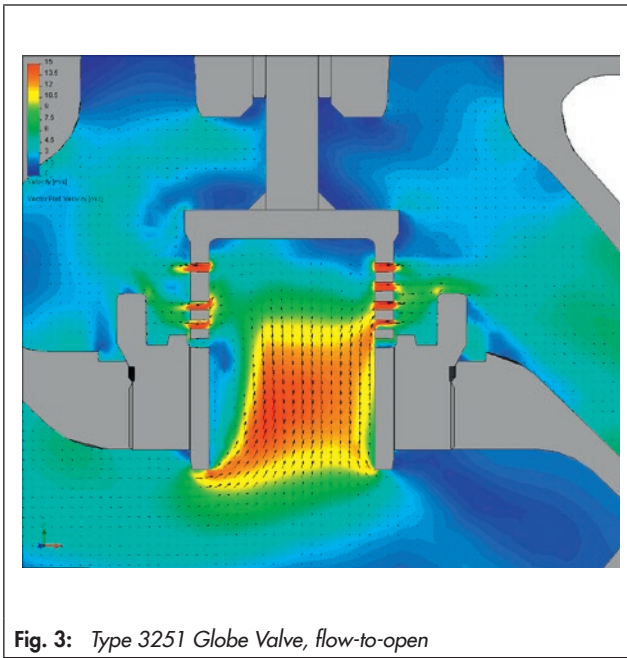


Fig. 3: Type 3251 Globe Valve, flow-to-open

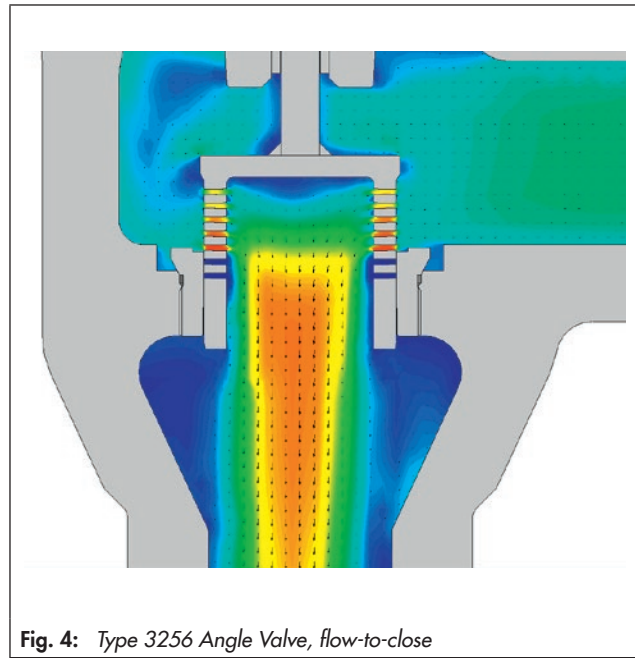


Fig. 4: Type 3256 Angle Valve, flow-to-close

Technical data

Perforated plug	DIN	ANSI
Nominal size (depending on valve type)	DN 25 to 500	NPS 1 to 20
Nominal pressure (depending on valve type)	PN 16 to 400	Class 125 to 2500
Medium temperature range (depending on valve bonnet)	Type 3241 (T 8015/T 8012)	-196 to 450 °C
	Type 3248 (T 8093/T 8093-1)	-273 to 220 °C
	Type 3251/3254 (T 8051/T 8052, T 8060/T 8061)	-196 to 550 °C
	Type 3256 (T 8065/T 8066)	-196 to 550 °C
Max. permissible differential pressure	Same as standard V-port plug, see ► T 8000-4	
Flow direction	Type 3241/3248	Standard FTO
	Type 3251/3254	Standard FTO
	Type 3256	Standard FTC
Leakage class (metal seal)	Class IV according to IEC 60534-4 and DIN EN 1349	Class IV according to FCI 70-2
Characteristic	Equal percentage · Linear	
Rangeability	50:1	
Pressure balancing	See Table 1 to Table 4	
Valve bonnet	Standard · Insulating section · Bellows seal	
Materials		
Seat and plug	Selection depending on application	

Table 1: Type 3241 Globe Valve and Type 3248 Cryogenic Valve · Direction of flow FTO

Table 1.1: K_{vs} and C_v coefficients for Type 3241 and Type 3248 (up to DN 150/NPS 6) · Equal percentage characteristic

Series 240 · Equal percentage characteristic with direction of flow FTO																			
K_{vs}	4	6.3	10	16	25	36	40	54	63	80	100	120	160	160	250	360	420	630	1000
C_v	5	7.5	12	20	30	42	47	62	75	95	120	140	190	190	290	420	485	735	1150
K_{v1}	3.6	5.7	9	14.5	22	32	36	47	57	72	90	100	144	144	225	320	375	560	900
C_{v1}	4.2	7	10.5	17	26	37	42	55	67	85	105	120	170	170	265	375	435	650	1040
K_{v2}	-	-	8	13	20	29	-	43	50	63	80	95	125	125	200	290	340	500	800
C_{v2}			9.5	15	23	34		50	60	75	95	110	145	145	235	335	390	580	950
K_{v3}	-	4.8	7.5	12	20	-	-	40	47	60	75	-	-	120	190	270	315	480	-
C_{v3}		5.6	9	14	23			47	55	70	90			140	220	315	365	560	
Seat Ø	mm	24	31	38	48	63	80	63	80	100	110	130	125	150	200	250	300		
Travel	mm	15					30					60					120		
	in	0.59					1.18					2.36					4.72		
Nominal size DN NPS	Versions without flow divider · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																		
25	1	•	•																
32	-	•	•	•															
40	1½	•	•	•	•														
50	2	•	•	•	•	•													
65	2½		•	•	•	•	•												
80	3		•	•	•	•	•	•											
100	4							•	•	•	•								
125	-							•	•	•	•	•							
150	6							•	•	•	•	•		•					
200	8							•	•	•	•	•		•	•	•	•	•	
250	10							•	•	•	•	•		•	•	•	•	•	•
300	12							•	•	•	•	•		•	•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 1 · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																		
25	1																		
32	-	•	•	•															
40	1½	•	•	•	•														
50	2	•	•	•	•	•													
65	2½		•	•	•	•	•												
80	3		•	•	•	•	•	•											
100	4							•	•	•	•								
125	-							•	•	•	•	•							
150	6							•	•	•	•	•		•					
200	8							•	•	•	•	•		•	•	•	•	•	
250	10							•	•	•	•	•		•	•	•	•	•	•
300	12							•	•	•	•	•		•	•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 2 · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																		
25	1																		
32	-			•															
40	1½			•	•														
50	2			•	•														
65	2½			•	•	•	•												
80	3			•	•	•	•	•											
100	4							•	•	•	•								
125	-							•	•	•	•	•							
150	6							•	•	•	•	•		•					
200	8							•	•	•	•	•		•	•	•	•	•	
250	10							•	•	•	•	•		•	•	•	•	•	•
300	12							•	•	•	•	•		•	•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 3 · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																		
25	1																		
32	-			•															
40	1½			•															
50	2			•															
65	2½			•	•	•	•												
80	3			•	•	•	•	•											
100	4							•											
125	-							•	•	•	•								
150	6							•	•	•	•	•							
200	8							•	•	•	•	•		•	•	•	•	•	
250	10							•	•	•	•	•		•	•	•	•	•	•
300	12							•	•	•	•	•		•	•	•	•	•	•

Note:
Specifications do not apply to Type 3248

Note:
Specifications do not apply to Type 3248

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Specifications do not apply to Type 3248

Table 1.2: K_{VS} and C_V coefficients for Type 3241 and Type 3248 (up to DN 150/NPS 6) · Linear characteristic

Series 240 · Linear characteristic with direction of flow FTO																		
K_{VS}	4	6.3	10	16	25	36	47	60	63	100	130	160	210	250	320	500	900	1300
C_V	5	7.5	12	20	30	42	55	70	75	120	150	190	245	290	375	580	1040	1500
K_{V1}	3.6	5.7	9	14.5	22	32	43	54	57	90	115	144	190	225	280	450	800	1150
C_{V1}	4.2	7	10.5	17	26	37	50	62	67	105	135	170	220	265	325	520	950	1350
K_{V2}	-	-	8	13	20	29	38	-	50	80	105	125	170	200	255	400	720	1040
C_{V2}			9.5	15	23	34	45		60	95	120	145	200	235	295	465	835	1200
K_{V3}	-	4.8	7.5	12	20	27	-	-	47	75	80	-	-	190	230	375	675	-
C_{V3}		5.6	9	14	23	31			55	90	100			220	270	435	780	
Seat Ø	mm	24	31	38	48	63	80	63	80	100	110	130	125	150	200	250	300	
Travel	mm	15							30					60			120	
	in	0.59							1.18					2.36			4.72	
Nominal size DN	NPS	Versions without flow divider · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																
25	1	•	•															
32	-	•	•	•	•													
40	1½	•	•	•	•	•												
50	2	•	•	•	•	•	•											
65	2½		•	•	•	•	•	•										
80	3		•	•	•	•	•	•	•									
100	4								•	•	•							
125	-								•	•	•	•						
150	6								•	•	•		•					
200	8								•	•	•			•	•	•		
250	10								•	•	•			•	•	•	•	
300	12										•			•	•	•	•	•
Nominal size DN	NPS	Versions with flow divider ST 1 · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																
25	1																	
32	-	•	•	•	•													
40	1½	•	•	•	•	•												
50	2	•	•	•	•	•	•											
65	2½		•	•	•	•	•	•										
80	3		•	•	•	•	•	•	•									
100	4								•	•	•							
125	-								•	•	•	•						
150	6								•	•	•		•					
200	8								•	•	•			•	•	•		
250	10								•	•	•			•	•	•	•	
300	12										•			•	•	•	•	•
Nominal size DN	NPS	Versions with flow divider ST 2 · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																
25	1																	
32	-		•	•														
40	1½		•	•	•													
50	2		•	•	•	•												
65	2½		•	•	•	•	•											
80	3		•	•	•	•	•											
100	4								•	•	•							
125	-								•	•	•	•						
150	6								•	•	•		•					
200	8								•	•	•			•	•	•		
250	10								•	•	•			•	•	•	•	
300	12										•			•	•	•	•	•
Nominal size DN	NPS	Versions with flow divider ST 3 · Areas highlighted in gray indicate versions of Type 3241 also available with pressure balancing																
25	1																	
32	-		•															
40	1½		•															
50	2		•															
65	2½		•	•	•	•												
80	3		•	•	•	•	•											
100	4								•									
125	-								•	•								
150	6								•	•	•							
200	8								•	•	•			•	•	•		
250	10								•	•	•			•	•	•	•	
300	12										•			•	•	•	•	•

Note:
Specifications do not apply to Type 3248

Note:
Specifications do not apply to Type 3248

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Specifications do not apply to Type 3248

Table 2: Type 3248 Cryogenic Angle Valve · Direction of flow FTC

Table 2.1: K_{VS} and C_V coefficients for Type 3248 · Equal percentage characteristic

Type 3248 · Equal percentage characteristic with direction of flow FTC															
K_{VS}		4	6.3	10	13	20	32	36	47	54	70	85	105	144	
C_V		5	7.5	12	15	23	37	42	55	62	80	100	121	170	
Seat Ø	mm	24		31	38	48	63	80	63	80	80	100	110	130	
Travel	mm	15							30						
	in	0.59							1.18						
Nominal size		Version without flow divider													
DN	NPS														
25	1	•	•												
32	–	•	•	•											
40	1½	•	•	•	•										
50	2	•	•	•	•	•									
65	2½		•	•	•	•	•								
80	3		•	•	•	•	•	•							
100	4								•	•	•	•			
125	–								•	•	•	•	•		
150	6								•	•	•	•		•	

Table 2.2: K_{VS} and C_V coefficients for Type 3248 · Linear characteristic

Type 3248 · Linear characteristic with direction of flow FTC															
K_{VS}		4	6.3	10	13	20	32	40	50	54	85	115	144	190	
C_V		5	7.5	12	15	23	37	47	60	62	100	135	170	220	
Seat Ø	mm	24		31		38	48	63	80	63	80	100	110	130	
Travel	mm	15							30						
	in	0.59							1.18						
Nominal size		Version without flow divider													
DN	NPS														
25	1	•	•												
32	–	•	•	•	•										
40	1½	•	•	•	•	•									
50	2	•	•	•	•	•	•								
65	2½		•	•	•	•	•	•							
80	3		•	•	•	•	•	•	•						
100	4									•	•	•			
125	–									•	•	•	•		
150	6									•	•	•		•	

Table 3: Type 3251 Globe Valve and Type 3256 Angle Valve · Direction of flow FTO

Table 3.1: K_{VS} and C_V coefficients for Type 3251 and Type 3256 (up to DN 300/NPS 12) · Equal percentage characteristic

Series 250 · Equal percentage characteristic with direction of flow FTO																			
K_{VS}	4	6.3	10	16	25	36	54	63	80	100	160	250	360	420	630	1000	1350	1650	2500
C_V	5	7.5	12	20	30	42	62	75	95	120	190	290	420	485	735	1150	1560	1900	2900
K_{V1}	3.6	5.7	9	14.5	22	32	47	57	72	90	144	225	320	375	560	900	1200	1500	2250
C_{V1}	4.2	7	10.5	17	26	37	55	67	85	105	170	265	375	435	650	1040	1400	1730	2600
K_{V2}	3.2	5	8	13	20	29	43	50	63	80	125	200	290	340	500	800	1080	1320	-
C_{V2}	3.7	6	9.5	15	23	34	50	60	75	95	145	235	335	390	580	950	1250	1530	-
K_{V3}	3	4.8	7.5	12	20	27	40	47	60	75	120	190	270	315	480	750	1000	1250	-
C_{V3}	3.5	5.6	9	14	23	31	47	55	70	90	140	220	315	365	560	880	1150	1450	-
Seat Ø mm	24		31	38	50		63	80		100	125	150	200		250	300	350	400	500
Travel	mm	15				30				60				120					
	in	0.59				1.18				2.36				4.72					
Nom. size DN NPS	Versions without flow divider · Areas highlighted in gray indicate versions also available with pressure balancing																		
25 1	•	•																	
40 1½	•	•	•	•															
50 2	•	•	•	•	•	•													
80 3	•	•	•	•	•	•	•	•	•	•									
100 4				•	•	•	•	•	•	•	•								
150 6							•	•	•	•	•	•							
200 8								•	•	•	•	•	•	•					
250 10									•	•	•	•	•	•	•				
300 12										•	•	•	•	•	•	•			
- 14												•	•	•	•	•	•	•	
400 16													•	•	•	•	•	•	•
500 20																•	•	•	•
Nom. size DN NPS	Versions with flow divider ST 1 · Areas highlighted in gray indicate versions also available with pressure balancing																		
25 1	•	•																	
40 1½	•	•	•	•															
50 2	•	•	•	•	•	•													
80 3	•	•	•	•	•	•	•	•	•	•									
100 4				•	•	•	•	•	•	•	•								
150 6							•	•	•	•	•	•							
200 8								•	•	•	•	•	•	•	•				
250 10									•	•	•	•	•	•	•	•			
300 12										•	•	•	•	•	•	•	•		
- 14												•	•	•	•	•	•	•	•
400 16													•	•	•	•	•	•	•
500 20																•	•	•	•
Nom. size DN NPS	Versions with flow divider ST 2 · Areas highlighted in gray indicate versions also available with pressure balancing																		
25 1																			
40 1½																			
50 2	•	•	•	•	•	•													
80 3	•	•	•	•	•	•	•	•	• ¹⁾										
100 4				•	•	•	•	•	•	• ¹⁾									
150 6							•	•	•	•	•	• ¹⁾							
200 8								•	•	•	•	•	•	• ¹⁾	• ¹⁾				
250 10									•	•	•	•	•	•	•	• ¹⁾			
300 12										•	•	•	•	•	•	•	• ¹⁾		
- 14												•	•	•	•	•	•	•	•
400 16													•	•	•	•	•	•	• ¹⁾
500 20																•	•	•	•
Nom. size DN NPS	Versions with flow divider ST 3 · Areas highlighted in gray indicate versions also available with pressure balancing																		
25 1																			
40 1½																			
50 2	•	•																	
80 3	•	•	•	•	•	•													
100 4				•	•	•	•												
150 6							•	•	•	•	•								
200 8								•	•	•	•	•	•						
250 10									•	•	•	•	•	•	•				
300 12										•	•	•	•	•	•	•			
- 14												•	•	•	•	•	•	•	•
400 16													•	•	•	•	•	•	•
500 20																•	•	•	•

¹⁾ Pressure balancing only up to PN 160/Class 900

Table 3.2: K_{VS} and C_V coefficients for Type 3251 and Type 3256 (up to DN 300/NPS 12) · Linear characteristic

Series 250 · Linear characteristic with direction of flow FTO																	
K_{VS}	4	6.3	10	16	25	40	63	100	130	250	320	500	900	1300	1700	2100	3200
C_V	5	7.5	12	20	30	47	75	120	150	290	375	580	1040	1500	2000	2450	3700
K_{V1}	3.6	5.7	9	14.5	22	36	57	90	115	225	280	450	800	1150	1530	1900	2900
C_{V1}	4.2	7	10.5	17	26	42	67	105	135	265	325	520	950	1350	1800	2200	3300
K_{V2}	3.2	5	8	13	20	32	50	80	105	200	255	400	720	1030	1350	1680	-
C_{V2}	3.7	6	9.5	15	23	37	60	95	120	235	295	465	835	1200	1560	1940	-
K_{V3}	3	4.8	7.5	12	20	30	47	75	100	190	230	375	675	950	1275	1600	-
C_{V3}	3.5	5.6	9	14	23	35	55	90	120	220	270	435	780	1100	1475	1860	-
Seat Ø mm	24		31		38	50	63	80	100	125	150	200	250	300	350	400	500
Travel	mm	15				30				60				120			
	in	0.59				1.18				2.36				4.72			
Nom. size DN NPS	Versions without flow divider · Areas highlighted in gray indicate versions also available with pressure balancing																
25 1	• ¹⁾	•															
40 1½	•	•	•	•	• ¹⁾												
50 2	•	•	•	•	•	• ¹⁾											
80 3	•	•	•	•	•	•	•	• ¹⁾									
100 4					•	•	•	•	•								
150 6							•	•	•	•	•						
200 8								•	•	•	•	•					
250 10								•	•	•	•	•	•				
300 12									•	•	•	•	•	•			
- 14										•	•	•	•	•			
400 16											•	•	•	•	•	•	•
500 20												•	•	•	•	•	•
1) Red. K_{VS}/C_V w. Cl. 900-2500:	4.2	-	-	-	22	36	-	90									
	3.6	-	-	-	26	42	-	105									
Nom. size DN NPS	Versions with flow divider ST 1 · Areas highlighted in gray indicate versions also available with pressure balancing																
25 1	•	•															
40 1½	•	•	•	•	•												
50 2	•	•	•	•	•	•											
80 3	•	•	•	•	•	•	•	•									
100 4					•	•	•	•	•								
150 6							•	•	•	•	•						
200 8								•	•	•	•	•					
250 10								•	•	•	•	•	•				
300 12									•	•	•	•	•	•			
- 14										•	•	•	•	•			
400 16											•	•	•	•	•	•	•
500 20												•	•	•	•	•	•
Nom. size DN NPS	Versions with flow divider ST 2 · Areas highlighted in gray indicate versions also available with pressure balancing																
25 1																	
40 1½																	
50 2	•	•	•	•	•	•	•										
80 3	•	•	•	•	•	•	•	• ¹⁾									
100 4					•	•	•	•	• ¹⁾								
150 6							•	•	•	•	• ¹⁾						
200 8								•	•	•	•	•	• ¹⁾				
250 10								•	•	•	•	•	•	• ¹⁾			
300 12									•	•	•	•	•	•	• ¹⁾		
- 14										•	•	•	•	•	•		
400 16											•	•	•	•	•	•	• ¹⁾
500 20												•	•	•	•	•	•
Nom. size DN NPS	Versions with flow divider ST 3 · Areas highlighted in gray indicate versions also available with pressure balancing																
25 1																	
40 1½																	
50 2	•	•															
80 3	•	•	•	•	•	•											
100 4					•	•	•										
150 6							•	•	•	•	•						
200 8								•	•	•	•	•					
250 10								•	•	•	•	•	•				
300 12									•	•	•	•	•	•			
- 14										•	•	•	•	•			
400 16											•	•	•	•	•	•	•
500 20												•	•	•	•	•	•

Table 4: Type 3254 Globe Valve · Direction of flow FTO

Table 4.1: K_{VS} and C_V coefficients for Type 3254 · Equal percentage characteristic

Series 250 · Equal percentage characteristic with direction of flow FTO													
K_{VS}	54	63	80	100	160	250	360	420	630	1000	1350	1650	2500
C_V	62	75	95	120	190	290	420	485	735	1150	1560	1900	2900
K_{V1}	47	57	72	90	144	225	320	375	560	900	1200	1500	2250
C_{V1}	55	67	85	105	170	265	375	435	650	1040	1400	1730	2600
K_{V2}	43	50	63	80	125	200	290	340	500	800	1080	1320	-
C_{V2}	50	60	75	95	145	235	335	390	580	950	1250	1530	-
K_{V3}	40	47	60	75	120	190	270	315	480	750	1000	1250	-
C_{V3}	47	55	70	90	140	220	315	365	560	880	1150	1450	-
Seat Ø	mm	63	80	100	125	150	200	250	300	350	400	500	
Travel	mm	30			60				120				
	in	1.18			2.36				4.72				
Nominal size DN NPS	Versions without flow divider · Areas highlighted in gray indicate versions also available with pressure balancing												
80 3	•	•	•										
100 4	•	•	•	•									
150 6	•	•	•	•	•	•							
200 8		•	•	•	•	•	•	•					
250 10		•	•	•	•	•	•	•	•				
300 12				•	•	•	•	•	•	•			
400 16						•	•	•	•	•	•	•	
500 20									•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 1 · Areas highlighted in gray indicate versions also available with pressure balancing												
80 3	•	•	•										
100 4	•	•	•	•									
150 6	•	•	•	•	•	•							
200 8		•	•	•	•	•	•	•					
250 10		•	•	•	•	•	•	•	•				
300 12				•	•	•	•	•	•	•			
400 16						•	•	•	•	•	•	•	
500 20									•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 2 · Areas highlighted in gray indicate versions also available with pressure balancing												
80 3	•	• ¹⁾	• ¹⁾										
100 4	•	•	•	• ¹⁾									
150 6	•	•	•	•	•	• ¹⁾							
200 8		•	•	•	•	•	• ¹⁾	• ¹⁾					
250 10		•	•	•	•	•	•	•	• ¹⁾				
300 12				•	•	•	•	•	•	• ¹⁾			
400 16						•	•	•	•	•	•	• ¹⁾	
500 20									•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 3 · Areas highlighted in gray indicate versions also available with pressure balancing												
80 3													
100 4	•												
150 6	•	•	•	•	•								
200 8		•	•	•	•	•							
250 10		•	•	•	•	•	•	•					
300 12				•	•	•	•	•	•				
400 16						•	•	•	•	•	•		
500 20									•	•	•	•	•

¹⁾ Pressure balancing only up to PN 160/Class 900

Table 4.2: K_{VS} and C_V coefficients for Type 3254 · Linear characteristic

Series 250 · Linear characteristic with direction of flow FTO												
K_{VS}		63	100	130	250	320	500	900	1300	1700	2100	3200
C_V		75	120	150	290	375	580	1040	1500	2000	2450	3700
K_{V1}		57	90	115	225	280	450	800	1150	1530	1900	2900
C_{V1}		67	105	135	265	325	520	950	1350	1800	2200	3300
K_{V2}		50	80	105	200	255	400	720	1030	1350	1680	-
C_{V2}		60	95	120	235	295	465	835	1200	1560	1940	
K_{V3}		47	75	100	190	230	375	675	950	1275	1600	-
C_{V3}		55	90	120	220	270	435	780	1100	1475	1860	
Seat Ø	mm	63	80	100	125	150	200	250	300	350	400	500
Travel	mm	30			60			120				
	in	1.18			2.36			4.72				
Nominal size DN NPS	Versions without flow divider · Areas highlighted in gray indicate versions also available with pressure balancing											
80 3	•	• ¹⁾										
100 4	•	•	•									
150 6	•	•	•	•	•							
200 8		•	•	•	•	•						
250 10		•	•	•	•	•	•					
300 12			•	•	•	•	•	•				
400 16					•	•	•	•	•	•	•	
500 20							•	•	•	•	•	•
1) Reduced K_{VS}/C_V coefficients with Class 900 to 2500: $K_{VS} = 90/C_V = 105$												
Nominal size DN NPS	Versions with flow divider ST 1 · Areas highlighted in gray indicate versions also available with pressure balancing											
80 3	•	•										
100 4	•	•	•									
150 6	•	•	•	•	•							
200 8		•	•	•	•	•						
250 10		•	•	•	•	•	•					
300 12			•	•	•	•	•	•				
400 16					•	•	•	•	•	•	•	
500 20							•	•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 2 · Areas highlighted in gray indicate versions also available with pressure balancing											
80 3	•	• ¹⁾										
100 4	•	•	• ¹⁾									
150 6	•	•	•	•	• ¹⁾							
200 8		•	•	•	•	• ¹⁾						
250 10		•	•	•	•	•	• ¹⁾					
300 12			•	•	•	•	•	• ¹⁾				
400 16					•	•	•	•	•	•	• ¹⁾	
500 20							•	•	•	•	•	•
Nominal size DN NPS	Versions with flow divider ST 3 · Areas highlighted in gray indicate versions also available with pressure balancing											
80 3												
100 4	•											
150 6	•	•	•	•								
200 8		•	•	•	•							
250 10		•	•	•	•	•						
300 12			•	•	•	•	•					
400 16					•	•	•	•	•	•		
500 20							•	•	•	•	•	•

Table 5: Type 3256 Angle Valve · Direction of flow FTC

Table 5.1: K_{VS} and C_V coefficients for Type 3256 · Equal percentage characteristic

Type 3256 · Equal percentage characteristic with direction of flow FTC																	
K_{VS}		4	6.3	10	13	20	30	47	54	70	85	144	220	320	400	600	950
C_V		5	7.5	12	15	23	35	55	62	80	100	170	255	375	465	700	1100
Seat Ø	mm	24		31	38	50		63	80		100	125	150	200		250	300
Travel	mm	15					30					60				120	
	in	0.59					1.18					2.36				4.72	
Nominal size		Version without flow divider · Pressure balancing on request															
DN	NPS																
25	1	•	•														
40	1½	•	•	•	•												
50	2	•	•	•	•	•	•										
80	3	•	•	•	•	•	•	•	•	•							
100	4				•	•	•	•	•	•	•						
150	6							•	•	•	•	•	•				
200	8								•	•	•	•	•	•	•		
250	10								•	•	•	•	•	•	•	•	
300	12										•	•	•	•	•	•	•

Table 5.2: K_{VS} and C_V coefficients for Type 3256 · Linear characteristic

Type 3256 · Linear characteristic with direction of flow FTC																	
K_{VS}		4	6.3	10	13	20	35	54	85	115	220	280	480	860	1240		
C_V		5	7.5	12	15	23	40	62	100	135	255	325	560	1000	1440		
Seat Ø	mm	24		31		38	50	63	80	100	125	150	200	250	300		
Travel	mm	15					30					60				120	
	in	0.59					1.18					2.36				4.72	
Nominal size		Version without flow divider · Pressure balancing on request															
DN	NPS																
25	1	•	•														
40	1½	•	•	•	•	• ¹⁾											
50	2	•	•	•	•	•	• ¹⁾										
80	3	•	•	•	•	•	•	•	• ¹⁾								
100	4				•	•	•	•	•	•							
150	6							•	•	•	•	•					
200	8								•	•	•	•	•	•			
250	10								•	•	•	•	•	•	•		
300	12									•	•	•	•	•	•	•	•

¹⁾ Reduced K_{VS}/C_V coefficients on request for Class 900 to 2500

Ordering text

Order specifications:

Perforated plug for	Type ... Valve
Body material	According to associated data sheet
End connections	According to associated data sheet
Nominal size	DN .../NPS ...
Nominal pressure	PN .../Class ...
Flow coefficient	K_{VS} .../ C_V ...
Direction of flow	FTO (under the plug) FTC (over the plug)

For a retrofit, the details below are additionally required

Seat diameter mm
Travel mm

