

High Temperature Sliding Gate Valve 8023

GS 3 series - 1/2" up to 10"

Pneumatic sliding gate valve for regulating or shutting off liquid and gaseous media for industrial high temperature applications

- Space-saving wafer-type design
- Lowest possible weight
- Quiet operation
- Fast response
- Control of high differential pressures with small actuators
- Greatly reduced energy consumption rates due to short strokes and low actuating forces on the throttle element
- High Cv-values
- Meets the requirements of TA-Luft 2021



Technical Information

Bauform	Zwischenflansch-Ausführung für Flansche nach DIN EN 1092-1 Form B		
Nennweiten	DN 15 bis DN 250		
Nenndruck nach DIN 2401	PN 40 (passend auch für PN 10-25) PN 100 PN 16 und PN 25	DN 15 - DN 150 DN 15 - DN 80 DN 200 - DN 250	
Nenndruck nach ANSI	ANSI 150 ANSI 300 ANSI 600	DN15 - DN 250 DN 15 - DN 150 DN 15 - DN 80	
Zuluftdruck	max. 6 bar		
Medientemperatur	-60°C bis +450°C bei Gleitpaarung Carbonwerkstoff-Edelstahl -60°C bis +450°C bei Gleitpaarung STN2 -60°C bis +300°C für Gleitpaarung SFC bis +530°C mit Edelstahlgehäuse, Faltenbalg aus Inconel 625 und Gleitpaarung STN2		
Umgebungstemperatur *	digitaler Regler -10°C bis +75°C analoger Regler -15°C bis +60°C		
Stellverhältnis	40 : 1		
Leckrate *	Gleitpaarung Carbonwerkstoff-Edelstahl	Gleitpaarung SFC	Gleitpaarung STN 2
% vom Kvs IEC 60534-4 EN 12266-1	< 0,0001 IV-S1 E	< 0,0005 IV-S1 F	< 0,001 IV F
Kennzeichnung ATEX nicht elektrisch	II 2G Ex h IIC T6...T1 X Gb II 2D Ex h IIC 85°C...530°C X Db		
Spezifische Leckrate Schaft- und Gehäuseabdichtung	ISO FE-BH-CC3-SSA0-t(-40°C/+350°C)-PN40-ISO 15848-1		

* With DN15 with reduction of less than 25%, different leakage rates possible.

K_{vs}-values see data sheet 8001.

High Temperature Sliding Gate Valve 8023



Fluid temperature

Rating	PN40	PN 16	PN 100	ANSI 150	ANSI 300	ANSI 600
Body material cpl. stainless steel						
Tmin [°F]	-76	-76	-76	-20	-20	-20
Tmax [°F]	986	986	986	986	986	986
Body material carbon steel with stainless steel body cover						
Tmin [°F]	-76	-76	14	-4	-4	14
Tmax [°F]	842	842	842	842	842	842

Materials

Body	Stainless steel CF8M	Carbon steel	ASTM A216 WCB
Bodycover	Stainless steel 316 Ti or 316 L		
Diaphragm housing	Aluminium, KTL coated		
Packing	PTFE (Carbon filled), spring SST 301		
Actuating stem	Stainless steel 316 Ti, roller burnished		
Bellows	Stainless steel 316 Ti		
Fixed disc	Stainless steel 316 Ti, coated	STN2	
Sliding disc	Special carbon material	SFC-disc	STN2-disc
Guide ring for sliding disc	Stainless steel 316 Ti		

High Temperature Sliding Gate Valve 8023-GS3



Admissible Pressures

(For temperatures of up to 100°F for ANSI-classes and up to 250°F for PN-classes)

For temperatures exceeding 100°F (ANSI) or 250°F (PN): consider operation limits

Disc pair: carbon - stainless steel coated
SFC - stainless steel coated

Diaphragm area	20 in ²					40 in ²				
Spring range (psi)	3 to 15	15 to 29	22 to 44	26 to 55	30 to 65	3 to 15	12 to 20	17 to 32	20 to 39	25 to 46
Supply air (psi)	17	41	61	75	87	17	30	46	58	67
Size	Admissible differential pressures in psi									
1/2"	65	1450	1450	1450	1450	275	1450	1450	1450	1450
3/4"	55	1450	1450	1450	1450	240	1450	1450	1450	1450
1"	45	1276 (1450)*	1276 (1450)*	1276 (1450)*	1276 (1450)*	200	1276 (1450)*	1276 (1450)*	1276 (1450)*	1276 (1450)*
1 1/4"	40	1450	1450	1450	1450	165	1450	1450	1450	1450
1 1/2"	30	955	1276 (1450)*	1276 (1450)*	1276 (1450)*	125	1276 (1450)*	1276 (1450)*	1276 (1450)*	1276 (1450)*
2"	-	520	825	1015	1220	85	915	1405	1450	1450
2 1/2"	-	420	655	810	970	70	740	1130	1160	1160
3"	-	245	375	480	565	45	435	655	695	695
4"	-	145	230	290	350	-	260	390	480	480
5"	-	95	145	190	220	-	175	260	320	335
6"	-	75	110	130	160	-	125	190	230	230
8"	-	35	65	80	95	-	75	110	130	145
10"	-	25	40	50	60	-	30	70	85	95
Spring configuration	Code D	Code 2	Code 3	Code 4	Code 5	Code D	Code 2	Code 3	Code 4	Code 5

Standard

*: figures in brackets for bodys of carbon steel

	Upper limits for admissible pressures in bar					
	PN16	PN40	PN100	ANSI150	ANSI 300	ANSI 600
P max. carbon steel	16	40	100	19,6	51,1	102,1
P max. stainless steel				19,0	49,6	99,3

Disc pair: STN 2

Actuator size	125 cm ²					250 cm ²				
Spring range (bar)	0,2 to 1,0	1,0 to 2,0	1,5 to 3,0	1,8 to 3,8	2,1 to 4,5	0,2 to 1,0	0,8 to 1,4	1,2 to 2,2	1,5 to 2,7	1,7 to 3,7
Supply air (bar)	1,2	3	4,4	5,4	6,0	1,2	2,2	3,3	4,0	4,8
DN	Admissible differential pressures in bar									
15	3,1	100	100	100	100	13,4	100	100	100	100
20	2,4	57	100	100	100	10,3	100	100	100	100
25	1,8	57	88	88 (100)*	88 (100)*	7,7	88 (100)*	88 (100)*	88 (100)*	88 (100)*
32	1,3	38	59	73	87	5,7	66	100	100	100
40	0,9	23	37	45	54	3,9	41	63	72	72
50	-	13	20	25	30	2,4	23	35	42	49
65	-	10	16	20	24	2,0	18	28	34	40
80	-	6	9	11	14	1,2	10	16	19	23
100	-	3,5	5,5	7	8,5	-	6,5	10	12	14
125	-	2,5	3,5	4,5	5,5	-	4	6,5	8	9
150	-	1,5	2,5	3,5	4	-	3	4,5	5,5	6,5
200	-	1	1,6	2	1,8	-	1,8	2,7	3,3	3,9
250	-	0,6	1	1,2	1,4	-	1,1	1,7	2	2,4
Spring configuration	Code D	Code 2	Code 3	Code 4	Code 5	Code D	Code 2	Code 3	Code 4	Code 5

Standard

*: figures in brackets for bodys of carbon steel

	Upper limits for admissible pressures in bar					
	PN16	PN40	PN100	ANSI150	ANSI 300	ANSI 600
P max. carbon steel	16	40	100	19,6	51,1	102,1
P max. stainless steel				19,0	49,6	99,3

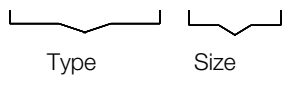
The supply air pressure stated in the table is the minimum supply air pressure that has to be available. This is valid for use without a positioner. When utilizing a positioner the required supply air pressure is determined by the adjustment of the positioner. For the standard version it is 60 psi. The spring configuration „D“ allows the usage of a control valve without a positioner but with limited performance. The valve can be controlled directly by a process controller with a signal of 3 to 15 psi.

High Temperature Sliding Gate Valve 8023-GS3



Ordering Number System

8	0	2	3	/				V	Q							M								Z				S
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Symbol: "V": Valve
"R": Repair kit (sealings)

1 - 5 : Please quote all 5 sections.
6 - 16: Quote only if required.

1.	Function	2.	Body design	3.	Body materials	4.	Pilot function	5.	Actuator	6.	Special versions
P	sliding gate valve with pneumatic actuator (8020)	E	GS3 - flangeless design acc. ANSI 150	0	Carbon-Steel ASTM A216 WCB	0	spring to close	6	Diaphragm actuator 20 in² (NPT)	M	to state, if some sections 7-16 are quoted
		F	GS3 - flangeless design acc. ANSI 300	1	Stainless Steel CF8M	1	spring to open	7	Diaphragm actuator 40 in² (NPT)		
		K	GS3 - flangeless design acc. ANSI 600								
		G	GS3 - flangeless design acc. DIN, (145psi - 580 psi)								
		H	GS3 - flangeless design acc. DIN, 1450 psi								
7.	Springs	8.	Stem sealing	9.	Sliding disc	10.	Fixed disc	11.	Cv-values	12.	Flow characteristic
-	Standard	-	PTFE-V-shaped seal, self-adjusting (standard)	-	carbon material	-	Stainless steel/Stellite	-	100 % (Stand.)	-	linear
1	2 springs			B	carbon material	1	STN 2 - plate (only in combination with the position „9“)	A	red. to 63 %	1	equal
2	4 springs				carbon material			B	red. to 40 %		percentage
3	6 springs				fibres			2	red. to 25 %		
4	8 springs				forced			3	red. to 16 %		
5	10 springs	1	Additional stainless steel bellow 316 Ti	9	STN2/STN3	3	STN 3 - plate (only in combination with the position „9“)	C	red. to 10 %		
D	Set of springs 3 -15 psi (4 springs)			S	Stainless Steel SFC-coated			4	red. to 6,3 %		
								5	red. to 2,5 %		
								6	red. to 1 %		
								7	red. to 12 %		
								8	red. to 2 %		
								9	red. to 0,4 %		
13.	Accessories	14.	Positioner	15.	Signalling equipment	16.	Special version				
Z	To state, if in sections 14 and 15 accessories are quoted	-	without	-	without	S	Other special versions have to be quoted in letters				
		1	p/p - without gauges	0	2 limit switches inductive, M12x1						
		2	p/p - with gauges	1	10-30 V DC PNP						
		3	i/p - without gauges	2	2 limit switches inductive, integr. in positioner						
		4	dto. with gauges		i/p-converter						
		6	i/p - intrinsically without gauges	5	2 limit switches inductive, M 12x1						
		7	dto. with gauges		10-55 V DC PNP/NPN						

Ordering Example: 8023/080VQE103M4 - - - - - Z3
sliding gate valve with pneumatic actuator, 3" , flangeless design acc. ANSI 150, stainless steel 316 Ti, spring to close, actuator diaphragm 20 in², 8 springs, PTFE-V-shaped sealing, function unit carbon-stainless steel 316 Ti coated, flow characteristic linear, i/p-positioner ex-proof

Application limitations for GS3 valves in stainless steel

These pressure must not be exceeded for GS-valves from the GS3-series made of stainless steel, even though the actuator power might allow it.

PN40

Size	Sliding unit: carbon/SFC - stainless steel, coated							
	maximum pressures for GS3-valves in stainless steel (psi)							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	580	580	580	580	580	580	580	580
3/4"	580	580	580	580	580	580	580	580
1"	580	580	580	580	580	580	580	550
1/2" - 1 1/4"	580	580	580	580	580	580	580	580
1 1/2"	580	580	580	580	580	580	580	550
2"	580	580	580	580	580	580	580	580
2 1/2"	580	580	580	580	580	580	580	580
3"	580	580	580	580	580	580	580	505
4"	475	475	475	475	475	475	475	475
5"	475	475	475	475	475	475	475	475
6"	230	230	230	230	230	230	230	230
8" (max 365psi)	230	230	220	190	175	160	145	130
10" (max 365psi)	145	130	130	115	100	85	85	70

Size	Sliding unit: STN2									
	maximum pressures for GS3-valves in stainless steel (psi)									
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	580	580	580	580	580	580	580	580	565	450
3/4"	580	580	580	580	580	580	580	580	480	390
1"	580	580	580	580	580	580	580	550	375	305
1/2" - 1 1/4"	580	580	580	580	580	580	580	580	435	350
1 1/2"	580	580	580	580	580	535	465	420	375	305
2"	580	580	580	580	580	580	510	450	405	375
2 1/2"	580	580	580	580	535	465	405	365	320	305
3"	520	495	480	375	320	275	230	205	190	175
4"	465	450	435	350	290	245	220	190	175	160
5"	305	305	275	230	190	160	145	115	115	100
6"	220	220	205	160	130	115	100	85	75	75
8" (max 365psi)	115	100	85	75	60	45	45	30	30	30
10" (max 365psi)	80	80	75	60	50	40	40	35	30	30

Limitation for SFC-sliding discs: 570°F

PN100

Size	Sliding unit: carbon/SFC - stainless steel, coated							
	maximum pressures for GS3-valves in stainless steel (psi)							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1450	1450	1450	1350	1220	1145	1075	800
3/4"	1450	1450	1290	1175	1060	985	930	695
1"	1275	1175	1015	915	825	785	740	550
1 1/4"	1450	1350	1160	1060	945	900	840	625
1 1/2"	1275	1175	1015	915	825	785	740	550
2"	1450	1450	1450	1450	1450	1365	1260	1100
2 1/2"	1160	1160	1160	1145	1030	970	915	680
3"	695	695	695	695	695	640	595	510

Size	Sliding unit: STN2									
	maximum pressures for GS3-valves in stainless steel (psi)									
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	1450	1450	1450	1350	1220	1145	1075	800	565	450
3/4"	1450	1450	1290	1175	1060	985	930	695	480	390
1"	1275	1175	1015	915	825	785	740	550	375	305
1 1/4"	1450	1350	1160	1060	945	870	755	625	435	350
1 1/2"	1045	1000	945	770	625	535	465	420	375	305
2"	1115	1060	1015	810	665	580	510	450	405	375
2 1/2"	900	855	810	655	535	465	405	365	320	305
3"	520	495	480	375	320	275	230	205	190	175

Limitation for SFC-sliding discs: 570°F

High Temperature Sliding Gate Valve 8023-GS3



ANSI150

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in stainless steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2" - 5"	275	265	235	215	200	175	150	120	95	65
6"	230	230	230	215	200	175	150	120	95	65
8"	230	230	230	215	200	175	150	120	95	65
10"	150	150	150	145	135	120	105	100	90	65

Size	Sliding unit: STN2											
	max. admissible pressures for GS3-valves in stainless steel											
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2" - 5"	275	265	235	215	200	175	150	120	95	65	30	25
6"	235	235	235	215	200	170	140	120	95	65	30	25
8"	150	145	120	110	100	80	65	55	50	40	30	25
10"	85	85	85	80	75	60	50	40	40	35	30	25

Limitation for SFC-sliding discs: 570°F

ANSI300

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in stainless steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-2 1/2"	720	695	610	560	520	485	460	440	425	420
3"	695	695	610	560	520	485	460	440	425	420
4"	480	480	480	480	480	480	460	440	425	420
5"	335	335	335	335	335	335	335	335	335	335
6"	230	230	230	230	230	230	230	230	230	230
8"	230	230	220	200	180	155	140	130	120	110

Size	Sliding unit: STN2											
	max. admissible pressures for GS3-valves in stainless steel											
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	720	695	610	560	520	485	460	440	425	420	400	375
3/4"	720	695	610	560	520	485	460	440	425	420	400	375
1"	720	695	610	560	520	485	460	440	425	420	385	315
1 1/4"	720	695	610	560	520	485	460	440	425	420	400	360
1 1/2"	720	695	610	560	520	485	460	440	425	420	385	315
2"	720	695	610	560	520	485	460	440	425	420	400	375
2 1/2"	720	695	610	560	520	485	460	440	410	365	330	315
3"	530	530	530	505	480	390	320	275	240	215	195	180
4"	480	480	480	460	435	355	290	250	220	195	175	165
5"	320	320	320	305	290	235	190	165	145	130	115	110
6"	230	230	230	225	210	170	140	120	105	95	85	80
8"	150	145	120	110	100	80	65	55	45	40	35	35

Limitation for SFC-sliding discs: 570°F

ANSI600

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in stainless steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1440	1395	1225	1115	1035	970	915	880	865	810
3/4"	1440	1395	1225	1115	1035	970	915	880	865	700
1"	1275	1275	1225	1115	1015	925	830	785	740	550
1 1/4"	1440	1395	1225	1115	1035	970	915	880	850	630
1 1/2"	1275	1275	1225	1115	1015	925	830	785	740	550
2"	1440	1395	1225	1115	1035	970	915	880	865	835
2 1/2"	1160	1160	1160	1115	1035	970	915	880	865	690
3"	695	695	695	695	695	695	695	645	595	515

Size	Sliding unit: STN2											
	max. admissible pressures for GS3-valves in stainless steel											
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	1440	1395	1225	1115	1035	970	915	880	865	810	565	460
3/4"	1440	1395	1225	1115	1035	970	915	880	865	700	490	400
1"	1275	1275	1225	1115	1015	925	830	785	740	550	385	315
1 1/4"	1440	1395	1225	1115	1035	970	915	875	765	630	440	360
1 1/2"	1050	1050	1050	1000	950	770	630	545	475	425	385	315
2"	1125	1125	1125	1070	1020	825	675	585	510	455	410	390
2 1/2"	905	905	605	865	820	665	545	470	410	365	330	315
3"	530	530	530	505	480	390	320	275	240	215	195	185

Limitation for SFC-sliding discs: 570°F

Application limitations for GS3 valves in carbon steel

These pressure must not be exceeded for GS-valves from the GS3-series made of carbon steel, even though the actuator power might allow it.

PN40

Sliding unit: carbon/SFC - stainless steel, coated								
max. admissible pressures for GS3-valves in carbon steel								
Size	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1 1/4"	580	580	580	580	580	580	580	580
1 1/2"	580	580	580	580	580	580	580	580
2"	580	580	580	580	580	580	580	580
2 1/2"	580	580	580	580	580	580	580	580
3"	580	580	580	580	580	580	580	550
4"	480	480	480	480	480	475	475	475
5"	335	335	335	335	335	330	330	330
6"	230	230	230	230	230	230	230	230
8" (max 365 psi)	230	230	220	190	175	155	145	140
10" (max 365 psi)	145	130	130	115	100	85	85	75

Sliding unit: STN2								
max. admissible pressures for GS3-valves in carbon steel								
Size	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1 1/4"	580	580	580	580	580	580	580	580
1 1/2"	580	580	580	580	580	580	460	420
2"	580	580	580	580	580	580	505	450
2 1/2"	580	580	580	580	535	460	405	360
3"	520	495	480	375	320	275	230	200
4"	480	450	435	350	290	245	215	190
5"	320	305	275	230	190	155	145	115
6"	230	220	205	160	130	115	100	85
8" (max 365 psi)	120	110	100	80	65	55	45	40
10" (max 365 psi)	80	80	75	60	50	40	40	35

Limitation for SFC-sliding discs: 570°F

PN100

Sliding unit: carbon/SFC - stainless steel, coated								
max. admissible pressures for GS3-valves in carbon steel								
Size	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1450	1450	1450	1450	1450	1450	1350	1030
3/4"	1450	1450	1450	1450	1450	1450	1450	1160
1"	1450	1450	1450	1450	1365	1260	1170	900
1 1/4"	1450	1450	1450	1450	1450	1435	1350	1040
1 1/2"	1450	1450	1450	1450	1365	1260	1170	910
2"	1450	1450	1450	1450	1450	1360	1260	1175
2 1/2"	1160	1160	1160	1160	1160	1100	1010	940
3"	695	695	695	695	695	635	595	550

Sliding unit: STN2								
max. admissible pressures for GS3-valves in carbon steel								
Size	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1450	1450	1450	1450	1450	1450	1350	1030
3/4"	1450	1450	1450	1450	1450	1450	1450	1160
1"	1450	1450	1450	1450	1365	1260	1100	900
1 1/4"	1450	1450	1450	1220	1000	870	750	665
1 1/2"	1045	1000	945	770	625	535	460	420
2"	1115	1060	1015	810	665	580	505	450
2 1/2"	900	855	810	655	535	460	405	360
3"	520	495	480	375	320	275	230	200

Limitation for SFC-sliding discs: 570°F

High Temperature Sliding Gate Valve 8023-GS3



ANSI 150

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-5"	285	280	255	230	200	175	150	120	90	65
6"	230	230	230	230	200	175	150	120	90	65
8"	230	230	230	230	200	175	150	120	90	65
10"	150	150	150	145	135	120	105	87	90	65

Size	Sliding unit: STN2									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-5"	285	280	255	230	200	175	150	120	95	65
6"	235	235	235	225	200	170	140	115	95	65
8"	150	145	120	110	100	80	65	55	50	40
10"	85	85	85	80	75	60	50	40	40	35

Limitation for SFC-sliding discs: 570°F

ANSI 300

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	740	725	675	655	635	610	577	580	500	330
1 1/4"	740	725	675	655	635	610	285	580	500	330
1 1/2"	740	725	675	655	635	610	285	580	500	330
2"	740	725	675	655	635	610	285	580	500	330
2 1/2"	740	725	675	655	635	610	285	580	500	330
3"	695	695	675	655	635	610	285	580	500	330
4"	480	480	480	480	480	480	285	475	330	330
5"	335	335	335	335	335	335	285	330	330	330
6"	230	230	230	230	230	230	230	230	230	230
8"	230	230	220	200	180	155	140	130	120	110

Size	Sliding unit: STN2									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	740	725	675	655	635	610	577	545	500	330
1 1/4"	740	725	675	655	635	610	577	545	500	330
1 1/2"	740	725	675	655	635	610	577	545	475	330
2"	740	725	675	655	635	610	577	545	500	330
2 1/2"	605	605	605	575	545	485	545	470	410	330
3"	530	530	530	505	480	390	319	275	240	210
4"	480	480	480	460	435	355	290	245	215	190
5"	320	320	320	305	290	235	191	155	145	125
6"	230	230	230	225	210	170	141	115	105	90
8"	150	145	120	110	100	65	65	55	45	40

Limitation for SFC-sliding discs: 570°F

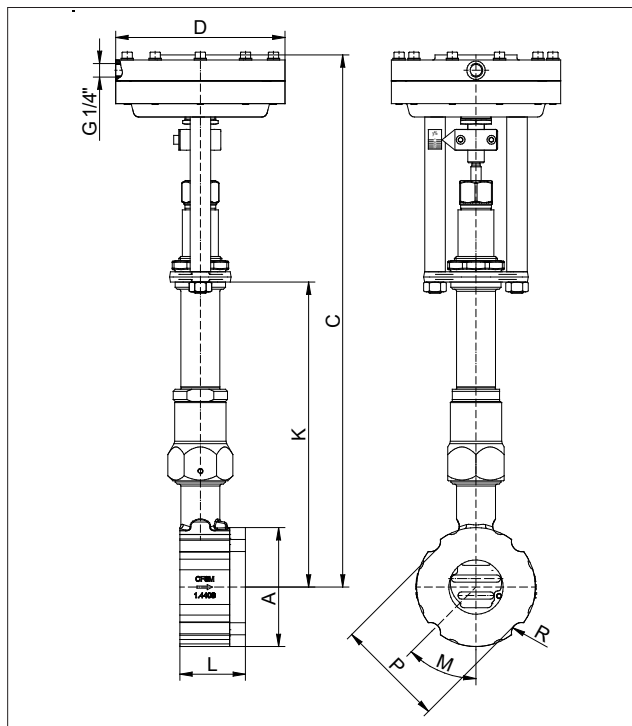
ANSI 600

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	1480	1455	1350	1310	1270	1215	1155	1085	1000	665
1 1/4"	1480	1455	1350	1310	1270	1215	1155	1085	1000	665
1 1/2"	1450	1450	1350	1310	1270	1215	1155	1085	1000	665
2"	1450	1450	1350	1310	1270	1215	1155	1085	1000	665
2 1/2"	1160	1160	1160	1160	1160	1160	1155	1085	1000	665
3"	695	695	695	695	695	695	695	635	595	555

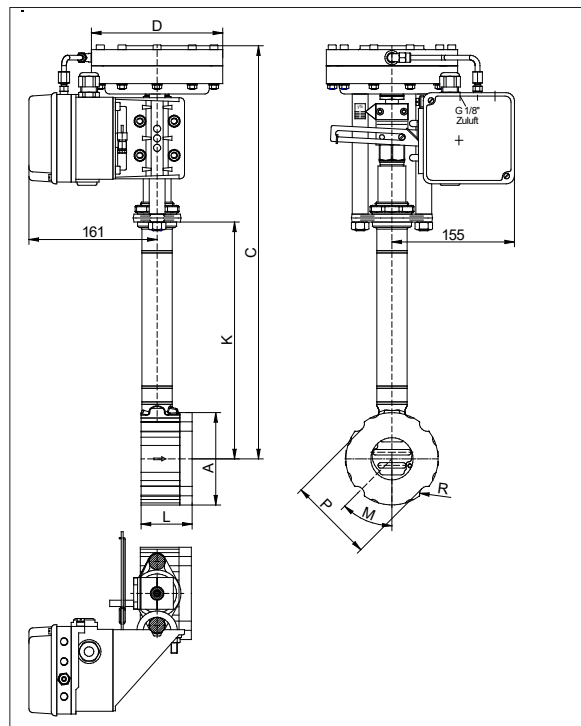
Size	Sliding unit: STN2									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	1480	1455	1350	1310	1270	1215	1155	1085	1000	665
1 1/4"	1480	1455	1350	1310	1270	1215	1010	870	760	665
1 1/2"	1050	1050	1050	1000	950	770	630	535	475	420
2"	1125	1125	1125	1070	1020	825	675	580	510	450
2 1/2"	905	905	905	865	820	665	545	460	410	365
3"	530	530	530	535	480	390	320	275	240	210

Limitation for SFC-sliding discs: 570°F

Dimensions and Weights



without positioner



with electropneumatic positioner

Size	A	C	Ø D		K	L	Weight lbs		Stroke
			actuator size				actuator size		
	inch	inch	20 in ²	40 in ²	inch	inch	20 in ²	40 in ²	inch
1/2"	2.5	19.5	6.5	8.75	10.7	2.2	16.5	21.3	0.25
3/4"	2.85	19.7	6.5	8.75	10.85	2.2	16.9	21.8	0.25
1"	3.25	19.9	6.5	8.75	11.05	2.2	18	22.9	0.25
1 1/4"	3.5	20.1	6.5	8.75	11.15	2.2	18.7	23.5	0.25
1 1/2"	3.9	20.3	6.5	8.75	11.4	2.2	19.8	24.2	0.25
2"	4.55	20.65	6.5	8.75	11.7	2.5	23.1	28.6	0.3
2 1/2"	5.45	21.05	6.5	8.75	12.05	2.7	27.5	33	0.3
3"	6	21.45	6.5	8.75	12.4	2.75	29.7	35.2	0.3
4"	7.25	21.85	6.5	8.75	12.9	2.95	36.3	41.8	0.35
5"	8.35	22.45	6.5	8.75	13.5	3.15	42.9	48.4	0.35
6"	9.55	23.05	6.5	8.75	14	3.15	50.6	55	0.35
8"	11.9	24.2	6.5	8.75	15.1	3.65	88	92.4	0.35
10"	14.15	25.2	6.5	8.75	16.15	3.8	100.1	104.5	0.35

Dimensions in inch

High Temperature Sliding Gate Valve 8023-GS3

Flow Coefficients - Cv-values



Ordering code	-	A	1	B	6	2	7	C	3	4	8	5	9	
Size	Charact.	100 %	63 %	40 %	25 %	20%	16 %	12 %	10 %	6,3 %	2,5 %	2 %	1 %	0,4%
1/2"	(mod.) linear	4.6	3	2	1.6	-	0.82	0.57	0.51	0.3	0.16	0.09	0.05	0.021
	eq. perc.	2	-	1.3	-	0.4	-	-	-	0.12	-	-	-	-
3/4"	(mod.) lin.	7.4	-	-	-	-	1.16	-	-	-	-	0.15	-	-
	eq. perc.	3.5	-	1.7	-	-	-	-	-	-	-	-	-	-
1"	(mod.) linear	13	7.4	4.6	-	-	1.9	-	1.08	0.72	0.3	-	0.16	0.05
	eq. perc.	5.8	-	2.8	-	1.3	-	-	-	0.41	-	-	-	-
1 1/4"	(mod.) linear	19	12	-	-	-	-	-	-	-	-	-	-	-
	eq. perc.	9.3	5.45	-	-	-	-	-	-	-	-	-	-	-
1 1/2"	(mod.) lin.	30	19	13	8.1	-	-	-	-	-	-	-	-	-
	eq. perc.	13	9.9	-	3.2	-	-	-	-	-	-	-	-	-
2"	(mod.) linear	52	32	23	14	12	-	-	-	-	-	-	-	-
	eq. perc.	22	14	-	-	-	-	3.5	-	-	-	-	-	-
2 1/2"	(mod.) linear	60	41	-	17	-	-	-	-	-	-	-	-	-
	eq. perc.	35	-	-	9.3	-	-	-	-	-	-	-	-	-
3"	(mod.) linear	107	67	46	-	-	-	-	-	-	-	-	-	-
	eq.perc.	56	41	-	-	-	-	-	-	-	-	-	-	-
4"	(mod.) linear	179	110	72	-	-	-	-	-	-	-	-	-	-
	eq.perc.	89	56	-	-	-	-	-	-	-	-	-	-	-
5"	(mod.) linear	275	-	110	-	-	-	-	-	-	-	-	-	-
	eq.perc.	135	-	-	-	-	-	-	-	-	-	-	-	-
6"	(mod.) linear	392	246	-	-	-	-	-	-	-	-	-	-	-
	eq.perc.	171	104	-	-	-	-	-	-	-	-	-	-	-
8"	(mod.) linear	650	408	-	-	-	-	-	-	-	-	-	-	-
	eq.perc.	329	-	-	-	-	-	-	-	-	-	-	-	-
10"	(mod.) linear	1056	667	-	-	-	-	-	-	-	-	-	-	-
	eq.perc.	-	-	-	-	-	-	-	-	-	-	-	-	-