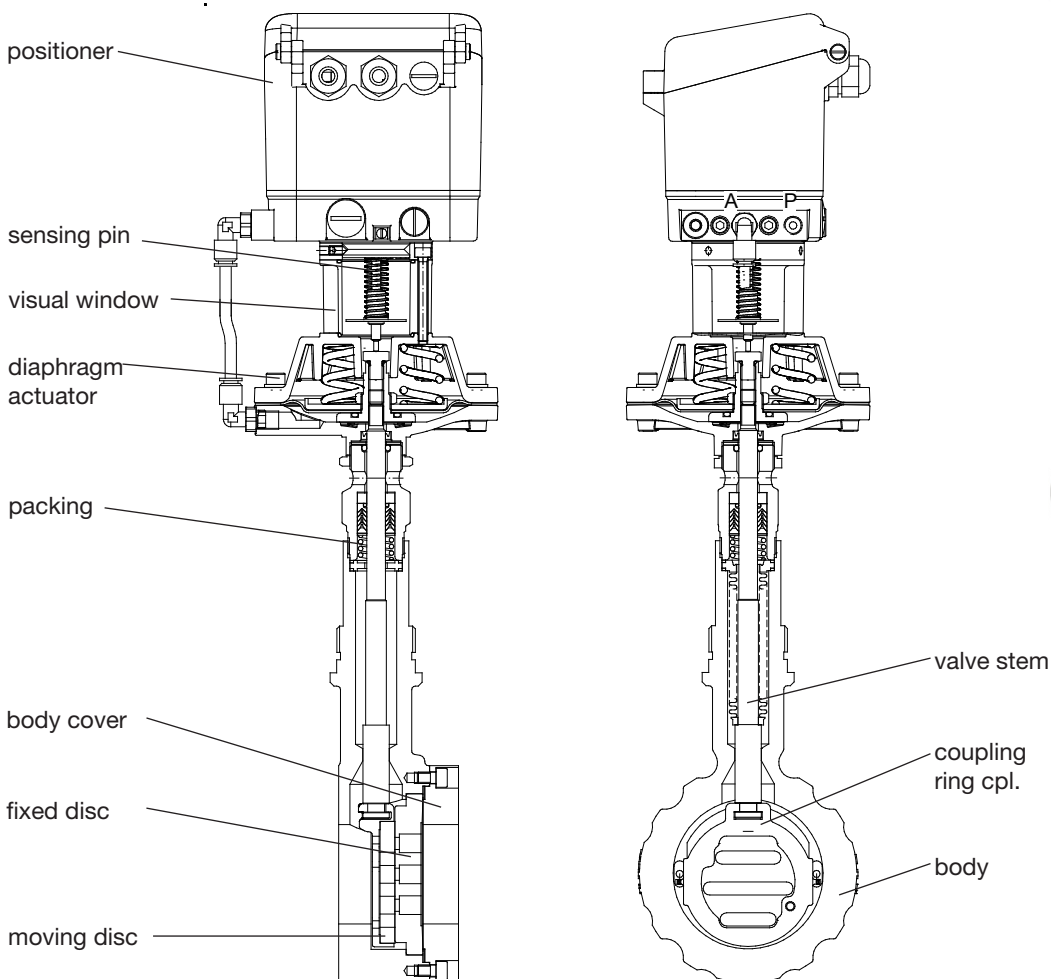


Sliding Gate Valve 8028

GS3 Series - DN15 up to DN150

Compact pneumatic sliding gate valve optionally with integrated positioner for regulating or shutting off liquid and gaseous media for industrial applications

- Excellent control precision due to less friction at the actuator
- High rangeability of 40:1 linear / 80:1 equal percentage
- Control of high differential pressures with small actuators
- Without positioner also suitable for on/off applications
- Space saving wafer type construction
- Integrated positioner
- Lowest possible weight
- Quiet operation
- Fast response time
- Greatly reduced energy consumption rates due to short strokes and low actuating forces on the throttle elements
- Meets the requirements of TA-Luft 2021



Technical information

Body design	flangeless, wafer-type construction - for flanges acc. DIN EN 1092-1 Form B or ASME B16.5 RF - with threaded connection (only PN40 in stainless steel; DN15 - DN50) further versions see data-sheet 8028-GS1		
Nominal sizes	DN 15 - 150		
Nominal pressure acc. EN 1333	PN 40 (fits also to PN 10-25)	DN 15 - DN 150	
Nominal pressure acc. ASME B16.34	ANSI 150 ANSI 300	DN 15 - DN 150 DN 15 - DN 150	
nominal pressure acc. JIS for raised face flanges	10K 20K	DN 15 - DN 50 DN 15 - DN 40	
Fluid temperature	Versions from -60°C up to +350°C		
Ambient temperature*	digital positioner -10°C up to +75°C		
Flange gaskets (customer side)	DIN EN 1514-1 or ANSI B16.21 in the respective nominal pressure rating		
Rangeability / Characteristic digital positioner	40 : 1 linear / 80 : 1 equal percentage		
Leakage % of Kvs IEC 60534-4 EN122661	Disc pair Carbon-stainless steel <0,0001 IV-S1 E < 0,0001 IV-S1 D	Disc pair SFC <0,0005 IV-S1 F < 0,0005 IV-S1 E	Disc pair STN 2 <0,001 IV F < 0,001 IV E
Marking ATEX non electric	II 2G Ex h IIC T6...T1 X Gb II 2D Ex h IIIC 85°C...530°C X Db		
Spezific leakage rate shaft and body sealing	ISO FE-BH-CC3-SSA0-t(-40°C/+350°C)-PN40-ISO 15848-1		
Applications acc. PED 2014/68/EU	stainless steel or carbon steel body body made of stainless steel with threaded ends		up to category II up to category I

* Please consider the limitation of use of the positioner!

Fluid temperature

Rating	PN16	PN 40	PN 100	ANSI 150	ANSI 300	ANSI 600
Body material cpl. stainless steel						
Tmin [°C]	-60	-60	-60	-29	-29	-29
Tmax [°C]	350	350	350	350	350	350
Body material carbon steel with stainless steel body cover						
Tmin [°C]	-60	-60	-10	-20	-20	-20
Tmax [°C]	350	350	350	350	350	350

Materials

Valve body*	stainless steel 1.4408	carbon steel 1.0619	
Bodycover*	stainless steel 1.4404 or 316L		
Diaphragm casing	aluminium, KTL-coated		
Actuator springs	stainless steel 1.4310		
Packing	carbon-filled PTFE (spring 1.4310)		
Valve stem	stainless steel 1.4571, roller burnished		
Fixed disc	stainless steel coated		
Sliding disc	special carbon material	SFC-disc (max. +300°C)	STN2-disc

* Further Materials such as Hastelloy or Inconel on request

Limitations

Additionally to the limitations of the pressure rating valves with threaded connections are limited to applications of the category I of the PED 2014/68/EU.

Admissible Differential Pressure

**For temperatures of 120°C (PN)
or 38°C (ANSI) and above:
obey application limits !**

DN	Disc pair carbon/SFC-stainless steel coated	
	max. working pressure (bar)	required pilot pressure (bar)
15	78	3,5
20	68	3,5
25	57	3,5
32	46	3,6
40	35	4
50	23	4,8
65	19,5	4,9
80	12	5,1
100	7,9	5,3
125	5,3	5,4
150	4	5,4

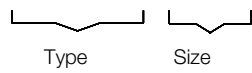
DN	STN2-disc pair	
	max. working pressure (bar)	required pilot pressure (bar)
15	55	3,5
20	42	3,8
25	32	4
32	23	4,3
40	16	4,5
50	9,7	5,2
65	8	5,2
80	4,8	5,3
100	3	5,5
125	2	5,5
150	1,4	5,5

	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

Ordering Number system

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

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

1 - 5 : Please quote all 5 sections.
6 - 12: Quote only if required.

1. Type		2. Connection		3. Body material		4. Safety position		5. Actuator	
D	Sliding gate valve compact 8028, long version	E	GS3 flangeless design acc. ANSI 150	0	carbon steel 1.0619 stainless steel 1.4408	0	spring closes	1	diaphragm D80
		F	GS3 flangeless design acc. ANSI 300	1		1	spring opens	2	diaphragm D80 with NPT-thread
		K	GS3 flangeless design acc. ANSI 600						
		G	GS3-flangeless design acc. DIN, PN10-PN40						
		H	GS3-flangeless design acc. DIN, PN100						
		L	GS3-flangeless design acc. DIN, PN25						
		N	GS3-flangeless design acc. JIS-20K						
		R	GS3 version with inner thread acc. ISO 228-1 (G-thread), pressure rating PN40						
		U	GS3 version with inner NPT thread acc. ANSI B 1.20.1, pressure rating PN40						
6. Special versions		7. Springs		8. Stem sealing		9. Moving disc		10. Fixed disc	
M	state, if further sections are quoted	-	Standard	-	Standard	-	carbon material	-	standard coating, stainless steel 1.4571
A	groove / groove acc. DIN EN 1092-1 or ANSI B16,5 small			1	additional metal bellow	S	Stainless steel, SFC		
C	groove and tongue acc. DIN EN 1092-1					9	STN2/STN3	1	STN2
E	lowered face / lowered face acc. DIN EN 1092-1							3	STN 3
H	lowered face / raised face acc. DIN EN 1092-1								
11. KVs-values	12. Characteristic	13. Accessories		14. Positioner		15. Signal equipment		16. Special versions	
-	100% (Stand.)	-	(here not applicable)	-	without positioner, prepared for 8049	-	without	S	see following positions
A	red. to 63%	1	linear equal%	Z	digital positioner type 8049, 4-wire	1	1 limit switch (micro switch)		
1	red. to 40%			N	digital positioner type 8049, 2-wire	2	2 limit switch (micro switch)		
B	red. to 25%			M	digital positioner type 8049 ExPro, ATEX, IECEX	8	2 Inductive Limit Switches IN 5121 10-36V DC		
2	red. to 16%			F	digital positioner type 8049 ExPro-FM base plate in stainless steel; IS Cl. I Div. 1, Cl. I Zone 0 AEx ia	P	feedback module RM5 for positioner type 8049 with 2 integrated limit switches		
C	red. to 10%					Y	Feedback module RM4 for positioner type 8049 with 2 integrated limit switches acc. NAMUR (EN60947-5-6)		
3	red. to 6,3%								
4	red. to 2,5%								
5	red. to 1%								
6	red. to 20%								
7	red. to 12%								
8	red. to 2%								
9	red. to 0,4%								

Ordering example:

8028/050VDG101M-----ZCP

Sliding gate valve compact 8028, DN 50 (Kvs 45; Cv 52), long version, GS3-flangeless design acc DIN, PN10-40, body material stainless steel, safety position spring closes, diaphragm DN80, moving disc carbon steel, fixed disc stainless steel 1.4571 coated, characteristic linear, dig. positioner type 8049 4-wire, feedbackmodule RM5 for positioner type 8049 with two limiting value encoders.

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

DN	Sliding unit: carbon/SFC - stainless steel, coated						Sliding unit: STN2					
	max. admissible pressures for GS3-valves in stainless steel						max. admissible pressures for GS3-valves in stainless steel					
	100°C	150°C	200°C	250°C	300°C	350°C	100°C	150°C	200°C	250°C	300°C	350°C
15-32	40	40	40	40	40	40	40	40	40	40	40	40
40	40	40	40	40	40	40	40	40	40	40	40	37
50	40	40	40	40	40	40	40	40	40	40	40	40
65	40	40	40	40	40	40	40	40	40	40	37	32
80	40	40	40	40	40	40	36	34	33	26	22	19
100	33	33	33	33	33	33	32	31	30	24	20	17
125	23	23	23	23	23	23	21	21	19	16	13	11
150	16	16	16	16	16	16	15	15	14	11	9	8

Limitation for SFC-sliding discs: 300°C

PN100

DN	Sliding unit: carbon/SFC - stainless steel, coated						Sliding unit: STN2					
	max. admissible pressures for GS3-valves in stainless steel						max. admissible pressures for GS3-valves in stainless steel					
	100°C	150°C	200°C	250°C	300°C	350°C	100°C	150°C	200°C	250°C	300°C	350°C
15	100	100	100	93	84	79	100	100	100	93	84	79
20	100	100	89	81	73	68	100	100	89	81	73	68
25	88	81	70	63	57	54	88	81	70	63	57	54
32	100	93	80	73	65	62	100	93	80	73	65	60
40	88	81	70	63	57	54	72	69	65	53	43	37
50	100	100	100	100	100	94	77	73	70	56	46	40
65	80	80	80	79	71	67	62	59	56	45	37	32
80	48	48	48	48	48	44	36	34	33	26	22	19

Limitation for SFC-sliding discs: 300°C

ANSI150

DN	Sliding unit: carbon/SFC - stainless steel, coated								Sliding unit: STN2							
	max. admissible pressures for GS3-valves in stainless steel								max. admissible pressures for GS3-valves in stainless steel							
	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C
15-125	19,0	18,4	16,2	14,8	13,7	12,1	10,2	8,4	19,0	18,4	16,2	14,8	13,7	12,1	10,2	8,4
150	16,0	16,0	16,0	14,8	13,7	12,1	10,2	8,4	16,2	16,2	16,2	14,8	13,7	11,8	9,7	8,4

Limitation for SFC-sliding discs: 300°C

ANSI300

DN	Sliding unit: carbon/SFC - stainless steel, coated								Sliding unit: STN2							
	max. admissible pressures for GS3-valves in stainless steel								max. admissible pressures for GS3-valves in stainless steel							
	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C
15-65	49,6	48,1	42,2	38,5	35,7	33,4	31,6	30,3	49,6	48,1	42,2	38,5	35,7	33,4	31,6	30,3
80	48,0	48,0	42,2	38,5	35,7	33,4	31,6	30,3	36,6	36,6	36,6	34,8	33,0	26,8	22,0	19,0
100	33,0	33,0	33,0	33,0	33,0	33,0	31,6	30,3	33,0	33,0	33,0	31,7	30,1	24,4	20,1	17,3
125	23,0	23,0	23,0	23,0	23,0	23,0	23,0	20,3	22,0	22,0	22,0	21,0	19,9	16,1	13,2	11,5
150	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	15,4	14,6	11,8	9,7	8,4

Limitation for SFC-sliding discs: 300°C

ANSI600

DN	Sliding unit: carbon/SFC - stainless steel, coated								Sliding unit: STN2							
	max. admissible pressures for GS3-valves in stainless steel								max. admissible pressures for GS3-valves in stainless steel							
	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C
15-20	99,3	96,2	84,4	77,0	71,3	66,8	63,2	60,7	99,3	96,2	84,4	77,0	71,3	66,8	63,2	60,7
25	88,0	88,0	84,4	77,0	70,1	63,7	57,3	54,2	88,0	88,0	84,4	77,0	70,1	63,7	57,3	54,2
32	99,3	96,2	84,4	77,0	71,3	66,8	63,2	60,7	99,3	96,2	84,4	77,0	71,3	66,8	63,2	60,2
40	88,0	88,0	84,4	77,0	70,1	63,7	57,3	54,2	72,5	72,5	72,5	69,0	65,5	53,1	43,6	37,7
50	99,3	96,2	84,4	77,0	71,3	66,8	63,2	60,7	77,7	77,7	77,7	73,9	70,2	56,9	46,7	40,4
65	80,0	80,0	80,0	77,0	71,3	66,8	63,2	60,7	62,5	62,5	41,7	59,5	56,4	45,8	37,6	32,5
80	48,0	48,0	48,0	48,0	48,0	48,0	48,0	44,5	36,6	36,6	36,6	34,8	33,0	26,8	22,0	19,0

Limitation for SFC-sliding discs: 300°C

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

DN	Sliding unit: carbon/SFC - stainless steel, coated						Sliding unit: STN2					
	max. admissible pressures for GS3-valves in carbon steel						max. admissible pressures for GS3-valves in carbon steel					
	100°C	150°C	200°C	250°C	300°C	350°C	100°C	150°C	200°C	250°C	300°C	350°C
15-50	40	40	40	40	40	40	40	40	40	40	40	40
65	40	40	40	40	40	40	40	40	40	37	32	32
80	40	40	40	40	40	40	36	34	33	26	22	19
100	33	33	33	33	33	33	33	31	30	24	20	17
125	23	23	23	23	23	23	22	21	19	16	13	11
150	16	16	16	16	16	16	16	15	14	11	9	8

Limitation for SFC-sliding discs: 300°C

PN100

DN	Sliding unit: carbon/SFC - stainless steel, coated						Sliding unit: STN2					
	max. admissible pressures for GS3-valves in carbon steel						max. admissible pressures for GS3-valves in carbon steel					
	100°C	150°C	200°C	250°C	300°C	350°C	100°C	150°C	200°C	250°C	300°C	350°C
15 - 20	100	100	100	100	100	100	100	100	100	100	100	100
25	100	100	100	100	100	94	100	100	100	94	87	87
32	100	100	100	100	100	99	100	100	84	69	60	60
40	100	100	100	100	100	94	72	69	65	53	43	37
50	100	100	100	100	100	94	77	73	70	56	46	40
65	80	80	80	80	80	76	62	59	56	45	37	32
80	48	48	48	48	48	44	36	34	33	26	22	19

Limitation for SFC-sliding discs: 300°C

ANSI150

DN	Sliding unit: carbon/SFC - stainless steel, coated								Sliding unit: STN2							
	max. admissible pressures for GS3-valves in carbon steel								max. admissible pressures for GS3-valves in carbon steel							
	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C
15-125	19,6	19,2	17,7	15,8	13,8	12,1	10,2	8,4	19,6	19,2	17,7	15,8	13,8	12,1	10,2	8,4
150	16,0	16,0	16,0	15,8	13,8	12,1	10,2	8,4	16,2	16,2	16,2	15,4	13,8	11,8	9,7	8,0

Limitation for SFC-sliding discs: 300°C

ANSI300

DN	Sliding unit: carbon/SFC - stainless steel, coated								Sliding unit: STN2							
	max. admissible pressures for GS3-valves in carbon steel								max. admissible pressures for GS3-valves in carbon steel							
	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C
15-50	51,1	50,1	46,6	45,1	43,8	41,9	39,8	37,6	51,1	50,1	46,6	45,1	43,8	41,9	39,8	37,6
65	51,1	50,1	46,6	45,1	43,8	41,9	39,8	37,6	41,7	41,7	41,7	39,7	37,6	33,5	37,6	33,0
80	48,0	48,0	46,6	45,1	43,8	41,9	39,8	37,6	36,6	36,6	36,6	34,8	33,0	26,8	22,0	19,0
100	33,0	33,0	33,0	33,0	33,0	33,0	33,0	33,0	33,0	33,0	33,0	31,7	30,1	24,4	20,0	17,5
125	23,0	23,0	23,0	23,0	23,0	23,0	23,0	23,0	22,1	22,1	22,1	21,0	19,9	16,1	13,2	11,5
150	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	16,0	15,4	14,6	11,8	9,7	8,4

Limitation for SFC-sliding discs: 300°C

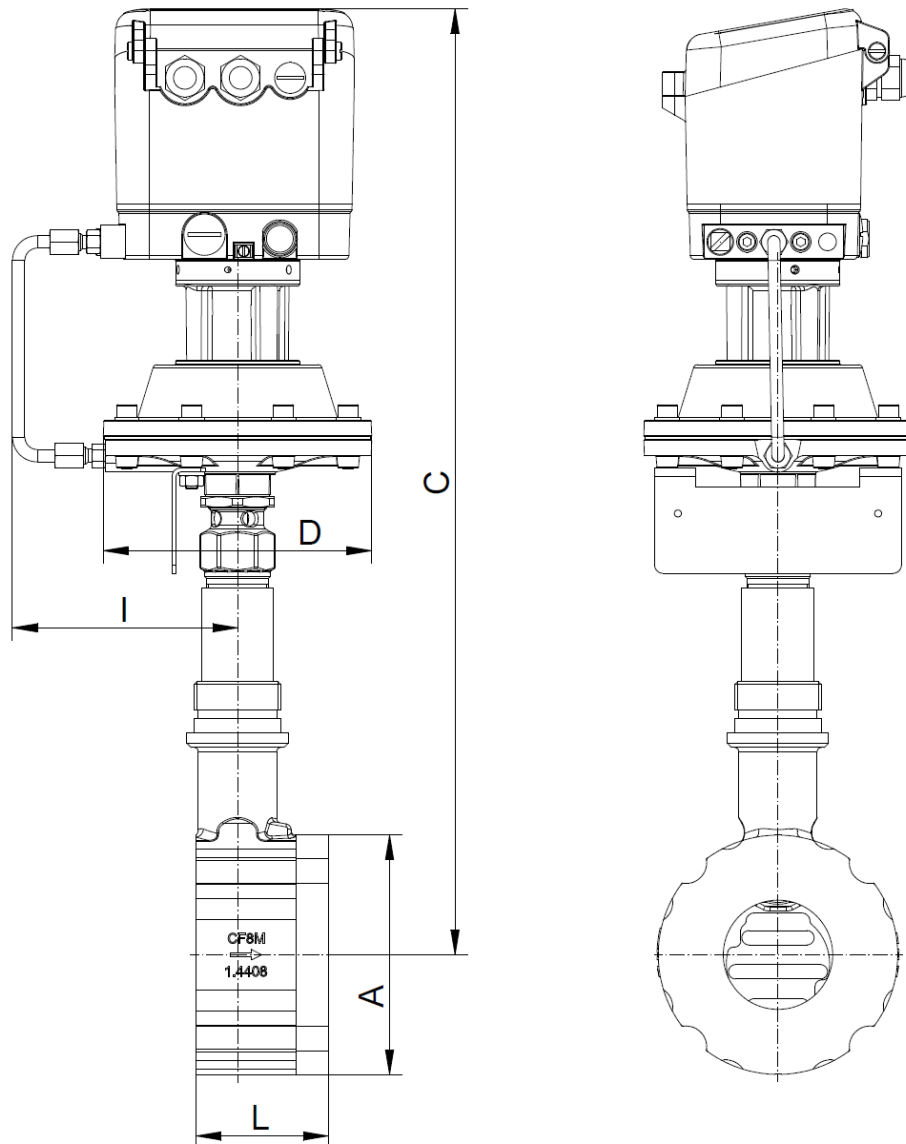
ANSI600

DN	Sliding unit: carbon/SFC - stainless steel, coated								Sliding unit: STN2							
	max. admissible pressures for GS3-valves in carbon steel								max. admissible pressures for GS3-valves in carbon steel							
	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C	38°C	50°C	100°C	150°C	200°C	250°C	300°C	350°C
15-25	102,1	100,2	93,2	90,2	87,6	83,9	79,6	75,1	102,1	100,2	93,2	90,2	87,6	83,9	79,6	75,1
32	102,1	100,2	93,2	90,2	87,6	83,9	79,6	75,1	102,1	100,2	93,2	90,2	87,6	83,9	69,6	60,0
40	100,0	100,0	93,2	90,2	87,6	83,9	79,6	75,1	72,5	72,5	72,5	69,0	65,5	53,1	43,6	37,0
50	100,0	100,0	93,2	90,2	87,6	83,9	79,6	75,1	77,7	77,7	77,7	73,9	70,2	56,9	46,7	40,0
65	80,0	80,0	80,0	80,0	80,0	80,0	79,6	75,1	62,5	62,5	62,5	59,5	56,4	45,8	37,6	32,0
80	48,0	48,0	48,0	48,0	48,0	48,0	48,0	44,0	36,6	36,6	36,6	36,8	33,0	26,8	22,0	19,0

Limitation for SFC-sliding discs: 300°C

Sliding Gate Valve 8028 - GS3

Dimensions and weights with digital positioner 8049 wafer-type construction

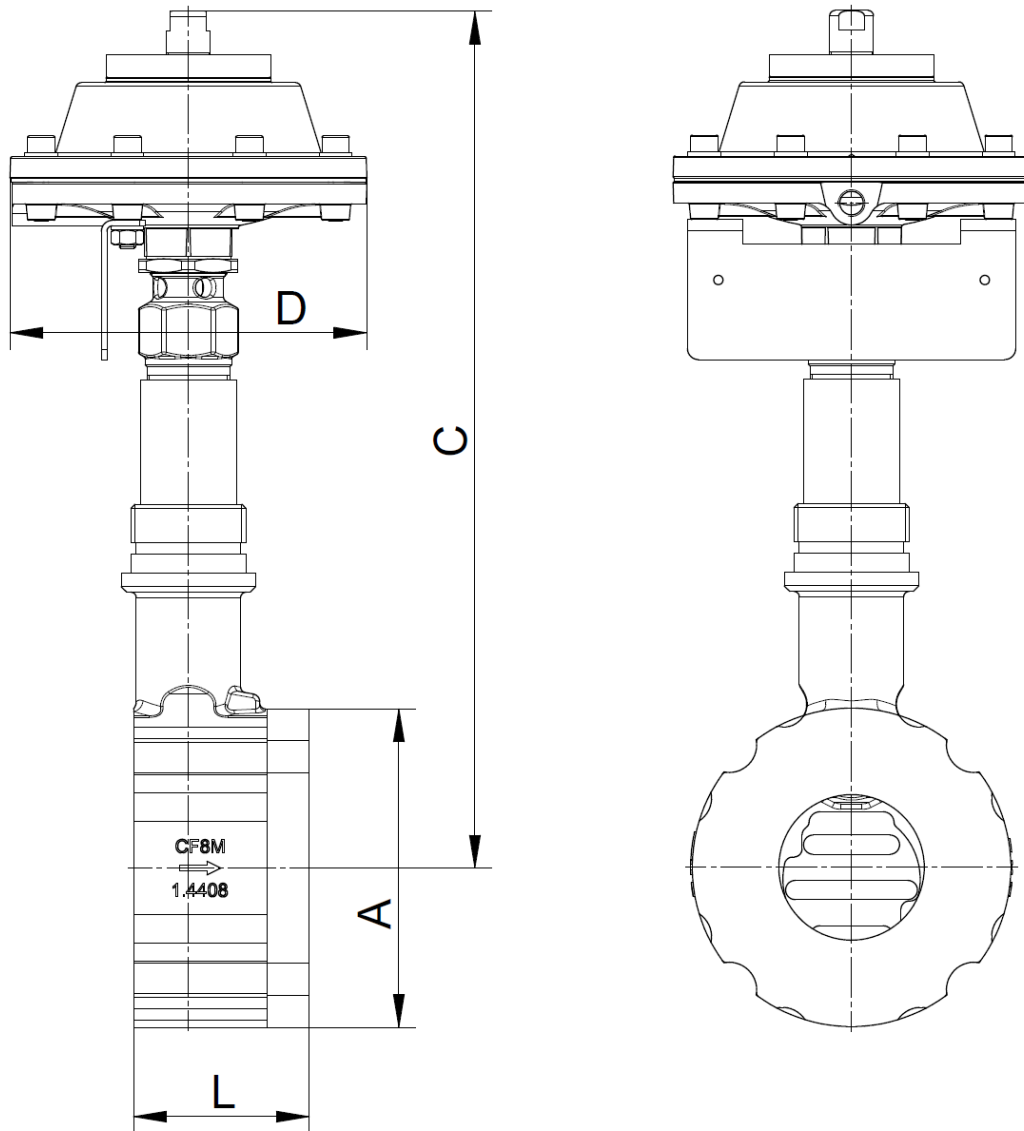


DN	A	C	D	I	L	Stroke H	Weight (kg)
15	64	430	130	114	56	6	4,3
20	72	437	130	114	56	6	4,6
25	82	440	130	114	56	6	4,8
32	89	445	130	114	56	6	4,9
40	99	450	130	114	56	6	5,3
50	116	459	130	114	64	8	6,8
65	138	468	130	114	68	8	8,3
80	153	477	130	114	70	8	9,5
100	184	490	130	114	75	8,5	12,8
125	212	502	130	114	80	8,5	17
150	242	520	130	114	80	8,5	20,7

dimensions in mm

Sliding Gate Valve 8028 - GS3

Dimensions and weights, On- / Off- Valve wafer-type construction

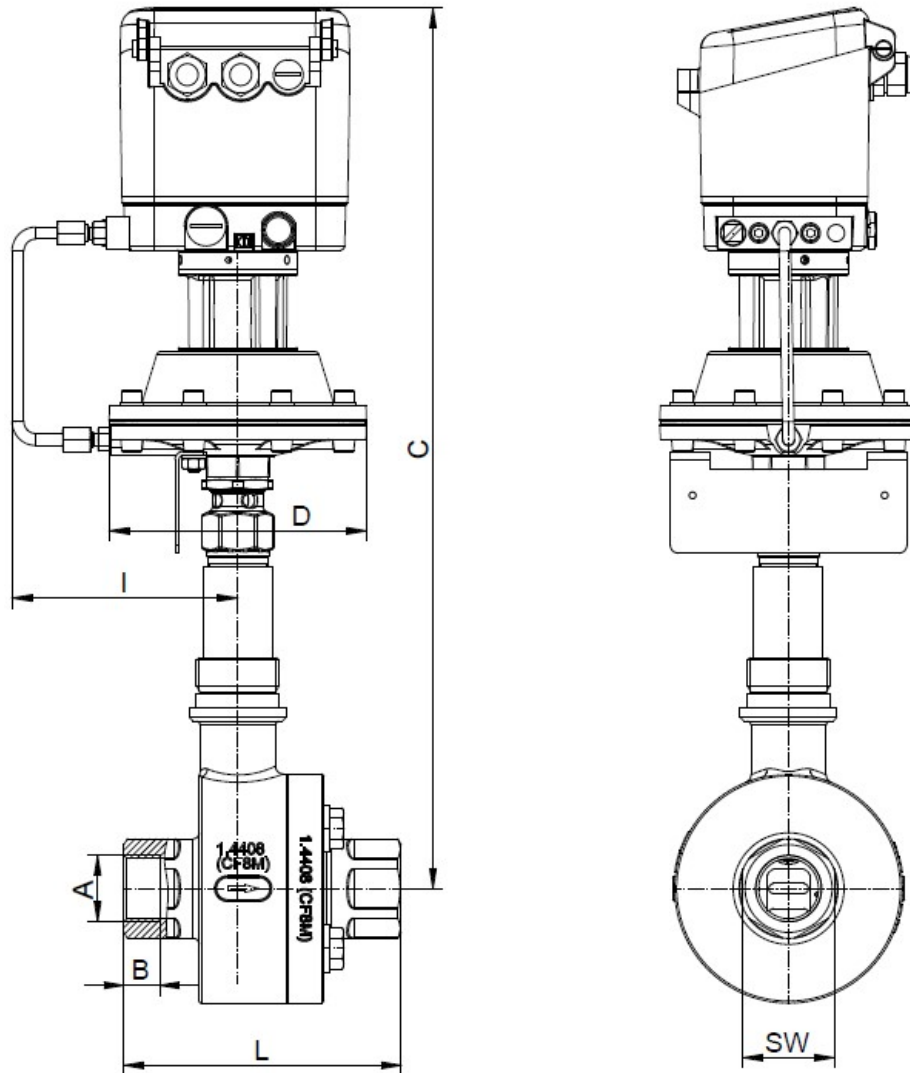


DN	A	C	D	L	Stroke H	Weight (kg)
15	64	283	130	56	6	3,3
20	72	290	130	56	6	3,6
25	82	293	130	56	6	3,8
32	89	298	130	56	6	3,9
40	99	303	130	56	6	4,3
50	116	312	130	64	8	5,8
65	138	321	130	68	8	7,3
80	153	330	130	70	8	8,5
100	184	343	130	75	8,5	11,8
125	212	355	130	80	8,5	16
150	242	373	130	80	8,5	19,7

dimensions in mm

Sliding Gate Valve 8028 - GS3

Dimensions and weights with digital positioner 8049 with threaded connections

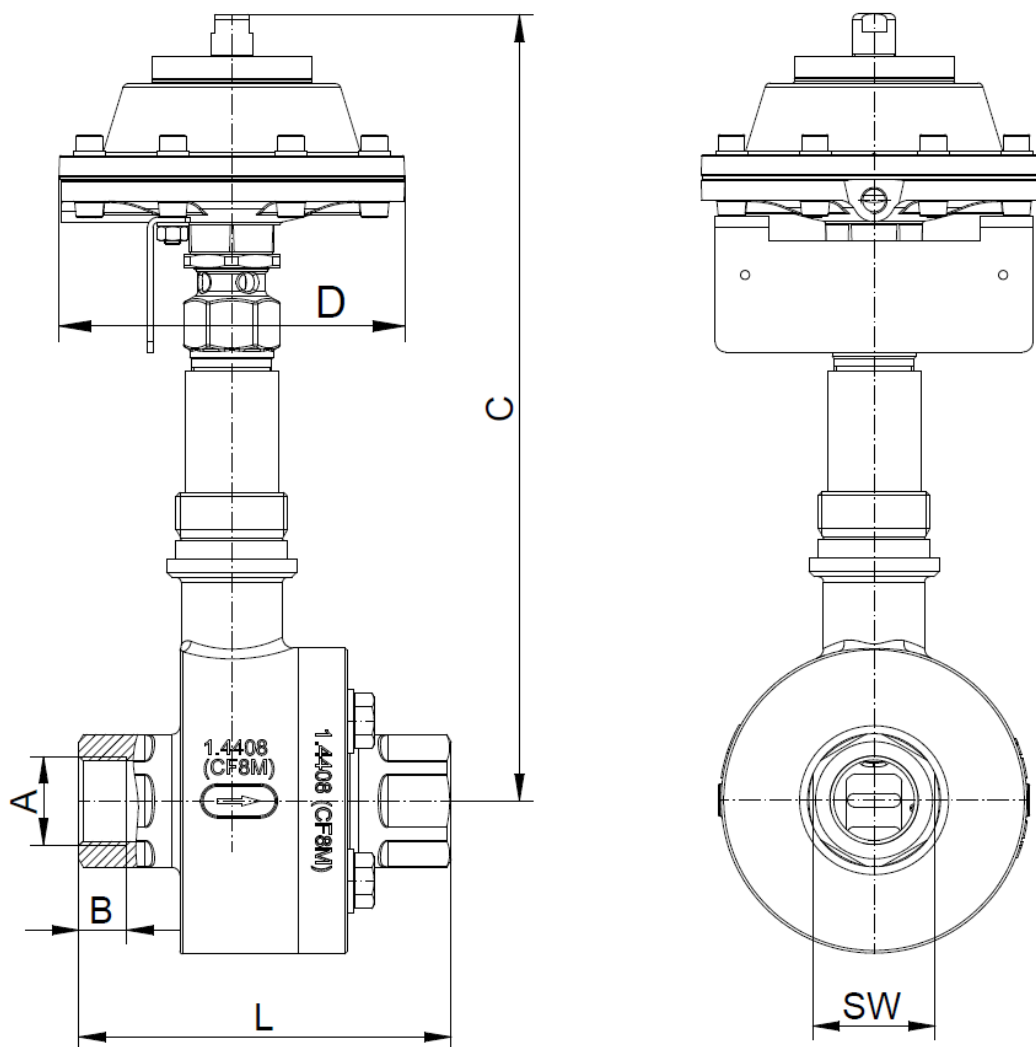


DN	A (G/NPT)	B		C	D	I	L	SW	Stroke H	Weight (kg)
		G	NPT							
15	1/2"	15	13,6	430	130	114	127	30	6	6,6
20	3/4"	15	14,1	437	130	114	127	38	6	7,6
25	1"	18	16,8	440	130	114	140	46	6	10
32	1 1/4"	18	17,3	445	130	114	140	56	6	10,7
40	1 1/2"	18	17,3	450	130	114	152	64	6	12
50	2"	18	17,7	459	130	114	152	74	8	14,6

dimensions in mm

Sliding Gate Valve 8028 - GS3

Dimensions and weights, On- / Off- Valve with threaded connections



DN	A (G/NPT)	B		C	D	L	SW	Stroke H	Weight (kg)
		G	NPT						
15	1/2"	15	13,6	283	130	127	30	6	5,6
20	3/4"	15	14,1	290	130	127	38	6	6,6
25	1"	18	16,8	293	130	140	46	6	9
32	1 1/4"	18	17,3	298	130	140	56	6	9,7
40	1 1/2"	18	17,3	303	130	152	64	6	11
50	2"	18	17,7	312	130	152	74	8	13,6

dimensions in mm