sliding gate valve
series SG14



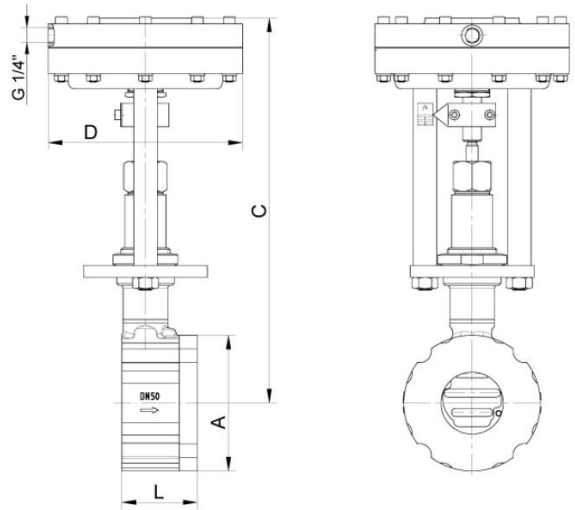
design	pneumatic operated control valve with diaphragm actuator
connection	wafer type for flanges according to EN1092-1 Form B DN15...DN250
nominal pressure	DIN 2401 PN40 for DN15...DN150 (also suitable for PN10-25) DIN 2401 PN16 for DN200...DN250 DIN 2401 PN100 for DN15...DN80 ANSI150 for DN15...DN250 ANSI300 for DN15...DN150 ANSI600 for DN15...DN80
materials	body zinc plated steel respectively stainless steel AISI 316Ti, head section and rod stainless steel AISI 316Ti, packing PTFE filled with coal, coupling ring for seal disc stainless steel AISI 316Ti, diaphragm housing aluminum coated, actuator spring AISI 301
sliding unit	stainless steel/special coal: seal disc fixed stainless steel AISI 316Ti coated and seal disc moving special coal stainless steel/SFC: seal disc fixed stainless steel AISI 316Ti coated and seal disc moving SFC STN2: seal disc fixed and seal disc moving STN2
leakage rate (% of Kvs)	stainless steel/special coal < 0,0001 stainless steel/SFC < 0,0005 STN2 < 0,001
type of fixing	installed into rigid pipework
mounting position	any
application	gaseous and liquid fluids which do not affect the used materials
medium temperature	body zinc plated steel: -10...+300°C body stainless steel AISI 316Ti: -60...+350°C (SFC -60...+300°C)
ambient temperature	standard diaphragm -30...+100°C silicone diaphragm -50...+100°C
operating pressure	see table
supply pressure	max. 6bar

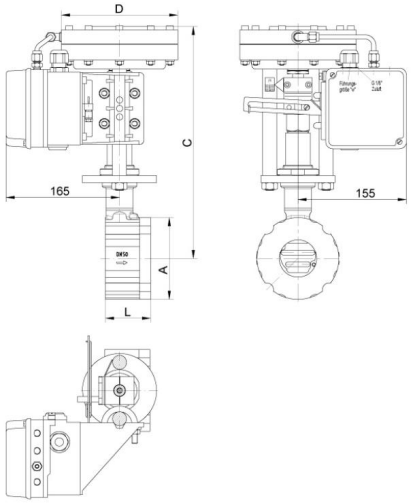
type code

		SG 14	- 100	- W	WC	1253	- 01
type		**14**	-				
connection	DN15		**15**				
	DN20		**20**				
	DN25		**25**				
	DN32		**32**				
	DN40		**40**				
	DN50		**50**				
	DN65		**65**				
	DN80		**80**				
	DN100		**100**				
	DN125		**125**				
	DN150		**150**				
body material	zinc plated steel			**U**			
	stainless steel AISI 316Ti			**W**			
sliding unit	stainless steel/special coal				**WC**		
	stainless steel/SFC				**WF**		
	STN2				**WN**		
actuator	actuator 125, spring configuration D					**125D**	
	actuator 125, spring configuration 2					**1252**	
	actuator 125, spring configuration 3					**1253**	
	actuator 125, spring configuration 4					**1254**	
	actuator 125, spring configuration 5					**1255**	
	actuator 250, spring configuration D					**250D**	
	actuator 250, spring configuration 2					**2502**	
	actuator 250, spring configuration 3					**2503**	
	actuator 250, spring configuration 4					**2504**	
	actuator 250, spring configuration 5					**2505**	
special version	described in the article description						**01,02,03....**
	kvs-values reduced to						
	characteristic linear/equal percentage						
	P/P-positioner without manometer						
	P/P-positioner with manometer						
	I/P-positioner without manometer						
	I/P-positioner with manometer						
	I/P-positioner without manometer, explosion protected						
	I/P-position with manometer, explosion protected						
	2 inductive position indicator M12x1 10 ... 30 VDC PNP						
	2 inductive position indicator M12x1 10 ... 55 VDC PNP/NPN						
	additional metal bellow stainless steel AISI 316Ti (maximum pressure 33bar)						

dimensions

standard construction	with electro-pneumatic positioner





DN [mm]	ØA	C	actuator ØD		L	stroke [mm]	weight [app. kg]	
			125	250			125	250
15	64	305	165	222	56	6	6,5	8,7
20	74	310	165	222	56	6	6,7	8,9
25	82	315	165	222	56	6	7,2	9,4
32	89	320	165	222	56	6	7,5	9,7
40	99	325	165	222	56	6	8	10
50	116	335	165	222	64	8	9,5	12
65	138	345	165	222	68	8	11,5	14
80	153	355	165	222	70	8	12,5	15
100	184	365	165	222	75	8,5	15,5	18
125	212	380	165	222	80	8,5	18,5	21
150	242	395	165	222	80	8,5	22	24
200	302	425	165	222	93	8,5	39	41
250	360	450	165	222	96	8,5	44,5	46,5

limitation PN40 - maximum allowable inlet pressure in bar

nominal diameter DN [mm]	stainless steel/special coal - stainless steel/SFC						STN2					
	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 - 65	40	38	35	32	31	29	40	38	34	32	31	29
80	40	38	34	32	31	29	36	34	33	26	22	19
100	33	31	29	27	25	24	33	31	26	24	20	17
125	23	21	20	19	18	17	22	21	17	16	13	11
150	16	15	14	13	12	12	16	15	13	11	9	8
200 (only PN 16)	16	15	14	13	12	11	-	-	-	-	-	-
250 (only PN 16)	10,5	10	9,5	8,4	7,4	6,9	-	-	-	-	-	-

limitation for steel valves and sliding unit SFC 300°C

limitation PN100 - maximum allowable inlet pressure in bar

nominal diameter DN [mm]	stainless steel/special coal - stainless steel/SFC						STN2					
	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	95	87	82	77	72	100	95	87	82	77	72
20	100	95	87	82	77	72	100	95	87	82	77	72
25	100	95	87	82	77	72	100	95	87	82	77	72
32	100	95	87	82	77	72	100	95	87	82	69	60
40	100	95	87	82	77	72	72	69	65	53	43	37
50	100	95	87	82	77	72	77	73	70	56	46	40
65	80	76	72	67	62	60	62	59	56	45	37	32
80	48	45	43	40	37	36	36	34	33	26	22	19

limitation for steel valves and sliding unit SFC 300°C

limitation ANSI 150 - maximum allowable inlet pressure in bar

nominal diameter DN [mm]	stainless steel/special coal - stainless steel/SFC						STN2					
	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 - 125	16	15	13	12	10	8	16	15	13	12	10	8
150	16	15	13	12	10	8	16	15	13	11	9,5	8
200	16	15	13	12	10	8	-	-	-	-	-	-
250	10,5	10	9,5	8,4	7,4	6,9	-	-	-	-	-	-

limitation for steel valves and sliding unit SFC 300°C

limitation ANSI 300 - maximum allowable inlet pressure in bar

nominal diameter DN [mm]	stainless steel/special coal - stainless steel/SFC						STN2					
	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 - 65	40	38	35	33	31	30	40	38	35	32	31	29
80	40	38	35	33	31	30	36	34	33	26	22	19
100	33	31	29	27	25	24	33	31	26	24	20	17
125	23	21	20	19	18	17	22	21	17	16	13	11
150	16	15	14	13	12	12	16	15	13	11	9	8

limitation for steel valves and sliding unit SFC 300°C

limitation ANSI 600 - maximum allowable inlet pressure in bar

nominal diameter DN [mm]	stainless steel/special coal - stainless steel/SFC						STN2					
	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	80	77	71	66	63	60	80	77	71	66	63	60
40	80	77	71	66	63	60	72	69	65	53	43	37
50	80	77	71	66	63	60	77	73	70	56	46	40
65	80	76	71	66	62	60	62	59	56	45	37	32
80	48	45	43	40	37	36	36	34	33	26	22	19

limitation for steel valves and sliding unit SFC 300°C

permissible differential pressures in bar (at temperatures up to 120°C)*

	stainless steel/special coal - stainless steel/SFC										STN2									
spring - pressure range [bar] :	0,2 ... 1,0	1,0 ... 2,0	1,5 ... 3,0	1,8 ... 3,8	2,1 ... 4,5	0,2 ... 1,0	0,8 ... 1,4	1,2 ... 2,2	1,4 ... 2,7	1,7 ... 3,2	0,2 ... 1,0	1,0 ... 2,0	1,5 ... 3,0	1,8 ... 3,8	2,1 ... 4,5	0,2 ... 1,0	0,8 ... 1,4	1,2 ... 2,2	1,4 ... 2,7	1,7 ... 3,2
supply pressure [bar]:	1,2	2,8	4,2	5,2	6	1,2	2,1	3,2	4	4,6	1,2	2,8	4,2	5,2	6,0	1,2	2,1	3,2	4	4,6
area [cm²]:	125					250					125					250				
DN 15	4,4	100	100	100	100	18,9	100	100	100	100	3,1	100	100	100	100	13,4	100	100	100	100
DN 20	3,8	100	100	100	100	16,4	100	100	100	100	2,4	57	100	100	100	10,3	100	100	100	100
DN 25	3,2	100	100	100	100	13,7	100	100	100	100	1,8	57	88	100	100	7,7	100	100	100	100
DN 32	2,6	100	100	100	100	11,3	100	100	100	100	1,3	38	59	73	87	5,7	66	100	100	100
DN 40	2,0	66	100	100	100	8,5	100	100	100	100	0,9	23	37	45	54	3,9	41	63	72	72
DN 50	-	36	57	70	84	5,8	63	97	100	100	-	13	20	25	30	2,4	23	35	42	49
DN 65	-	29	45	56	67	4,9	51	78	80	80	-	10	16	20	24	2,0	18	28	34	40
DN 80	-	17	26	33	39	3,1	30	45	48	48	-	6	9	11	14	1,2	10	16	19	23
DN 100	-	10	16	20	24	-	18	27	33	33	-	3,5	5,5	7	8,5	-	6,5	10	12	14
DN 125	-	6,5	10	13	15	-	12	18	22	23	-	2,5	3,5	4,5	5,5	-	4	6,5	8	9
DN 150	-	5	7,5	9	11	-	8,5	13	16	16	-	1,5	2,5	3,5	4	-	3	4,5	5,5	6,5
DN 200	-	2,5	4,5	5,5	6,5	-	5	7,5	9	10	-	-	-	-	-	-	-	-	-	-
DN 250	-	1,8	2,8	3,4	4,1	-	2,2	4,7	5,7	6,7	-	-	-	-	-	-	-	-	-	-
spring configuration	D	2	3	4	5	D	2	3	4	5	D	2	3	4	5	D	2	3	4	5

The quoted pilot pressure must be available as a minimum value. this applies for operation without positioner. if a positioner is applied the pilot pressure is determined by the adjustment of the positioner. the standard adjustment value is 4 bar gauge. the spring configuration "D" enables the use of the control valve without positioner in line with a restricted control capacity. In this case the valve can be driven by a controller with a standard signal of 0.2 to 1.0 bar.

*at temperatures above of 120°C application limits take into account

kvs-values

DN [mm]	characteristic	100%	63%	40%	25%	20%	16%	12%	10%	6,3%	2,5%	2%	1%	0,4%
15	linear	4	2,6	1,7	1,4	-	0,71	0,49	0,44	0,26	0,14	0,08	0,04	0,018
	equal percentage	1,7	-	1,1	-	0,35	-	-	-	0,1	-	-	-	-
20	linear	6,4	-	-	-		1		-		-	0,13	-	-
	equal percentage	3	-	1,5	-	-	-	-	-	-	-	-	-	-
25	linear	11	6,4	4	-	-	1,6	-	0,93	0,62	0,26	-	0,14	0,04
	equal percentage	5	-	2,4	-	1,1	-	-	-	-	-	-	-	-
32	linear	16	10	-	-	-	-	-	-	-	-	-	-	-
	equal percentage	8	-	-	-	-	-	-	-	-	-	-	-	-
40	linear	26	16	11	7	-	-	-	-	-	-	-	-	-
	equal percentage	11	8,5	-	2,75	-	-	-	-	-	-	-	-	-
50	linear	45	28	20	12	10	-	-	-	-	-	-	-	-
	equal percentage	19	12	-	-	-	-	-	-	-	-	-	-	-
65	linear	52	35	-	15	-	-	-	-	-	-	-	-	-
	equal percentage	30	-	-	8	-	-	-	-	-	-	-	-	-
80	linear	92	58	40	-	-	-	-	-	-	-	-	-	-
	equal percentage	48	35	-	-	-	-	-	-	-	-	-	-	-
100	linear	154	95	62	-	-	-	-	-	-	-	-	-	-
	equal percentage	77	48	-	-	-	-	-	-	-	-	-	-	-
125	linear	237	-	95	-	-	-	-	-	-	-	-	-	-
	equal percentage	116	-	-	-	-	-	-	-	-	-	-	-	-
150	linear	338	212	-	-	-	-	-	-	-	-	-	-	-
	equal percentage	147	90	-	-	-	-	-	-	-	-	-	-	-
200	linear	560	352	-	-	-	-	-	-	-	-	-	-	-
	equal percentage	-	-	-	-	-	-	-	-	-	-	-	-	-
250	linear	910	-	-	-	-	-	-	-	-	-	-	-	-
	equal percentage	-	-	-	-	-	-	-	-	-	-	-	-	-

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all designs, configurations, measurements and materials are subject to change without prior notice