

GS 1 series, DN 15 up to DN 125

Pneumatic piston operated stop valve for switching of neutral through to highly aggressive media in process engineering, chemical industry and for plant equipment.

- Space saving wafer-type construction
- Lowest possible weight (especially in larger sizes)
- Low operation noise level
- Control of high differential pressures with small actuators
- Greatly reduced energy consumption rates due to short strokes and low actuating force
- High Kvs-values



Technical Information

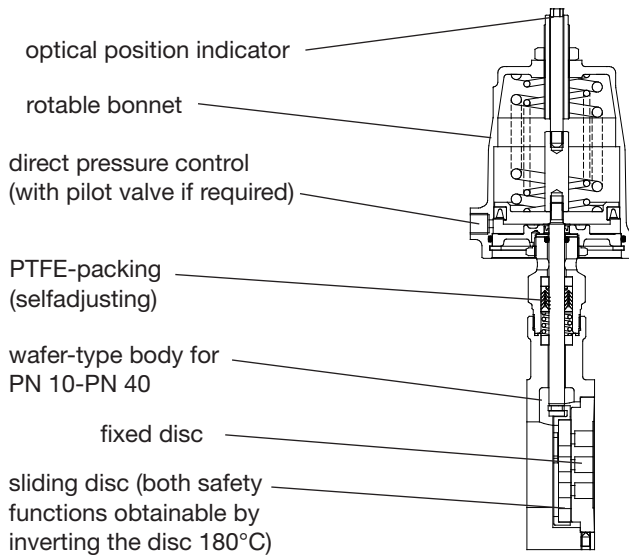
Body design	flangeless, wafer-type construction dimensions acc. DIN EN 558-1 series 20 for flanges acc. DIN EN 1092-1 form B		
Nominal sizes	DN 15 up to DN 125		
Nominal pressure	PN 40 according DIN 2401 also for flanges PN 10 to PN 25		
Media temperature with metall bonnet	body carbonsteel	-10°C bis +230°C	
	body stainless steel	-20°C up to +230°C optional -60°C up to +230°C	
Ambient temperature	body carbonsteel	-10°C bis +100°C	
	body stainless steel	-20°C bis +100°C	
Pilot pressure	maximum 10 bar (higher on demand)		
Leakage (% of Kvs) IEC 60534-4 EN 12266-1	disc pair carbon-stainless steel	disc pair SFC	disc pair STN 2
	< 0,0001	< 0,0005	< 0,001
	IV-S1	IV-S1	IV
	E	F	F
Marking ATEX non electric	II 2G Ex h IIC T6...T1 X Gb II 2D Ex h IIIC 85°C...350°C X Db		
Packing leakage	tested according to TA-Luft as defined in DIN EN ISO 15848-1 and VDI 2440		

Options:

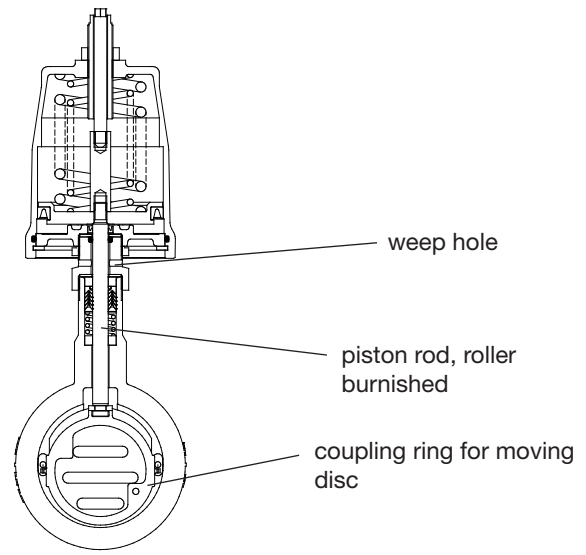
- electrical position indicator
 - inductive switches
 - contact switches
 - manual operation
- pilot valve
 - 230 V AC
 - 24 V DC
- AS-I control head
- complete stainless steel version
- version free of oil and grease

* With DN15 with reduction of less than 25%, different leakage rates possible.
K_{vs}-values see data sheet 8001.

Stop Valve 8041-GS1



body: caborn steel



body: stainless steel

Admissible Differential Pressure (For temperatures of up to 120°C)

For temperatures of 120°C and above:
obey application limits !

		Disc pair carbon/SFC-stainless steel	
DN	actuator	max. working pressure (bar)	required pilot pressure (bar)
15	50	33	3,8
20	50	28	3,8
25	50	24	3,8
32	50	19	3,9
40	50	15	4,2
50	50	9	4,8
65	50	8	5
80	50	5	5,3
100	50	3	5,5
125	50	2	5,6
15	80	40	3,1
20	80	40	3,1
25	80	40	3,1
32	80	40	3,2
40	80	40	3,6
50	80	26	4,1
65	80	22	4,3
80	80	14	4,5
100	80	9	4,7
125	80	6	4,8
15	125	40	1,8
20	125	40	1,8
25	125	40	1,8
32	125	40	1,8
40	125	40	2,1
50	125	38	2,4
65	125	32	2,5
80	125	20	2,6
100	125	13	2,7
125	125	8,5	2,8

		STN2-disc pair	
DN	actuator	max. working pressure (bar)	required pilot pressure (bar)
15	50	23	3,8
20	50	18	4
25	50	13	4,4
32	50	10	4,7
40	50	6,5	4,9
50	50	4	5,4
65	50	3	5,4
80	50	2	5,5
100	50	1	5,6
125	50	--	--
15	80	40	3,1
20	80	40	3,3
25	80	36	3,7
32	80	27	4
40	80	18	4,3
50	80	11	4,6
65	80	9	4,7
80	80	5	4,8
100	80	3	4,9
125	80	2	4,9
15	125	40	1,8
20	125	40	1,9
25	125	40	2,1
32	125	39	2,3
40	125	27	2,5
50	125	16	2,7
65	125	13	2,7
80	125	8	2,8
100	125	5	2,8
125	125	3	2,8

Special versions for very low pilot pressures or higher working pressures on request.

Applications limits for GS1-Valves

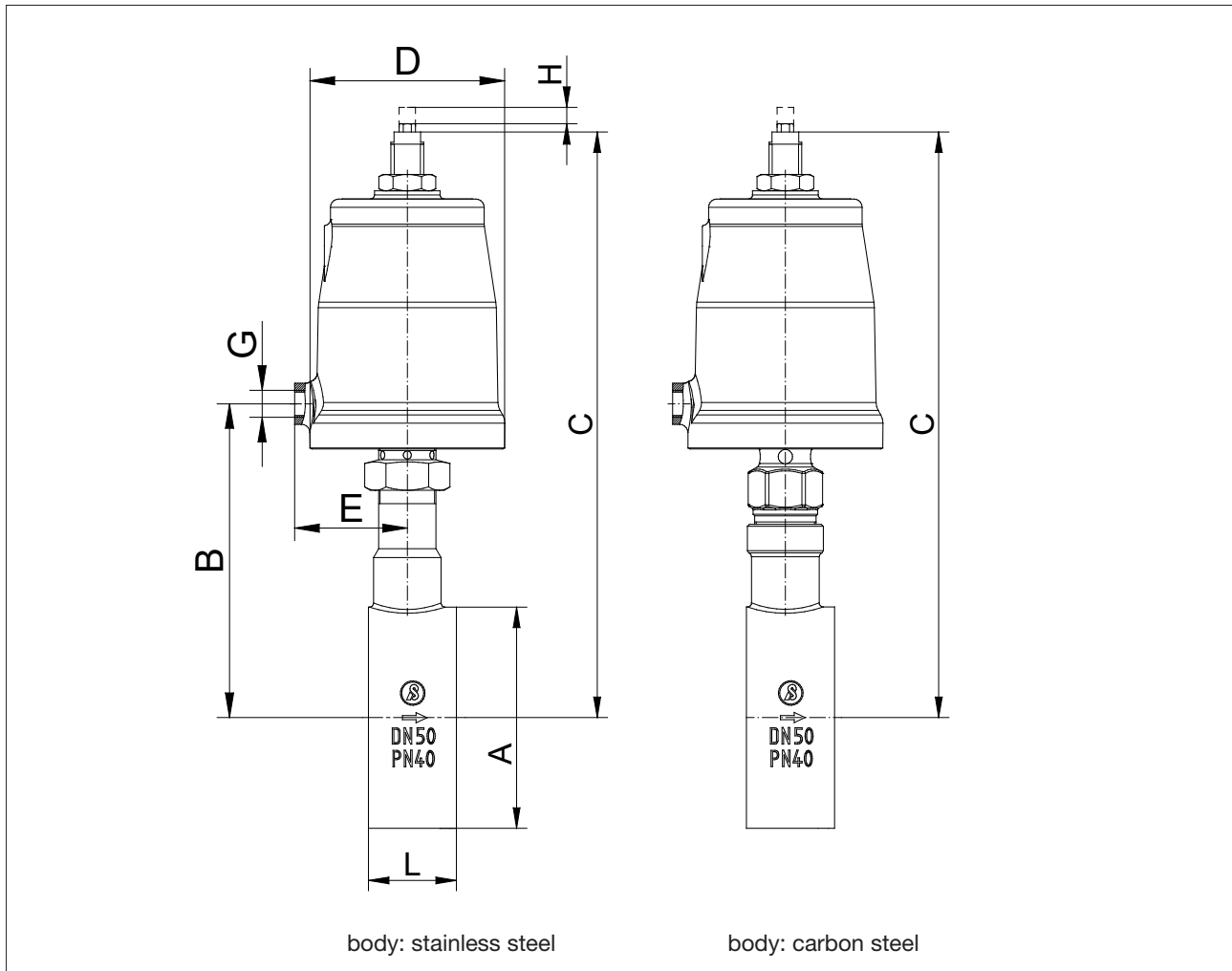
PN 40

DN	Couple glissières: carbone/SFC - inox				Couple glissières: STN 2			
	Pression max en bar pour vannes GS1				Pression max en bar pour vannes GS3 en inox			
	100°C	150°C	200°C	230°C	100°C	150°C	200°C	230°C
15 - 25	w40	36	31	30	40	36	31	30
32	40	36	31	30	40	36	31	24
40	40	36	31	30	26	25	24	15
50	40	36	31	30	40	36	31	26
65	40	36	31	30	37	35	31	21
80	40	36	31	30	22	20	19	12
100	24	23	22	20	13	12	12	7
125	16	15	14	13	8	8	7	4
150	16	16	16	16	10	10	9	6

Materials

Body	carbon steel 1.0619	stainless steel 1.4408
Tube for packing intermediate piece	stainless steel 1.4408	
Bonnet	brass, chrome coated (actuator Ø50 mm, Ø80 mm) aluminium anodised (actuator Ø125 mm)	
Actuating springs	stainless steel 1.4310 (actuator Ø50 mm, Ø80 mm), spring steel wire C, zinc coated (actuator Ø125 mm)	
Packing	PTFE carbon filled, spring 1.4310	
Piston rod	stainless steel 1.4571, roller burnished	
Bellows	stainless steel 1.4571	
Fixed disc	stainless steel 1.4571, coated	STN2-disc
Moving disc	standard: special carbon material	SFC-disc STN2-disc
Coupling ring for disc	stainless steel 1.4581	

Dimensions and Weights



DN	A	L	Body: stainless steel						Body: carbon steel						Weight kg actuator			Stroke
			B acuator			C max acuator			B acuator			C max acuator						
			50	80	125	50	80	125	50	80	125	50	80	125	50	80	125	
15	53	33	109	112	115	206	243	262	132	135	138	229	266	285	2,1	4,3	5,7	6
20	62	33	114	117	120	211	248	267	137	140	143	234	271	290	2,2	4,4	5,8	6
25	72	33	119	122	125	216	253	272	142	145	148	239	276	295	2,3	4,5	5,9	6
32	82	33	123	126	129	220	257	276	145	148	151	242	279	298	2,4	4,5	5,9	6
40	92	33	128	131	134	225	262	281	150	153	156	247	284	303	2,5	4,7	6,1	6
50	108	43	151	154	157	250	287	306	151	154	157	250	287	306	3,6	5,8	7,2	8
65	127	46	160	163	166	259	296	315	160	163	166	259	296	315	4,1	6,3	7,7	8
80	142	46	168	171	174	267	304	332	168	171	174	267	304	323	4,8	7	8,4	8
100	164	52	181	184	187	280	317	336	181	184	187	280	317	336	6	8,2	9,6	8,5
125	194	56	193	196	199	292	329	348	193	196	200	292	329	349	7,8	10	11	8,5

Dimension C „reduced design“ shortened by 25,4 mm

Dimensions in mm

Actuator mm	D	G	E
50	62	1/8"	34,5
80	96	1/4"	55
125	146	1/4"	80

Dimensions in mm