

Stop Valve

GS1 series

8040/41

DN 15 up to DN 150



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



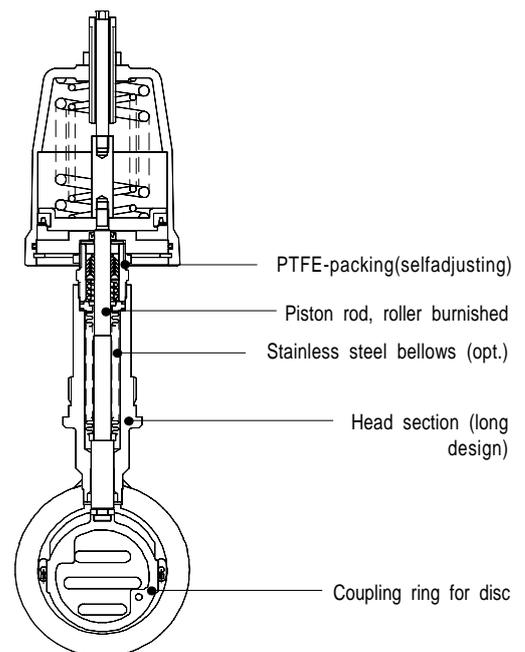
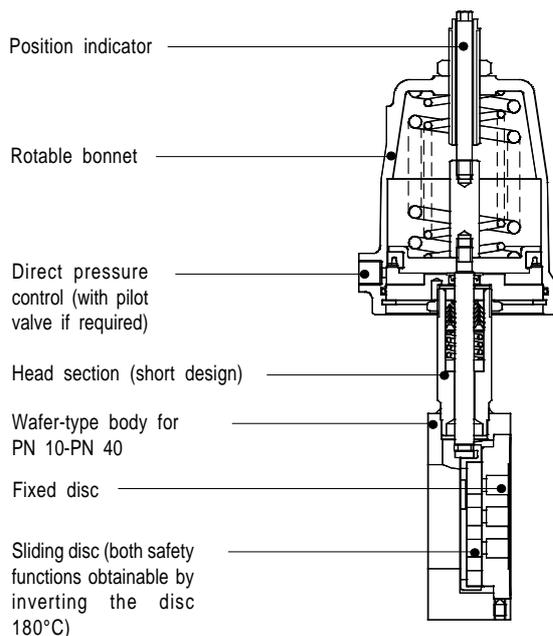
Technical Information

Body design	Flangeless, wafer-type construction Dimensions to DIN EN 558-1 series 20	
Nominal sizes	DN 15 up to DN 150	
Nominal pressure	PN 40 according DIN 2401 also for flanges PN 10 to PN 25	
Media temperature	Body 1.0570	-10°C up to +300°C
	Body 1.4571	-60°C up to +350°C
	Body (short)	up to +230°C
Ambient temperature	Body 1.0570	-10°C up to +150°C
	Body 1.4571	-20°C up to +150°C
Pilot pressure	maximum 10 bar (higher on demand)	
Leakage (% of Kvs)	Disc pair Carbon-stainless steel < 0,0001	Disc pair STN 2 < 0,001

K_{vs}-values see data sheet 8001.

Options

- stainless steel bellows
- limit switches
- manual operation
- pilot valve
- complete stainless steel version
- version free of oil and grease



Stop Valve 8040/41-GS1

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

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

		Disc pair carbon-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
150	50	1,5	5,6

		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	--	--
150	50	--	--

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
150	80	4	4,9

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
150	80	1,5	5

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
150	125	6,5	2,8

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
150	125	2	2,8

Special versions for very low pilot pressures. The admissible pressures are limited by the respective pressure levels and the pressure-temperature diagrams acc.data sheet 8001.

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Applications limits for GS1-Valves made of stainless steel

PN 40

DN	Sliding unit: carbon - stainless steel, coated						Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS1-valves						max. admissible diff. pressures for GS1-valves					
	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 - 25	40	38	34	33	31	29	40	38	34	33	31	29
32	40	38	34	33	31	29	40	38	34	31	25	22
40	40	38	34	33	31	29	27	25	24	19	16	14
50	40	38	34	33	31	29	40	38	34	33	28	24
65	40	38	34	33	31	29	37	35	33	27	22	19
80	40	38	34	31	26	23	22	21	20	16	13	11
100	24	23	22	19	16	14	13	12	12	10	8,0	7,0
125	16	15	14	12	10	9,0	8,8	8,4	8,0	6,5	5,3	4,6
150	16	15	14	13	12	12	11	10	9,8	7,9	6,5	5,6

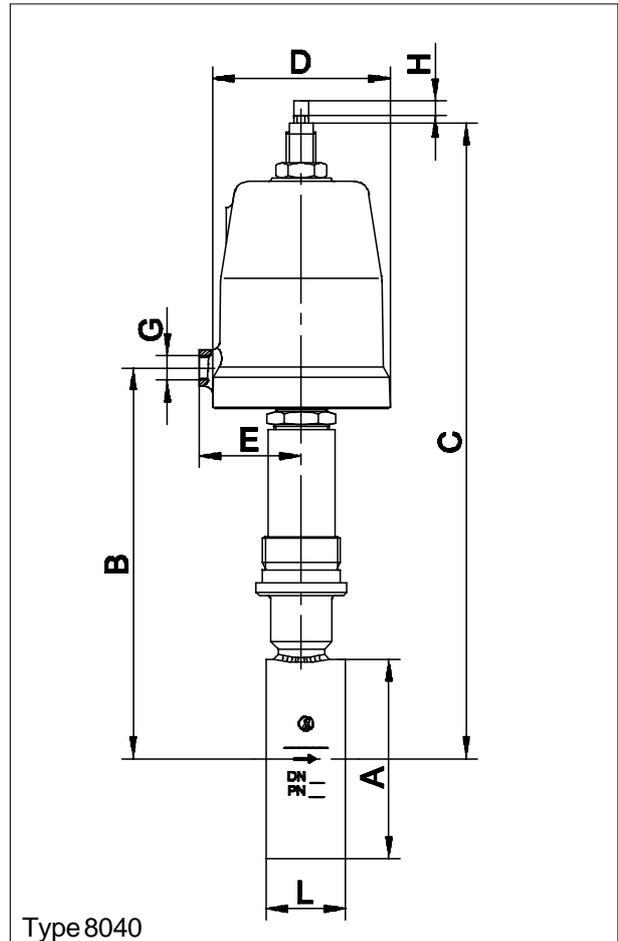
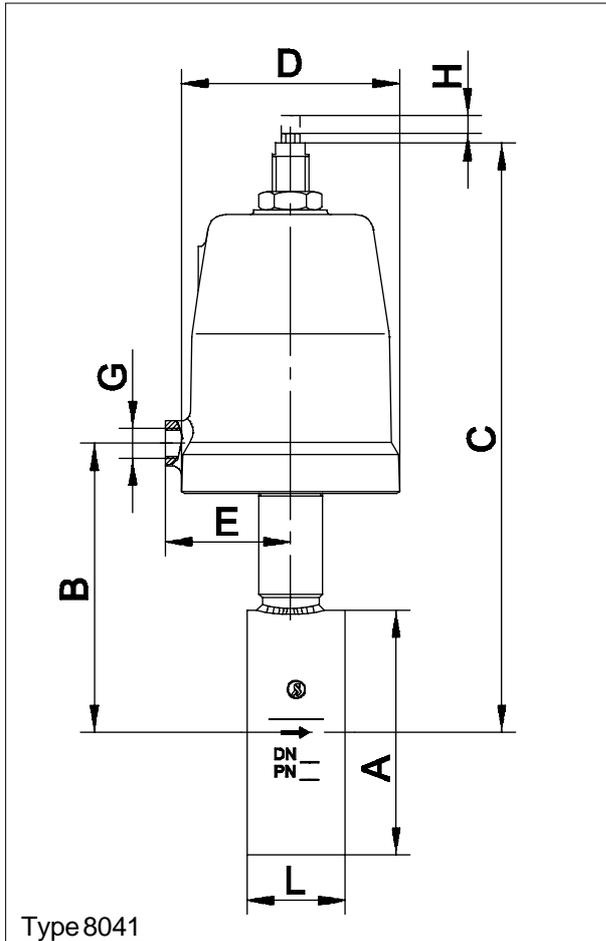
Limitation for valves in carbon steel: 300°C

Materials

Body	Carbon steel 1.0570 /1.0619	Stainless steel 1.4571 /1.4581
Head section	Stainless steel 1.4571/1.4581 (short version) Carbon steel 1.0570 /1.0619 (long version)	
Bonnet	Brass, chrome coated (actuator Ø50 mm, Ø80 mm) aluminium KTL-coated (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	Special carbon material	STN2-disc
Coupling ring for disc	Stainless steel 1.4581	

Stop Valve 8040/41-GS1

Dimensions and Weights



DN	A	Type 8041									Type 8040									Stroke	
		B Actuator			C max Actuator			Weight kg Actuator			B Actuator			C max Actuator			L	Weight kg Actuator			
		50	80	125	50	80	125	50	80	125	50	80	125	50	80	125		50	80		125
15	53	83	86	-	180	220	0	1,9	4,1	-	180	182	-	275	315	-	33	2,6	4,8	-	6
20	62	88	91	-	185	225	-	2	4,2	-	185	187	-	280	320	-	33	2,7	4,9	-	6
25	72	93	96	-	190	230	-	2,1	4,3	-	191	193	-	285	325	-	33	2,8	5	-	6
32	82	97	100	-	195	235	-	2,2	4,3	-	195	197	-	290	330	-	33	2,9	5,1	-	6
40	92	102	105	-	200	240	-	2,3	4,5	-	200	202	-	295	335	-	33	3	5,2	-	6
50	108	125	128	131	220	260	280	3,4	5,6	7	210	212	215	310	350	370	43	4,1	6,3	7,7	8
65	127	134	137	140	230	270	290	3,9	6,1	7,5	220	222	225	315	355	375	46	4,6	6,8	8,2	8
80	142	142	145	148	240	280	300	4,6	6,8	8,2	228	230	233	325	365	385	46	5,3	7,5	8,9	8
100	164	155	158	161	255	295	315	5,8	8	9,4	241	243	246	340	380	400	52	6,5	8,7	10,1	8,5
125	194	167	170	173	265	305	325	7,6	9,8	11,2	253	255	268	350	390	410	56	8,3	10,5	11,9	8,5
150	219	183	186	189	280	320	340	9,6	11,8	13,2	268	270	273	365	405	425	56	10,3	12,5	13,9	8,5

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

Dimensions in mm