Stop Valve 8040

GS 3 series DN 15 up to DN 200

SCHUBERT & SALZER CONTROL SYSTEMS

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

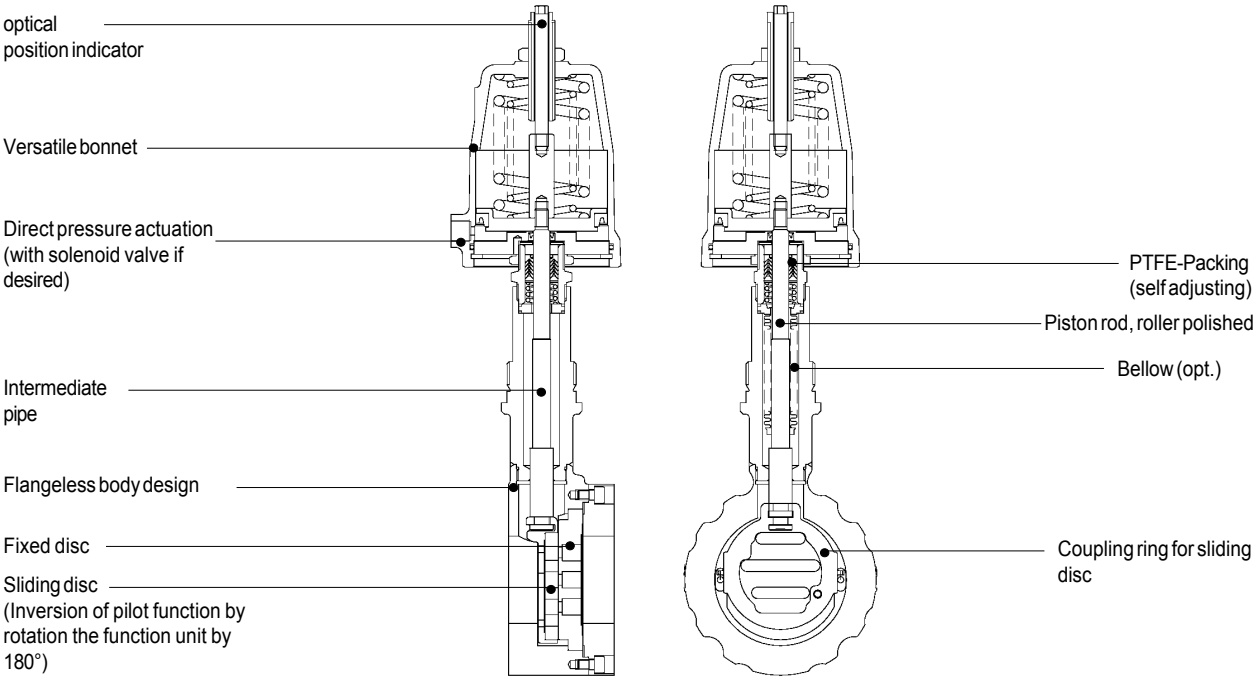
Options

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

Technical Information

Design	Flangeless design further versions see data sheet 8040/41-GS1	
Nominal size	DN 15 up to DN 200	
Nominal pressure acc. DIN 2401	PN 40 (fits also to PN 10-25)	DN 15 - DN 150
	PN 16	DN 200
Nominal pressure acc. ANSI	ANSI 150	DN 15 - DN 200
	ANSI 300	DN 15 - DN 150
Media temperature	Carbon steel body	-10°C bis +300°C
	Stainless steel body	-60°C bis +350°C
Ambient temperature	-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.



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Stop Valve 8040-GS3

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Admissible differential pressures
(For temperatures of up to 120°C)

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

DN	Actuator	Disc pair carbon - stainless steel		DN	Actuator	STN2-disc pair	
		max. Working pressure	required pilot pressure			max. Working pressure	required pilot pressure
		(bar)	(bar)			(bar)	(bar)
15	50	33	3,8	15	50	23	3,8
20	50	28	3,8	20	50	18	4
25	50	24	3,8	25	50	13	4,4
32	50	19	3,9	32	50	10	4,7
40	50	15	4,2	40	50	6,5	4,9
50	50	9	4,8	50	50	4	5,4
65	50	8	5	65	50	3	5,4
80	50	5	5,3	80	50	2	5,5
100	50	3	5,5	100	50	1	5,6
125	50	2	5,6	125	50	--	--
150	50	1,5	5,6	150	50	--	--
15	80	40	3,1	15	80	40	3,1
20	80	40	3,1	20	80	40	3,3
25	80	40	3,1	25	80	36	3,7
32	80	40	3,2	32	80	27	4
40	80	40	3,6	40	80	18	4,3
50	80	26	4,1	50	80	11	4,6
65	80	22	4,3	65	80	9	4,7
80	80	14	4,5	80	80	5	4,8
100	80	9	4,7	100	80	3	4,9
125	80	6	4,8	125	80	2	4,9
150	80	4	4,9	150	80	1,5	5
200	80	2,5	4,9	200	80	-	-
15	125	40	1,8	15	125	40	1,8
20	125	40	1,8	20	125	40	1,9
25	125	40	1,8	25	125	40	2,1
32	125	40	1,8	32	125	39	2,3
40	125	40	2,1	40	125	27	2,5
50	125	38	2,4	50	125	16	2,7
65	125	32	2,5	65	125	13	2,7
80	125	20	2,6	80	125	8	2,8
100	125	13	2,7	100	125	5	2,8
125	125	8,5	2,8	125	125	3	2,8
150	125	6,5	2,8	150	125	2	2,8
200	125	3,5	2,9	200	125	-	-

	Upper limits for admissible pressures in bar					
	PN16	PN40	PN100	ANSI 150	ANSI 300	ANSI 600
P max.	16	40	100	16	40	80

Stop Valve 8040S3

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Materials

Body	Stainless steel 1.4571 /1.4581	Carbon steel 1.0570 /1.0619
Head section	Stainless steel 1.4571 /1.4581	
Bonnet	Brass plated (actuator ø 50 mm, ø 80 mm) Aluminium corrosion proof (actuator ø 125 mm)	
Springs	Stainless steel 1.4301 (actuator ø 50 mm, ø 80 mm) Spring steel wire C, coated (actuator ø 125 mm)	
Packing	PTFE (carbon filled), spring 1.4310	
Valve stem	Stainless steel, roller burnished	
Bellow	Stainless steel 1.4571	
Fixed plate	Stainless steel 1.4571, plated	STN2-disc
Sliding disc	Standard: special carbon material	STN2-disc
Coupling ring for discs	Stainless steel 1.4581	

Ordering Number System

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
8	0	4	0	/				V	B					M								Z			S

Type — Size — 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		6. Special versions		7. Springs		8. Stem sealing	
B	GS stop valve type 8040 (long design)	E	GS3-flangeless design acc. ANSI 150	0	carbon steel 1.0570/1.0619	0	spring closes	0	Piston 50 mm	M	State, if further sections are quoted	-	standard	-	PTFE-packing, self adjusting (standard)
		F	GS3-flangeless design acc. ANSI 300	1	stainless steel 1.4571/1.4581	1	spring opens	1	Piston 80 mm	A	groove and groove acc. DIN2512	1	one spring	1	Additional bellows 1.4571
		G	GS3-flangeless design acc. DIN PN16/40			3	double acting	2	Piston 125 mm	C	groove and tongue acc. DIN 2512	3	two springs		
										E	2x lowered face acc. DIN 2513				
										H	Lowered and raised face acc. acc. DIN 2513				

9. Moving disc		10. Fixed plate		11. Kvs-values		12. Characte-ristic		13. Accessories		14. Switches etc.		15. Pilot valves		16. Special versions	
-	Carbon material	-	stainless steel 1.4581, hard-chrome plated	-	100% (Stand.)	-	linear	Z	Accessories	-	without	-	without	S	Further special versions
B	Carbon material fibre reinforced	1	STN2 (only in combination with the position "9" STN2-disc)	A	red. to 63%	1	equal percentage	M	El. position indicator bushing)	1	one micro switch	6	Pilot valve 230 VAC		
9	STN2			1	red. to 40%			N	El. position indicator (plug connection)	2	two micro switches	7	Pilot valve 24 VDC		
				B	red. to 25%			X	ASI-Bus head	3	manual operation				
				2	red. to 16%					4	stroke limitation				
				C	red. to 10%					8	two inductive switches 10-36 VDC PNP				
				3	red. to 6,3%										
				4	red. to 2,5%					P	one inductive switch 10-36 VDC PNP				
				5	red. to 1%										
				6	red. to 20%										
				7	red. to 12%										
				8	red. to 2%										
				9	red. to 0,4%										

Ordering example: 8040/050VBG100M-1 - - - -Z-6
GS3-stop valve, long design 8040, DN 50, PN10/40, stainless steel, NC, actuator Ø 50 mm, with bellow, Disc pair: carbon material - stainless steel 1.4571 coated, lineare characteristics 100 %, pilot valve 230 V AC.

Stop Valve 8040-GS3

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.

PN 40

	Sliding unit: carbon - stainless steel, coated						Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS3-valves						max. admissible diff. pressures for GS3-valves					
DN	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	28	24	40	38	35	32	28	24
80	40	38	35	32	28	24	36	34	33	26	22	19
100	33	31	29	27	25	24	33	31	29	24	20	17
125	23	21	20	19	18	17	22	21	20	16	13	11
150	16	15	14	13	12	12	16	15	14	11	9,5	8,5
200 (PN16 only)	16	15	14	13	11	9,5	-	-	-	-	-	-

ANSI #150

	Sliding unit: carbon - stainless steel, coated						Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS3-valves						max. admissible diff. pressures for GS3-valves					
DN	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	8,5	16	15	13	12	10	8,5
150	16	15	13	12	10	8,5	16	15	13	11	9,5	8,5
200	16	15	13	12	10	8,5	-	-	-	-	-	-

ANSI #300

	Sliding unit: carbon - stainless steel, coated						Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS3-valves						max. admissible diff. pressures for GS3-valves					
DN	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	33	31	30
80	40	38	35	33	31	30	36	34	33	26	22	19
100	33	31	29	27	25	24	33	31	29	24	20	17
125	23	21	20	19	18	17	22	21	20	16	13	11
150	16	15	14	13	12	12	16	15	14	11	9	8

Stop Valve 8040-GS3

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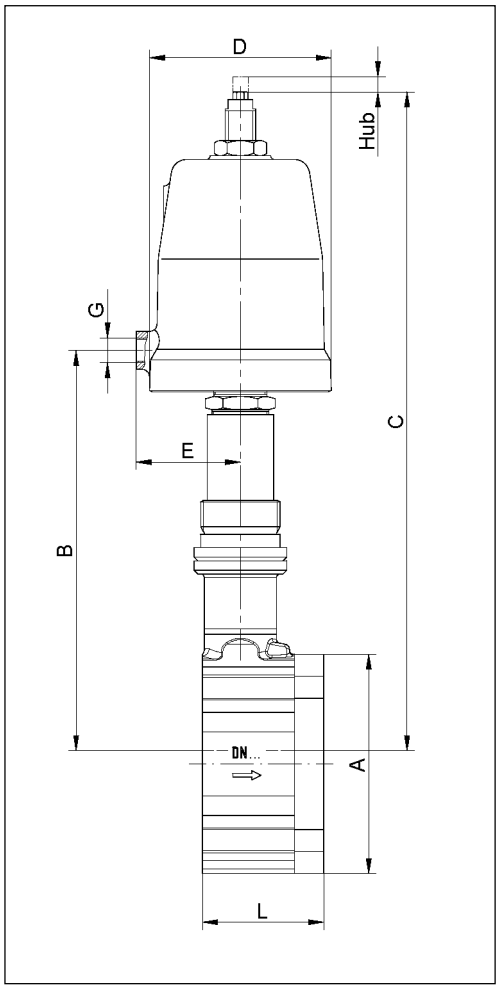
Dimensions and Weights



DN	A	8040										Stroke
		B for actuator			C max for actuator			L	Weight kg for actuator			
		50	80	125	50	80	125		50	80	125	
15	64	180	182	185	275	315	335	56	3,2	5,4	6,8	6
20	72	185	187	190	280	320	340	56	3,4	5,6	7	6
25	82	191	193	196	285	325	345	56	3,7	5,9	7,3	6
32	89	195	197	200	290	330	350	56	3,9	6,1	7,5	6
40	99	200	202	205	295	335	355	56	4,2	6,4	7,8	6
50	116	210	212	215	310	350	370	64	5,7	7,9	9,3	8
65	138	220	222	225	315	355	375	68	7,2	9,4	10,8	8
80	153	228	230	233	325	365	385	70	8,4	10,6	12	8
100	184	241	243	246	340	380	400	75	11,6	13,8	15,2	8,5
125	212	253	255	268	350	390	410	80	13,9	16,1	17,5	8,5
150	242	268	270	273	365	405	425	80	17,7	19,9	21,3	8,5
200	302	-	298	301	-	433	453	93	-	36,8	38,2	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