

Pressure Regulator 8010

GS 3 series DN 15 up to DN 150

SCHUBERT & SALZER
CONTROL SYSTEMS

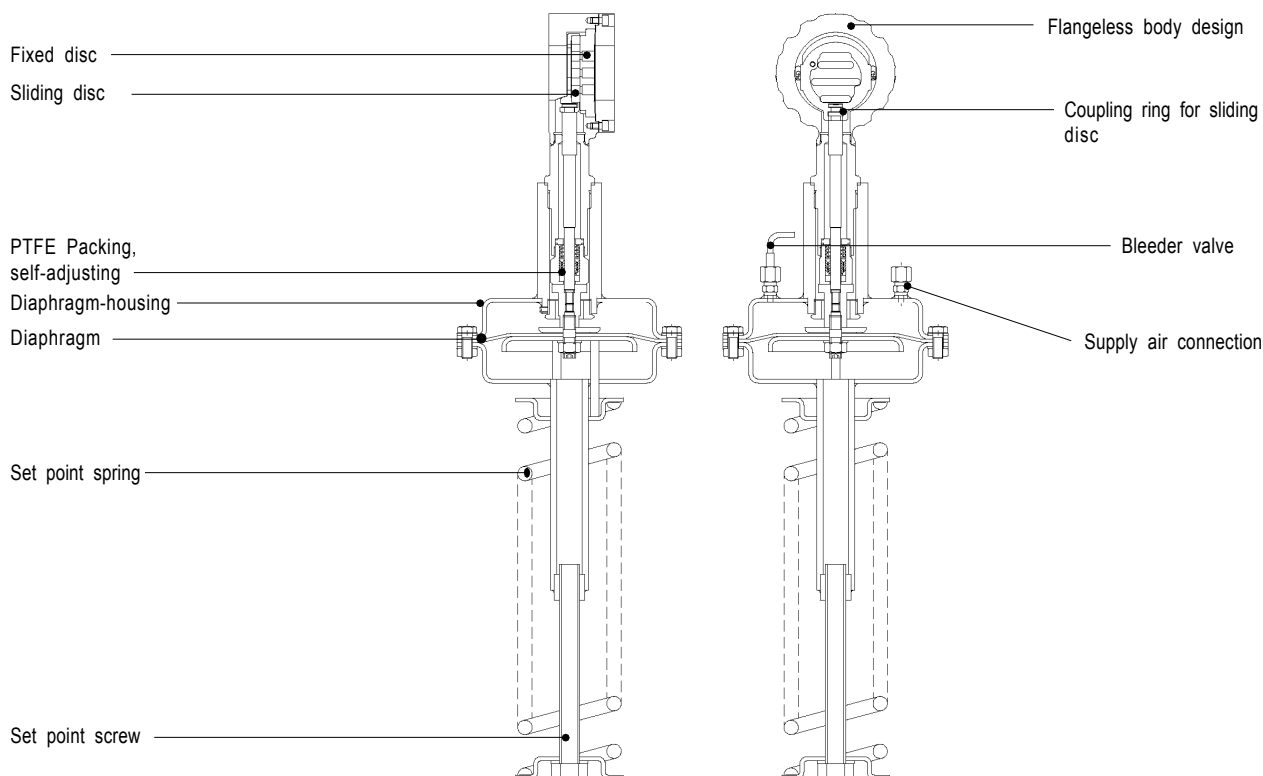
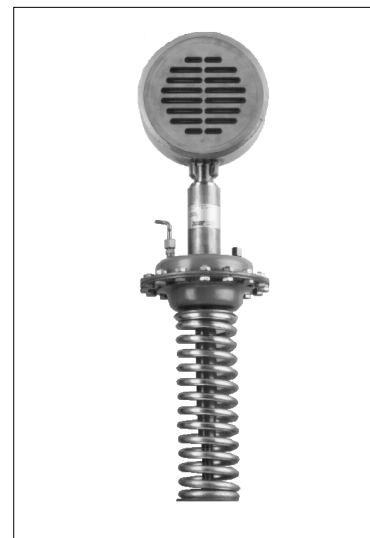
Self operated regulation of inlet and outlet pressures.

- Space saving wafer type design
- Lowest possible weight
- High Kvs (Cv)-values
- Tight shut-off even for temperatures above +200°C

Technical Information

Body design	Flangeless, wafer-type construction more versions see on data-sheet 8010-GS1	
Nominal sizes	DN 15 to DN 150	
Nominal pressure acc. DIN 2401	PN 40 (fits also to PN 10-25)	DN 15 - DN 150
Nominal pressure acc. ANSI	ANSI 150	DN 15 - DN 150
	ANSI 300	DN 15 - DN 150
Pressure range	0,1 up to 10 bar (see table)	
Media temperature	-60°C up to +350°C	
Max. working pressure for the actuator	Diaphragm material	
	CR:	-20°C up to +80°C
	EPDM:	-30°C up to +130°C
	FKM:	-30°C up to +150°C
Leakage rate (% of Kvs-value)	Disc pair Carbon-stainless steel	Disc pair STN2
	< 0.0001	< 0.001

K_{vs}-values see data sheet 8001.



По вопросам продаж и поддержки обращайтесь:
 Екатеринбург (343)384-55-89, Казань (843)206-01-48, Краснодар (861)203-40-90,
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Pressure Regulator 8010-GS3

without supply energy



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 coated

Maximum admissible differential pressures for
pressure regulator (output pressure regulator)

Pressure range (bar) output pressure P2	4 to 10	2 to 5	1 to 2,5	0,5 to 1,2	0,2 to 0,6	0,1 to 0,3
Diaphragm:						
Diameter (mm)	175	175	175	220	270	360
Surface area (cm²)	19	36	80	176	320	640
DN 15	36	34	38	39	39	39
DN 20	23	20	25	28	23	23
DN 25	14	13	16	17	15	15
Diaphragm:						
Diameter (mm)	220	220	220	270	360	360
Surface area (cm²)	40	80	176	320	640	640
DN 32	32	32	36	30	30	10
DN 40	20	20	22	19	19	6
DN 50	11	11	12	10	10	3,4
DN 65	9	9	10	8	8	2,7
DN 80	5	5	6	5	5	1,6
DN 100	3,2	3,2	3,6	3	3	1
DN 125	2	2	2,4	2	2	0,6
DN 150	1,5	1,5	1,7	1,4	1,4	0,5

Disc pair: STN 2

Maximum admissible differential pressures for
pressure regulator (output pressure regulator)

Pressure range (bar) output pressure P2	4 to 10	2 to 5	1 to 2,5	0,5 to 1,2	0,2 to 0,6	0,1 to 0,3
Diaphragm:						
Diameter (mm)	175	175	175	220	270	360
Surface area (cm²)	19	36	80	176	320	640
DN 15	13	12	15	16	14	14
DN 20	8	7	9	10	8	8
DN 25	5	4,5	5,5	6	5	5
Diaphragm:						
Diameter (mm)	220	220	220	270	360	360
Surface area (cm²)	40	80	176	320	640	640
DN 32	11	11	13	11	11	3,5
DN 40	7	7	8	6,5	6,5	2
DN 50	4	4	4,5	3,5	3,5	1,2
DN 65	3	3	3,5	3	3	1
DN 80	1,8	1,8	2	1,7	1,7	0,5
DN 100	1	1	1,2	1	1	0,3
DN 125	0,7	0,7	0,8	0,7	0,7	0,2
DN 150	0,5	0,5	0,5	0,5	0,5	0,15

overflow (inlet pressure regulator)

Pressure range (bar) inlet pressure P1	4 to 10	2 to 5	1 to 2,5	0,5 to 1,2	0,2 to 0,6	0,1 to 0,3
Diaphragm:						
Diameter (mm)	175	175	175	220	270	360
Surface area (cm²)	19	36	80	176	320	640
DN 15	10	5	2,5	1,2	0,6	0,3
DN 20	10	5	2,5	1,2	0,6	0,3
DN 25	10	5	2,5	1,2	0,6	0,3
Diaphragm:						
Diameter (mm)	220	220	220	270	360	360
Surface area (cm²)	40	80	176	320	640	640
DN 32	10	5	2,5	1,2	0,6	0,3
DN 40	10	5	2,5	1,2	0,6	0,3
DN 50	10	5	2,5	1,2	0,6	0,3
DN 65	9	5	2,5	1,2	0,6	0,3
DN 80	5	5	2,5	1,2	0,6	0,3
DN 100	3,2	3,2	2,5	1,2	0,6	0,3
DN 125	2	2	2,4	1,2	0,6	0,3
DN 150	1,5	1,5	1,7	1,2	0,6	0,3

overflow (inlet pressure regulator)

Pressure range (bar) inlet pressure P1	4 to 10	2 to 5	1 to 2,5	0,5 to 1,2	0,2 to 0,6	0,1 to 0,3
Diaphragm:						
Diameter (mm)	175	175	175	220	270	360
Surface area (cm²)	19	36	80	176	320	640
DN 15	10	5	2,5	1,2	0,6	0,3
DN 20	10	5	2,5	1,2	0,6	0,3
DN 25	10	5	2,5	1,2	0,6	0,3
Diaphragm:						
Diameter (mm)	220	220	220	270	360	360
Surface area (cm²)	40	80	176	320	640	640
DN 32	10	5	2,5	1,2	0,6	0,3
DN 40	7	5	2,5	1,2	0,6	0,3
DN 50	4	4	2,5	1,2	0,6	0,3
DN 65	3	3	2,5	1,2	0,6	0,3
DN 80	1,8	1,8	2	1,2	0,6	0,3
DN 100	1	1	1,2	1	0,6	0,3
DN 125	0,7	0,7	0,8	0,7	0,6	0,2
DN 150	0,5	0,5	0,5	0,5	0,5	0,15

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

The actuator should be of a size that allows an adjustment at the upper limit of the pressure range. Further versions for higher differential pressure, other disc pairs or other pressure range are available upon request.

Materials

Body	Stainless steel 1.4571 / 1.4581	
Head section	Stainless steel 1.4571	
Diaphragm housing	Aluminium, plastic coated	
Packing	PTFE (Carbon filled), spring SST 301	
Actuating stem	Stainless steel 1.4571, roller burnished	
Bellows	Stainless steel 1.4571	
Fixed disc	Stainless steel 1.4571, coated	STN2-disc
Sliding disc	Special carbon material	STN2-disc
Guide ring for sliding disc	Stainless steel 1.4581	

without supply energy

Application limits for GS3-valves made of stainless steel

PN 40

	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS3-valves					
DN	100°C	150°C	200°C	250°C	300°C	350°C
15 - 65	40	38	35	32	28	24
80	40	38	35	32	28	24
100	33	31	29	27	25	24
125	23	21	20	19	18	17
150	16	15	14	13	12	12
200 (PN16 only)	16	15	14	13	11	9,5

Sliding unit: carbon - STN2						
max. admissible diff. pressures for GS3-valves						
100°C	150°C	200°C	250°C	300°C	350°C	
40	38	35	32	28	24	
36	34	33	26	22	19	
33	31	29	24	20	17	
22	21	20	16	13	11	
16	15	14	11	9,5	8,5	
-	-	-	-	-	-	

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					
	max. admissible diff. pressures for GS3-valves					
DN	100°C	150°C	200°C	250°C	300°C	350°C
15 - 65	40	38	35	33	31	30
80	40	38	35	33	31	30
100	33	31	29	27	25	24
125	23	21	20	19	18	17
150	16	15	14	13	12	12

	Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS3-valves					
DN	100°C	150°C	200°C	250°C	300°C	350°C
15 - 65	40	38	35	33	31	30
80	36	34	33	26	22	19
100	33	31	29	24	20	17
125	22	21	20	16	13	11
150	16	15	14	11	9	8

Ordering Number System

[illegible]




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. Materials body and actuator		4. Function		5. Pressure range		6. Special versions	
D	Pressure regulator	E	GS3 - flangeless design acc. ANSI 150	1	Wetted parts stainless steel 1.4571	0	Overflow valve	0	4 - 10 bar	M	State, if further sections are quoted
F		GS3 - flangeless design acc. ANSI 300	2	Completely stainless steel	1	Pressure regulator	1	2 - 5 bar			
G		GS3 - flangeless design acc. DIN, PN 10-PN 40					2	1 - 2,5 bar			
							3	0,5 - 1,2 bar			
							4	0,2 - 0,6 bar			
							5	0,1 - 0,3 bar			

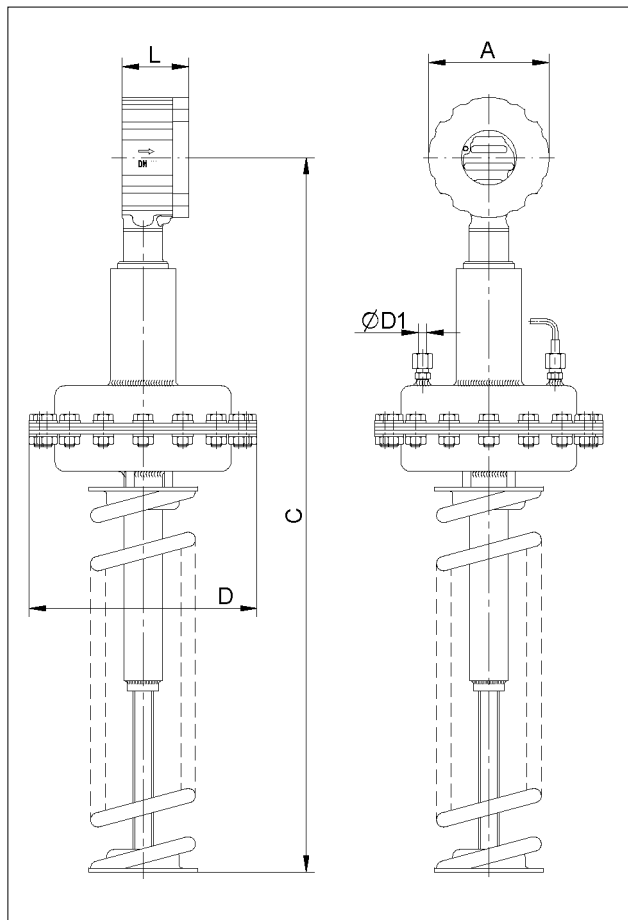
7. Spring cap		8. Diaphragm material		9. Moving disc		10. Fixed plate		11. Kvs-values		12. Special versions	
-	open	-	CR (Standard)	-	Carbon	-	Stainless steel 1.4571	-	100 % (Stand.)	S	Further special versions
1	closed	1	EPDM	B	Carbon, fibre reinforced			A	red. to 63 %		
		2	FKM				B	red. to 25 %			
		3	CR + PTFE-foil				2	red. to 16 %			
		4	EPDM + PTFE-foil				C	red. to 10 %			
		5	FKM + PTFE-foil				3	red. to 6,3 %			
						4	red. to 2,5 %				
						5	red. to 1 %				
						7	red. to 12 %				
						8	red. to 2 %				

Ordering example: 8010/080VDG210M11--1
GS3-pressure regulator, DN 80, PN 10/40, completely stainless steel, pressure reducer, pressure range 4-10 bar, spring cap closed, diaphragm material EPDM, Disc pair carbon material-stainless steel 1.4571 coated, reduced Kvs-value (40 %)

Pressure Regulator 8010-GS3

without supply energy

Dimensions and Weights



DN	Weight in kg for pressure range (bar)					
	4 - 10	2 - 5	1 - 2.5	0.5 - 1.2	0.2 - 0.6	0.1 - 0.3
15	13,3	13,3	13,3	14,3	17,3	20,3
20	13,5	13,5	13,5	14,5	168,7	20,5
25	13,8	13,8	13,8	139,9	17,8	20,8
32	17	17	17	20	23	21
40	17,3	17,3	17,3	20,3	23,3	21,3
50	18,8	18,8	18,8	21,8	24,8	22,8
65	20,3	20,3	20,3	23,3	26,3	24,3
80	21,5	21,5	21,5	24,5	27,5	25,5
100	24,7	24,7	24,7	27,7	261,1	28,7
125	27	27	27	30	33	31
150	30,8	30,8	30,8	33,8	36,8	34,8

DN	Ø A	C						D						L	D1	Stroke
		for pressure range (bar)						for pressure range (bar)								
		4 - 10	2 - 5	1 - 2.5	0.5 - 1.2	0.2 - 0.6	0.1 - 0.3	4 - 10	2 - 5	1 - 2.5	0.5 - 1.2	0.2 - 0.6	0.1 - 0.3			
15	64	530	530	530	550	550	550	175	175	175	220	270	360	56	8	6
20	72	535	535	535	555	555	555	175	175	175	220	270	360	56	8	6
25	82	540	540	540	560	560	560	175	175	175	220	270	360	56	8	6
32	89	680	680	680	680	680	565	220	220	220	270	360	360	56	8	6
40	99	685	685	685	685	685	570	220	220	220	270	360	360	56	8	6
50	116	695	695	695	695	695	580	220	220	220	270	360	360	64	8	8
65	138	705	705	705	705	705	590	220	220	220	270	360	360	68	8	8
80	153	715	715	715	715	715	600	220	220	220	270	360	360	70	8	8
100	184	725	725	725	725	725	610	220	220	220	270	360	360	75	8	8,5
125	212	740	740	740	740	740	625	220	220	220	270	360	360	80	8	8,5
150	242	755	755	755	755	755	640	220	220	220	270	360	360	80	8	8,5

closed spring cap: dimension C increases by 200 mm.

Dimensions in mm

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