

# Pressure Regulator compact

## GS 3 series DN 15 up to DN 150

8011

SCHUBERT & SALZER  
**CONTROL SYSTEMS**

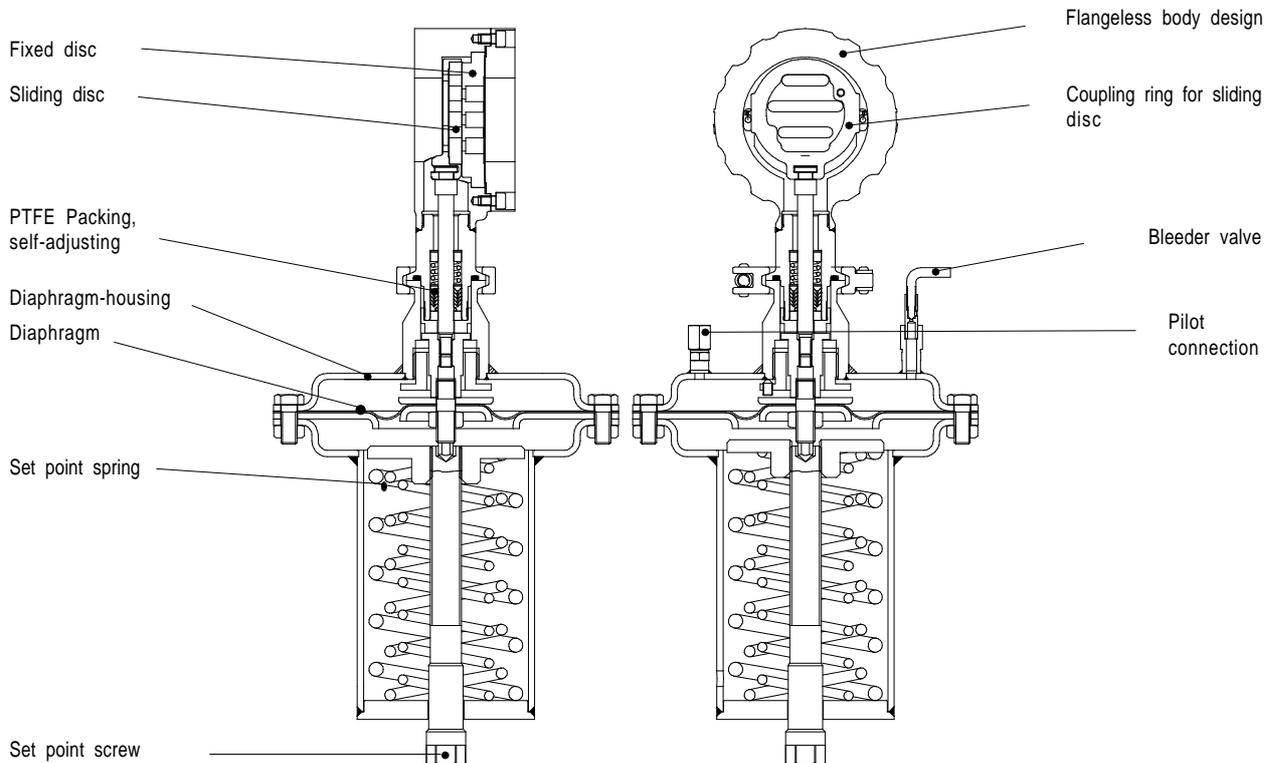
Self operated regulation of inlet and outlet pressures of neutral through to highly aggressive media in process engineering, chemical industries and for plant equipment.

- Space saving wafer type design
- Lowest possible weight
- High Kvs (Cv)-values

### 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	0,5 up to 10 bar (see table)	
Media temperature	-60°C up to +230°C at special versions up to 300°C	
Max. working temperatures 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<sub>vs</sub>-values see data sheet 8001



# Pressure Regulator compact 8011-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

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
Diaphragm: Diameter (mm)	220	220	220	220
Surface area (cm <sup>2</sup> )	40	80	176	176
DN 15	40	40	40	40
DN 20	40	40	40	38
DN 25	40	40	40	24
DN 32	32	32	36	16
DN 40	20	20	22	10
DN 50	11	11	12	5,6
DN 65	9	9	10	4,5
DN 80	5	5	6	2,6
DN 100	3,2	3,2	3,6	1,6
DN 125	2	2	2,4	1,1
DN 150	1,5	1,5	1,7	0,8

### 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
Diaphragm: Diameter (mm)	220	220	220	220
Surface area (cm <sup>2</sup> )	40	80	176	176
DN 15	40	40	40	21
DN 20	30	30	33	12
DN 25	19	19	21	8
DN 32	11	11	13	5
DN 40	7	7	8	3,3
DN 50	4	4	4,5	1,8
DN 65	3	3	3,5	1,5
DN 80	1,8	1,8	2	0,8
DN 100	1	1	1,2	0,5
DN 125	0,7	0,7	0,8	0,3
DN 150	0,5	0,5	0,5	0,25

### 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
Diaphragm: Diameter (mm)	220	220	220	220
Surface area (cm <sup>2</sup> )	40	80	176	176
DN 15	10	5	2,5	1,2
DN 20	10	5	2,5	1,2
DN 25	10	5	2,5	1,2
DN 32	10	5	2,5	1,2
DN 40	10	5	2,5	1,2
DN 50	10	5	2,5	1,2
DN 65	9	5	2,5	1,2
DN 80	5	5	2,5	1,2
DN 100	3,2	3,2	2,5	1,2
DN 125	2	2	2,4	1
DN 150	1,5	1,5	1,7	0,8

### 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
Diaphragm: Diameter (mm)	220	220	220	220
Surface area (cm <sup>2</sup> )	40	80	176	176
DN 15	10	5	2,5	1,2
DN 20	10	5	2,5	1,2
DN 25	10	5	2,5	1,2
DN 32	10	5	2,5	1,2
DN 40	7	5	2,5	1,2
DN 50	4	4	2,5	1,2
DN 65	3	3	2,5	1,2
DN 80	1,8	1,8	2	0,8
DN 100	1	1	1,2	0,5
DN 125	0,7	0,7	0,8	0,3
DN 150	0,5	0,5	0,5	0,25

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

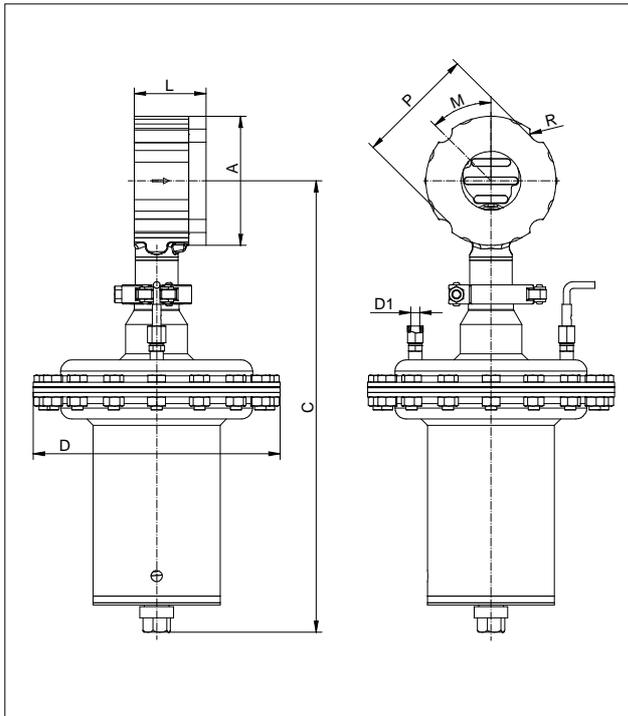
## Materials

Body	Stainless steel 1.4571 / 1.4581	
Head section	Stainless steel 1.4571	
Diaphragm housing	Stainless steel 1.4571	
Diaphragm	CR, EPDM, FKM, PTFE-foil	
Spring	Stainless steel 1.4310	
Stem	Stainless steel 1.4571, roller burnished	
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	



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## Dimensions and Weights



DN	Weight in kg for pressure range (bar)			
	4 - 10	2 - 5	1 - 2.5	0.5 - 1.2
15	11,2	11,2	10,1	9,3
20	11,4	11,4	10,3	9,5
25	12,3	12,3	11,2	10,4
32	12,7	12,7	11,6	10,8
40	13,1	13,1	12	11,2
50	15,2	15,2	14,1	13,3
65	17	17	15,9	15,1
80	18,1	18,1	17	16,2
100	22,1	22,1	21	20,2
125	26,3	26,3	25,2	24,4
150	30	30	28,9	28,1

DN	Ø A	D	D1	C max.	Stroke	PN40			ANSI150			ANSI300			R	L
						P	M	Number "R"	P	M	Number "R"	P	M	Number "R"		
15	64	220	8	389	6	53	45	4	48,8	45	4	53	45	4	8	56
20	72	220	8	393	6	63	45	4	58,2	45	4	68	45	4	10	56
25	82	220	8	398	6	73	45	4	67,6	45	4	73	45	4	10	56
32	89	220	8	401	6	83	45	4	77	45	4	83	45	4	10	56
40	99	220	8	406	6	94	45	4	87	45	4	94	45	4	10	56
50	116	220	8	416	8	115	45	4	106	45	4	112	22,5	8	10	64
65	138	220	8	425	8	129	22,5	8	125	45	4	129	22,5	8	10	68
80	153	220	8	434	8	144	22,5	8	138	45	4	150	22,5	8	10	70
100	184	220	8	456	8,5	164	22,5	8	176	22,5	8	182	22,5	8	10	75
125	212	220	8	470	8,5	194	22,5	8	194	22,5	8	212	---	0	16	80
150	242	220	8	483	8,5	220	22,5	8	220	22,5	8	242	---	0	16	80

Dimensions in mm