

Pressure Regulator compact 8011

GS 1 series, DN 15 up to DN 125

Uni-Valve^{A/s}
VENTILER & INSTRUMENTER



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-values

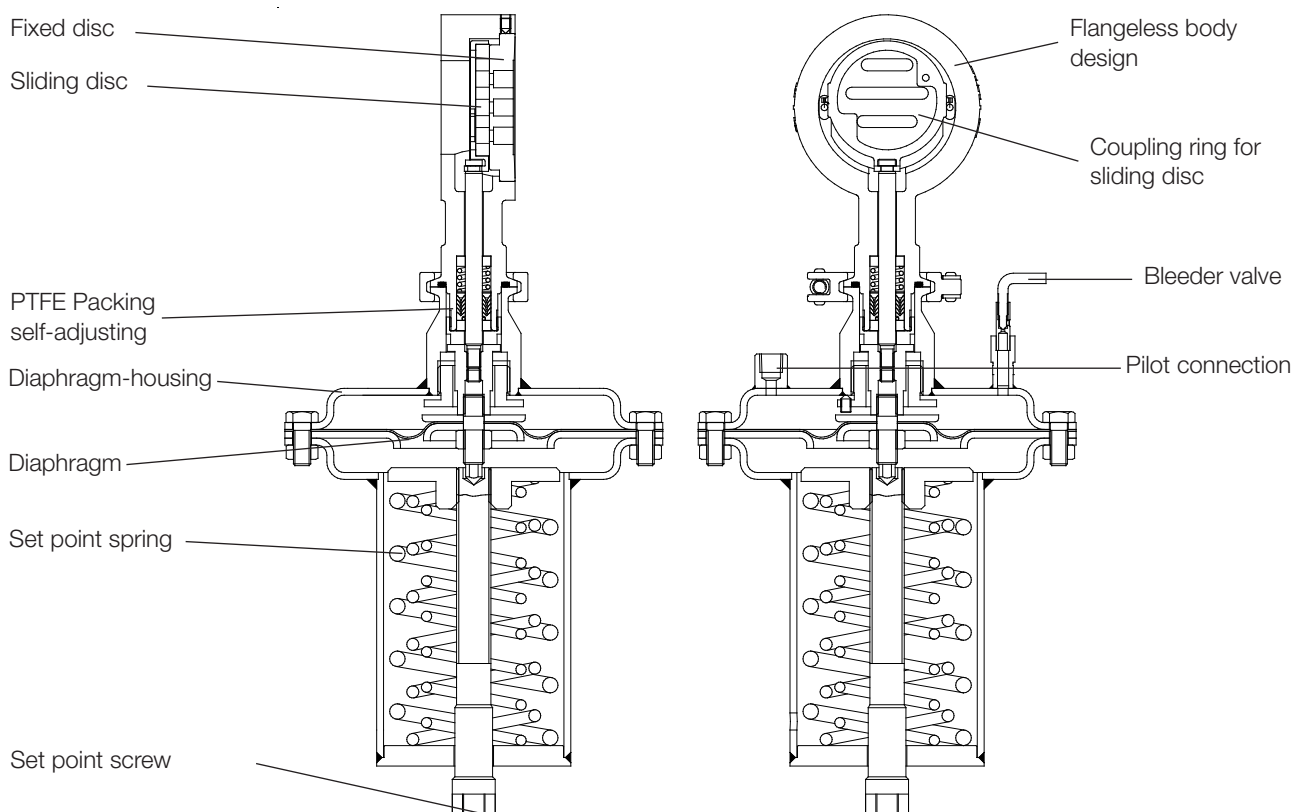
Technical Information

Body design	Flangeless, wafer-type construction Dimensions acc. DIN EN 558-1 series 20 for flanges acc. DIN EN 1092-1 form B more versions see on data-sheet 8011-GS3	
Nominal sizes	DN 15 to DN 125	
Nominal pressure	PN 40 acc. DIN 2401 also for flanges PN 10 to PN 25	
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 < 0.0001	Disc pair STN2 < 0.001

Kvs-values see data sheet 8001



TÜVRheinland[®]
TA-Luft zertifiziert



Pressure Regulator compact 8011-GS1

without supply energy

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

Disc pair: carbon - stainless steel

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

Pressure range (bar)	4 to	2 to	1 to	0,5 to
output pressure P2	10	5	2,5	1,2
Diaphragm:				
Diameter (mm)	220	220	220	220
Surface area (cm ²)	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

overflow (inlet pressure regulator)

Pressure range (bar)	4 to	2 to	1 to	0,5 to
inlet pressure P1	10	5	2,5	1,2
Diaphragm:				
Diameter (mm)	220	220	220	220
Surface area (cm ²)	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	1,0

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

Disc pair: STN 2

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

Pressure range (bar)	4 to	2 to	1 to	0,5 to
output pressure P2	10	5	2,5	1,2
Diaphragm:				
Diameter (mm)	220	220	220	220
Surface area (cm ²)	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

overflow (inlet pressure regulator)

Pressure range (bar)	4 to	2 to	1 to	0,5 to
inlet pressure P1	10	5	2,5	1,2
Diaphragm:				
Diameter (mm)	220	220	220	220
Surface area (cm ²)	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

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.

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Applications limits for GS1-Valves made of stainless steel

PN 40

DN	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS1-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
15 - 25	40	38	34	33	31	29
32	40	38	34	33	31	29
40	40	38	34	33	31	29
50	40	38	34	33	31	29
65	40	38	34	33	31	29
80	40	38	34	31	26	23
100	24	23	22	19	16	14
125	16	15	14	12	10	9,0
150	16	15	14	13	12	12

	Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS1-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
	40	38	34	33	31	29
	40	38	34	31	25	22
	27	25	24	19	16	14
	40	38	34	33	28	24
	37	35	33	27	22	19
	22	21	20	16	13	11
	13	12	12	10	8,0	7,0
	8,8	8,4	8,0	6,5	5,3	4,6
	11	10	9,8	7,9	6,5	5,6

Limitation for valves in carbon steel: 300°C

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
Coupling ring for disc	Stainless steel 1.4581	

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Ordering Number System

8	0	1	1	/				V	D	K						M					S
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Type: 8 0 1 1 /
 Nennweite: V D K
 Symbol: "V": Valve
 "R": Repair kit (sealings)

1 - 5 : Please quote all 5 sections.
 6 - 12: Quote only if required.

1. Function	2. Design	3. Body design	4. Materials body and actuator	5. Function	6. Pressure range
D Pressure regulator compact (Type 8011)	K Compact design	0 GS1 - flangeless design acc. DIN, PN 10-PN 40	2 Completely stainless steel 5 Completely stainless steel with controlling connection G 1/4"	0 Overflow valve 1 Pressure regulator	0 4 - 10 bar 1 2 - 5 bar 2 1 - 2,5 bar 3 0,5 - 1,2 bar

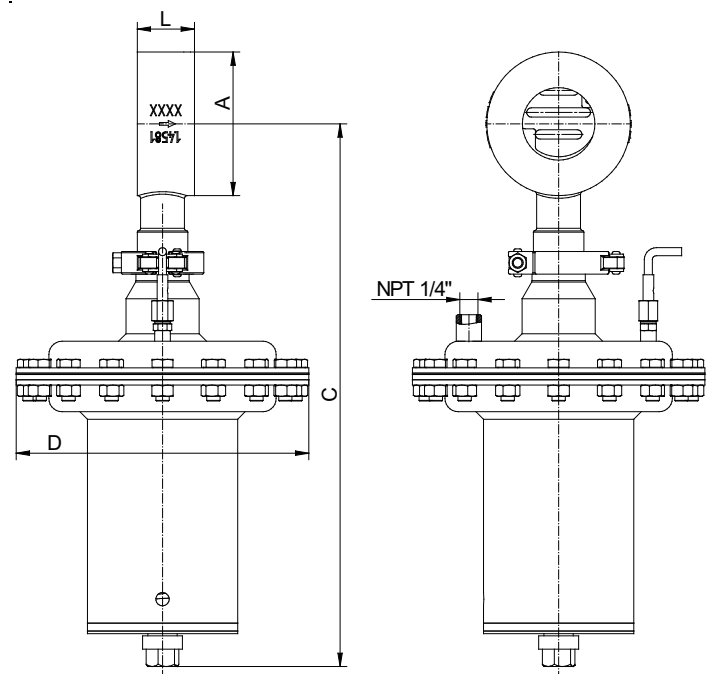
7. Special version	8. Diaphragm material	9. Sliding disc	10. Fixed disc	11. Kvs-values	12. Special versions
M To state, if further sections are quoted	- CR (Standard) 1 EPDM 2 FKM 3 CR + PTFE-foil 4 EPDM + PTFE-foil 5 FKM + PTFE-foil	- carbon material 9 STN2 B carbon, fibre reinforced	- stainless steel 1.4571 1 STN2	- 100 % (Stand.) A red. to 63 % 1 red. to 40 % B red. to 25 % 2 red. to 16 % C red. to 10 % 3 red. to 6,3 % 4 red. to 2,5 % 5 red. to 1 % 7 red. to 12 % 8 red. to 2 %	S Quote for further special versions

Ordering example: 8011/080VDK0210M1- -1
 GS1-pressure regulator, DN80, compact design, PN 10/40, completely stainless steel, pressure regulator, pressure range 4-10 bar, diaphragm material EPDM, sliding disc carbon material, fixed disc stainless steel 1.4571, reduced Kvs-value (40 %)

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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	10,3	10,3	9,2	8,4
20	10,4	10,4	9,3	8,5
25	10,7	10,7	9,6	8,9
32	11	11	9,9	9,1
40	11,3	11,3	10,2	9,4
50	12,5	12,5	11,4	10,6
65	13,8	13,8	12,7	11,9
80	14,6	14,6	13,5	12,7
100	17,4	17,4	16,3	15,5
125	21	21	19,9	19,1

DN	Ø A	D	C max.	Stroke	L
15	53	220	389	6	33
20	62	220	393	6	33
25	72	220	398	6	33
32	82	220	401	6	33
40	92	220	406	6	33
50	108	220	416	8	43
65	127	220	425	8	46
80	142	220	434	8	46
100	164	220	456	8,5	52
125	194	220	470	8,5	56

Dimensions in mm

Text and pictures are not binding. We reserve the right, to alter the equipment.