

Motor Valve

GS 3 series

8030

DN 15 up to DN 200



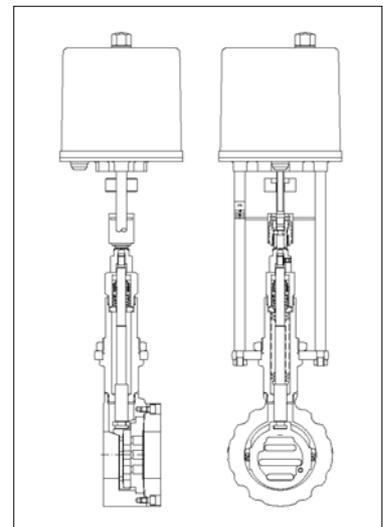
Motor valve for control and switching of neutral through to highly aggressive media in process engineering, chemical industries and for plant equipment.

- Space saving wafer type construction
- Lowest possible weight (especially in larger sizes)
- Low operation noise level (quiet operation)
- Control of high differential pressures with small actuators
- Fast response time

Technical Information

Design	Flangeless design further versions see data sheet 8030-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 100	DN 15 - DN 80
	PN 16	DN 200
Nominal pressure acc. ANSI	ANSI 150	DN15 - DN 200
	ANSI 300	DN 15 - DN 150
	ANSI 600	DN 15 - DN 80
Media temperature	Carbon steel body	-10°C up to +300°C
	Stainless steel body	-60°C up to +350°C
Rangeability	30 : 1	
Leakage (% of Kvs)	Disc pair	Disc pair
	Carbon-stainless steel	STN 2
	< 0,0001	< 0,001

K_{vs}-values see data sheet 8001.



Materials

Body	Stainless steel 1.4571 /1.4581	Carbon steel 1.0570 /1.0619
Head section	Stainless steel 1.4571 /1.4581	
Packing	PTFE (carbon filled), spring 1.4310	
Actuating 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	

Motor Valve 8030-GS3

Stroking times (sec.):

Driving force	0,9 kN	2,0 kN	4,5 kN
DN 15 - 40	36	28	15
DN 50 - 80	47	38	20
DN 100 - 200	50	40	21

Power consumption (Watt):

24 VAC, 230 VAC	5	6,6	40/28
24 VDC	10	20	30
400 V, 50 Hz	10	10	35
110/120 V AC	5	6,6	28

Options

Limit switches	max. 2	max. 2	max. 2
Potentiometer	1	1	max. 2*
Positioner, analogue	yes	yes	yes

* One potentiometer is required for positioner option

Technical Information for the motor actuator

Driving force	0.9 kN; 2 kN; 4.5 kN
Type of duty (according VDE 0530)	S 1 - 100 % ED (0.9 kN; 2 kN; 4.5 kN DC) S 4 - 30 % ED 600c/h (0.9 kN; 2 kN) S 4 - 30 % ED 600c/h (4.5 kN)
Power connections	24 V AC, 24 V DC 110/120V AC 230 V AC 400 V 3-phase-AC other on request
Ambient temperature	0°C up to +60°C; -20°C bis +60°C with heating resistor element
Mounting position	free choice, but motor not vertical down
Protection class (Din 40050)	IP 65

Additional stroking times

Actuator (kN)	0,9				2				4,5			
Stroking speed mm/min.	13,5	8	5,1	2,9	15,2	7,5	5,6	50				
Nominal size	Stroking times (sec.)											
DN 15 - 40	28	47	74	129	25	50	67	7,5				
DN 50 - 80	37	62	97	171	33	66	88	9,9				
DN 100-150	39	66	103	181	35	70	94	10,5				

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

DN	0.9 kN	2.0 kN	4.5 kN
	maximum differential pressure (bar)		
	Disc pair carbon - stainless steel coated		
15	78	100	100
20	68	100	100
25	57	100	100
32	46	100	100
40	35	84	100
50	23	55	100
65	19	46	80
80	12	29	48
100	8	18	33
125	5	12	23
150	4	9	16
200	2	5,5	12

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

	0.9 kN	2.0 kN	4.5 kN
	maximum differential pressure (bar)		
	STN2-disc pair		
55	100	100	
42	100	100	
32	76	100	
23	56	100	
16	38	72	
9	23	53	
8	19	44	
4,5	11	26	
3	7	16	
2	4,5	11	
-	3	8	
-	-	-	

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

Motor Valve 8030-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

DN	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
15 - 65	40	38	34	32	31	29
80	40	38	34	32	31	29
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	12	11,0

DN	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	34	32	31	29	29
36	34	33	26	22	19	19
33	31	26	24	20	17	17
22	21	17	16	13	11	11
16	15	13	11	9	8	8
-	-	-	-	-	-	-

PN 100

DN	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
15	100	95	87	82	77	72
20	100	95	87	82	77	72
25	100	95	87	82	77	72
32	100	95	87	82	77	72
40	100	95	87	82	77	72
50	100	95	87	82	77	72
65	80	76	72	67	62	60
80	48	45	43	40	37	36

DN	Sliding unit: STN2					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
100	95	87	82	77	72	72
100	95	87	82	77	72	72
100	95	87	82	77	72	72
100	95	87	82	69	60	60
72	69	65	53	43	37	37
77	73	70	56	46	40	40
62	59	56	45	37	32	32
36	34	33	26	22	19	19

ANSI #150

DN	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
15 - 125	16	15	13	12	10	8
150	16	15	13	12	10	8
200	16	15	13	12	10	8

DN	Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
16	15	13	12	10	8	8
16	15	13	11	9,5	8	8
-	-	-	-	-	-	-

ANSI #300

DN	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS3-valves					
	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

DN	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	31	29	29
36	34	33	26	22	19	19
33	31	26	24	20	17	17
22	21	17	16	13	11	11
16	15	13	11	9	8	8

ANSI #600

DN	Sliding unit: carbon - stainless steel, coated					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
15 - 32	80	77	71	66	63	60
40	80	77	71	66	63	60
50	80	77	71	66	63	60
65	80	76	71	66	62	60
80	48	45	43	40	37	36

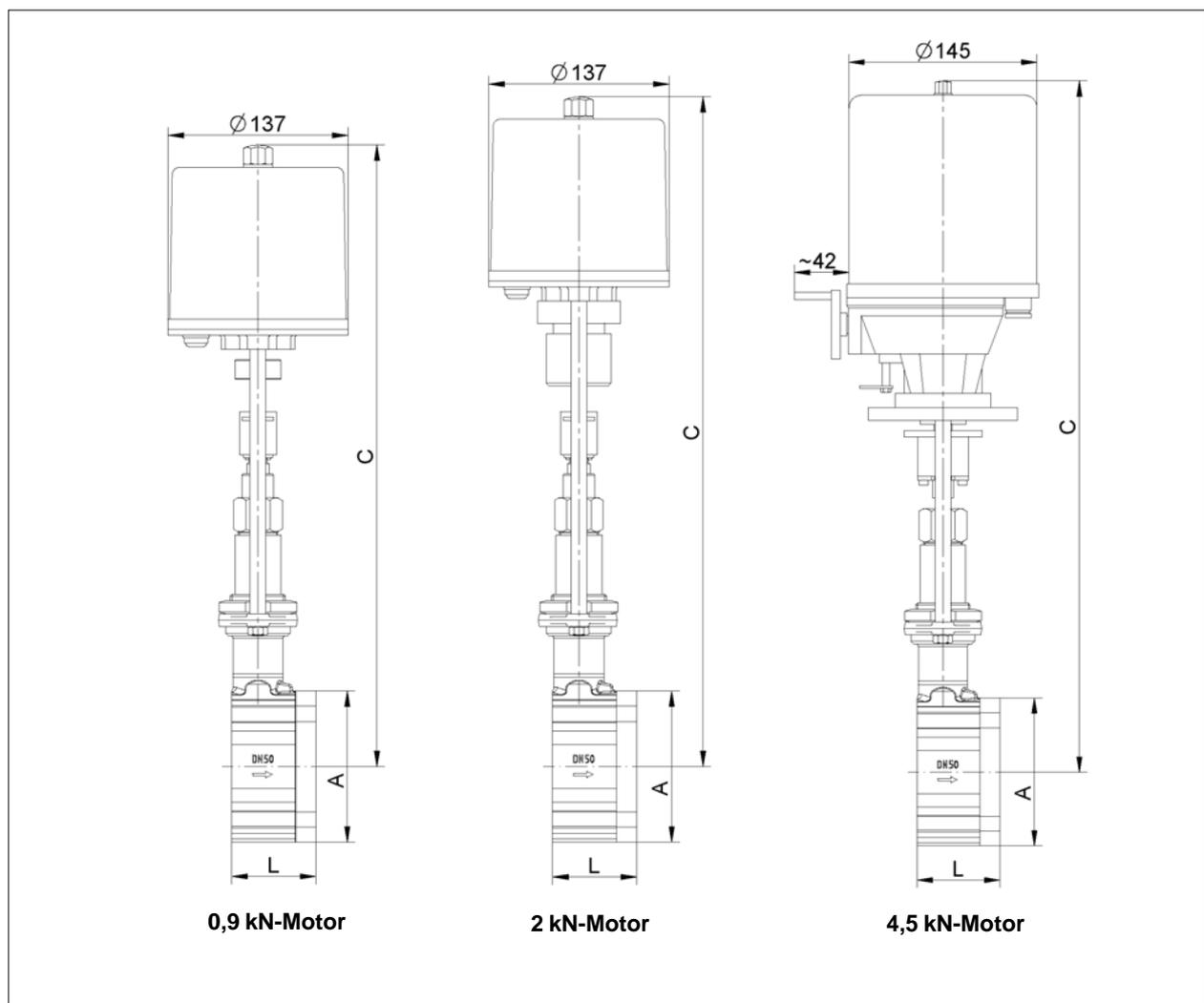
DN	Sliding unit: STN2					
	max. admissible diff. pressures for GS3-valves					
	100°C	150°C	200°C	250°C	300°C	350°C
80	77	71	66	63	60	60
72	69	65	53	43	37	37
77	73	70	56	46	40	40
62	59	56	45	37	32	32
36	34	33	26	22	19	19

Motor Valve 8030-GS3

Dimensions and Weights

DN	A	C			L	Weight kg			Stroke
		0,9 kN	2 kN	4.5 kN		0,9 kN	2,0 kN	4,5 kN	
15	64	450	487	525	56	4,5	4,8	7,8	6
20	72	455	492	530	56	4,7	5	8	6
25	82	460	497	535	56	5	5,3	8,3	6
32	89	465	502	540	56	5,2	5,5	8,5	6
40	99	470	507	545	56	5,6	5,9	8,9	6
50	116	480	517	555	64	7,1	7,4	10,4	8
65	138	490	527	565	68	8,6	8,9	11,9	8
80	153	495	532	570	70	9,9	10,2	13,2	8
100	184	510	547	585	75	13	13,3	16,3	8,5
125	212	525	562	600	80	15,4	15,7	18,7	8,5
150	242	540	577	615	80	-	19,3	22,3	8,5
200	302	570	607	645	92,5	-	36	39	8,5

Dimensions in mm



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