

3/2-Way Valve 7081

DN 15 up to DN 50

Pneumatically operated 3/2-way valve in stainless steel for the control of neutral, slightly aggressive and highly aggressive media.

- compact design
- unaffected by lightly contaminated media
- for temperatures from -50°C up to +220°C
- working pressure up to 40 bar
- versatile actuators

Technical Information

Body material	Stainless steel 1.4408
Nominal sizes	DN 15 to DN 50
Connections	Pipe thread acc. ISO 228-1 G 1/2" - 2"
	NPT thread 1/2" - 2"
Nominal pressure	PN 40
Max. fluid temperature:	
with metal bonnet	-30°C up to +170°C, opt. -50°C up to +220°C
with plastic bonnet	-30°C up to +135°C
with diaphragm actuator	-30°C up to +200°C, opt. -30°C up to +220°C
Ambient temperature*	-15°C up to +60°C (sepcial versions from -40°C up to +100°C)
Viscosity of the media	maximum 600 mm ² /s (600cSt)
Leakage acc. EN 12266-1	leakage class A
*: Please consider futher temperature versions and limits in techical bulletin 32	

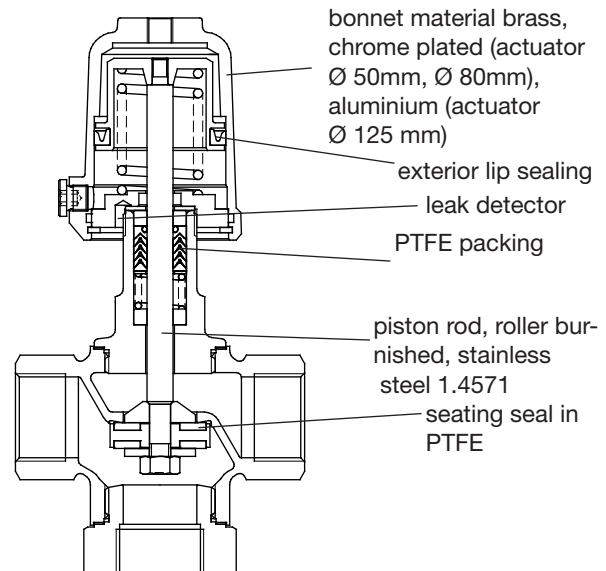
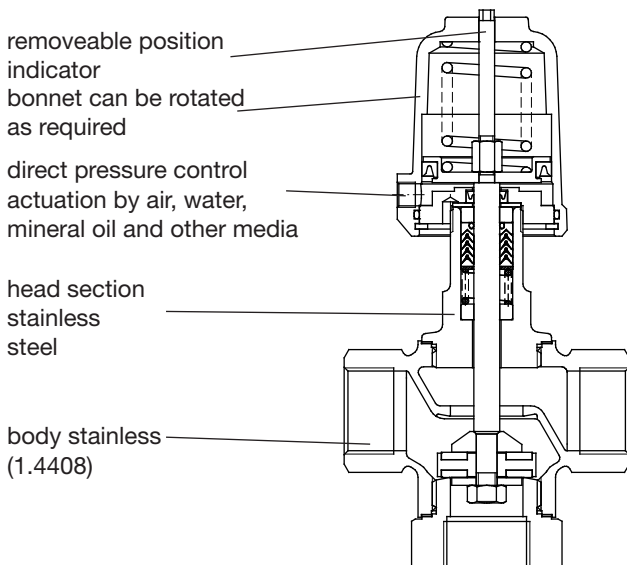


Options

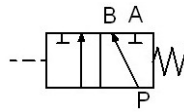
- limit switches
 - inductive proximity switch
 - electrical switch
- pilot valve
- additional manual operation
- version free of oil and grease

distributing function: function 3
mixing function: function 4
shut - off function: function 7

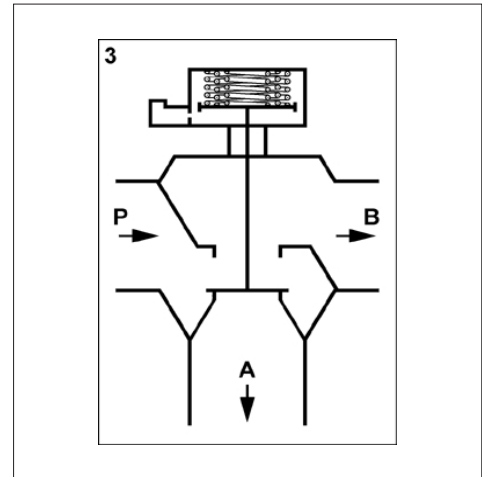
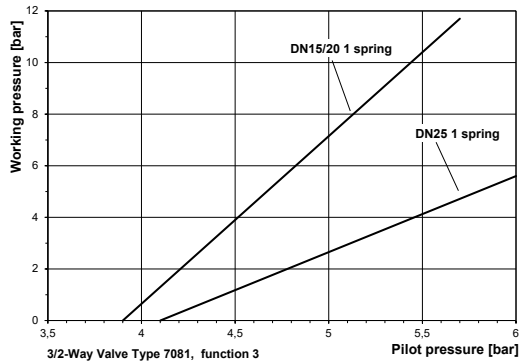
actuator
normally open: function 6



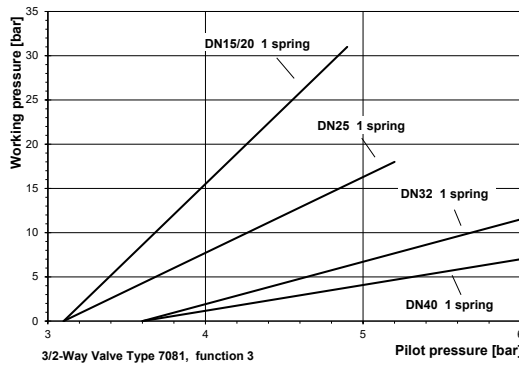
3/2-Way Valve, Distributing function (3)



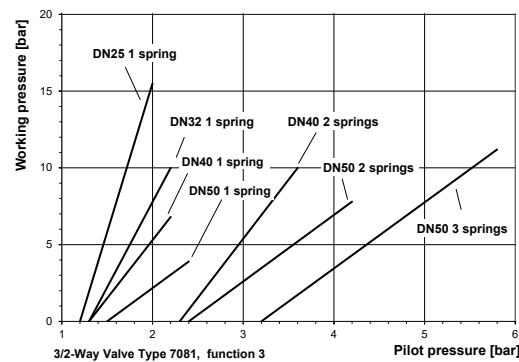
Actuator diameter 50 mm



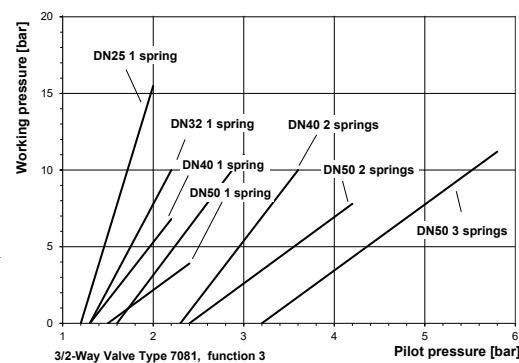
Actuator diameter 80 mm



Actuator diameter 125 mm



Actuator diameter 250 mm



max. Pilot pressure, function 3

Nominal size DN	Actuator Ø mm	Springs *	max. Pilot pressure (bar)
15/20	50	1	9
15/20	80	1	7
25	50	1	9
25	80	1	7
25	125	1	2,9
32	80	1	7
32	125	1	3
40	80	1	7,7
40	125	1	3
40	125	2	3,9
50	125	1	5,6
50	125	2	6,6
50	125	3	7,4
50	250	4	3,6

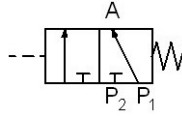
* standard spring configuration
1 spring

Attention:

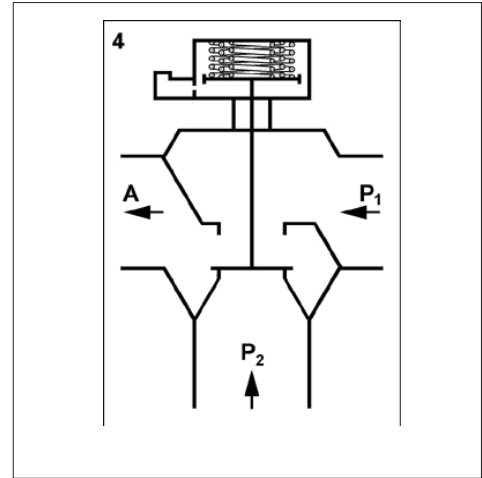
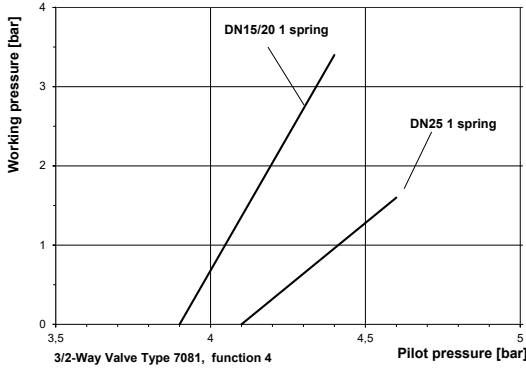
The maximum pilot pressure must not be exceeded since otherwise the piston rod would be damaged.

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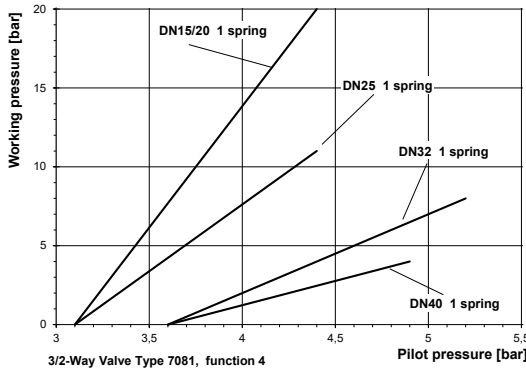
3/2-Way Valve, Mixing function (4)



Actuator diameter 50 mm



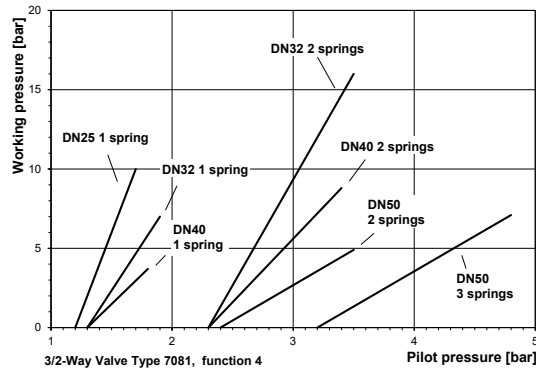
Actuator diameter 80 mm



max. Pilot pressure, function 4

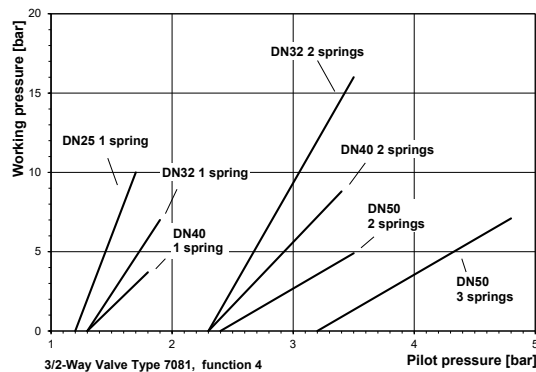
Nominal size DN	Actuator Ø mm	Springs *	max. Pilot pressure (bar)
15/20	50	1	9,9
15/20	80	1	7,3
25	50	1	9,9
25	80	1	7,3
25	125	1	2,9
32	80	1	7,7
32	125	1	3
32	125	2	3,9
40	80	1	7,7
40	125	1	3
40	125	2	3,9
40	250	4	2,4
50	125	1	5,7
50	125	2	6,6
50	125	3	7,4
50	250	8	4,8

Actuator diameter 125 mm



* standard spring configuration
1 spring

Actuator diameter 250 mm

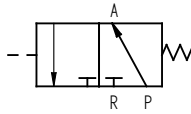


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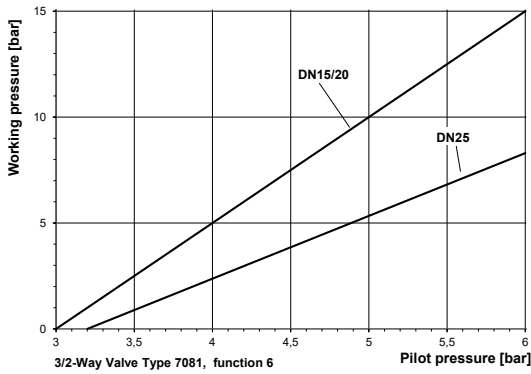
The maximum pilot pressure must not be exceeded since otherwise the piston rod would be damaged

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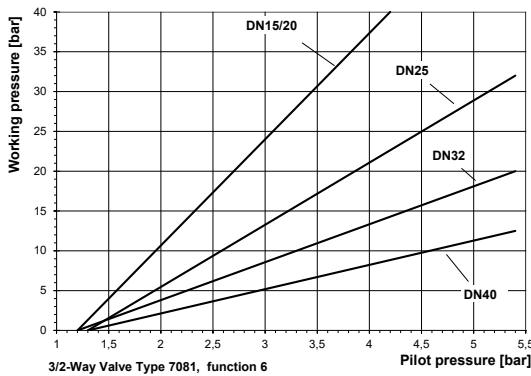
3/2-Way Valve, Actuator: normally open (6)



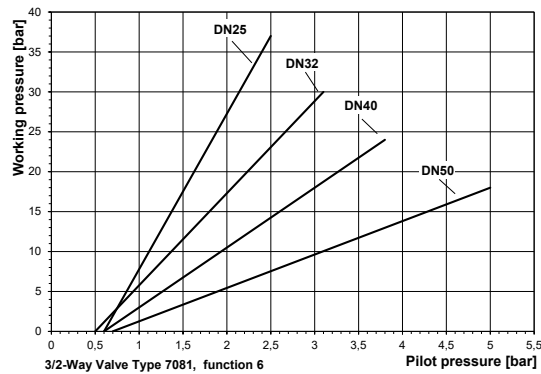
Actuator diameter 50 mm



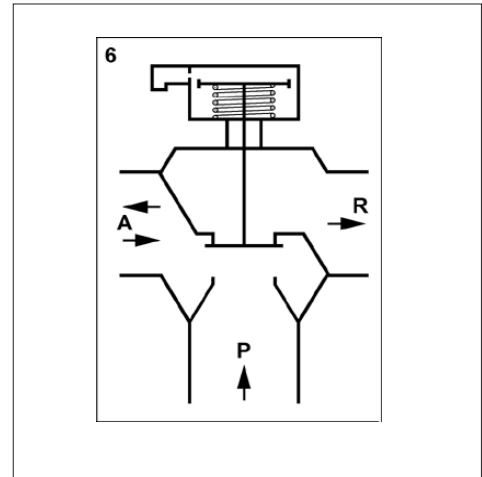
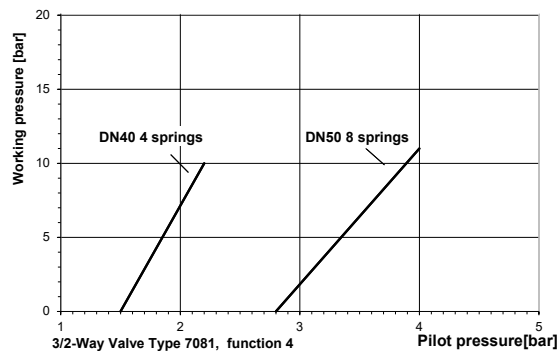
Actuator diameter 80 mm



Actuator diameter 125 mm



Actuator diameter 250 mm



max. Pilot pressure, function 6

Nominal size DN	Actuator Ø mm	max. Pilot pressure (bar)
15/20	50	7
15/20	80	4,8
25	50	7
25	80	6
25	125	3
32	80	6
32	125	3,6
40	80	6
40	125	4,3
50	125	5,5

Attention:

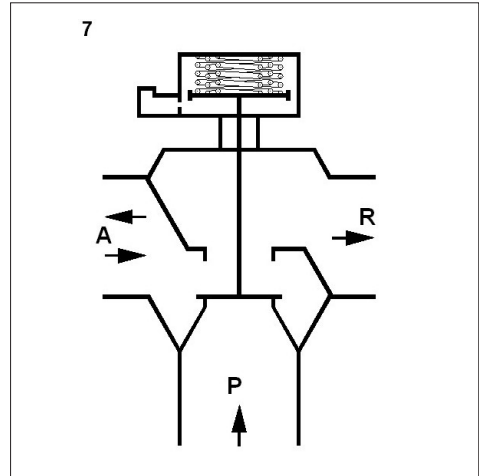
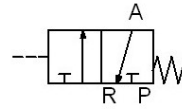
The maximum pilot pressure must not be exceeded since otherwise the piston rod, or as the case may be, the seating seal would be damaged.

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3/2-Way Valve, shut - off function, spring to close (7)

Nominal Size DN	Diff. Pressure max. (bar)	Pilot pressure (bar)	Actuator Ø mm	Springs *
DN15/20	3	4,0 - 9,9	D50	1
DN15/20	7	5,1 - 10	D50	2
DN25	3,5	5,4 - 10	D50	2
DN15/20	20	3,1 - 7,4	D80	1
DN25	11	3,2 - 7,4	D80	1
DN25	16	4,0 - 8,0	D80	2
DN25	20	4,8 - 9,0	D80	3
DN32	8	3,8 - 7,8	D80	1
DN32	11	4,6 - 8,5	D80	2
DN32	14	5,7 - 9,5	D80	3
DN40	5	4,7 - 8,5	D80	2
DN32	16	2,3 - 3,9	D125	2
DN40	3	1,5 - 3,0	D125	1
DN40	8	2,4 - 3,9	D125	2
DN40	12	3,2 - 4,6	D125	3
DN50	4,5	2,6 - 6,5	D125	2
DN50	7	3,4 - 7,4	D125	3
DN40	16	3,7 - 8,0	D250	6
DN50	8,5	2,3 - 4,3	D250	6
DN50	11	2,8 - 4,8	D250	8

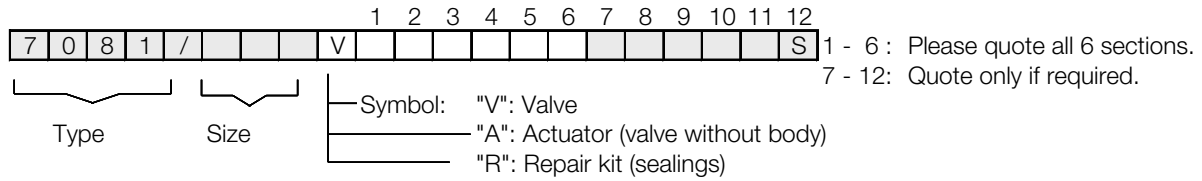
* standard spring configuration 1 spring



3/2-Way Valve 7081



Ordering Number System

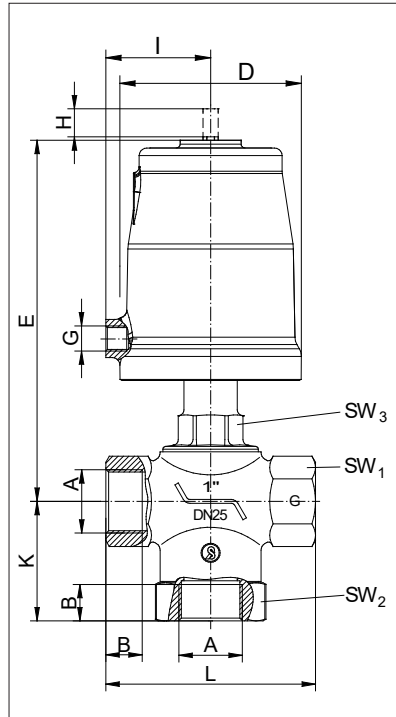


1. Body type	2. Connection	3. Body material	4. Seating seal	5. Pilot function	6. Actuator
3 3/2-way, diverting	0 BSP-thread acc.	2 stainless	0 PTFE	0 spring closes (function 3, 4 and 7 only)	0 piston Ø50mm
4 3/2-way, mixing	ISO 228-1	steel 1.4408		1 spring opens (function 6 only)	1 piston Ø80mm
6 3/2-way, spring opens	5 NPT-thread			3 double acting	2 piston Ø125mm
7 3/2-way, shut-off function					C diaphragm D 250mm

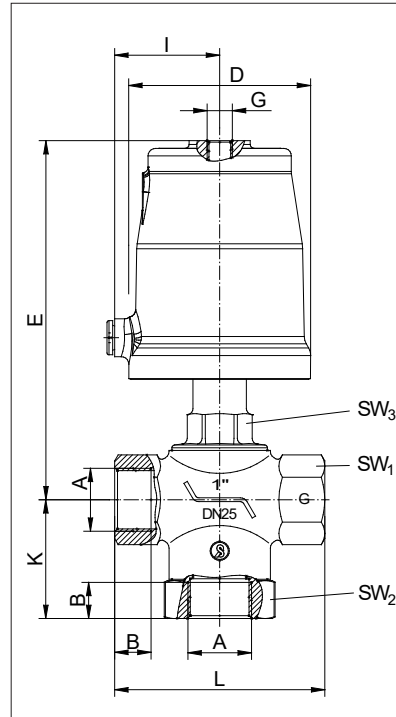
7. Springs	8.	9. Packing	10. Temperature version	11. Accessories	12. Special versions
- standard (1 spring)	- without significance	- standard	- standard	- no accessories	S special versions
2 2 springs			H high temperature version	1 electrical position indicator with one switch	M position indicator with cable bushing
3 3 springs		2 packing underneath		2 electrical position indicator with two switches	N position indicator with plug connection
R 4 springs (D 250mm)				3 manual emergency operation	
T 6 springs (D 250mm)				4 additional manual operation	
W 8 springs (D 250mm)				5 stroke limitation	
				6 pilot valve DN 2, 230 V AC	
				7 pilot valve DN 2, 24 V DC	
				K electr. position indicator compact	
				M position indicator with two ind. switch 10 - 36 V DC (PNP)	
				P position indicator with one ind. switch 10 - 30 V DC (PNP)	
				T position indicator compact, inductive 10 - 30 V DC (PNP)	

Ordering example: 7081/025V302000- - - - 7:
 3/2- way-valve, DN 25, body material stainless steel, BSP-thread acc. ISO 228-1, seat material PTFE, actuator Ø 50 mm - distributing function, pilot valve DN 2, 24 V DC

Dimensions and Weights



Distributing, mixing and shut-off function
function 3, 4 and 7



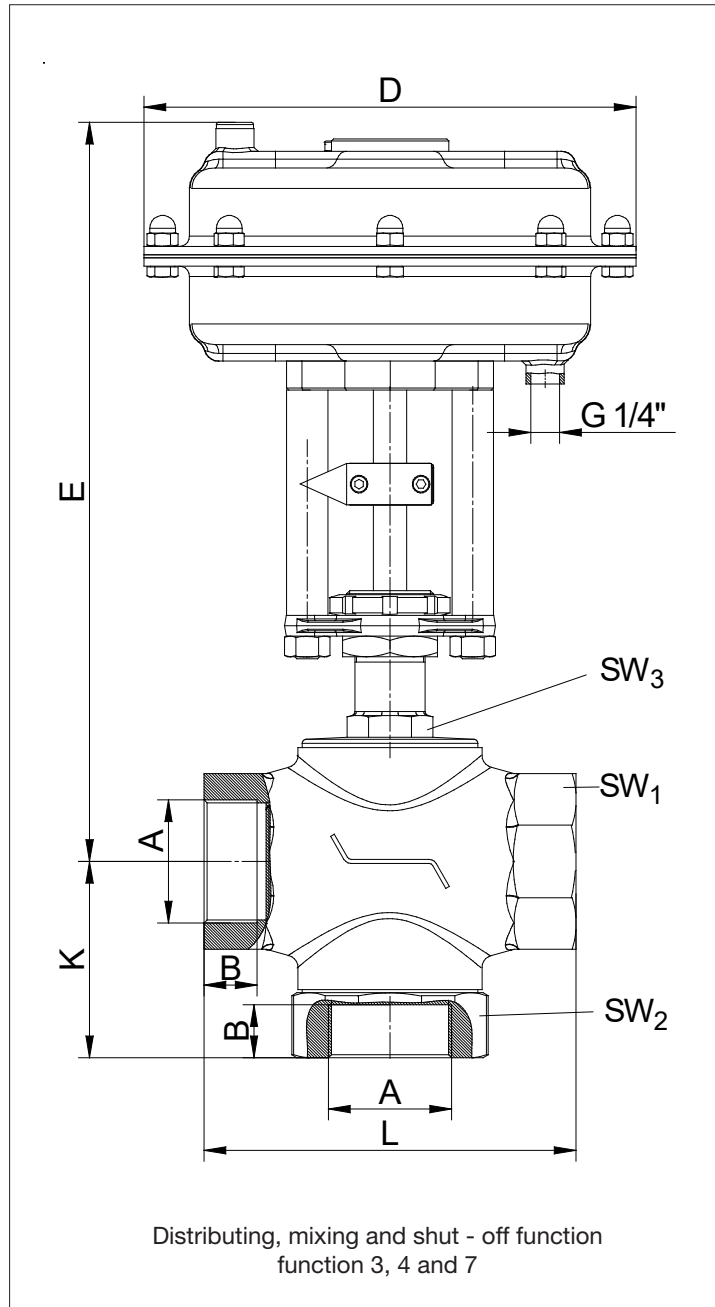
Actuator: normally open
function 6

DN	piston	A G/NPT	B G	B NPT	D	E	G	H stroke	I	K	L	SW1	SW2	SW3	Weight (kg)
15	50	1/2"	15	14,5	62	140	G 1/8"	14	34,5	62	90	26	41	30	1,8
15	80	1/2"	15	14,5	98	178	G 1/4"	14	55	62	90	26	41	30	3,4
20	50	3/4"	16,3	15	62	140	G 1/8"	14	34,5	62	90	32	41	30	1,8
20	80	3/4"	16,3	15	98	178	G 1/4"	14	55	62	90	32	41	30	3,4
25	50	1"	19,1	18	62	151	G 1/8"	14	34,5	63	110	41	55	30	2,2
25	80	1"	19,1	18	98	190	G 1/4"	14	55	63	110	41	55	30	3,8
25	125	1"	19,1	18	146	215	G 1/4"	14	80	63	110	41	55	30	5,7
32	80	1 1/4"	21,4	18,4	98	194	G 1/4"	15	55	73	130	48	65	30	4,4
32	125	1 1/4"	21,4	18,4	146	219	G 1/4"	15	80	73	130	48	65	30	6,3
40	80	1 1/2"	21,4	18,4	98	195	G 1/4"	23	55	88	140	58	75	32	5,3
40	125	1 1/2"	21,4	18,4	146	220	G 1/4"	23	80	88	140	58	75	32	7,2
50	125	2"	25,7	19	146	248	G 1/4"	23	80	95	180	85	90	36	10,4

Dimensions in mm

DN	Kvs - value					
	diverting function		mixing function		funktion 6 / 7	
	P-A	P-B	P1-A	P2-A	A-R	P-A
15	7	5,5	5,5	7	5,5	7
20	11	7,5	7,5	11	7,5	11
25	19	12,5	12,5	19	12,5	19
32	28	19	19	28	19	28
40	43	32	34	51	32	51
50	65	51	51	65	51	65

Dimensions and Weights



DN	Piston	A G/NPT	B G	B NPT	D	K	L	E	Stroke	SW1	SW2	SW3	Weight (kg)
40	250	1 1/2"	21,4	18,4	240	88	140	470	23	58	75	32	14
50	250	2"	25,7	19	240	95	180	480	23	85	90	36	17,2

Dimensions in mm