

# Segmented disc valves 5020

## with pneumatic actuator

### DN 25 up to DN 300 up to DN 800 on request



**Pneumatic control valve for the control of liquids and steam.**

- suitable for contaminated fluids
- robust design
- tight in both directions
- controllable against the flow direction
- Space saving wafer type construction
- Quiet operation
- High Kvs-values



#### Technical data

Body design	flangeless, wafer-type construction for flanges acc. DIN EN 1092-1, form B	
Nominal size	DN 25 to DN 200	
Nominal pressure	DN 25 to DN 150	PN 25 acc. DIN 2401 (also for flanges PN 10 to PN 25)
	DN 200	PN 25 acc. DIN 2401
	DN 250 to DN 300	PN 16 acc. DIN 2401
Fluid temperature	-60°C up to 220°C	
Ambient temperature*	digital positioner: -10°C up to +75°C	analog positioner: -15°C up to +60°C
Rangeability	60:1	
Characteristic	modified linear	
Leakage % of Kvs	<0,001	

#### Materials

body	Stainless steel 1.4571
rack	Stainless steel 1.4112, treated
pressure spring	Stainless steel 1.4310
Fixed valve plate	Stainless steel 1.4112, treated
Moving valve disc	Stainless steel 1.4112, treated
slide ring	Stainless steel 1.4112, treated alternatively bronze
spring support	Stainless steel 1.4571
wear ring	Stainless steel 1.4571
body positioner	Aluminium anodized, synthetic

#### Positioners

For technical information of our positioners please refer to the corresponding data sheets.

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

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

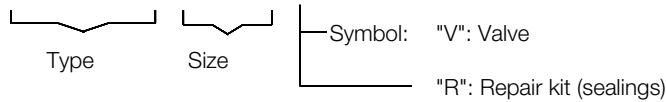
effective area of the actuator (cm <sup>2</sup> )	250 cm <sup>2</sup>	500 cm <sup>2</sup>	1000 cm <sup>2</sup>	1500 cm <sup>2</sup>	3000 cm <sup>2</sup>
pilot pressure (bar)	5	5	5	5	5
springs	10	20	10	10	20
	max. differential pressure in flow direction (against flow direction)				
	[bar]				
25	25 (25)	25 (25)	-	-	-
32	25 (21)	25 (25)	-	-	-
40	25 (13)	25 (25)	-	-	-
50	25 (10)	25 (22)	25 (25)	-	-
65	25 (8)	25 (17)	25 (25)	-	-
80	20,8 (6)	25 (14)	25 (25)	-	-
100	10,4 (3,5)	25 (8)	25 (24)	-	-
125	5 (2)	12 (4,3)	25 (21)	-	-
150	-	-	25 (13)	25 (24)	25 (25)
200	-	-	25 (5,3)	25 (12)	24 (24)
250	-	-	-	16 (6)	16 (13)
300	-	-	-	16 (4,6)	16 (10)

pressure values of actuators that aren't listed on demand

## Ordering Number System

5 0 2 0 / V G M Z S

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



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

1. Design	2. Body material	3. Safety position	4. Actuator	5. Special version	7. Springs	8. Stem sealing	9. Interior sealing
1 SPV1-waver type construction PN10-PN25, (for flanges acc. DIN EN 1092-1, Form B)	1 Stainless steel 1.4571 respectively 1.4112	0 Spring closes 1 Spring opens	2 diaphragm actuator 250cm <sup>2</sup> 3 diaphragm actuator 500cm <sup>2</sup> 1 diaphragm actuator 1000cm <sup>2</sup> 5 diaphragm actuator 1500cm <sup>2</sup> 7 diaphragm actuator 3000cm <sup>2</sup>	M state, if further sections are quoted  K encapsulated version	- Standard	- Standard (gland packing)	- Standard
10. Moving valve disc	11. Fixed valve plate	12. Kvs-Value / characteristics	13. Accessories	14. Positioner	15. Positioner settings	16. Signal equipment	16. Accessories
- Standard, stainless steel 1.4112, treated	- Standard, stainless steel 1.4112, treated	- linear 100%	Z Accessories (Pos. 14 ff.)	- without P Siemens PS2	- without	- without	- without

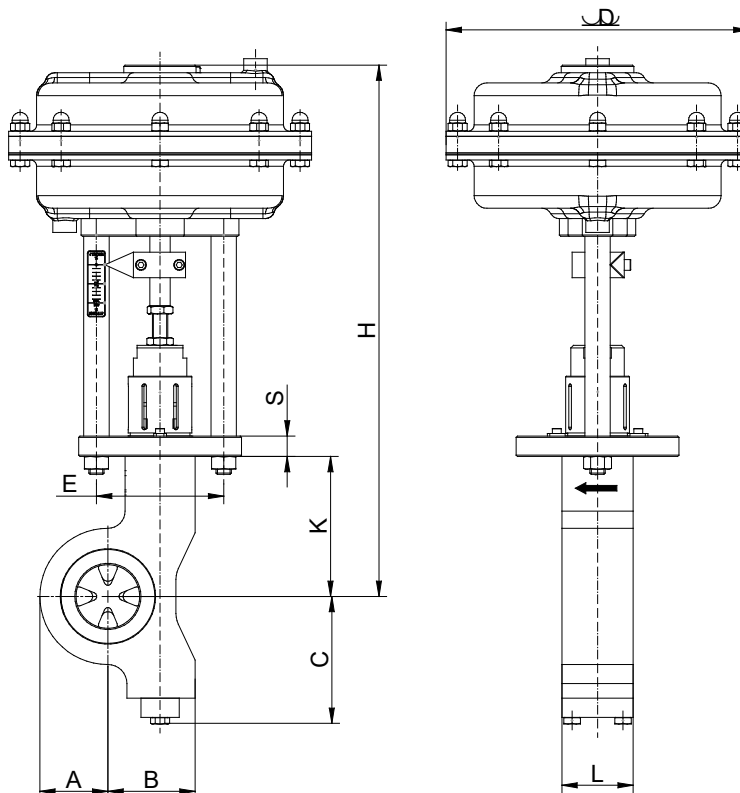
ordering example: 5020/050V1103M

SP-control valve type 5020 with pneumatic actuator DN 50, PN 10 - PN 40,  
body material carbon steel, spring closes

# Segmented disc valves with pneumatic actuator 5020



## Installation dimensions

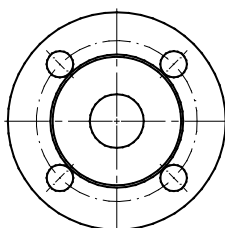


DN	A	B	C	K	L	stroke	Kvs [m³/h]	actuator 250 cm²				actuator 500 cm²				actuator 1000 cm²				actuator 1500 cm²				actuator 3000 cm²							
								D	H	S	E	D	H	S	E	D	H	S	E	D	H	S	E	D	H	S	E				
25	35	49	70	85	39	24	7	240	358	16	80	240	479	16	80	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
32	41	54	78	97	39	28	15	240	370	16	80	240	491	16	80	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
40	46	59	82	88	45	32	24	240	361	16	80	240	482	16	80	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
50	54	69	100	110	56	29	38	240	418	16	100	240	539	16	100	477	655	20	216	---	---	---	---	---	---	---	---	---	---	---	
65	64	77	96	133	63	23	52	240	441	16	100	240	562	16	100	477	677.5	20	216	---	---	---	---	---	---	---	---	---	---	---	
80	71	85	120	140	69	26	87	240	448	16	100	240	569	16	100	477	685	20	216	---	---	---	---	---	---	---	---	---	---	---	
100	83	95	112	160	79	31	171	240	468	16	100	240	589	16	100	477	705	20	216	---	---	---	---	---	---	---	---	---	---	---	
125	97	108	139	170	79	37	275	240	478	16	100	240	599	16	100	477	715	20	216	---	---	---	---	---	---	---	---	---	---	---	
150	113	130	182	205	129	45	410	---	---	---	---	---	---	---	---	477	750	20	216	550	908	24	230	550	1212	24	230	---	---	---	
200	142	162	193	215	159	60	600	---	---	---	---	---	---	---	---	477	760	20	216	550	918	24	230	550	1222	24	230	---	---	---	
250	160	195	218	255	153	74	1000	---	---	---	---	---	---	---	---	---	---	---	---	550	958	24	230	550	1262	24	230	---	---	---	
300	192	217	248	280	154	64	1440	---	---	---	---	---	---	---	---	---	---	---	---	550	983	24	230	550	1287	24	230	---	---	---	

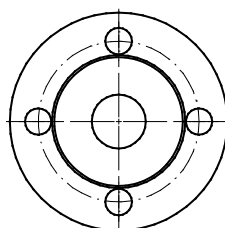
dimensions in

### Notice:

The flanges from DN25 to DN50 have to be rotated by 45°, if the valve is to be installed vertically or horizontally.



Standard



rotated 45°