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# VP Series Pneumatic Actuators and Accessories

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## Features & Benefits

- The SIMTECH rack & pinion pneumatic actuator produces linear torque output in a compact design utilizing the same body and end caps for double acting and spring return units.
- NAMUR VDI/VDE 3845 and ISO 5211 dimension on all sizes. No special blocks are required to mount solenoid valves, limit switches or positioners.
- The standard angle of rotation is 90°. Additional travel rotations of 120°, 135°, 150° and 180° are available. Actuators feature a travel stop with  $\pm 10^\circ$  adjustment in both open and close directions.
- The bottom plate design secures a captive pinion (anti-blowout system) and permits flexibility in mounting by retaining AISI 304 nuts (standard) or AISI 304 bolts (optional) in either dual ISO patterns.
- All pinions are supplied with anti-blowout retention in both directions.
- The female pinion drive is standard with a double square output drive.
- Shaft bearings isolate the pinion gear from the housing and support the shaft for high cycle applications.
- The pinion teeth are engaged for the full length and stroke of the piston. The pinion height allows manual override without disturbing the position indication.
- Extruded aluminum body is internally machined and lapped to exact specifications. All internal and external surfaces are anodized for corrosion resistance.
- External open/closed indicator is standard, available for all rotations.
- Pistons incorporate double wear pads to separate the rack from the actuator wall and serve as both guide and wear bearings.
- Epoxy coated special steel springs are pre-loaded with nonmetallic materials. The stainless steel end cap fasteners are extra long to allow for spring relaxation. All parts are corrosion resistant.
- Air pressure operation from 40 to 150 PSI. Water, nitrogen and compatible hydraulic fluids may also be used to power the actuator.
- All external fasteners are corrosion resistant stainless steel.
- All units are permanently lubricated at the factory with non-silicone grease.
- All units are factory pressure and leak tested, and externally stamped with a progressive traceable serial number.

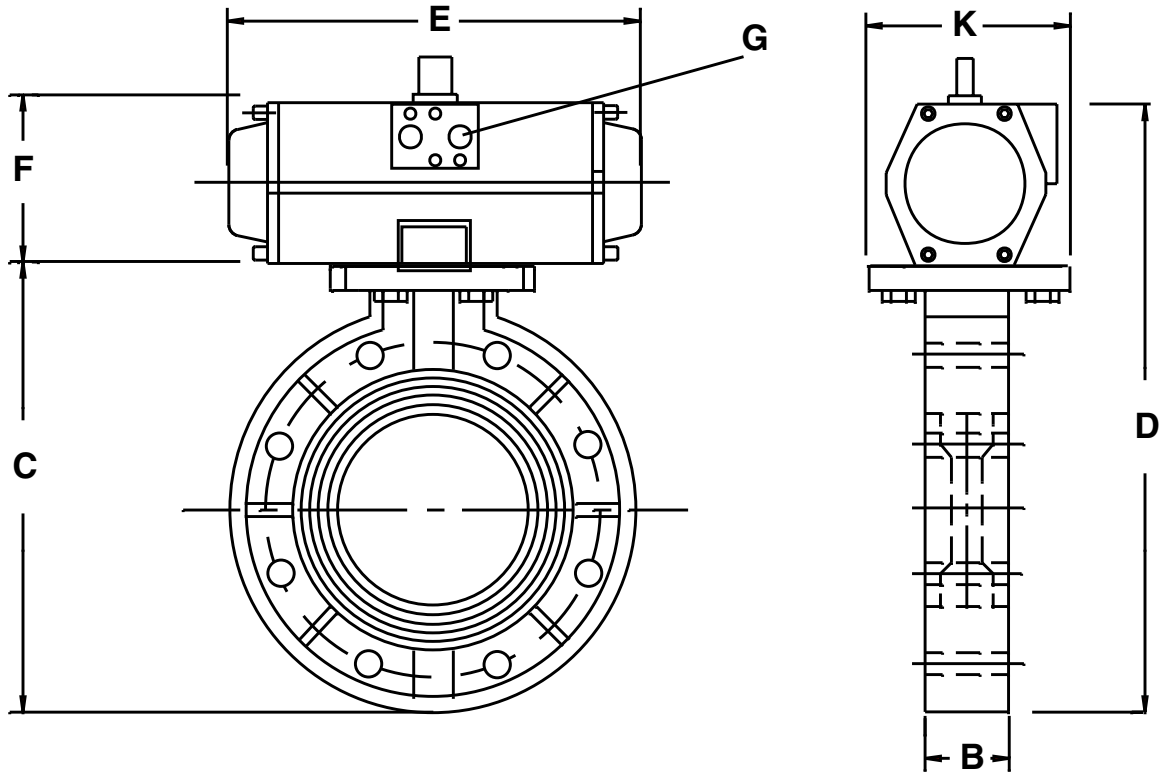
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## Accessories & Options

- Electroless Nickel Plating available for improved exterior corrosion resistance.
- Limit Switches with corrosion resistant technopolymer enclosure available in NEMA 4 (Standard) & NEMA 7.
- Solenoid valves with standard NAMUR mount available in 110 VAC (standard), 12 VDC, 24VDC, 24 VAC, 48 VAC, & 220 VAC.
- Positioners for modulating service controlled with a 3-15psi signal or 4-20mA signal.

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## Dimensional Data



Spring Return Actuator						
Dia. Inches	B	C	D	E	F	G
2	1.69	7.30	11.67	6.30	4.37	1/4 NPT
2½	1.87	8.09	12.46	6.30	4.37	1/4 NPT
3	1.87	8.46	13.22	7.76	4.76	1/4 NPT
4	2.25	9.84	15.06	6.89	5.22	1/4 NPT
5	2.60	11.56	17.94	9.06	6.38	1/4 NPT
6	2.90	12.66	19.04	9.06	6.38	1/4 NPT
8	3.44	15.02	22.74	11.42	7.72	1/4 NPT
10	4.33	20.91	30.67	14.21	9.76	1/4 NPT
12	5.20	25.14	34.90	16.46	9.76	1/4 NPT
14	5.00	26.77	38.78	17.48	12.01	1/4 NPT
16	6.61	30.51	42.52	17.48	12.01	1/4 NPT
18	7.05	32.28	44.29	19.76	12.01	1/4 NPT
20	7.48	35.39	47.40	19.76	12.01	1/4 NPT
24	8.23	41.16	-	-	-	-

Double Acting Actuator						
Dia. Inches	B	C	D	E	F	G
2	1.69	7.30	11.67	6.30	4.37	1/4 NPT
2½	1.87	8.09	12.46	6.30	4.37	1/4 NPT
3	1.87	8.46	13.22	7.76	4.76	1/4 NPT
4	2.25	9.84	15.06	6.89	5.22	1/4 NPT
5	2.60	11.56	17.94	9.06	6.38	1/4 NPT
6	2.90	12.66	19.04	9.06	6.38	1/4 NPT
8	3.44	15.02	22.74	11.42	7.72	1/4 NPT
10	4.33	20.91	30.67	14.21	9.76	1/4 NPT
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20	7.48	35.39	47.40	19.76	12.01	1/4 NPT
24	8.23	41.16	-	-	-	-