

Pneumatic Valve Positioner Model VP



**RK CONTROL
INSTRUMENTS**

Mastering Flow Since 1969

An ISO 9001 Certified Company



RK VALVE POSITIONER

RK Valve Positioner positions the Control Valve accurately with respect to the input signal from the controller, regardless of packing box friction, actuator hysteresis or unbalanced forces on the valve plug. Thus, RK Valve Positioner ensures a reliable and accurate operation of Control Valve.

DESIGN FEATURES

- Based on pneumatic force-balance principle
- Employs sensitive bellows
- Adjustable stroke range upto 4" provides flexibility to use with any actuator
- Direct and Reverse action option
- Convertible into pneumatic position transmitter.
- Suitable for Double Acting cylinder

PERFORMANCE FEATURES

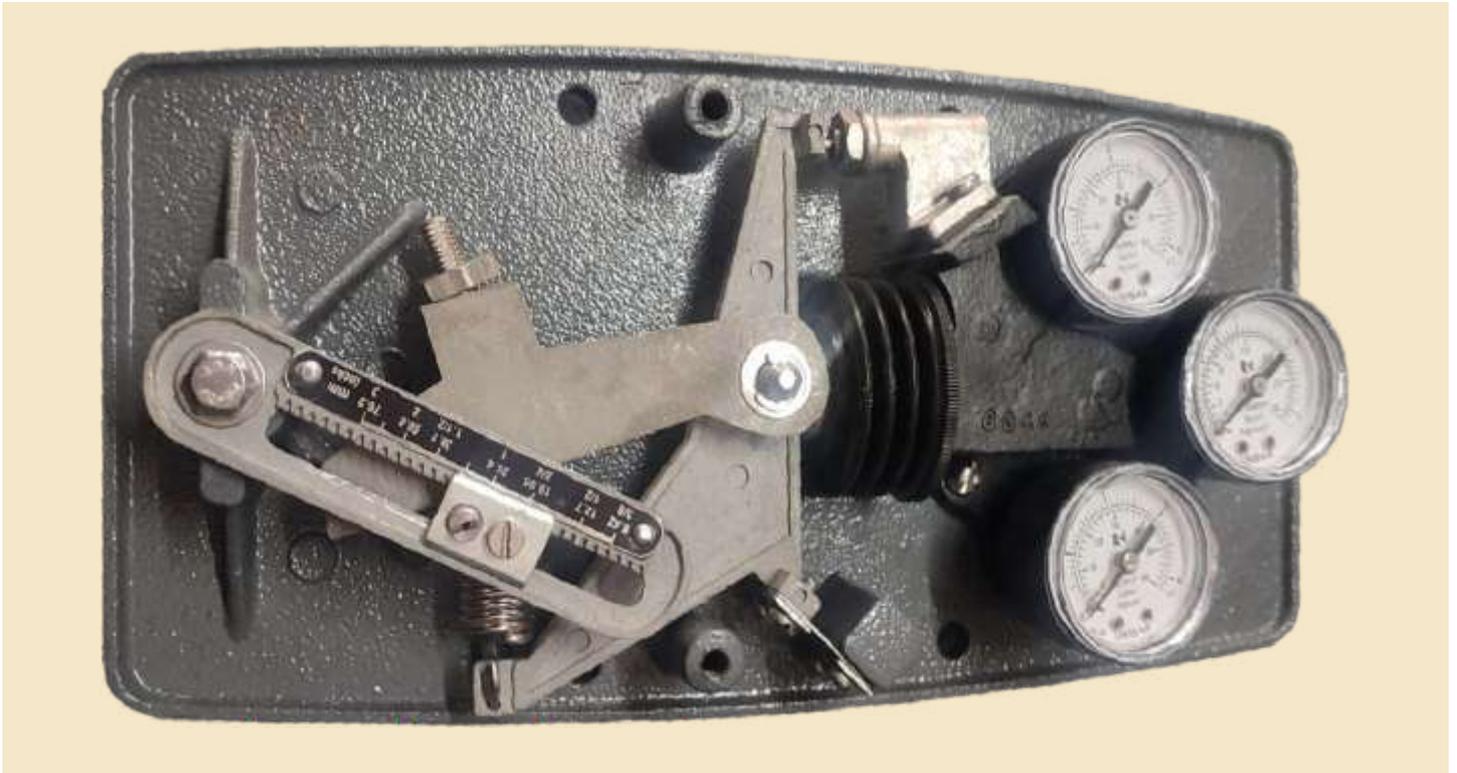
- Accuracy within 1% of valve stroke (*valve travel*)
- Responds to extremely small changes in control signal
- Reduces time lag of the signal from the controller to the valve
- Useful for operating actuators with spring range higher than the control signal range, there by reducing actuator size
- Permits split range operation of control valves
- Reliable operation

ASSOCIATED BENEFITS

- Cost effective
- Designed for easy maintenance
- Long and trouble free service
- Assured product quality
- Utilises over 5 decades of engineering, design & application expertise

The controller signal (usually 0.2 to 1 kg/cm pneumatic signal) is applied to the bellows. When this signal pressure increases, the bellows tend to rotate the bellcrank lever. This movement causes the pilot relay (direct action pilot) to increase the positioner output pressure. This output pressure fed to the actuator, consequently moves the valve stem. The valve stem motion is feedback through mechanical linkages to the force balance spring, loading or unloading it until the spring tension on the bellcrank lever balances the operating force of the bellow. When these two forces are in balance the system is in equilibrium, with the pilot throttling the output pressure to maintain equilibrium.





Actuator Model	Valve Stroke		Stroke Time*
	Inch	(mm)	Sec.
038	1 ¹ / ₈ "	(28)	4
075	1 ¹ / ₂ "	(38)	8
150	2 ¹ / ₄ "	(57)	22
300	4"	(102)	35
300 HP	4"	(102)	44

**with standard pilot relay and 20 psig supply pressure maximum air consumption is 0.4 scfm*

The Company's Policy is one of continuous improvement and right is reserved to modify the specifications contained herein without notice.



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Works (Thane) : Plot No. A-250, Wagle Industrial Estate, Opp. Wagle Police Station,
Thane 400 604, Maharashtra, India.

T: 022-6606 0943 • Email: info@rkcipl.co.in, sales@rkcipl.co.in

Works (Rabale) : RTC 51/52, Rabale TTC, MIDC, Rabale, Navi Mumbai 400701,
Maharashtra, India.

T: 022-6606 0943 • Email: info@rkcipl.co.in

Chennai : No.22/11, G3, Sai Virat Krishna, Lawyer Jagannathan Street,
Behind Le Royal Meridien Hotel, Guindy, Chennai 600 032.

T: 044-4202 3937, 2233 3358 • Email: saleschennai@rkcipl.co.in

www.rkcipl.co.in