



Accurate Valve Positioning

The Posi-flate® Pneumatic Positioner provides accurate valve positioning with advanced features. A current-to-pressure transducer for 4-20 mA signal inputs proportionally positions the disc.

Applications

A high flow spool valve, plus an adjustable gain system, make the pneumatic positioner well suited for use with all pneumatic rotary actuator types including rack-and-pinion, heavy duty and others. The positioner housing is constructed of durable epoxy coated, die cast aluminum for protection against the toughest applications in all process industries.

Features

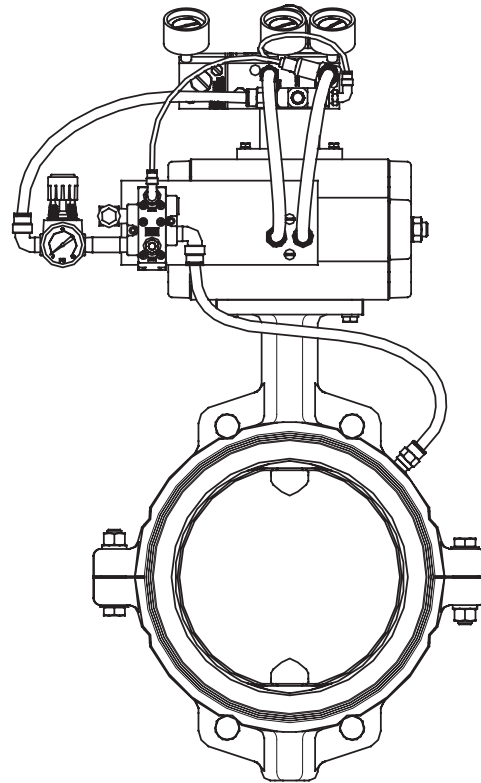
- *Non-interactive span adjustment*
Reduces calibration time.
- *Corrosion-resistant materials*
All exposed parts are constructed of heavy-duty anodized aluminum or stainless steel.
- *Captive cover screws*
Permits calibration without potential for losing screws.
- *Visual dome indicator*
Provides fully adjustable, high-contrast, full-angle viewing of valve position.

Principles of Operation

The Posi-flate positioner causes rotation of a valve actuator in proportion to an input signal. The spool shifts and a differential pressure is created across the actuator, causing rotation. Rotation is fed back through the positioner shaft and cam. Cam rotation causes rotation of both follower arm and feedback arm about their respective pivot pins. Rotation of feedback arm changes compression in the feedback spring which forces the balance beam and spool back to their neutral positions. This shuts off the flow of air to the actuator.

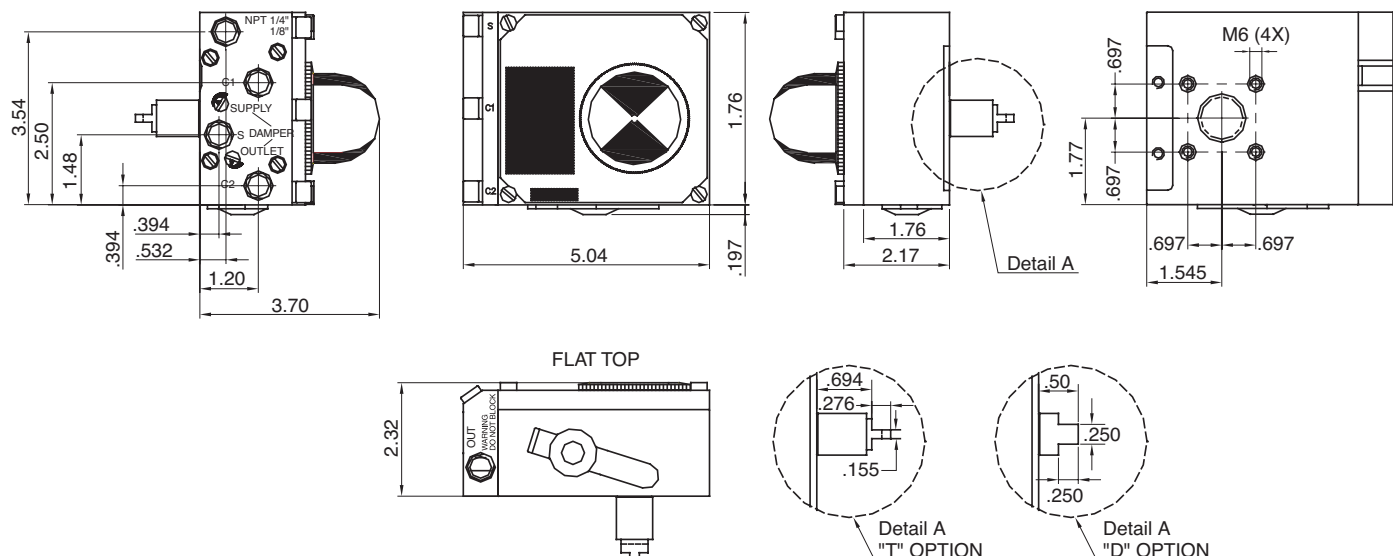
Zero adjustment is made by varying spring compression via a screw in the feedback arm. Span adjustment is made by moving the point of contact between the follower arm and feedback arm via a carriage assembly featuring rack-and-pinion adjustment. Since both arms are parallel at zero, span adjustment does not affect zero setting.

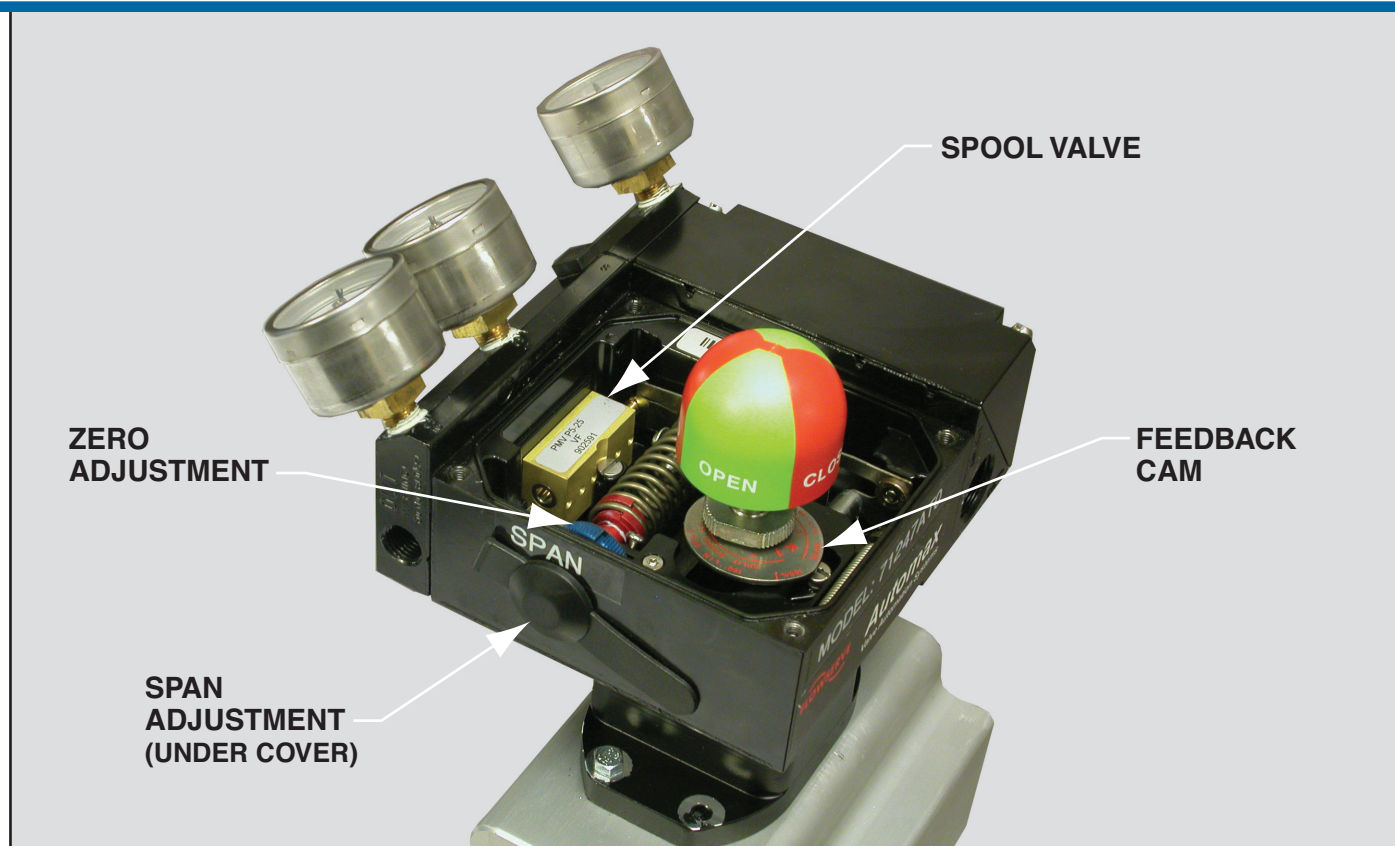
When used on a Posi-flate butterfly valve as shown, the positioner is enhanced with the addition of controls which automatically inflate and deflate the seat. Once the disc is in the fully closed position, the seat is automatically inflated. When the positioner is energized to open, the seat deflates and the disc opens.



Posi-flate Butterfly Valve With Positioner

Dimensions





Materials of Construction

Part	Materials
Housing/Cover	Epoxy Coated Aluminum
Shaft	Stainless Steel
Diaphragm Cover	Epoxy Coated Aluminum
Diaphragm	Nitrile Rubber
Balance Arm	Stainless Steel
Feedback Spring	Stainless Steel
Lower Arm Assembly	Die Cast Aluminum
Rod	Stainless Steel
Spring	Stainless Steel
Twist Stop	Stainless Steel
Cam Follower Bearing	Hardened Steel
Spool Valve	Gold-Plated Steel
Cam Locknut	Zinc-Plated Steel
Ball Bearing	Stainless Steel
Cam	Stainless Steel
Indicator	Polycarbonate
Feedback and Cam Springs	Stainless Steel
Shaft Snap Rings	Stainless Steel
Posts and E-Clips	Stainless Steel

Performance Specifications

Parameter	Units & Value
Repeatability	0.5% Full Scale
Hysteresis & Deadband	0.8% Full Scale
Linearity	0.7% Full Scale
Air Capacity @ 60 psi	Std. 9.6 SCFM
	High 18 SCFM
Position Sensitivity	0.2% of Span
Air Consumption	0.31 SCFM @ 87 psig (6 barg)
Temperature Range	-4° F to 185° F* (-20 C to 85 C)
Input Signal	3 to 15 psig (0.2 to 1 barg)
Max. Supply Pressure	150 psig (10 barg)
Weight	2 lbs. (0.9 kg)

Posi-flate® is a registered trademark of Posi-flate, St. Paul, Minnesota.

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Corporate Headquarters

Posi-flate • St. Paul, MN USA • +1 651 484 5800

Worldwide Offices

Brazil • China • United Kingdom

www.posiflate.com