

Model 9540R Mounted on
Cashco Ranger QCT Control Valve

MODEL 9540R PNEUMATIC POSITIONER FOR ROTARY VALVES

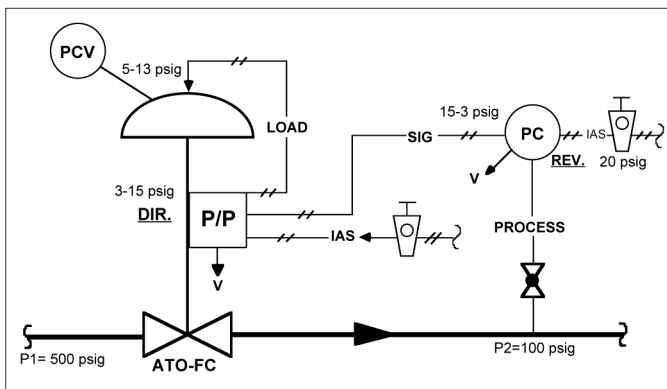
Model 9540R is a single acting, compact, force-balance, 90° rotary positioner. This positioner is utilized to characterize the relationship between valve stem rotational position and the system's control signal, and to precisely position the valve stem. An internal 2-gauge cluster indicating input signal and output loading pressures is standard with this positioner.

FEATURES

- Adjustable gain.
- Adjustable stroking speed.
- Direct or reverse action with simple field reversibility.
- Easy change to split range operation.
- Two pressure gauges standard.
- High capacity relay.
- Negligible effects from vibration.
- Built-in bypass.
- Multiple characterization cams.
- Totally enclosed linkage.
- Integral travel indicator.

APPLICATIONS

Cashco Ranger QCT, Premier EZO and Premier rotary stem control valves.



Typical Pressure Reducing Pneumatic Control Loop -
PCV with P/P Positioner

MODEL 9540R

P/P POSITIONER - ROTARY

SPECIFICATIONS

Input Signal: 3-15 psig standard.
 Split ranges:
 2-way — 3-9 or 9-15 psig.
 3-way — 3-7, 7-11 or 11-15 psig.

Relative Humidity: $\leq 100\%$.

Vibration Effect: Immune up to 100 Hz and four g's in any direction.

Supply Pressure:

Max. Supply Pressure (psig)	Bench Set (psig)
20	5-13
27	7.5-19.5
36	10-26
44	14-30

NOTE: Requires oil-free, desiccant-dried, instrument quality, compressed air.

Air Consumption:

Supply Pressure (psig)	Air Requirement, SCFH	
	Steady State Consumption	Maximum Output @ Maximum Deviation ¹
20	7.1	95
27	8.4	117
36	10.1	141
44	11.4	159

¹At maximum gain

Hysteresis: $\leq 0.5\%$ of span.

Stroking Time: See Technical Bulletin STKSP-TB.

Linearity: $\leq \pm 1.0\%$ of span.

Materials: Cover - Impact resistant polyester with clear plastic gauge window.
 Baseplate, Housing, Connection Manifold - Aluminum with polyurethane paint.
 Position Indicator Lens - Plastic.

Sensitivity: $\leq 0.1\%$ of span.

Operating Influence (Supply Pressure): $\leq 0.135\%$ stroke change per one psi change in supply pressure.

Connections: 1/4" NPT female.

Open Loop Gain:

Supply Pressure (psig)	Adjustable Range
20	150:1
27	140:1
36	124:1
44	113:1

Gauges: Two - one input signal, one output load. Internally mounted under cover, viewed thru window. SST case, dual scales in PSIG and BARG.

Ambient Temperature: -40 to +175°F

Valve Stem Rotation: 90°.

Temperature Effect: $\leq 0.017\%$ stroke change per °F ambient temperature change.

Characterization Cams:

Ranger QCT	Premier EZO/ Premier
=% Linear	=%