



P200 SERIES POSITIONERS

Critical Performance

The P200 (pneumatic) and P201-P204 (electropneumatic) positioners are designed for critical control applications. Valves with double acting actuators and the P200 series positioners meet the most demanding valve performance specifications.

Span and Zero

Calibration is made very simple with the externally adjustable span and zero. Once the center zero screw is set first, the span screw can be adjusted with very little interaction. These adjustments can be made without removing the positioner's cover if needed.

Split Range Output/Field Reversible

The standard stainless steel cam offers several signal input options; 90 degree full scale, 90 degree split range or 180 degree full scale operation. Other cam options are available for special applications and characterization. Positioner operation can be reversed in the field by flipping the cam and reversing the ports on double-acting actuators, and simply flipping the cam on spring-return actuators. Dual scaling on the positioner cover provides for mechanical pointer adjustment for CW or CCW rotation.

High Performance, Long Life

The unique spool valve design is key to the positioner's accuracy and control. The gold plated stainless spool in combination with the stainless seats provide a smooth, corrosion-resistant operation in a wide range of applications. The unique guiding of the spool throughout its travel, and the special porting provide trouble-free operation in most applications.

Sealed Housing

The P200 series units are sealed and vented through a tapped exhaust port. Vent valves along with positive internal pressure allow for constant liquid drainage. The housing is die cast aluminum and protected with an industrial grade polyester



coating. The P200 and P201 are Nema 4X and IP 66 approved.

Approvals

In addition to Nema 4X/IP66, the following approvals can be specified:

Explosion Proof (P202)

- ATEX – EEx d IIB + H2 T4
- FM/CSA – CI 1 Div 1 & 2 Gps B,C,D T6

Intrinsically Safe (P203)

- ATEX – EEx ia IIC T4/T6
- FM – CI 1 Div 1 Grp A-D
- CSA – Ex ia, CI 1 Grp A-D, CI 1 DIV2 Grp A-D

I/P Conversion

Pneumatic positioners can be easily field converted to electropneumatic with the compact and modular I/P converter module. No special gaskets or unusual parts are needed. Small 20 micron filters act as a secondary filter for the P200 and P204. **It is recommended that a good primary filter be used with these instruments. Air quality specs should meet those published by ISA-S7.3.81**

Accurate, Precise Valve Control

The high flow/high gain spool valve assembly has air delivery of over 28 SCFM. This provides for quick and accurate control on a wide range of applications. Valve position readout is clearly shown with the dual scale, bright pointer indicator. A dome style indicator is optional.

Positioner Specifications

Order Code	P200 Pneumatic	P201-P204 Electropneumatic
Air Supply (psi)*	25-145 psi	25-145 psi
Linearity	< 0.7% of full scale	< 1.0% of full scale
Hysteresis	< 0.4% of full scale	< 0.6% of full scale
Repeatability	< 0.3% of full scale	< 0.5% of full scale
Air Consumption	0.35 SCFM @ 87 psi	0.38 SCFM @ 87 psi
Air Delivery	28.3 SCFM @ 87 psi	28.3 SCFM @ 87 psi
Input Impedance	-	170 ohms
Temperature Range	-40° to 185°F (-40° to 85°C)	-40° to 185°F (-40° to 85°C)
Weight	3.2 lbs (1.45 kg)	3.8 lbs (1.72 kg)

* Check maximum pressure of actuator; regulator may be required.

Ordering

The P200 series can be used with double acting or spring return, pneumatic actuators. For spring return applications (single acting) one port should be plugged.

Positioners	Order Code
P200, 3-15 PSI Pneumatic Positioner NEMA 4X and IP66, Double/Single Acting W/ Arrow Indicator	P200
P201, 4-20 mA Electro-pneumatic Positioner NEMA 4X and IP66, Double/Single Acting W/ Arrow Indicator	P201
P202 Explosion Proof, 4-20 mA Electro-pneumatic Positioner NEMA 4X and IP66, Double/Single Acting W/ Arrow Indicator	P202
P203 Intrinsically Safe, 4-20 mA Electro-pneumatic Positioner NEMA 4X and IP66, Double/Single Acting W/ Arrow Indicator	P203
P204 Fail Freeze, 4-20 mA Electro-pneumatic Positioner NEMA 4X and IP66, Double/Single Acting W/ Arrow Indicator	P204

Three lobe cam is standard: Linear characterized full span, 0-50% and 50% split range lobes.

Positioner Options

Positioner	Usage	Order Code
Raised (Beacon) Indicator	P200 – P204	B
Gauges	P200 – P204	G
Feedback, 4-20 mA Transmitter	P200, P201, P203, P204	F
Feedback, Mech. Switch (2 SPDT, I5A)	P200, P201, P203, P204	M
Feedback, 4-20 mA Transmitter, Mech. Switch (2 SPDT, I5A)	P200, P201, P203, P204	S

Air Filter Regulators for Positioners

Air filter regulators should be used on the supply line of every positioner.

Filter	Order Code
Air Filter	AFR2

Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-PC6,P200-AFR2-G-B

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

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