

Flowserve Corporation
Flow Control Division
www.flowserve.com

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Automax XL90 High Performance Positioner



Introduction

The Automax XL90 positioner provides outstanding control for a wide range of valves and dampers. XL90's two-stage relay provides fast, sensitive response characteristics to meet demanding control objectives. It may be used with 3-15 psi pneumatic control signals (as shown) or fitted with an I/P transducer for 4-20 mA signals. The XL90 is available with many options including position feedback limit switches, 4-20 mA position feedback transmitter, and our UltraDome visual position indicator.

Applications

Automax XL90 positioners may be used to control quarter-turn control valves such as eccentric plug, butterfly, segmented ball, standard ball, and plug valves. The XL90's sensitive two-stage relay also makes it ideal for precise damper control applications. Specify the XL90 whenever valve rotation sensitivity is critical.

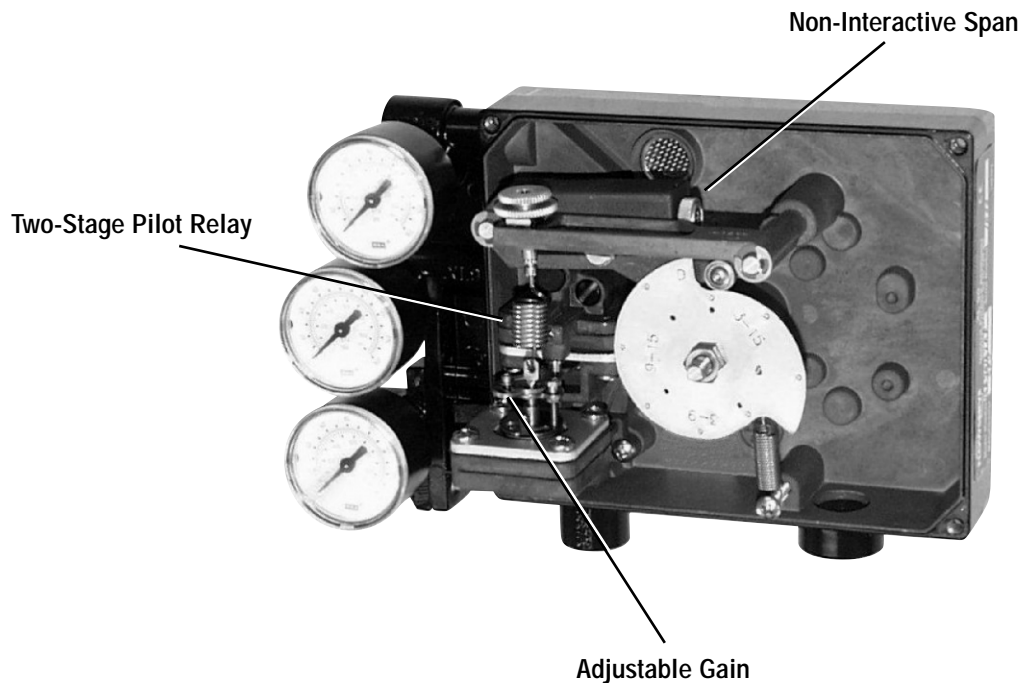
The XL90 may be installed on any quarter-turn valve actuator conforming to the NAMUR standard for accessory mounting bolt pattern and pinion height without a coupler. This reduces deadband and is less expensive. Contact your Flowserve distributor or representative for information about mounting the XL90 on non-NAMUR actuators.

The XL90 housing is constructed from durable die-cast aluminum. The housing is anodized for internal corrosion resistance, then coated with epoxy powder for external resistance to harsh chemicals.

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Features

1. **Two-Stage Pilot Relay** provides fast, sensitive response characteristics for precise control of critical control valves and dampers.
2. **Non-interactive Span Adjustment** reduces calibration time.
3. **Adjustable Gain** allows positioner sensitivity adjustment for a wide range of valve/actuator applications.
4. **Corrosion Resistant Materials.** All exposed parts are either stainless steel or epoxy powder coated anodized aluminum to permit use in corrosive environments.
5. Optional **UltraDome Visual Position Indicator** provides adjustable, high-contrast, full-angle viewing of valve position.
6. **Field Upgradable.** The XL90 is field-upgradable to a number of electro-pneumatic options without removing the cover. Limit switches or a 4-20 mA position transmitter may be installed with basic tools.
7. **Vibration Resistant.** High natural frequency and pneumatic dampening make the XL90 unaffected by vibrations with accelerations up to 2 G's and frequencies to 500 Hz.

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Materials of Construction:

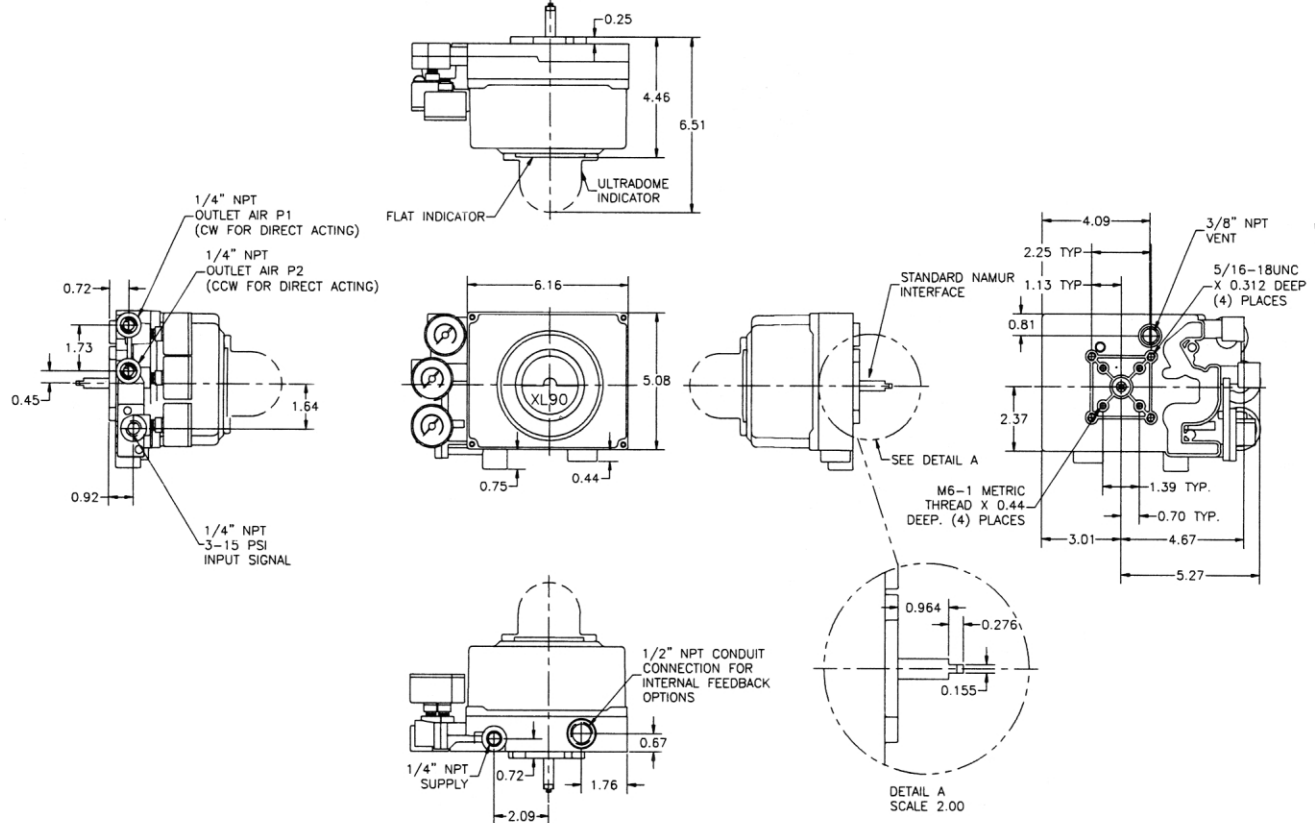
Part of Assembly	Materials
Housing	Anodized Aluminum with Epoxy Powder Paint
Screen/Retainer	Stainless Steel
Cover	Anodized Aluminum with Epoxy Powder Paint
Lens/UltraDome	Polycarbonate
Shaft	Stainless Steel
Bearings	Thermoplastic Alloy
Cam	Stainless Steel
Cam Follower Bearing	Hardened Steel
Span Arm	Anodized Aluminum
Span Arm Screws	Stainless Steel
Zero Arm	Anodized Aluminum
Relay Assembly	Anodized Aluminum and Stainless Steel
All Fasteners	Stainless Steel
O-rings*	Buna-N
Diaphragms*	Buna-N
Feedback and Cam Springs	Stainless Steel
Shaft Snap Rings	Stainless Steel
Posts and E-Clips	Stainless Steel

Specifications:

Parameter	Units	P/P Value	I/P Value
Resolution	% Full Scale	0.1	0.1
Dead Band	% Full Scale	0.1	0.1
Repeatability	% Full Scale	0.1	0.1
Hysteresis	% Full Scale	0.5	0.5
Linearity	% Full Scale	1	1
Adjustable Open Loop Gain	psi/psi @ 60 psi	400 to 1100:1	400 to 1100:1
Supply Pressure Effect	% Full Scale	0.2	0.2
Supply Pressure Range	PSIG	30 to 150	30 to 150
Steady State Air Consumption	SCFM @ 60 psi	0.38	0.45
Maximum Flow Capacity	SCFM @ 60 psi	16.5	16.5
Ambient Temp. Range - Standard	Degrees F	-20 to 185	-20 to 180
Ambient Temp. Range - Extended	Degrees F	-50 to 250	-40 to 180
Input Signal	PSIG/mA	3 to 15	4 to 20
Pneumatic Connections	Inch NPT	1/4	1/4
Conduit Connection	Inch NPT	1/2	1/2
Net Weight	lbs.	3.5	6

*Ext. Temp. Models utilized fluorosilicone diaphragms and dynamic o-rings.

Dimensions: Pneumatic Input Models



Dimensions: Electro-Pneumatic Input Models

