

# Valve Positioners and Volume Boosters

## Model 750P Pneumatic Valve Positioners

### Introduction

#### Features & Benefits

- ▶ Cam-characterized operation via rotary or rectilinear actuators provides application versatility
- ▶ Field adaptability accommodates single or double acting service with no additional parts required
- ▶ Field reversible provides direct/reverse action
- ▶ Split ranging available without requiring additional parts
- ▶ Wide selection of available cams for application versatility
- ▶ Manifold block, gauges, and position indicator options accommodate a wide variety of applications

#### Description

The Model 750P Pneumatic Valve Positioner is a cam-characterized, pneumatic valve positioner for use with either rotary or rectilinear actuators. Also, available for use with single or double acting actuators, the Model 750P can be used in a wide variety of applications. Its rugged, durable design makes it ideal for use in harsh environments, because it can maintain precise, accurate positioning of the control element under these extreme conditions.

A high-gain, piloted spool valve loads the actuator at the desired positioning according to the instrument signal, while a characterized cam provides mechanical feedback. Cam profiles are available for standard, rotary, rectilinear, equal percentage, and quick opening. This allows a single internal range spring for all spans. Moreover, zero and span adjustments are readily accessible behind a removable cover.

Its versatile design and quality construction allow the Model 750P to be used with a variety of sizes and types of actuators. Converting from rotary to rectilinear operation involves replacement of the feedback input shaft and cam only, while changing between single and double acting actuators requires no additional parts. Moreover, rotation of the cam allows split range applications to be easily selected. Options available for the Model 750P include manifold block, gauge, or position indicator (rotary only). They can be factory installed or selected later for field installation.



#### Specifications

##### Functional Specifications

##### Input Range

3-15, 3-9, 9-15, 6-30, 3-27 psig

##### Range

Adjustable  $\pm 30\%$  of input span or maximum rated travel range

##### Supply Pressure Change Effect

Output pressure changes less than 0.3% of span for a 5 psig change in supply pressure

##### Air Consumption

0.70 scfm at 60 psig supply

##### Air Pilot Capacity

7.5 scfm at 60 psig supply

##### Stroke Range

Rectilinear: 1/2" to 6" based on 60° Rotation

Rotary: 90°

##### Temperature Limits

-40 to +180°F (-40 to +82°C)

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### Specifications

#### Performance Specifications

##### Repeatability

0.1% of span

##### Linearity

±1.0% of span

##### Hysteresis

Less than 1.0% of span

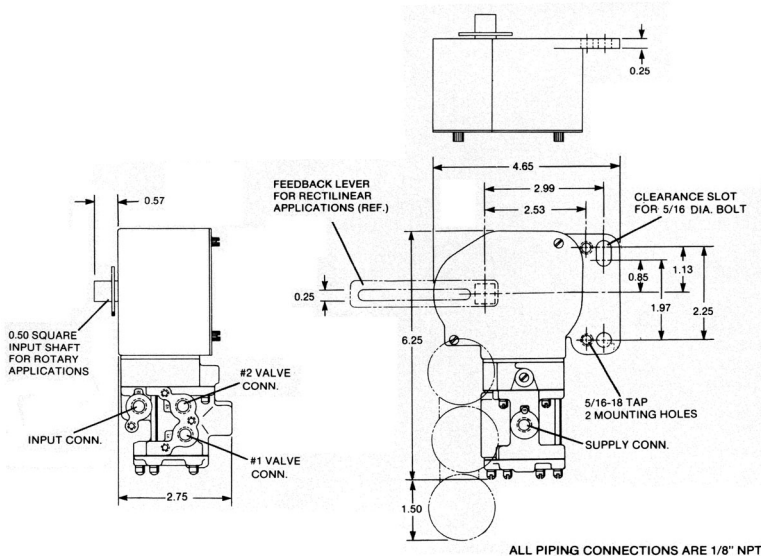
##### Dead Spot

Less than 0.1% of span

#### Accessories

- ▶ P/N 15822-361 - Manifold Kit
- ▶ P/N 12444-1 - Gauges (3 required) 1 (0-30 psig)
- ▶ P/N 12444-2 - Gauges (3 required) 2 (0-160 psig)
- ▶ P/N 15822-285 - Rebuild Kit
- ▶ P/N 15822-352 - Rebuild Kit, High Temp.
- ▶ P/N 15822-292 - Stabilized Spool
- ▶ P/N 15822-440 - Position Indicator Kit
- ▶ P/N 15822-550 - Nemur, Watertight Mounting Bracket Kit

#### Mounting Dimensions



#### Model Number

#### Order No.

Pneumatic Valve Positioner

##### Action

- Rectilinear (1/2" to 4" stroke)
- Rectilinear (3" to 6" stroke)
- Rotary (90°)
- Rectilinear (1/2" to 2" stroke)

##### Cam Profile

- Standard 60° Rectilinear
- Standard 90° Rotary
- Modified Equal Percentage 60°
- Modified Equal Percentage 90°
- Quick Opening 60°
- Quick Opening 90°
- Blank

##### Manifold and Gauges

- Not Required
- Gauges with Manifold Block
- Manifold Block Only

##### Environmental Construction

- High Temperature
- -20 to 300°F (6 to 148° C)<sup>1</sup>
- Standard

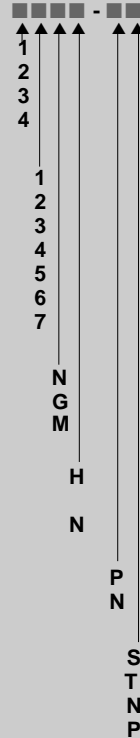
##### Position Indicator (rotary only)

- Positioner Indicator
- Not Required

##### Gain

- Stabilized
- Stabilized (3-27 Input, Std. Temp. only)
- Normal
- Normal (3-27 Input, Std. Temp. only)

750P-



1) Gauges not available with high temperature version.