



MIL 7400 Pneumatic Positioner





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Introduction

MIL 7400 positioner ensures that the position of the valve plug is directly proportional to the controller output pressure, regardless of packing box friction, diaphragm actuator hysteresis or off-balance forces on the valve plug.

It is a sensitive, stable, force balance system for standard or non-standard spring ranges.



Features

Responsive to Small Pressure Changes

When complicated process lags necessitate wide control proportional band, the positioner provides exact means of making the control valve responsive to very small changes in controller output pressure.

Bypass Facility

With bypass set to positioner mode, the signal pressure is directly carried to the bellows and supply is brought to the pilot for normal operation. When set at bypass position mode, the supply is blocked and signal pressure directly goes to the control valve. It can be used when pilot is removed for cleaning or replacement. Bypass facility is suitable only when actuator spring range is compatible with signal range.

Standard, Reduced and High Capacity Pilots

The simple, sensitive pilot of 3-way valve type has sufficient capacity to operate the control valve at

required speed and uses relatively little air. Pilots are available for standard, reduced and high capacity to suit actuator size. Pilots are available for inverting the valve action with respect to signal.

Split Range

For sequential operation of 2 or 3 valves by single controller with a 3-15 psi output signal range, each positioner equipped valve is operated through its full spring range by a selected portion of the controller output signal range.

Operates any Standard or Non-standard Spring Ranges

The positioner may be supplied to operate any valve, whether with standard or non-standard spring and for number of signal ranges.

Technical Information

Model Decodification

1 st	2 nd	3 rd	4 th	5 th	6 th	7 th
7	4					
		Normal Controller Output Span	Positioner Supply	Valve Actuator Action	Stroke Range⁽¹⁾ (inch)	Pilot Action and Capacity
		0. 12 psi (3-15 Full) 1. 24 psi (6-30 Full) 2. 6 psi (3-15 Split) 8. Special Ranges	0. 20 psi 1. 21-40 psi 2. 41-80 psi	7. Direct 8. Reverse	0. 3/8"-3" 1. 3"-4"	0. Direct Standard 1. Reverse Standard 2. Direct- High 3. Reverse- High 4. Direct- Reduced ⁽²⁾ 5. Reverse- Reduced ⁽²⁾

⁽¹⁾ Use Shortest range which will cover the maximum stroke of valve

⁽²⁾ Generally used for valve stroke less than 0.25 inch

General Data

Standard signal range : 3-15 psi (0.2~1 kg/cm²)
 Split range : Available
 Supply pressure : 20 ~ 80 psi
 Linearity (Accuracy) : ± 1% Full stroke⁽³⁾
 Hysteresis : ± 1% Full stroke⁽³⁾
 Sensitivity /Dead band : ± 0.5% Full scale⁽³⁾
 (signal range)

Ambient temperature : -50 °C to +80 °C
 Output characteristic : Linear
 Pneumatic connection : 1/4" NPT (F)
 Pressure gauges : 3 Nos (Supply, Signal & Output)
 Weight : 2.5 kg

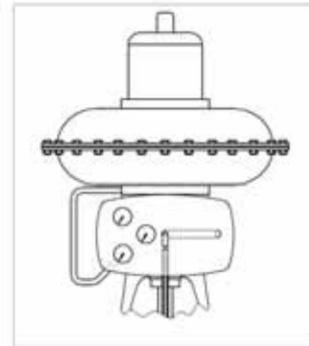
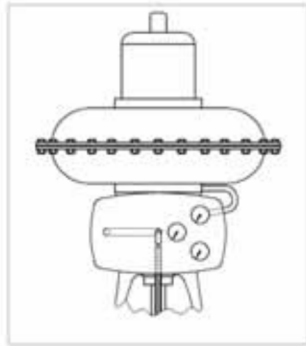
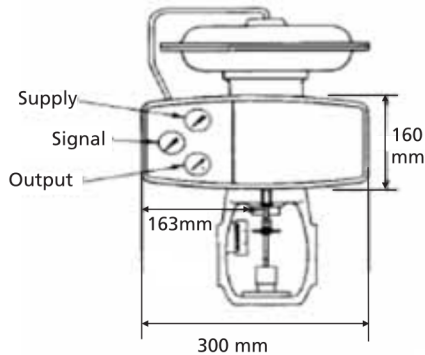
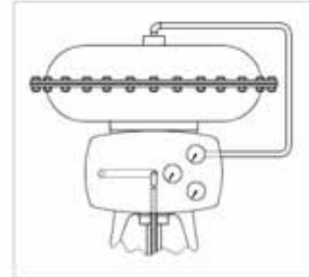
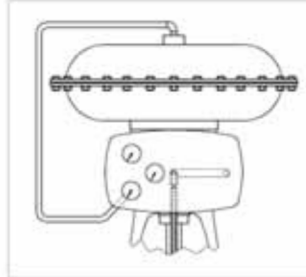
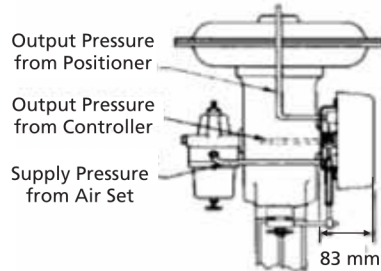
⁽³⁾ For stroke size ≥ to 0.5 inch



Dimensions and Mounting Orientations

Direct Pilot Positioner Mounting

Reverse Pilot Positioner Mounting



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