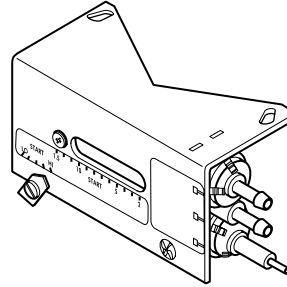


## Positive Positioning Relay

Positive positioner pneumatic relay is used to accurately position an actuator stroke with respect to signal pressure from the controller. It can also be used to change the effective spring range of an actuator and increase the capacity of a controller.

### Features:

For accurate positioning of valve and damper actuators, this positioner utilizes a pilot-operated, relay-type position-sensing mechanism, much more sensitive to actuator position changes than some competitive "force-balance" positioners.



### Model Chart

| Model No.                 | Description              |
|---------------------------|--------------------------|
| AK-42309-500 <sup>a</sup> | Refer to Specifications. |

<sup>a</sup> AK-42309-500 positive positioner cannot be used with M556, M572, M573, M574, M693, MK-2400, MK-2690-0-0-0, MK-4600 Series (before 0, 2 date code), MK-11000, and MK-12000 Series actuators.

### Specifications

|                                                  |                                                                                                                                                     |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Action</b>                                    | Direct (increase in output pressure to actuator with an increase in pilot pressure from controller).                                                |
| <b>Pilot input</b>                               | 0 to main air pressure, psig.                                                                                                                       |
| <b>Output</b>                                    | 0 to main air pressure, psig.                                                                                                                       |
| <b>Construction</b>                              |                                                                                                                                                     |
| <b>Housing</b>                                   | Polysulfone.                                                                                                                                        |
| <b>Diaphragm</b>                                 | Neoprene.                                                                                                                                           |
| <b>Start point</b>                               | Adjustable 1 to 12 psig (7 to 83 kPa).                                                                                                              |
| <b>Span</b>                                      | Adjustable 2 to 13 psi (14 to 90 kPa); factory set at 5 psig.                                                                                       |
| <b>Stroke</b>                                    | Adjustable 2 to 13 psi (14 to 90 kPa); factory set at 5 psig with feedback spring for 7/16 to 5 in. stroke.                                         |
| <b>Supply air pressure</b>                       | Clean, oil free, dry air required (refer. EN-123).                                                                                                  |
| <b>Maximum</b>                                   | 30 psig (207 kPa).                                                                                                                                  |
| <b>Nominal supply</b>                            | 15 to 20 psig (103 to 138 kPa).                                                                                                                     |
| <b>Environment</b>                               |                                                                                                                                                     |
| <b>Ambient temperature limits</b>                | Shipping: -40 to 160°F (-40 to 71°C).<br>Operating: 32 to 140°F (0 to 60°C).                                                                        |
| <b>Humidity</b>                                  | 5 to 95% R.H., non-condensing.                                                                                                                      |
| <b>Locations</b>                                 | NEMA Type 1.                                                                                                                                        |
| <b>Air connection code</b>                       | Refer to Figure 1.                                                                                                                                  |
| <b>Air connections</b>                           |                                                                                                                                                     |
| <b>"M" and "B"</b>                               | Barbed for 1/4 in. O.D. plastic tubing.                                                                                                             |
| <b>"P"</b>                                       | Dual-contoured for 1/4 in. O.D. and 5/32 in. O.D. tubing.                                                                                           |
| <b>Air consumption for sizing air compressor</b> | 0.011 scfm (5.2 ml/s) at 20 psig (138 kPa) supply.                                                                                                  |
| <b>Air capacity for sizing air mains</b>         | 20 scim (5.5 ml/s).                                                                                                                                 |
| <b>Flow capacity</b>                             | 860 scim (235 ml/s) at 20 psig (138 kPa) supply.                                                                                                    |
| <b>Mounting linkage</b>                          | All necessary linkage provided to assemble AK-42309-500 to MK-2690-0-0-1, 3000, 4600-0-0-2, 4700, 4800, 6800, 6900, 7000, 8800, and 8900 actuators. |
| <b>Dimensions</b>                                | 2-1/2 H x 4-1/2 W x 3 D in. (64 x 114 x 76 mm).                                                                                                     |

Accessories

| Siebe Model No. | Description                     |
|-----------------|---------------------------------|
| TOOL-95-1       | Pneumatic calibration tool kit. |

Typical Applications

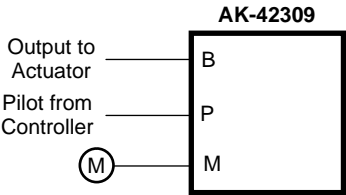


Figure 1 Piping Connections.