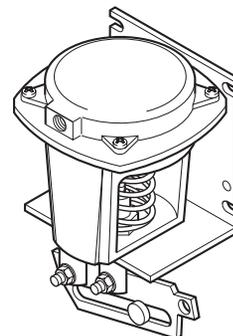


## Damper Actuators, Proportional

For proportional pneumatic actuator with 11 sq. in. (71 cm<sup>2</sup>) effective area used to control damper and air valves in heating, ventilating, and air conditioning systems.



Features:

- Rugged cast aluminum body.
- Special linkage permits easy adjustment of stroke to suit various applications.
- Hesitation and non-hesitation models available.

### Model Chart

Model No.	Nominal Operating Range	Starting Pressure Adjustable	Maximum Force <sup>a</sup>				Nominal Torque <sup>b</sup> Proportional Control <sup>a</sup>		
			Return Stroke	Power Stroke			15 psi Supply Dual Press. System	15 psi Supply Single Press. System <sup>c</sup>	20 psi Supply Single or Dual Press. System <sup>c</sup>
			Based on 1.5 psi Pressure to Actuator	15 psi Supply Dual Press. System	15 psi Supply Single Press. System <sup>c</sup>	20 psi Supply Single or Dual Press. System <sup>c</sup>			
psig	psig	lb	lb	lb	lb	lb-in.	lb-in.	lb-in.	
MK-4401 MK4-4401 <sup>d</sup>	3 to 8	3 ±1	8.25	30.25	38.5	66	7.9	7.9	7.9
MK-4411 MK4-4411 <sup>d</sup>	5 to 10	5 ±1	19.25	19.25	27.5	55	7.9	7.9	7.9
MK-4421 MK4-4421 <sup>d</sup>	8 to 13	8 ±1	35.75	2.75	11	38.5	2.6	7.9	7.9
MK-4451 MK4-4451 <sup>d</sup>	3 to 6, 9 to 12	3 to 6	8.25	8.25	16.5	44	7.9	7.9	7.9
MK-4461 MK4-4461 <sup>d</sup>	3 to 6, 11 to 17			0	0	16.5	0	0	

<sup>a</sup> Force and torques on based on factory set stroke and starting pressure.

<sup>b</sup> Nominal torque for actuators is based on 1.5 psi (10 kPa) pressure change at the actuator.

<sup>c</sup> Adjust pressure reducing valve so that listed pressures are available at the actuator. MK-4421 requires that 15 psi (103 kPa) be available to actuator. MK-4461 requires that 20 psi (138 kPa) be available to actuator.

<sup>d</sup> Factory installed positive positioner (AK-42309-500) start point adjustable 2 to 10 psi with span adjustable 2 to 10 psi.

# MK-44xx Series, MK4-44xx Series

## Specifications

### Construction

<b>Housing</b>	Die cast aluminum.
<b>Diaphragm</b>	Replaceable beaded molded neoprene (Part number PNV-2).

### Stroke

<b>Linkage</b>	Adjustable 1/2 to 3 in. (13 to 76 mm); factory set for 2 in. (51 mm).
<b>Diaphragm</b>	Factory set for 1 in. (25 mm).

**Nominal Damper Area** Actuator sizing should be done in accordance with damper manufacturer's specifications.

**Start point** Adjustable. Refer to Description Model Chart.

**Spring** Retracts actuator crank arm on loss of air pressure.

**Maximum air pressure** 30 psig (207 kPa).

### Ambient temperature limits

<b>Shipping</b>	-40 to 160°F (-40 to 71°C).
<b>Operating</b>	-20 to 160°F (-29 to 71°C).

**Air connections** 1/8 in. FNPT.

**Mounting** In any position. Mounting bracket, linkage, and connector for 5/16 in. (8 mm) diameter push rod assembled to actuator.

**Dimensions** 7-7/16 H x 5-3/4 W x 4-7/8 D in. (189 x 146 x 124 mm).

## Accessories

### Model No.

AK-42309-500

AM-111

AM-112

AM-113

AM-115

AM-122

AM-123

AM-125

AM-125-048

AM-132

AM-161-3

AM-743

TOOL-095-1

### Maintenance Parts

PND-145-104

PND-145-104

PND-145-107

PNV-002

### Description

Positive positioning relay.

Crank arm for 5/16 in. diameter damper shaft.

Crank arm for 3/8 in. diameter damper shaft.

Crank arm for 1/2 in. diameter damper shaft.

Crank arm for 7/16 in. diameter damper shaft.

Linkage connector straight type.

Damper clip.

5/16 x 20 in. damper rod.

5/16 x 48 in. damper rod.

Ball joint connector.

Damper linkage kit (AM-173 crank arm and AM-132 connector).

Linkage kit for M-693 Series replacement.

Pneumatic calibration tool kit.

3 to 8 psig spring.

5 to 10 psig spring.

8 to 12 psig spring.

Diaphragm.