

# Pneumatic Damper Actuators

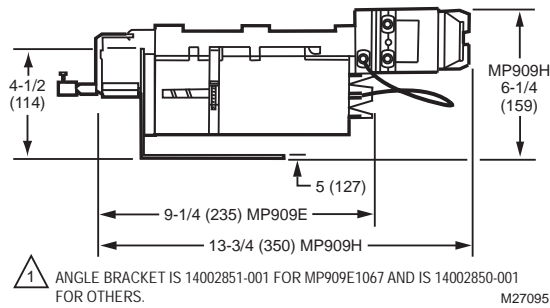
## MP909E,H Pneumatic Damper Actuators



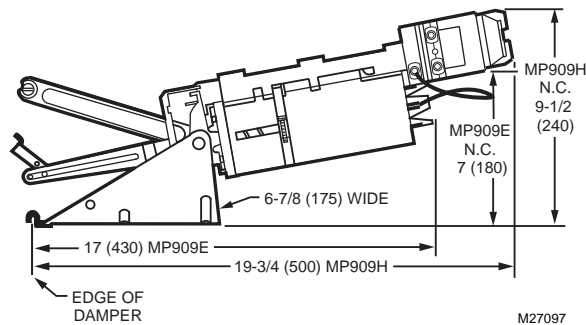
These actuators are used for proportional control of variable volume terminal units, mixing boxes, and small to medium sized dampers. They are available in various operating ranges for either independent operation or sequence operation with other actuators. The MP909E has an optional adjustable stroke feature. The MP909H includes a positive positioner. Replacement devices are available for Johnson, Powers, Robertshaw, Barber-Colman, and older Honeywell actuator models.

- Rolling diaphragm operated.
- Low friction shaft bearing.
- Close tolerance on operating range and stroke.
- Non-overlapping spring ranges for sequencing.
- Corrosion resistant materials.
- Reliable long life.

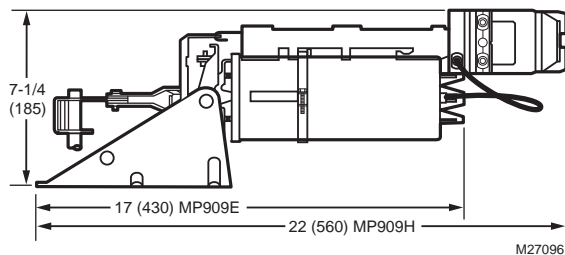
### Dimensions in inches (millimeters) Actuator with Fixed External Mounting Bracket



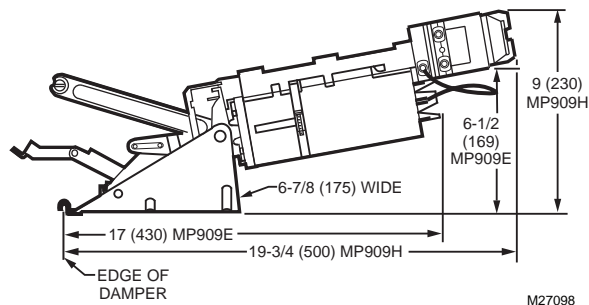
### Actuator with Internal N.C. Trunnion Mounting Bracket



### Actuator with External Trunnion Mounting Bracket



### Actuator with Internal N.O. Trunnion Mounting Bracket



**Actuator Type:** Damper

**Actuator Force:** Medium

**Fail Safe Mode:** Spring Return

**Air Connections:** Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing

**Diaphragm Effective Area:** 6.6 sq in. (43 sq cm)

**Temperature Range:** -28 F to +160 F (-33 C to +71 C)

**Humidity Range:** 5 to 95% RH

**Approvals:**

**Underwriters Laboratories, Inc:** Components Recognized: Report R18118

### Accessories:

**27518-**Crankarm balljoint with 1/4 - 28 UNF male threads, fits 5-16 inch diameter push rods

**26025B-**Damper crank arm for 3/8 in. (9.5 mm) diameter axle.

Elongated slot for linkage connection. Slot scaled for 40-50-60-75-90 degrees.

**27520C-**Push Rod (5/16 in. dia., 12 in. length)

**27520G-**Push Rod (5/16 in. dia., 24 in. length)

**27520K-**Push Rod (5/16 in. dia., 36 in. length)

**27520L-**Push Rod (5/16 in. dia., 48 in. length)

**312867C-**Damper Crank Arm for 1/2 in. (12.7mm) diameter axle.

Elongated slot for linkage connection. Slot scaled for 45-60-75-90 degrees

**312867H-**Externally mounted Linkage Kit

**314440A-**MP909 - Clevis, Clevis Pin and Cotter Pin Assembly

**315321-**Crankarm Balljoint (with 1/4 in male threads), fits 5/16 in. diameter pushrod

**315781-**Motor shaft balljoint with 3/8 - 16 UNC female threads, fits 5/16 inch diameter pushrods.

**14002850-001-**Angle Bracket 5 3/8 in, 137 mm, long, 5 in, 127 mm, wide

**14003640-001-**Angle Bracket 3 in. (76 mm) long, 3 3/4 in. (95 mm) wide, 2 3/4 in. (70 mm) high

**14004062-001-**External Trunnion Mounting Bracket

**14004062-002-**Internal N.C. Trunnion Mounting Bracket

**14004062-003-**Internal N.O. Trunnion Mounting Bracket

**14004106-001-**Actuator pushrod for conversion of internal N.C. to external

**14004107-001-**Crankarm Assembly for conversion from internal N.C. to external trunnion mounting

**14004210-001-**Feedback Spring Kit includes orange spring (3 psi [21kPa]), yellow spring (5 psi [34 kPa]), and blue spring (10 psi [69 kPa]).

**14004236-001-**Coupler, actuator shaft to 5/16 in, 8 mm, pushrod

**14004241-002-**Hitch Pin (Six Sets)

**14004242-001-**MP918 Top Mount Operator Assembly

**14004667-001-**Offset Crank arm assembly with 2 screws (304725-062), nuts (14004102-001), crank arm (14004655-001) for 1/2 in. Drive Axle

### Replacement Parts:

**14004137-001-**Retrofit Kit for adding positive positioner to MP909E or repair of MP909H

# Pneumatic Damper Actuators

Product Number	Air Connections	Maximum Operating Pressure		Spring Range		Stroke		Includes
		(psi)	(kPa)	(psi)	(kPa)	(inch)	(mm)	
MP909E1018/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	3 psi to 13 psi	21 kPa to 90 kPa	4 in.	102 mm	315781 Balljoint, Linkage Kit 14002061-006 and 14002850-001 Fixed External Mounting Bracket with Balljoint
MP909E1034/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	4 in.	102 mm	315781 Balljoint, Linkage Kit 14002061-006 and 14002850-001 Fixed External Mounting Bracket with Balljoint
MP909E1059/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	2 3/4 in.	70 mm	Actuator only. 3/8 in.-16 Threaded Shaft with stroke stops. No Mounting Bracket
MP909E1067/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	3 in.	79 mm	Fixed external unitary mounting bracket and clevis shaft with stroke stops
MP909E1083/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	2.5 psi to 6.5 psi	17 kPa to 45 kPa	3 in.	79 mm	315781 Balljoint, Linkage Kit 14002061-006 and 14002850-001 Fixed External Mounting Bracket with Balljoint
MP909E1109/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	2.5 psi to 6.5 psi	17 kPa to 45 kPa	2 3/4 in.	70 mm	Actuator only. 3/8 in.-16 Threaded Shaft with stroke stops. No Mounting Bracket
MP909E1158/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	9 psi to 13 psi	62 kPa to 90 kPa	3 in.	79 mm	Actuator only. 3/8 in.-16 Threaded Shaft. No Mounting Bracket
MP909E1174/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	9 psi to 13 psi	62 kPa to 90 kPa	3 in.	70 mm	14002850-001 - Fixed External Mounting Bracket with 315781 Balljoint
MP909E1240/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	3 in.	79 mm	Actuator only. 3/8 in.-16 Threaded Shaft. No Mounting Bracket
MP909E1349/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	3 psi to 13 psi	21 kPa to 90 kPa	4 in.	102 mm	Internal N.C. trunnion mounting bracket
MP909E1356/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	3 psi to 13 psi	21 kPa to 90 kPa	4 in.	102 mm	External trunnion mounting bracket
MP909E1364/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	4 in.	102 mm	External trunnion mounting bracket
MP909E1372/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	2.5 psi to 6.5 psi	17 kPa to 45 kPa	3 in.	70 mm	External trunnion mounting bracket
MP909E1380/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	9 psi to 13 psi	62 kPa to 90 kPa	3 in.	79 mm	External trunnion mounting bracket
MP909E1398/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	9 psi to 13 psi	62 kPa to 90 kPa	3 in.	79 mm	Internal N.C. trunnion mounting bracket
MP909E1422/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	4 in.	102 mm	14004062-003 Internal N.O. Mounting Bracket with crankarm and pushrod assembly
MP909E1463/U	Dual Barbed fitting for 5/32 in. or 1/4 in. O.D. tubing	29 psi	200 kPa	5 psi to 10 psi	34 kPa to 69 kPa	4 in.	102 mm	14002850-001 - Fixed External Mounting Bracket
MP909H1331/U	Positioner: Pilot 5/32 in. barb, Main 1/4 in. barb, Branch 1/4 in. barb. Actuator: combination 5/32 in. and 1/4 in. barb	25 psi	172 kPa	Positive positioner 10 psi span (5 psi spring included)	Positive positioner 69 kPa span (34 kPa spring included)	4 in.	102 mm	315781 Balljoint, Positive Positioner, and 14002850-001 - Fixed External Mounting Bracket with Balljoint
MP909H1368/U	Positioner: Pilot 5/32 in. barb, Main 1/4 in. barb, Branch 1/4 in. barb. Actuator: combination 5/32 in. and 1/4 in. barb	25 psi	172 kPa	Positive positioner 10 psi span (5 psi spring included)	Positive positioner 69 kPa span (34 kPa spring included)	4 in.	102 mm	External Trunnion Bracket, Positive Positioner
MP909H1392/U	Positioner: Pilot 5/32 in. barb, Main 1/4 in. barb, Branch 1/4 in. barb. Actuator: combination 5/32 in. and 1/4 in. barb	25 psi	172 kPa	Positive positioner 10 psi span (5 psi spring included)	Positive positioner 69 kPa span (34 kPa spring included)	4 in.	102 mm	Mounting bracket for internal N.C. Trunnion mounting, positive positioner

Pneumatic Controls