

Description

The KMC MCP-5140 Series 4" Pneumatic Damper Actuators are designed to position automatic air dampers in pneumatically controlled systems. The units may be used for gradual or two-position applications.

Models are available with either post or right angle bracket mounting. Right angle models are shipped with crankarms for either 1/2" or 3/8" damper shafts. Either style is available with a factory mounted positive positioner. Actuators with positioners include an 8 to 13 psi internal spring and a 5 psi span spring. A 10 psi spring may be ordered separately.

Features

- ◆ Gradual or two-position operation
- ◆ Post or right angle mounting
- ◆ Variety of springs and bracket/linkage choices

Accessories/Replacement Parts

CMC-1002	Metallic Positive Positioner
VTD-0803	1/4-20 x 5/16" actuator balljoint
VTD-0804	1/4-20 crankarm balljoint
VTD-1100	1/4" clevis pin for post mount actuators
VTD-1205	Cotter pin for post mounted actuators
VTD-1414	3-hole crankarm for 3/8" damper shafts
VTD-1415	3-hole crankarm for 1/2" damper shafts
VTD-1500	Positioner feedback arm
VTD-1630	5/16" push rod for right angle actuators
VTD-2253	5# feedback spring (furnished w/actuator)
VTD-2263	10# feedback spring (optional)
VTD-9424	Replacement actuator diaphragm



Models

Using the table below choose the model appropriate for your application. Choose one number for "X" and one for "YYY"

MCP-5140 - X- YYY

"X" Spring Ranges & Retracted/Extended Torque (Based on 0 and 20 psi applied, at 90°)

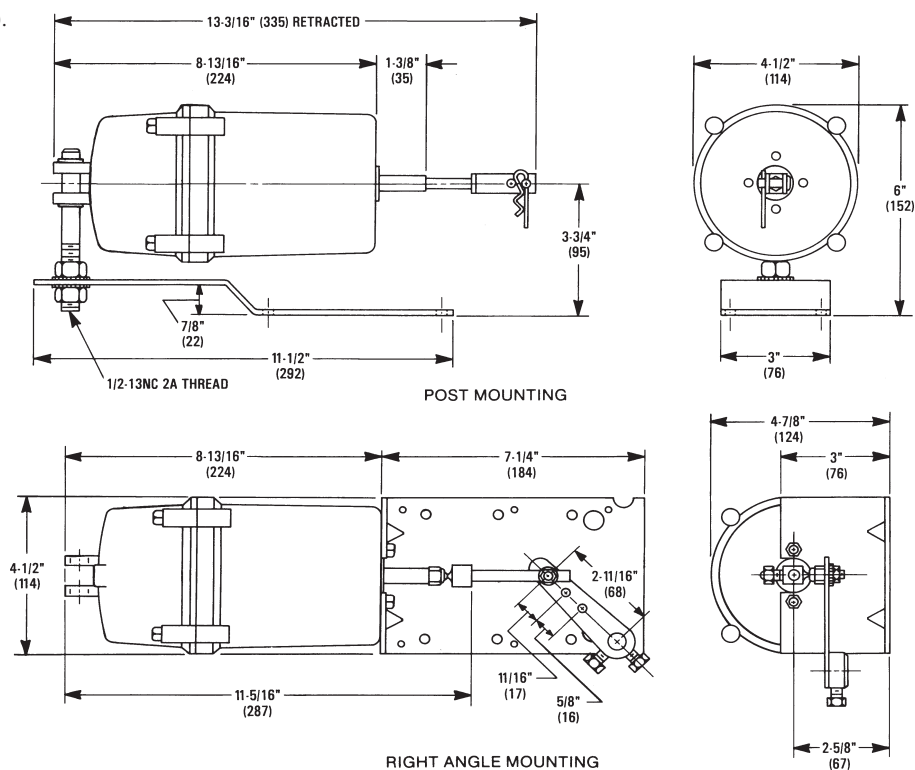
- 2: 3 to 12 psi; 66/176 in. lbs. (21 to 83 kPa; 7/20 N•m)
- 3: 5 to 10 psi; 110/220 in.lbs.(34 to 69 kPa; 12/25 N•m)
- 5: 8 to 13 psi; 176/154 in.lbs.(55 to 90 kPa; 20/17 N•m)
- 6: 10 to 15 psi; 220/110 in.lbs. (69 to 103 kPa; 25/12 N•m)
- 8: 4 to 8 psi; 88/264 in. lbs. (28 to 55 kPa; 10/19 N•m)
- 9: with Metallic Positive Positioner (CMC-1002)

"YYY" Bracket/Linkage

- 520: Post mounted with clevis
- 208: Right angle mounted with balljoint
- 211: Right angle mounted with 1/2" crankarm
- 212: Right angle mounted with 3/8" crankarm

Details

All dimensions in inches (mm).



Damper Type	Up to 1000 FPM	1000 to 2500 FPM	2500 to 3000 FPM
Opposed blades without seals	3 in-lb / sq.-ft	4.5 in-lb / sq.-ft	6 in-lb / sq.-ft
Parallel blades without seals	4 in-lb / sq.-ft	6 in-lb / sq.-ft	8 in-lb / sq.-ft
Opposed blades with seals	5 in-lb / sq.-ft	7.5 in-lb / sq.-ft	10 in-lb / sq.-ft
Parallel blades with seals	7 in-lb / sq.-ft	10.5 in-lb / sq.-ft	14 in-lb / sq.-ft

Specifications

Effective Area 11 sq. inches (71 sq. cm)

Stroke 4" (102 mm)

Control Signal Pressure Input

0 to 20 psig (138 kPa) operating 30 psig (207 kPa) maximum. See note under Temperature Limits

Supply Connection 1/8" (3 mm) FPT supplied with brass compression fitting for 1/4" (6 mm) OD tubing

Material

Body Die-cast aluminum
 Diaphragm Neoprene
 Piston Glass-filled nylon
 Shaft CRS with nickel plating
 Bearings Glass-filled nylon

Weight 4.5 lbs. (2.04 kg)

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating -20° to 180° F (-29° to 82° C)

Shipping -40° to 180° F (-40° to 82° C)

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