

### Description

These pneumatic damper actuators have an actuation range of four inches of linear movement. They are designed to position 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 crank arms for either 1/2" or 3/8" damper shafts. Either style is available with a factory-mounted positive positioner. Actuators with **positive 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 action
- ◆ Post or right-angle mounting bracket
- ◆ Variety of spring ranges, mounting brackets, and linkages provide flexibility

### Models

#### MCP-1 X 40 Y ZZZ

##### "X" Mounting Brackets

- 0: Right-angle mount
- 1: Post mount

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

- 1: Non-metallic positive positioner (CMC-1001)
- 2: 3 to 12 psi; 66/176 in-lb. (21 to 83 kPa; 7/20 N•m)
- 3: 5 to 10 psi; 110/220 in-lb. (34 to 69 kPa; 12/25 N•m)
- 5: 8 to 13 psi; 176/154 in-lb. (55 to 90 kPa; 20/17 N•m)
- 8: 4 to 8 psi; 88/264 in-lb. (28 to 55 kPa; 10/19 N•m)

##### "ZZZ" Bracket/Linkage

- 208: MCP-1040 with ball joint
- 211: MCP-1040 with 1/2" crank arm
- 212: MCP-1040 with 3/8" crank arm
- 003: MCP-1140 with no linkage or mounting
- 054: MCP-1140 w/ clevis, washer, & post only (no bracket)
- 403: MCP-1140 with post only (no bracket or linkage)
- 443: MCP-1140 with clevis and post only (no bracket)
- 520: MCP-1140 with clevis



### Specifications

#### Material

Body	Glass-filled nylon (Nylatron GS63-13)
Diaphragm	Neoprene
Piston	Glass-filled nylon (Nylatron GS63-13)
Shaft	CRS with nickel plating
Bearings	Nylatron GS63-13 glass-filled nylon (but Delrin in the MCP-0435)

#### Weight

4.5 lb. (2.04 kg)

#### Effective Area

11 square inches (71 sq. cm)

#### Stroke

4 inches (102 mm)

#### Control Signal Connection

3/16" (5 mm) fitting for 1/4" (6 mm) O.D. polyethylene tubing

#### Control Signal Pressure Input\*

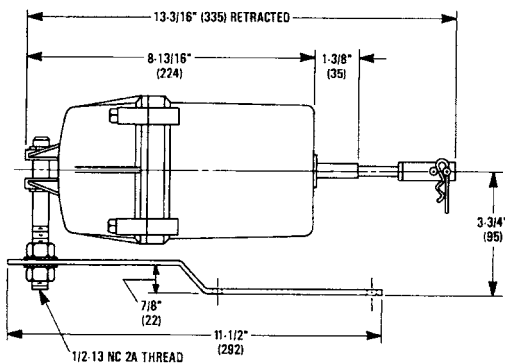
0 to 20 psi (138 kPa) operating  
30 psi (207 kPa) maximum  
(see the Note under the Temperature Limits section)

#### Temperature Limits\*

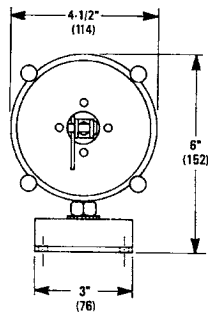
Operating	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

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

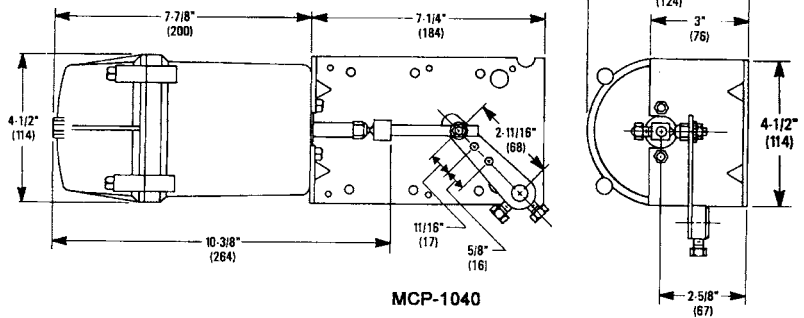
## Details



MCP-1140



All dimensions are in inches (mm)



MCP-1040

## CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

## Accessories/Replacement Parts

**NOTE:** For "bare" MCP-04xx actuators without linkage, see below.

MCP-0402	3–12 psi act. for MCP-1040 series
MCP-0403	5–10 psi act. for MCP-1040 series
MCP-0405	8–13 psi act. for MCP-1040 series
MCP-0408	4–8 psi act. for MCP-1040 series
MCP-0435	8–13 psi Phoenix actuator
MCP-0452	3–12 psi act. for MCP-1140 series
MCP-0453	5–10 psi act. for MCP-1140 series
MCP-0455	8–13 psi act. for MCP-1140 series
MCP-0458	4–8 psi act. for MCP-1140 series
MCP-0460	Hesitation actuator (3" effective stroke, adjustable bushing; 20–70% of the stroke before 4 psi., hesitates until 8 psi., remaining 80–30% of stroke after 8 psi)
CMC-1001	Non-metallic positive positioner
VTD-0803	Ball joint, 1/4-20 male x 5/16-24" female for end of actuator shafts
VTD-0804	Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms
VTD-0902	Right-angle bracket used on right-angle mounted 3" and 4" actuators
VTD-0904	Rear post used on rear swivel mounting of all 3" and 4" actuators, used with VTD-0905

VTD-0905

VTD-1100

VTD-1205

VTD-1414

VTD-1415

VTD-1500

VTD-1634

VTD-1809

VTD-1920

VTD-2101

VTD-2251

VTD-2253

VTD-2261

VTD-2263

VTD-9424

Offset bracket, used with VTD-0904 for post-mounting of all 3" and 4" actuators

1/4" clevis pin, post mount

Hairpin cotter, post mount

3-hole crank arm, 3/8" shafts

3-hole crank arm, 1/2" shafts

Positioner feedback arm

Push rod, 5/16" X 3-1/4"

Actuator mounting bolt

1/2-13 hex nut used on VTD-0904 post

1/2" ID lock washer used on VTD-0904 post

5# feedback spring; CMC-1001

5# feedback spring; CMC-1002

10# feedback spring; CMC-1001

10# feedback spring; CMC-1002

Replacement actuator diaphragm

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