

Description

These pneumatic damper actuators have an actuation range of three-inches of linear movement. They 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 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

- ◆ Allows gradual or two-position operation
- ◆ Variety of spring ranges, mounting brackets, and linkages provide flexibility
- ◆ Post or right-angle mounting options

Models

MCP-1 X 30 Y ZZZ

"X" Mounting Bracket

- 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-metal, positive positioner (CMC-1001)
- 2: 3 to 12 psi; 31/84 in-lb. (12 to 83 kPa; 4/9 N•m)
- 3: 5 to 10 psi; 52/105 in-lb. (34 to 69 kPa; 6/12 N•m)
- 5: 8 to 13 psi; 84/74 in-lb. (55 to 90 kPa; 9/8 N•m)
- 6: 10 to 15 psi; 105/52 in-lb. (69 to 103 kPa; 12/6 N•m)
- 8: 4 to 8 psi; 42/126 in-lb. (28 to 55 kPa; 5/14 N•m)

"ZZZ" Bracket/Linkage

- 520: MCP-1130 with clevis
- 108: MCP-1030 with ball joint
- 111: MCP-1030 with 1/2" crank arm
- 112: MCP-1030 with 3/8" crank arm



(Clevis and Post Mount Shown)



(Crank Arm and Right Angle Mount Shown)

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-0335)

Weight

3.5 lb. (1.58 kg)

Effective Area

7 square inches (45 sq. cm)

Stroke

3 inches (76 mm)

Control Signal Connection

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

Control Signal Pressure Input*

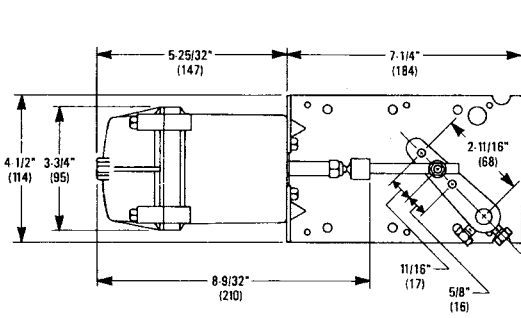
0 to 20 psi (138 kPa) operating
30 psi (207 kPa) maximum
(see the Note under the Temperature Limits section)

Temperature Limits*

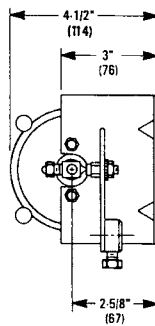
Operating	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

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

Details



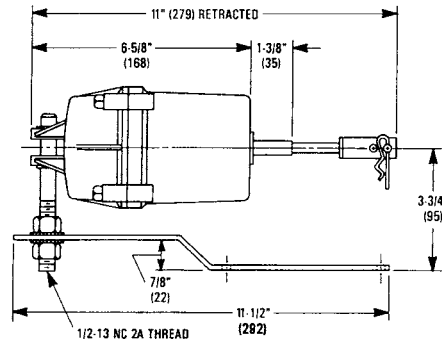
MCP-1030



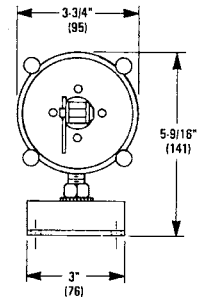
All dimensions are in inches (mm)

⚠ 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.



MCP-1130



Accessories/Replacement Parts

NOTE: For "bare" MCP-03xx actuators without linkage, see below.

CMC-1001	Non-metallic positive positioner
MCP-0302	3–12 psi act. for MCP-1030 series
MCP-0303	5–10 psi act. for MCP-1030 series
MCP-0305	8–13 psi act. for MCP-1030 series
MCP-0308	4–8 psi act. for MCP-1030 series
MCP-0335	8–13 psi Phoenix actuator
MCP-0352	3–12 psi act. for MCP-1130 series
MCP-0353	5–10 psi act. for MCP-1130 series
MCP-0355	8–13 psi act. for MCP-1130 series
MCP-0356	10–15 psi act. for MCP-1130 series
MCP-0358	4–8 psi act. for MCP-1130 series
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 for 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	Offset bracket, used with VTD-0904 for post-mounting of all 3" and 4" actuators

VTD-1100	1/4" clevis pin, post mount
VTD-1205	Hairpin cotter, post mount
VTD-1414	3-hole crank arm, 3/8" shafts
VTD-1415	3-hole crank arm, 1/2" shafts
VTD-1500	Positioner feedback arm
VTD-1634	Push rod, 5/16" X 3-1/4"
VTD-1809	Actuator mounting bolt
VTD-1920	1/2-13 hex nut used on VTD-0904 post
VTD-2101	1/2" ID lock washer used on VTD-0904 post
VTD-2250	5# feedback spring; CMC-1001
VTD-2254	5# feedback spring; CMC-1002
VTD-2260	10# feedback spring; CMC-1001
VTD-2264	10# feedback spring; CMC-1002
VTD-9423	Replacement actuator diaphragm

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