

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)
- 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*

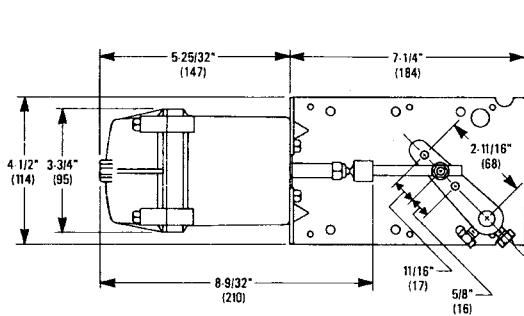
0 to 20 psi (138 kPa) operating
30 psi (207 kPa) maximum
(see the Note under the Temperature Limits section)

Temperature Limits (Actuator Only)*

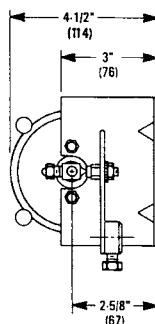
Operating	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

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

Details



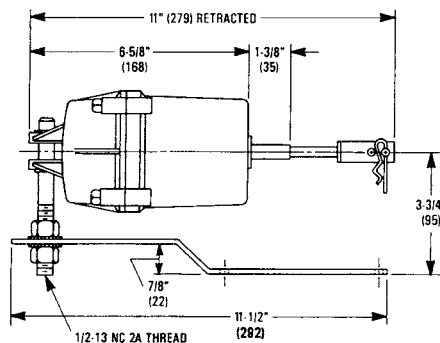
MCP-1030



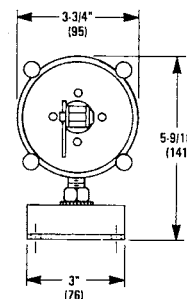
All dimensions are in inches (mm)

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-1007	Clevis
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-1601	Extension, 1/4"-20
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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