

Description

These 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 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.



(Clevis and Post Mount Shown)



(Crank Arm and Right Angle Mount Shown)

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. 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: Metallic, positive positioner (CMC-1002)

"ZZZ" Bracket/Linkage

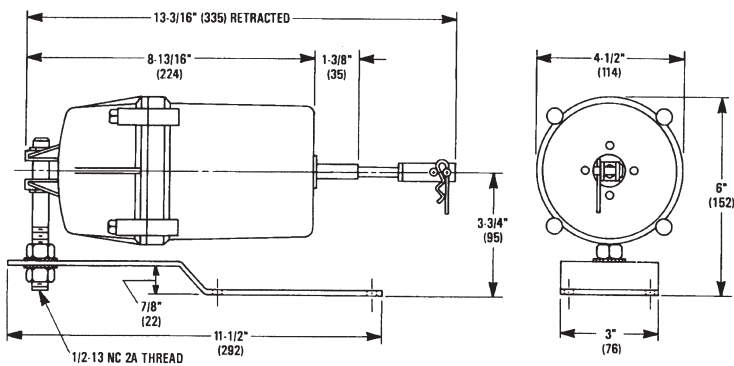
- 520: MCP-1140 with clevis
- 208: MCP-1040 with ball joint
- 211: MCP-1040 with 1/2" crank arm
- 212: MCP-1040 with 3/8" crank arm

Accessories/Replacement Parts

CMC-1001	Non-metallic positive positioner
CMC-1002	Metal positive positioner
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-0406	10–15 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-0456	10–15 psi act. for MCP-1140 series
MCP-0458	4–8 psi act. for MCP-1140 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 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	Offset bracket, used with VTD-0904 for post-mounting of all 3" and 4" actuators

(Accessories and Replacement Parts continued on next page)

Details

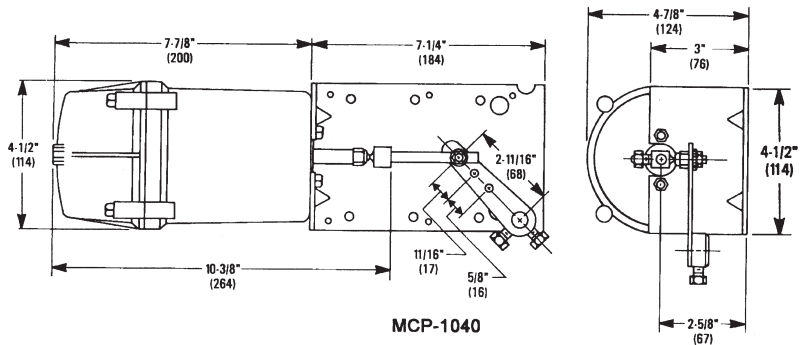


MCP-1140

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-1040

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 lbs. (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

0–20 psig (138 kPa) operating
30 psig (207 kPa) maximum

See note under Temperature Limits

Temperature Limits

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

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

Accessories (Continued)

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-1920	1/2-13 hex nut used on VTD-0904 post
VTD-2101	1/2" ID lock washer used on VTD-0904 post
VTD-2251	5# feedback spring; CMC-1001
VTD-2253	5# feedback spring; CMC-1002
VTD-2261	10# feedback spring; CMC-1001
VTD-2263	10# feedback spring; CMC-1002
VTD-9424	Replacement actuator diaphragm