

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.

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

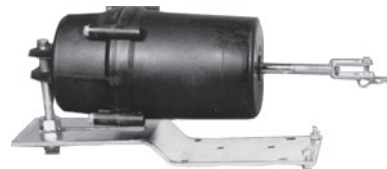
- 0: Right angle mount
- 1: Post mount

"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)
- 6: 10 to 15 psi; 220/110 in-lb. (69 to 103 kPa; 25/12 N•m)
- 8: 4 to 8 psi; 88/264 in-lb. (28 to 55 kPa; 10/19 N•m)

"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



(Clevis
and Post
Mount
Shown)



Still... Made in the U.S.A.



(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-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

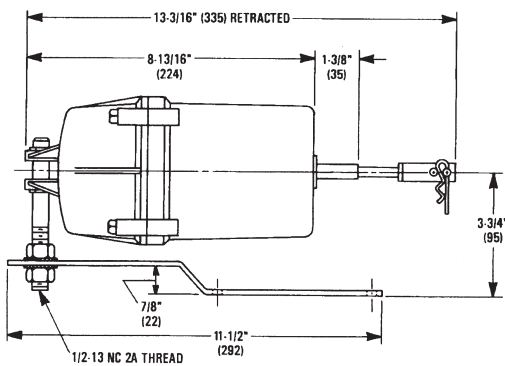
0–20 psi (138 kPa) operating
30 psi (207 kPa) maximum
(see note under Temperature Limits)

Temperature Limits

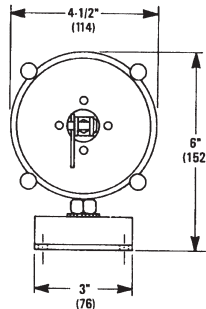
Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

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

Details



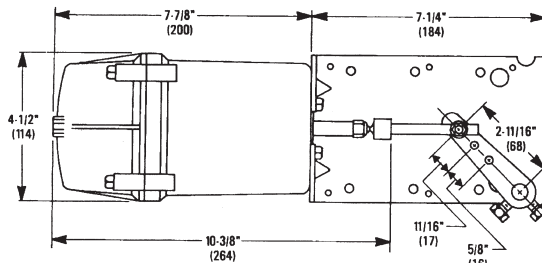
MCP-1140



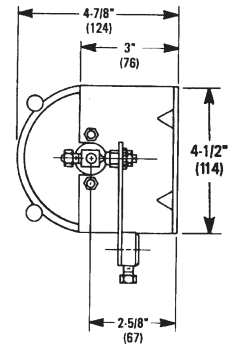
All dimensions are in inches (mm)

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



Accessories/Replacement Parts

CMC-1001	Non-metallic positive positioner	VTD-1100	1/4" clevis pin, post mount
MCP-0402	3-12 psi act. for MCP-1040 series	VTD-1205	Hairpin cotter, post mount
MCP-0403	5-10 psi act. for MCP-1040 series	VTD-1414	3-hole crank arm, 3/8" shafts
MCP-0405	8-13 psi act. for MCP-1040 series	VTD-1415	3-hole crank arm, 1/2" shafts
MCP-0408	4-8 psi act. for MCP-1040 series	VTD-1500	Positioner feedback arm
MCP-0435	8-13 psi Phoenix actuator	VTD-1634	Push rod, 5/16" X 3-1/4"
MCP-0452	3-12 psi act. for MCP-1140 series	VTD-1920	1/2-13 hex nut used on VTD-0904 post
MCP-0453	5-10 psi act. for MCP-1140 series	VTD-2101	1/2" ID lock washer used on VTD-0904 post
MCP-0455	8-13 psi act. for MCP-1140 series	VTD-2251	5# feedback spring; CMC-1001
MCP-0456	10-15 psi act. for MCP-1140 series	VTD-2253	5# feedback spring; CMC-1002
MCP-0458	4-8 psi act. for MCP-1140 series	VTD-2261	10# feedback spring; CMC-1001
VTD-0803	Ball joint, 1/4-20 male x 5/16-24" female for end of actuator shafts	VTD-2263	10# feedback spring; CMC-1002
VTD-0804	Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms	VTD-9424	Replacement actuator diaphragm
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		

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