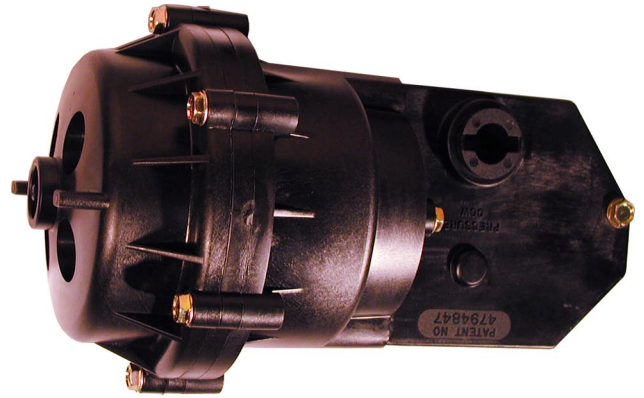


Description and Application

These pneumatic rotary actuators are designed for use on VAV terminal units and other small dampers in HVAC systems.

Models ending in "000" will mount to 1/2-inch diameter damper shafts or (using the HLO-1011 shaft adapter) to 3/8-inch diameter shafts. Models ending with a "001" will mount to 3/8-inch square damper shafts.

Actuators may be mounted with either side toward damper to allow clockwise or counterclockwise rotation. A non-rotation bracket is supplied with each actuator and a variety of options are available to lock the actuator's drive hub to the damper shaft.



Features

- ◆ Mounts on 1/2-inch and 3/8-inch round or 3/8-inch square shafts.
- ◆ Units can rotate clockwise or counterclockwise
- ◆ Variety of options for securing the hub and damper shaft

Models

The following models are available:

Actuators for 1/2-inch or 3/8-inch diameter shafts

| | |
|---------------|----------------------------------|
| MCP-3631-2000 | 3 to 12 psi range (21 to 83 kPa) |
| MCP-3631-3000 | 5 to 10 psi range (34 to 69 kPa) |
| MCP-3631-5000 | 8 to 13 psi range (55 to 90 kPa) |
| MCP-3631-8000 | 3 to 8 psi range (21 to 55 kPa) |

Actuators for 3/8-inch square shafts

| | |
|---------------|----------------------------------|
| MCP-3631-3001 | 5 to 10 psi range (34 to 69 kPa) |
| MCP-3631-5001 | 8 to 13 psi range (55 to 90 kPa) |
| MCP-3631-8001 | 3 to 8 psi range (21 to 55 kPa) |

Accessories and Replacement Parts

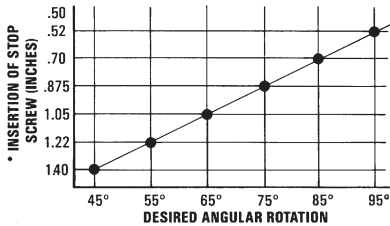
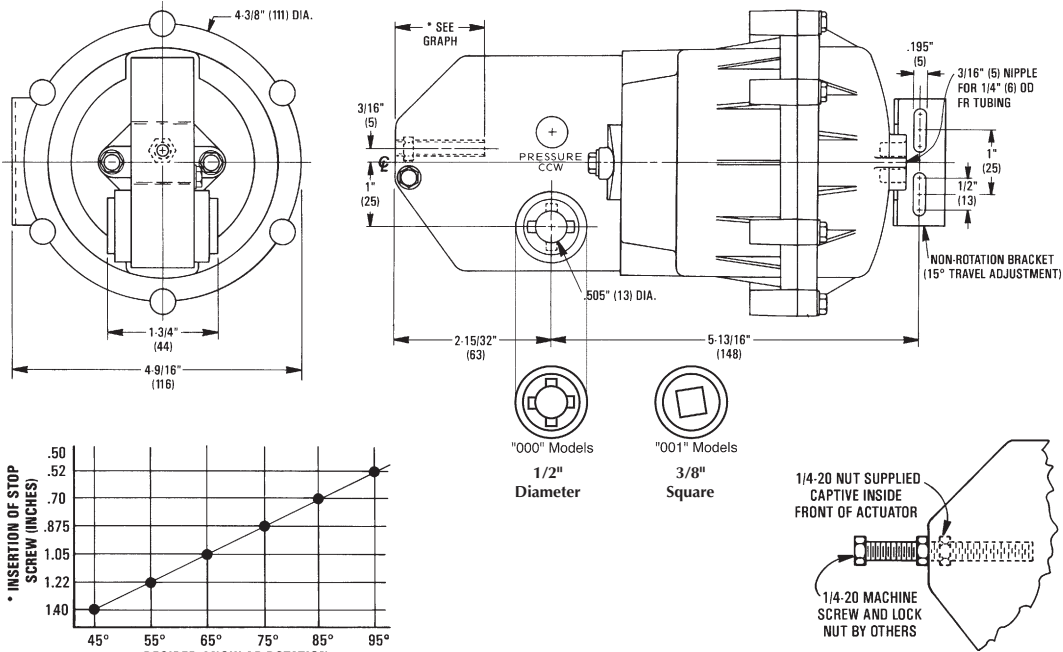
| | |
|----------|---|
| HLO-1004 | Drive bushing/collar, 1/2" shaft |
| HLO-1006 | Drive bushing, 1/2" round or 3/8" square shaft |
| HLO-1008 | Drive pin |
| HLO-1009 | Push-on shaft retainer |
| HLO-1011 | Adaptor for 3/8" shaft |
| HLO-1016 | Collar for 1/2" round or 3/8" square shaft |
| HMO-1003 | Non-rotation bracket |
| HPO-0038 | Replacement diaphragm |
| HFO-0118 | Gauge T, brass, 1/4" barbs to female pipe thread |
| ICI-1005 | 2" pressure gauge, 0–30 PSI (0–2 Bar), back-connected, 1/8" MPT |

▲ 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.

Dimensions

All dimensions in inches (mm)



| Damper Type | Up to 1000 FPM | 1000 to 2500 FPM | 2500 to 3000 FPM |
|-------------------------------|------------------|---------------------|-------------------|
| Opposed blades without seals | 3 in-lb / sq.-ft | 4.5 in-lb / sq.-ft | 6 in-lb / sq.-ft |
| Parallel blades without seals | 4 in-lb / sq.-ft | 6 in-lb / sq.-ft | 8 in-lb / sq.-ft |
| Opposed blades with seals | 5 in-lb / sq.-ft | 7.5 in-lb / sq.-ft | 10 in-lb / sq.-ft |
| Parallel blades with seals | 7 in-lb / sq.-ft | 10.5 in-lb / sq.-ft | 14 in-lb / sq.-ft |

Specifications

Effective Area 8 sq. in. (52 sq. cm)
Normal Rotation 100°
Supply Pressure 0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum
See note under Temperature Limits.

Temperature Limits

NOTE: If the application requires operation near the maximum temperature and maximum pressure, add a tubing restraint to the actuator connection.

Operating -20° to 180° F (-29° to 82° C)
Shipping -40° to 180° F (-40° to 82° C)
Supply Connection 3/16" (5 mm) fitting for 1/4" (6 mm) OD polyethylene tubing

Spring Range and Retracted/ Extended Torque*

*Based on 0 and 20 psi applied

3 to 12 psi; 25/68 in-lbs. (21 to 83 kPa; 3/8 N•m)
 5 to 10 psi; 42/85 in-lbs. (34 to 69 kPa; 5/10 N•m)
 8 to 13 psi; 68/59 in-lbs. (55 to 90 kPa; 8/7 N•m)
 3 to 8 psi; 25/102 in-lbs. (28 to 55 kPa; 3/12 N•m)

Material

Body Glass-filled nylon
 Diaphragm Neoprene

Weight 1.5 lbs. (0.68 kg)

KMC Controls, Inc.

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