

Description and Application

This compact direct-coupled actuator controls small dampers in HVAC systems that require relatively high rotation speed and low torque. This **three-wire tri-state** actuator is designed for use with **floating** thermostats, controllers, or building automation systems. The actuator can rotate a damper **90° in 30 seconds** (@ 60 Hz). A minimum torque of 10 in.-lb. is available over the 95° angular rotation (with an adjustable end stop).

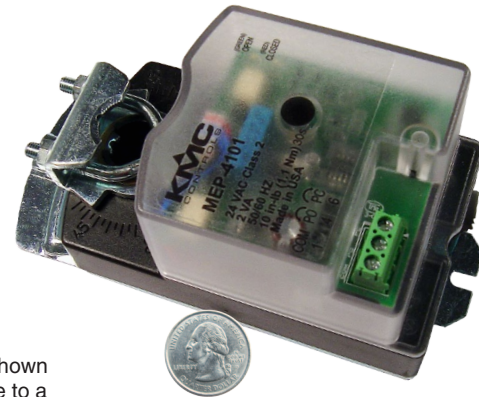
Under the translucent cover, LEDs indicate (energized) open and closed states for position indication and troubleshooting. When the actuator reaches the **end of rotation**, the motor is disengaged, and (after about five seconds) the appropriate **LED indicator illuminates**—green for “power open” (CCW) or red for “power closed” (CW). The LED remains on until:

- ◆ Power to the terminal is simply removed
- ◆ Power is switched to the other terminal, and the actuator starts turning again in the opposite direction

The actuator mounts directly on 1/4 to 5/8 inch (6 to 16 mm) round shafts or 1/4 to 7/16 inch (6 to 11 mm) square shafts, eliminating the need for expensive and complicated linkages. A gear disengagement button allows manual positioning of the actuator.

Features

- ◆ Quick damper opening and closing (30 seconds for 90° rotation @ 60 Hz)
- ◆ Under the translucent cover, LEDs indicate (energized) open and closed states for position indication and troubleshooting
- ◆ Adjustable end stop for min./max. position capability to allow adjustment of the design CFM flow into a zone
- ◆ Direct mounting to standard shaft sizes
- ◆ Gear disengagement button for easy set-up



(Size Shown Relative to a Quarter)

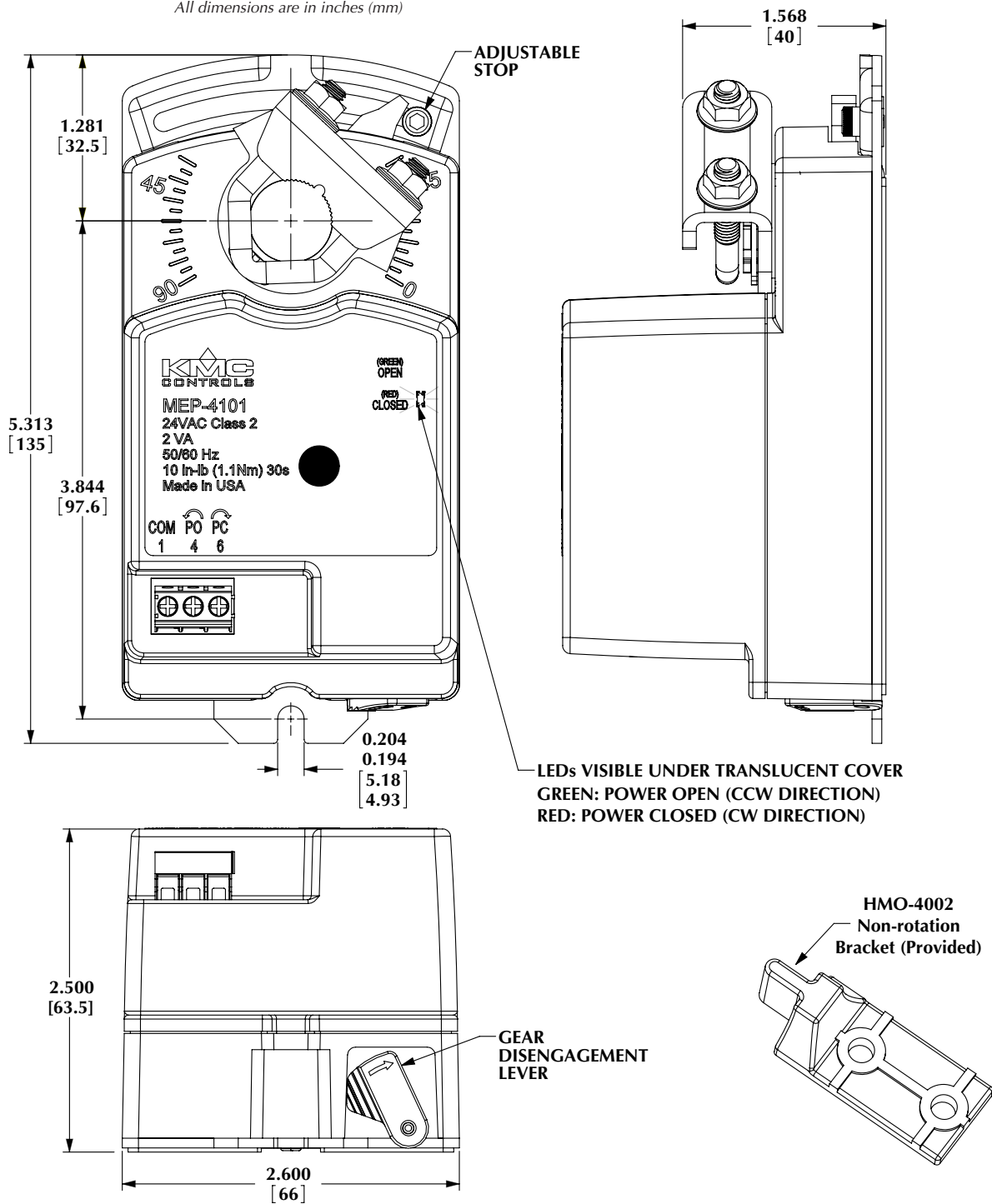


Specifications

Supply Voltage	24 VAC (+20%/–15%), Class 2
Supply Power	2 VA
Control Signal	Tri-state, 24 VAC
Frequency	50/60 Hz
Angular Rotation	0 to 95°, fully adjustable with mechanical stop
Motor Timing	30 seconds for 90° @ 60 Hz; 36 seconds for 90° @ 50 Hz
Torque	10 in.-lb. (1.1 N•m)
Mounting	Direct on 1/4 to 5/8 inch (6 to 16 mm) round or 1/4 to 7/16 inch (6 to 11 mm) square shaft by adjustable “V” bolt; minimum recommended damper shaft length is 1-5/8 inches
Connections	Wire clamp type; 14 to 22 AWG, copper
Dimensions	5.3 x 2.6 x 2.5 inches (135 x 66 x 63.5 mm)
Weight	1 lb. (0.45 kg)
Enclosure	Flame-retardant plastic black base and translucent cover
Noise Level	< 35 dBA max. at 1 meter
Approvals	SASO PCP Registration KSA R-103260
Environmental Limits	
Operating	–22 to 140° F (–30 to 60° C)
Shipping	–40 to 176° F (–40 to 80° C)
Humidity	5 to 95% RH (non-condensing)

Details

All dimensions are in inches (mm)



Accessories

HCO-1151	Weather shield kit
HMO-4001	Non-rotation "T" bracket
HMO-4002	Replacement non-rotation bracket

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