

Description and Application

These compact but powerful direct-coupled Control-Set[®] actuators provide fast and accurate (three-wire) tri-state floating or two-position control for dampers or valves in HVAC systems. A minimum torque of 25 (MEP-4201), 45 (MEP-4501), or 90 (MEP-4901) in.-lb. is available over the 95° angular rotation in 35 seconds or less (or 45 seconds for the MEP-4901).

These non-fail-safe models are designed for use with floating thermostats or controllers or for two-position control. A patented noise reducer provides whisper-quiet operation.

All actuators mount directly to 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 non-rotation bracket, to prevent lateral movement, is included with each actuator. A gear disengagement button allows easy manual positioning of the actuator.

Features

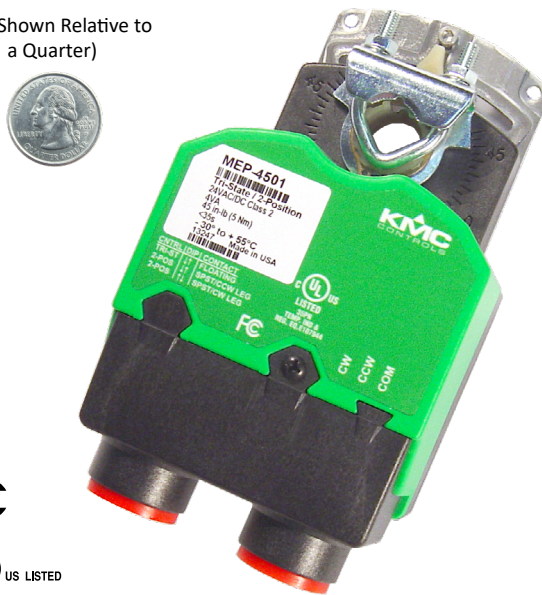
- ◆ Fast rotation—less than 35 seconds for 90° with 25 or 45 in.-lb. of torque or less than 45 seconds with 90 in.-lb. torque (see the Models section)
- ◆ Tri-state floating or two-position control (three-wire, dependent on wiring and switch configuration)
- ◆ Direct mounting to standard shaft sizes, gear disengagement button, and adjustable mechanical end stop
- ◆ A patented noise reducer provides whisper-quiet operation

Models

Model Number	Torque	Running Time (seconds/90°)
MEP-4201	25 in.-lbs. (2.82 N•m)	<35
MEP-4501	45 in.-lbs. (5 N•m)	<35
MEP-4901	90 in.-lbs. (10 N•m)	<45

NOTE: For similar actuators with **fail-safe**, see the [MEP-4200/4500/4900 Series Data Sheet](#). For **slower** (90 seconds) rotation actuators, see the MEP-4001 or MEP-4801 on the [MEP-4000/4800 Series Data Sheet](#).

(Size Shown Relative to a Quarter)



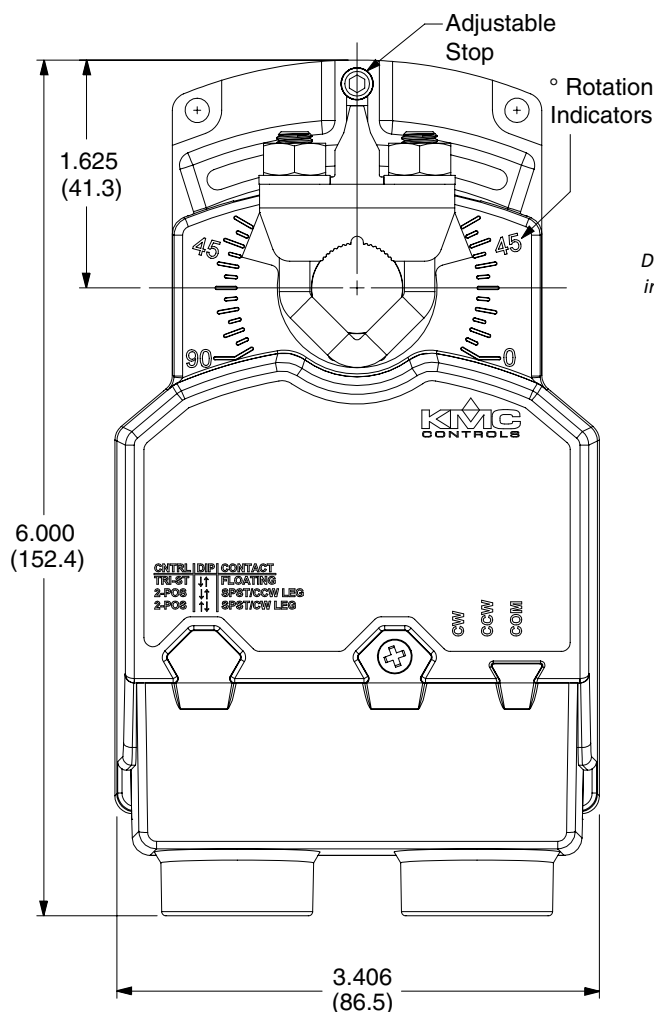
Specifications

Supply Voltage	24 VDC/VAC (+20%/–15%), Class 2 only
Supply Power	4 VA
Supply Frequency	50/60 Hz for VAC operation
Control Signal	Tri-state/two-position (three-wire), 24 VAC/VDC
Angular Rotation	0 to 95°, fully adjustable with mechanical stop
Running Time	(See the Models section)
Torque	(See the Models section)
Noise Level	< 45 dBA max. at 1 meter
Mounting	Direct to 1/4 to 5/8 inches (6 to 16 mm) round or 1/4 to 7/16 inches (6 to 11 mm) square shaft by adjustable “V” bolt and supplied non-rotation bracket; minimum recommended damper shaft length is 1-5/8 inches
Brackets	Non-rotation bracket HMO-4001 (supplied with MEP-4901) or HMO-4002 (supplied with MEP-4201 and MEP-4501); HPO-5073 or HPO-5074 required for mounting to valves

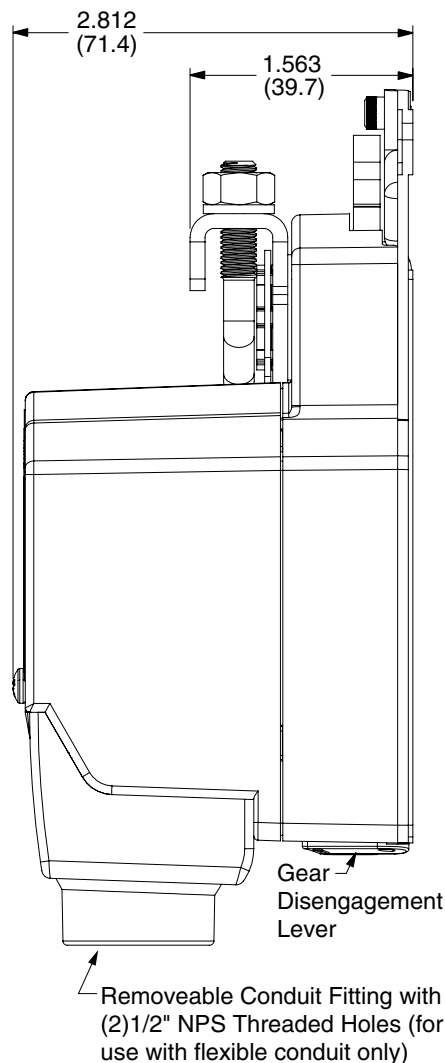
Connections	Fixed wire clamp type terminal block, 12–26 AWG, copper
Dimensions	6.000 x 2.812 x 3.406 inches (152.4 x 71.4 x 86.5 mm)
Weight	1.1 lb. (0.5 kg)
Enclosure	Flame retardant polymer, NEMA 2 and IP54 (to guarantee IP54, install an HMO-4521 liquid-tight cord grip in conduit fitting or an HPO-4051 assembled wiring kit)

Approvals	UL 873 Temperature Indicating and Regulating Equipment; FCC Class B, Part 15, Subpart B and complies with Canadian ICES-003 Class B
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Environmental Limits	
Operating	–22 to 131° F (–30 to 55° C)
Shipping	–40 to 176° F (–40 to 80° C)
Humidity	5 to 95% RH (non-condensing)



Dimensions are in inches (mm)



Accessories and More Information

For **mounting** and **wiring** information, see the [MEP-4201/4501/4901 Installation Guide](#).

For **accessories**, **troubleshooting**, **torque selection**, links to **sample applications**, and other information, see the [MEP-4xxx Applications Guide](#).

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