

Description

The compact but powerful MEP-4000/4800 series direct-coupled actuators provide tri-state or proportional control for small dampers or valves in HVAC systems. A minimum torque of 40 (MEP-40xx) or 80 (MEP-48xx) in-lbs. is available over the 95° angular rotation.

The MEP-4002/4022/4802/4822 **proportional** actuator models accept a 0–10 volts DC control signal input from a thermostat, controller, or building automation system. A user-initiated, **auto-mapping feature** provides better equipment control by reassigning the 0–10 volts DC input signal range over a reduced rotation range (from 45° to 95°). These models also feature a switch-selectable, 0–5 or 0–10 volts DC **voltage feedback output** that is proportional to the actuator position.

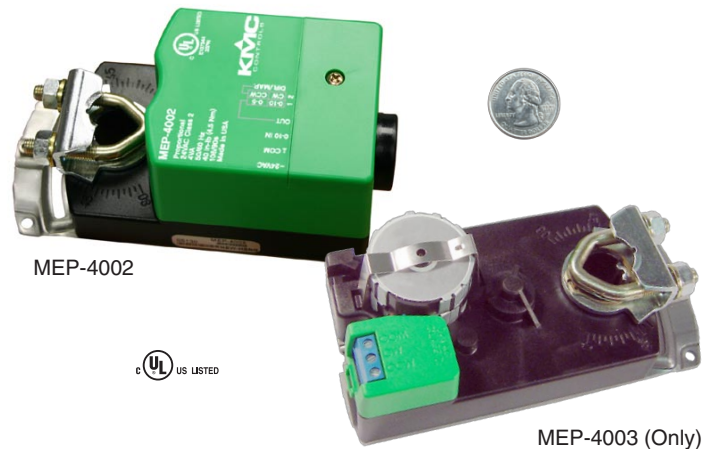
The MEP-4001/4003/4013/4021/4801/4813/4821 **tri-state** models are designed for use with **floating** thermostats, controllers, or building automation systems. The MEP-4013/4813 models feature a 10,000 ohm (+/- 10%), three-wire **potentiometer feedback output**. (Functionally like the MEP-4001, the MEP-4003 does not have the larger green top enclosure.)

The MEP-4021/4022/4821/4822 models also have a fully adjustable, built-in SPDT **auxiliary switch**, for remote position indication or controller and equipment interface.

All the 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 manual positioning of the actuator.

Accessories

HMO-4001	Non-rotation “T” bracket
HMO-4002	Replacement non-rotation bracket (included with actuator)
HLO-4001	Crank arm kit
HCO-1151	Weather shield kit



MEP-4002

MEP-4003 (Only)

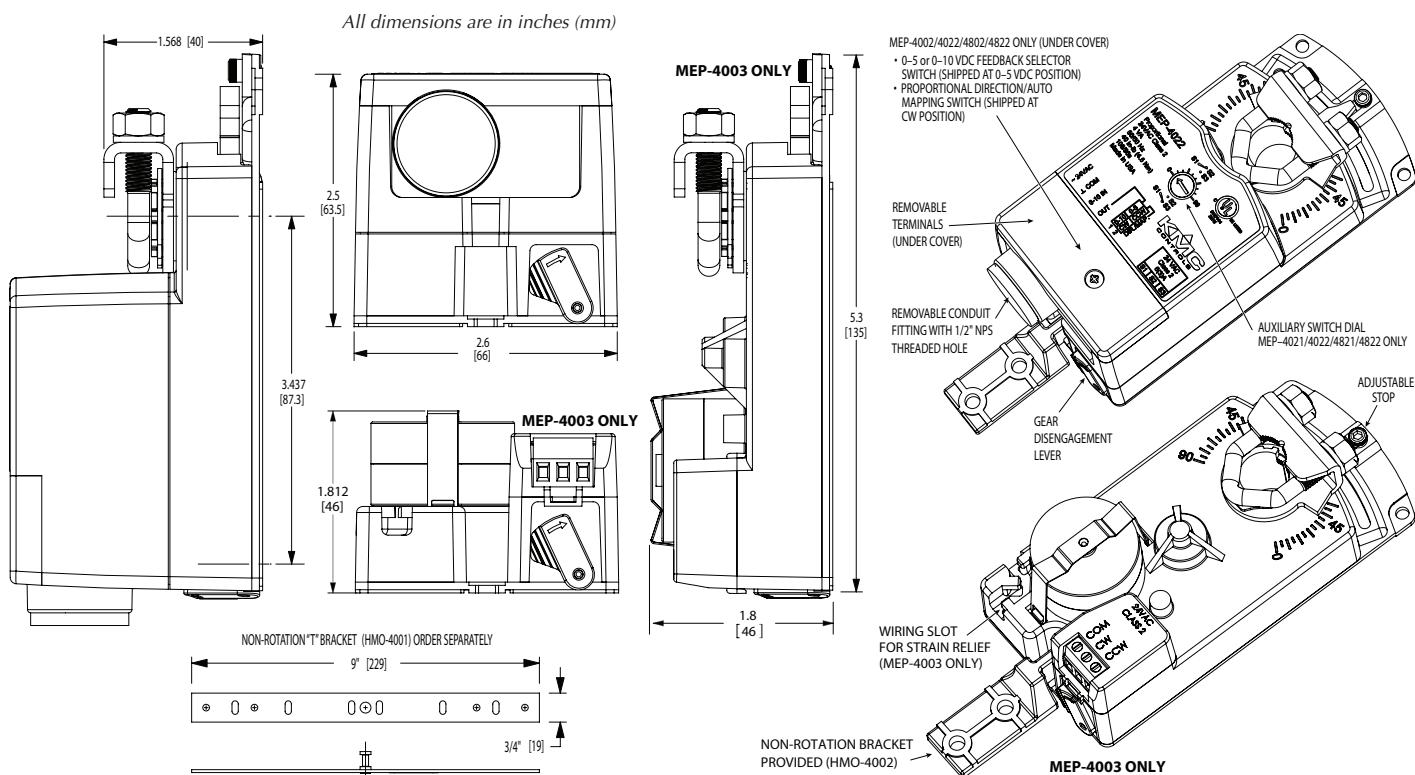
Features

- ◆ Tri-state or proportional control
- ◆ Auto-mapping of the full input signal range over a reduced actuator stroke on proportional models
- ◆ Switch-selectable feedback on selected models
- ◆ Fully adjustable, built-in auxiliary switch on selected models
- ◆ Removable terminals and removable 1/2-inch NPS conduit fitting (except the MEP-4003)
- ◆ Direct mounting to standard shaft sizes
- ◆ Gear disengagement button and adjustable mechanical end stop

Models

Model Number MEP-	Torque		Control		Built-in Options		
	40 in-lbs. min. (4.5 N•m)	80 in-lbs. min. (9 N•m)	Tri-state (Floating)	0 to 10 VDC Proportional	Feedback: 10k ohm Potentiometer	Feedback: 0–5 or 0–10 VDC	Auxiliary Switch (Adjustable, SPDT)
4001	X		X				
4002	X			X		X	
4003*	X		X	*See Description section			
4013	X		X		X		
4021	X		X				X
4022	X			X		X	X
4801		X	X				
4802		X		X		X	
4813		X	X		X		
4821		X	X				X
4822		X		X		X	X

Details



Specifications

Supply Voltage	24 VAC, +20%/–15%	Connections	Wire clamp type; 14 to 22 AWG, copper
Supply Power	Tri-state, 2 VA Proportional, 4 VA	Dimensions	
Control Signal	Tri-state, 24 VAC Proportional, 0 to 10 VDC	MEP-4003	5.3 x 2.6 x 1.8 inches (135 x 66 x 46 mm)
Frequency	50/60 Hz	All others	5.3 x 2.6 x 2.5 inches (135 x 66 x 63.5 mm)
Feedback Output		Weight	1.1 lb. (0.50 kg)
Tri-state	10K ohm ±10% (on select models)	Enclosure	Flame-retardant polymer
Proportional	0 to 5 VDC or 0 to 10 VDC (switch selectable)	Noise Level	< 35 dBA max. at 1 meter
Auxiliary Switch	Adjustable 0 to 95°, SPDT 6 A resistive load (3 A motor load) @ 24 VAC (on select models)	Approvals	UL, FCC (pending on MEP-4003)
Angular Rotation	0 to 95°; fully adjustable with mechanical stop	Environmental Limits	
Motor Timing	90 seconds for 90° @ 60 Hz 108 seconds for 90° @ 50 Hz	Operating	–22 to 131° F (–30 to 55° C)
Torque	(MEP-40xx) 40 in-lbs. (4.5 N•m) (MEP-48xx) 80 in-lbs. (9 N•m)	Shipping	–40 to 176° F (–40 to 80° C)
Mounting	Direct to 1/4 to 5/8 inches (6–16 mm) round or 1/4 to 7/16 inches (6–11 mm) square shaft by adjust- able “V” bolt and non-rotational bracket HMO-4002 (supplied); minimum recommended damper shaft length is 1-5/8 inches	Humidity	5 to 95% RH (non-condensing)

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