

# Direct Coupled, Fail-Safe, ControlSet® Actuators (50 in-lbs.)

# **Description and Application**

These KMC ControlSet® actuators are designed to control small dampers, such as air terminal unit dampers, or certain KMC VEB/VEP/VEG/VEV series valves. A minimum of 50 in-lbs. of torque is provided over the maximum angular rotation of 95°. The actuators mount directly to a 1/2" or 3/8" diameter shaft, eliminating the need for expensive and complicated linkages. Mounting to a 3/8" diameter shaft requires the HFO-0011 shaft adaptor (ordered separately). Capacitor-driven fail-safe provides efficient operation with switch-selectable fail direction.

MEP-5372 **proportional** actuators may be controlled via a 2–10 VDC control signal from a thermostat, controller, or building automation system. Actuators are factory-calibrated for a 2–10 VDC input signal (or 4–20 mA with an external 500 ohm resistor) and 95° clockwise rotation. Counterclockwise rotation is obtained by simply toggling a switch. A 1–5 VDC feedback voltage output, proportional to the control signal, is provided. This feedback can be used for remote indication of damper position. An 18 VDC auxiliary power supply output is provided to power CTE-5100 series thermostats or other control devices.

MEP-5373/5374 **tri-state** models are for use with **floating** thermostats, controllers, or building automation systems. (They can also be wired for 2-position operation.) The MEP-5374 features a 10K ohm (±10%), three-wire potentiometer feedback output.

Minimum and maximum end stops are standard to limit rotation. An HMO-1003 non-rotation bracket, to prevent actuator lateral movement, is included. A gear disengagement button allows manual positioning of the damper and/or gear train without energizing the actuator. An optional single or double auxiliary switch can be field-installed.

### Models I

MEP-5372	2–10 VDC proportional with 1–5 VDC feedback and 18 VDC auxiliary power supply output
MEP-5373	Tri-state (no feedback)
MEP-5374	Tri-state with 10,000 ohm feedback potentiometer

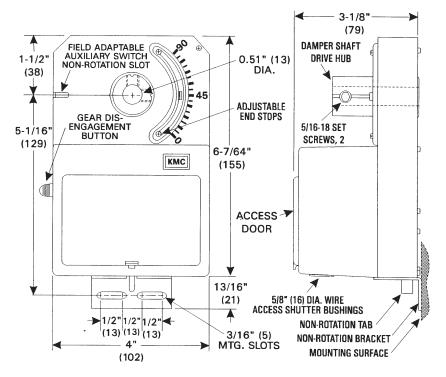


### **Features**

- ◆ Proportional or tri-state inputs
- Efficient, durable, capacitor-driven fail-safe option with switch-selectable direction provides consistent torque in both powered and fail-safe modes
- Direct mounting to standard shaft sizes
- Adjustable end stops
- Gear disengagement button to enable manual positioning
- ◆ Potentiometer or voltage feedback options
- Built-in 18 VDC auxiliary power supply (MEP-5372 only) for CTE-5100 series thermostats or other system control devices

#### Accessories

CME-1002	Single auxiliary switch	
CME-1004	Double auxiliary switch	
HCO-1151	Weather enclosure	
HFO-0011	3/8" shaft adaptor	
HMO-1003	Replacement non-rotation bracket	
HMO-4531	Wide non-rotation bracket	
HMO-4518	Snap-in connector for 1/2" flex- ible metal conduit	
HMO-4520	Compression connector for plenum cable	
HMO-4526	Female connector for 1/2" conduit	



DAMPER TYPE	Up to 1000 FPM	1000 to 2500 FPM	2500 to 3000 FPM
Opposed Blade without seals	3 inlb. / sqft	4.5 inlb. / sqft	6 inlb. / sqft
Parallel Blade without seals	4 inlb. / sqft	6.0 inlb. / sqft	8 inlb. / sqft
Opposed Blade with seals	5 inlb. / sqft	7.5 inlb. / sqft	10 inlb. / sqft
Parallel Blade with seals	7 inlb. / sqft	10.5 inlb. / sqft	14 inlb. / sqft

## **Specifications**

Supply Voltage Class 2, 24 VAC (+20/-15%) **Motor Timing** 

50/60 Hz, or 22-35 VDC

**Supply Power** 6 VA, 19 VA peak inrush

**Control Input** 

Tri-state (See Supply Voltage)\*

Proportional 2-10 VDC

Feedback 1-5 VDC in MEP-5372, 10K

ohm, 1/3 W, pot. in MEP-5374

**Auxiliary Power Supply** 

MEP-5372 Only 18 VDC @ 10 mA

Fail Safe

Switch selectable Direction

One minute delay allows Charge/Delay

full charge before normal

operation

35-50 seconds, load Timing

dependent, for 95° rotation

50 in-lbs. (5.7 N•m) minimum **Torque** 

**Angular Rotation** 0-95°, stop adjustable, both

ends

45-60 seconds, load

dependent for 95° rotation

**Connections** Wire clamp type; 14–22 AWG,

copper

Weight 2.5 lbs. (1.1 kg)

**Enclosure** Flame-retardant plastic

Approvals **UL** Recognized

**Temperature** 

Operating 0 to 120° F (-18 to 49° C) -40 to 140° F (-40 to 60° C) Shipping

\*NOTE: Tri-state MEP-5373/5374 models can also be

wired for 2-position operation.

### KMC Controls, Inc.

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