



Unsurpassed Value for Air
and Hydronic Applications

Tools for a Variety of Needs

From palm-sized-but-powerful 40 or 80 in-lbs to a tremendous 320 in-lbs. of actuator torque, KMC ControlSet® actuators precisely and efficiently control the most demanding applications. These actuators were designed to provide continual, dependable control of air dampers and valves in building automation systems.

First with the Best

KMC Controls, an ISO-9001 registered company, is the only privately held manufacturer of a full line of HVAC and building automation controls in the United States. KMC's line of ControlSet direct coupled damper and valve actuators were the first in the industry to carry a full 5-year warranty. These actuators are designed to rigorous performance criteria and manufactured in the U.S.A. to the industry's most exacting quality control standards, and, as a result, they perform perfectly day in and day out. Few manufacturers offer this kind of performance because KMC's commitment to extreme quality production standards is unmatched.



In test fixtures, under load, MEP-4000 actuators have exceeded 150,000 cycles of operation

To give ControlSet actuators a warranty for the long-term, KMC instituted the most exacting quality control program in the industry. The key elements in this program include:

- **Demanding production standards**—Every KMC production employee goes through comprehensive quality control training and periodic retraining to assure that quality procedures do not drift from standard.
- **Increased supplier expectations**—Evaluated on every shipment, KMC's vendors must live up to the toughest quality code in the industry.
- **Zeroing in on zero defects**—Every KMC actuator made is functionally tested during the production process. Sample units in each production run are fully examined to ensure complete quality standard compliance. The total quality control process is so effective that KMC consistently records near zero-ppm-defects in every product line.



Still . . . Made in the U.S.A.



Advanced Actuator Features & Models

ControlSet Actuators are available in different torque ratings from 40 to 320 inch-pounds to satisfy almost any damper or valve requirements. Every ControlSet actuator directly couples to damper and valve shafts. Linkage kits, however, are also available. Models are available in tri-state (3-wire floating) or proportional control (0–10 VDC, 2–10 VDC, and/or 4–20 mA).

In addition, MEP-537x and MEP-7x5x models have a fail-safe feature that will drive the actuator to the fail-safe position during a loss of power to the actuator. Capacitor-driven fail-safe models provide switch-selectable direction and (because extra motor torque to overcome spring resistance on every cycle is not needed) higher energy efficiency over spring-return actuators. Because springs typically break after about 50–60K cycles, capacitor-driven actuators can last three times longer. Also, spring returns drive much faster during fail-safe mode, potentially damaging equipment, but capacitor-driven actuators provide consistent torque during fail-safe as well as powered modes. In addition, fail-safe tri-state actuators can be wired for two-position operation if desired.

ControlSet actuator installation couldn't be easier. Slide the actuator over the shaft, position and lock it, screw down the anti-rotation bracket, and wire the terminals. Setup for proportional models is a switch for CW or CCW rotation for an increase in control signal voltage. Setup for fail-safe models is another switch for CW or CCW rotation during a power loss. It's that simple. All models also have a gear disengagement feature to assist in setup or checkup.

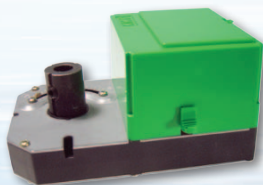
Model Series	Torque	Applications
MEP-4000	40 in-lbs. (4.5 N•m)	Smaller Valves, Dampers, & VAV Terminal Units
MEP-4800	80 in-lbs. (9 N•m)	
MEP-5000	50 in-lbs. (5.7 N•m)	
MEP-7200	120 in-lbs. (13.5 N•m)	Large Valves & Dampers
MEP-7500	180 in-lbs. (20 N•m)	
MEP-7800	320 in-lbs. (36 N•m)	



MEP-4001

MEP-4000/4800 Series actuators are designed to regulate smaller control air dampers, VAV terminal units, and valves.

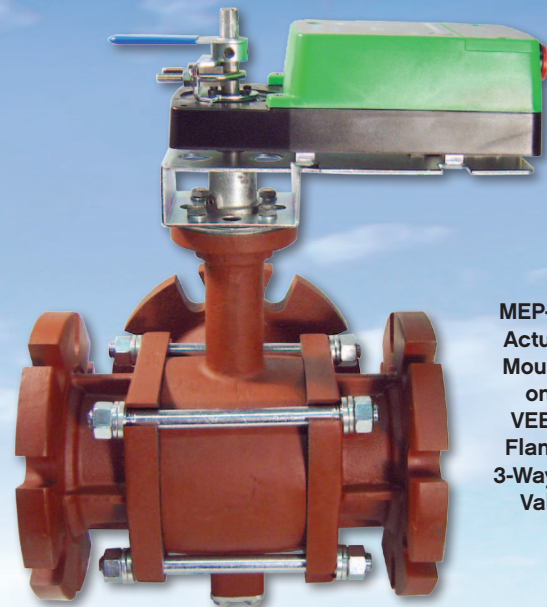
- Despite their compact size, these direct-coupled actuators provide a minimum torque of 40 or 80 inch-pounds (available over its 95° angular rotation), making them ideal for places where space is at a premium.
- Proportional models accept a 0–10 VDC control signal input from a thermostat or controller. “Anti-jitter” circuitry significantly reduces hunting and needless wear on the actuator and valve packing or damper components (from unnecessary miniscule position changes caused by undamped analog input signals). A user-initiated, auto-mapping feature provides more precise equipment control by reassigning the input signal range over the desired reduced rotation range (from 45 to 95°). A 0–5 or 0–10 VDC (switch-selectable) feedback voltage output is proportional to the actuator position.
- Tri-state models are designed for use with floating thermostats or controllers.
- A fully adjustable built-in auxiliary switch, for remote position indication or controller and equipment interface, is available on selected models.



MEP-5372

MEP-5000 Series 50 inch-pound actuators are also designed to regulate smaller dampers, terminal units, and valves with fail-safe or non-fail-safe operation.

- The 2–10 VDC proportional models have a 1–5 VDC feedback voltage output, proportional to the control signal. This feedback can be used for remote indication of damper position. An 18 VDC auxiliary power supply output is provided to power thermostats or other system control devices.
- Tri-state models have an optional 10K ohm potentiometer for feedback output. Other series options include 10K ohm potentiometer feedback and adjustable single or dual SPDT auxiliary switches that can be field installed on some models.



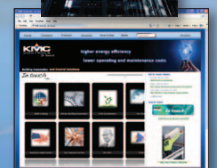
MEP-7201
Actuator
Mounted
on a
VEB-56
Flanged
3-Way Ball
Valve

MEP-7200/7500/7800 Series 120/180/320 inch-pound actuators are designed to regulate large control air dampers as well as ball, globe, and butterfly valves.

- All models have built-in overload protection, eliminating the need for end or limit switches.
- Proportional models accept a 0–10 VDC or 4–20 mA control signal input. These models also have “anti-jitter” circuitry that reduces hunting and needless wear. They also are capable of auto-mapping a reduced angular rotation to the full control signal. Plus, these models also feature 0–5 or 0–10 VDC, switch-selectable, feedback voltage output that is proportional to the actuator position.
- Some tri-state models have a 10K ohm potentiometer feedback output. Tri-state models with fail-safe can optionally be wired for two-position operation.
- Adjustable single or dual SPDT auxiliary switches can also be field-installed on any model.

More Information

- For more information about these actuators, see their respective data sheets. For valve applications, see the **KMC Control Ball Valves Brochure (SB-021)**.
- For more information about KMC Controls, see our **Corporate Capabilities Brochure (SB-052)**.
- All these documents and more can be downloaded from the award-winning **KMC Controls web site (www.kmccontrols.com)**.





19476 Industrial Drive, PO Box 497
New Paris, IN 46553, U.S.A.
Telephone: 877.444.5622 (574.831.5250)
Fax: 574.831.5252
Web: www.kmcccontrols.com
Email: info@kmcccontrols.com

KMC Controls and ControlSet are registered trademarks of KMC Controls, Inc. All other products or name brands mentioned are trademarks of their respective organizations.



This document is printed, using ink that is environmentally friendly, on recycled (30% total recycled fiber) paper.