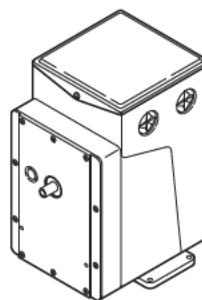


## Two-Position, Non-Spring Return Actuators

This actuator provides two-position operation of dampers or valves in heating, ventilating, and air conditioning systems, and similar applications where return-to-normal position is not required.

**Features:**

- Two-position actuators controlled by SPDT controller.
- Non-spring return.
- 24, 120, and 240 Vac models available.
- SPDT auxiliary switch is standard.
- Rugged die cast aluminum housings.
- Oil immersed motor and gear train.



Model Chart						
Model No.	Input				No Load Timing (sec/180°)	Rated Torque lb-in. (N-m)
	Volts	Hz	Watts	VA Rating		
MC-351	24	60	28	53	70	220 (25)
MC-421	120	60	50	96	20	175 (19)
MC-431	120	60	50	96	30	220 (25)
MC-4311	240	60	50	96	30	220 (25)
MC5-4311 <sup>a</sup>	240	50	50	96	36	220 (25)

<sup>a</sup> No CSA on MC5-4311.

Specifications	
<b>Control Circuit</b>	Three wire, SPDT snap-acting switch provided by a thermostat, pressure switch, or relay.
<b>Shaft Rotation</b>	Unidirectional clockwise 180° when power is applied.
<b>Auxiliary Switch</b>	Adjustable SPDT is standard. Factory set to make (or break) at mid-stroke.
<b>Nominal Damper Ares</b>	Actuator sizing should be done in accordance with damper manufacturer's specifications.
<b>Environment</b>	
<b>Ambient temperature limits</b>	Shipping and storage: -40 to 136°F (-40 to 58°C). Operating: -40 to 136°F (-40 to 58°C).
<b>Humidity</b>	5 to 95% RH, non-condensing.
<b>Locations</b>	NEMA Type 1. NEMA 4 with AM-363.
<b>Connections</b>	Coded screw terminals.
<b>Case</b>	Die cast aluminum with two 1/2 in. conduit knock-outs on each side.
<b>Mounting</b>	Allow 6 in. (152 mm) clearance above the actuator wiring compartment.
<b>Dampers</b>	Any position.
<b>Valves</b>	In any upright position with actuator above the center line of the valve body.
<b>Dimensions</b>	7 H x 5-3/8 W x 6-5/16 D in. (178 x 137 x 160 mm).
<b>Options</b>	Hazardous locations: specify MC6-431, MC6-4311 (60 Hz), MC7-4311 (50 Hz).
<b>General Instructions</b>	Refer to F-08366.

**Adjustable Auxiliary Switch SPDT Rating Amps.**

Type	120 V	240 V
Running	5.8	2.9
Locked Rotor	34.8	17.4
Non-Inductive	12.0	6.0

**Accessories**

Model No.	Description
<b>Damper linkage accessories</b>	
AM-111	Crank arm for 5/16 in. (7.9 mm) diameter damper shaft.
AM-112	Crank arm for 3/8 in. (9.5 mm) diameter damper shaft.
AM-113	Crank arm for actuator or 1/2 in. (12.7 mm) diameter damper shaft.
AM-115	Crank arm for 7/16 in. (11.1 mm) diameter damper shaft.
AM-116	Splined crank arm for actuator.
AM-122	Linkage connector straight type.
AM-123	Damper clip.
AM-125	5/16 in. (7.9 mm) diameter x 20 in. (508 mm) damper rod.
AM-125-048	5/16 in. (7.9 mm) diameter x 48 in. (1,219.2 mm) damper rod.
AM-132	Ball joint connector.
AM-161	Damper linkage kit.
AM-161-1	Damper linkage kit.
AM-301	90 degree mounting bracket.
<b>Miscellaneous actuator accessories</b>	
AM-321	Two step switch kit.
AM-341	Four step switch kit.
AM-363	NEMA 4 gasket kit.
<b>Valve linkage accessories</b>	
AV-30 & AV-300	Valve linkage for 2-1/2 in. & 3 in. VB-9323.
AV-352	Valve linkage for 2-1/2 in. to 6 in. VB-9213, 2-1/2 in. through 6 in. VB-9313, 4 in. through 6 in. VB-9323.
AV-393	Valve linkage for 1/2 to 2 in. VB-7xxx and 1/2 in. to 1-1/4 in. discontinued VB-92x3, or VB-93x3.
AV-394	Valve linkage for 1-1/2 in. and 2 in. VB-92X3, or VB-93x3
AV-396	Valve linkage for 2-1/2 in. to 4 in. VB-9213, and VB-9313.

**Typical Applications**

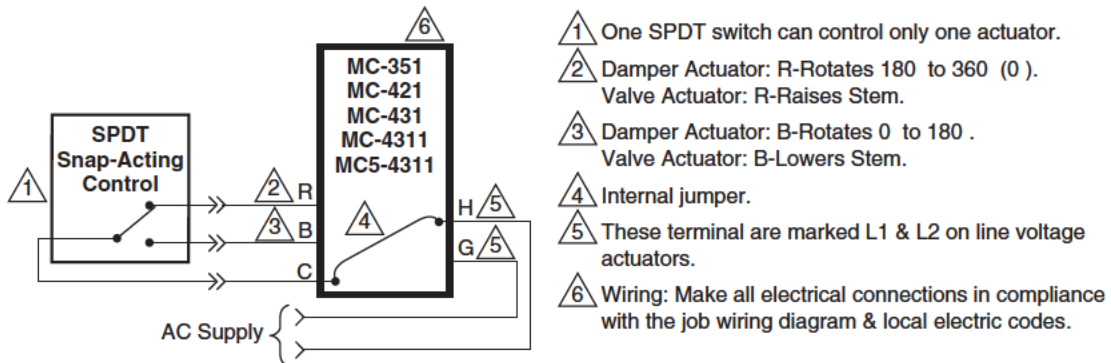


Figure 1 Typical Wiring.