

MA4D-xxxx Series

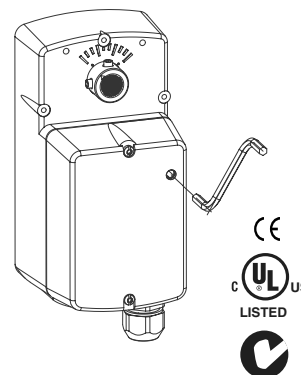
Spring Return EconoDrive™ Two-Position Actuator

EconoDrive overshaft actuators are designed to provide an economical and reliable solution for many overshaft damper and ball valve requirements. All products accommodate shaft sizes up to 1/2 in. (13 mm) in diameter.

Spring return models provide 30 in-lb (3.4 N-m) of torque.

Features:

- Controlled by SPST controller.
- 30 in-lb (3.4 N-m) of torque.
- Polymer housing rated for NEMA 2/IP54.
- Overload protection throughout stroke.
- Compact size to allow installation in limited space.
- Manual override to allow positioning of dampers and valves.
- Directly mounts to 1/2 to 3 in. ball valves.
- Polymer housing rated for plenum use.



Model Chart										
Part No.	Rotation	Control Signal	Voltage	Wiring System	Actuator Power Input				Approximate Timing ^a in Sec. @ 70°F (21°C)	
					Running		Holding			
					50/60 Hz		DC Amps	50/60 Hz	Powered	Spring Return (CCW)
					VA	W		W		
MA4D-7033-100	CCW	2 Position SPST	24 VAC ± 20% or 20-30 Vdc	Plenum Cable	5.1	3.6	0.14	1.3	56	23
MA4D-7030-000			120 Vac ± 10% 50/60 Hz	Appliance Wire	7.8	5.0	--	2.5		
MA4D-7031-000			230 Vac ± 10% 50/60 Hz		7.2	5.2	--	2.4		
MA4D-8033-100	CW	2 Position SPST	24 VAC ± 20% or 20-30 Vdc	Plenum Cable	5.1	3.6	0.14	1.3		
MA4D-8030-000			120 Vac ± 10% 50/60 Hz	Appliance Wire	7.8	5.0	--	2.5		
MA4D-8031-000			230 Vac ± 10% 50/60 Hz		7.2	5.2	--	2.4		

^a Timing is measured with no load applied to actuator.

Specifications

Inputs	
Control signal	Two-Position SPST.
Power	See Model Chart. All 24 Vac circuits are Class 2. All circuits 30 Vac and above are Class 1.
Connections	3 ft (91 cm) appliance or plenum cables, enclosure accepts 1/2 in. (13 mm) conduit connector. For M20 Metric conduit, use AM-756 adapter. 24 Volt models: 10 ft. plenum cable.
Outputs	
Mechanical	Timing: See Model Chart. Travel: 93° nominal. Manual Override: Allows positioning of damper or valve using manual crank.
Environment	
Ambient temperature limits	Shipping and Storage: -40 to 160°F (-40 to 71°C). Operating: -22 to 140°F (-30 to 60°C).
Humidity	15 to 95% RH, non-condensing.
Locations	NEMA 1, NEMA 2, UL Type 2 (IEC IP54) with customer supplied water tight conduit connectors. Enclosure is air plenum rated.
Dimensions	7-7/8 H x 3-1/2 W x 3-1/2 D in. (200 x 89 x 89 mm).
Agency Listings	
UL 873	Underwriters Laboratories (File #E9429 Category Temperature-Indicating and Regulating Equipment).
CUL	UL Listed for use in Canada by Underwriters Laboratories. Canadian Standards C22.2 No. 24-93.
European Community	EMC Directive (89/336/EEC). Low Voltage Directive (72/23/EEC). This product fits in Installation Category (Overvoltage Category) II per EN 61010-1.
Australia	This product meets requirements to bear the C-Tick Mark according to the terms specified by the Communications Authority under the Radiocommunications Act 1992.
General Instructions	Refer to F-27170.

Accessories

Model No.	Description
AM-714	Weathershield kit.
AM-756	Metric conduit adapter M20 x 1.5 to 1/2 in. NPT.
AM-771	Crank arm and bracket kit.
AM-772	Bracket for reverse mounting.

Typical Applications

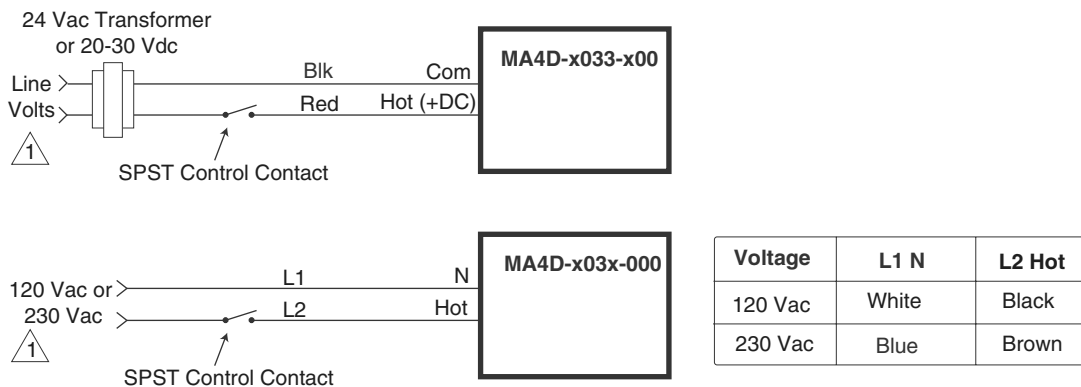


Figure 1 Typical Wiring Diagrams for Two Position Actuators.