



ML4202, ML4302, ML4702, ML4802, ML8202, ML8302

Fast-Acting, Two-Position Actuators FOR FIRE/SMOKE CONTROL APPLICATIONS

The ML4202, ML4302, ML4702, ML4802, ML8202, ML8302 Fast-Acting, Two-Position Actuators are spring return direct coupled actuators (DCA) with an integral junction box for on/off damper control. The actuator accepts an on/off signal from a single-pole, single-throw (spst) controller. Models are available with clockwise (cw) or counterclockwise (ccw) spring return and are designed to operate reliably in smoke control systems requiring Underwriter's Laboratories Inc. UL555S ratings up to 350°F.

SPECIFICATIONS

Models:

Model	Spring Return Direction	Power Consumption		Voltage Input in Vac	Torque ^a in lb-in. (N•m)	
		Running	Holding		Spring Return	Driving
ML4202	cw	0.18A, 18W	0.11A, 9W	120 ±10% 60 Hz	20 (2.2)	20 (2.2)
ML4302	ccw					
ML4702	cw	0.13A, 18W	0.10A, 11W	230 ±10% 50/60 Hz		
ML4802	ccw					
ML8202	cw	16 VA	8 VA	24 +20%, -10% 50/60 Hz		
ML8302	ccw					

^a Torque ratings at rated voltage.

Electrical Connections:

- Two color coded 16 in. leads; includes ground screw.
- Three 7/8 in. holes for conduit connections (fittings not included).

Controller Type:

- ML4202, ML4302: Line voltage (120 Vac), two-position, spst (Series 40).
- ML4702, ML4802: Line voltage (230 Vac), two-position, spst (Series 40).
- ML8202, ML8302: Low voltage (24 Vac), two-position, spst (Series 80).

Device Weight:

- 5 lb (2.3 kg).

Noise Rating (Maximum):

- Driving Open: 65 dBA at 1m.
- Holding: 20 dBA at 1m (no audible noise).

Temperature Ratings:

- Ambient: 0°F to 130°F (-18°C to 55°C).
- Shipping and Storage: -40°F to 140°F (-40°C to 60°C).

SPECIFICATION DATA

FEATURES

- 20 lb-in. (2.2 N•m) minimum driving torque at 350°F (176°C).
- Integral spring return ensures level of return torque.
- Stainless steel internal spring.
- Fifteen-second spring return timing.
- No special cycling required during long-term holding.
- No audible noise during holding.
- Patent pending design eliminates need for limit switches to reduce power consumption.
- Models available for 24, 120, and 230 Vac.
- Ninety-five degree angle of rotation.
- Actuator holds rated torque at reduced power level.
- Die-cast aluminum housing.
- Housing design allows flush mounting to damper.
- Integral junction box with one conduit opening eliminates need for separate wiring box.

IMPORTANT

The actuator is designed to meet UL555S standards at 350°F (176°C). The actuator must be tested with the damper to achieve this rating.

Humidity Ratings:

- 5% to 95% RH noncondensing.

Stroke:

- 95° ±3°, mechanically limited.

Timing (At Rated Torque and Voltage):

- Drive Open:
 - ML4202, ML4302, ML4702, ML4802: 25 sec maximum, 18 sec typical.
 - ML8202, ML8302: 25 sec maximum, 22 sec typical.
- Spring Close: 15 seconds.

Design Life (at Rated Voltage):

- 60,000 full stroke cycles.

Cycling Requirements:

- Prolonged holding-period (1 year) testing of these actuators has been performed with no spring return failures. The actuator and the internal spring are designed to require no special cycling during long-term holding.
- Honeywell recommends following all local, state and national codes for periodic testing of the entire smoke control system. Refer to National Fire Protection Association (NFPA) National Fire Codes®: NFPA90A, NFPA92A and NFPA92B for your application.
- NFPA recommends periodic examination of each fire/smoke damper (semi-annually or annually) to ensure proper performance.



Minimum Damper Shaft Length:

- 1-1/2 in. (38 mm).

Mounting:

- 3/8 to 1/2 in. square or round damper shafts. Can mount actuator with shaft in any position. Secure hub to shaft with: Two 1/4-28 UNF set screws. Use 1/8 in. Allen wrench to tighten set screws.

IMPORTANT

Honeywell does not recommend using linkages with these actuators because side-loading of the output hub reduces actuator life.

Environmental Protection Ratings:

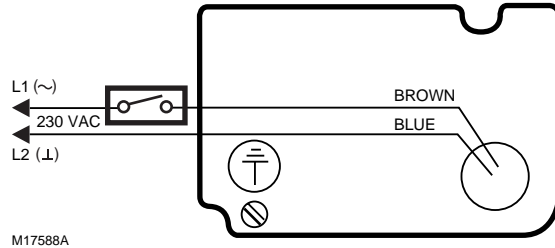
- NEMA1.

Accessories (not supplied with actuator):

- 201391 Shaft Adapter for 3/8 in. shafts.
- 205649 Mounting Bracket.
- 32003532-002 Dual Auxiliary Switch Package for high-temperature applications.

Approvals:

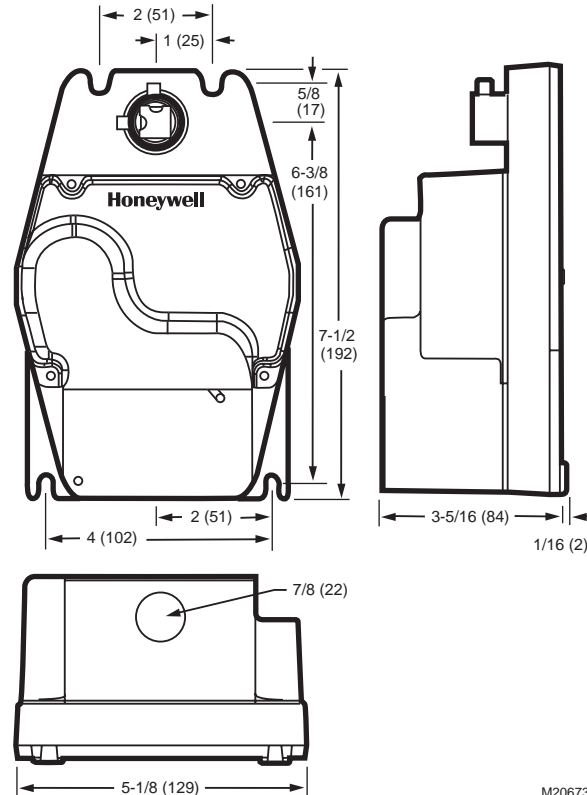
	ML4202 ML4302	ML4702 ML4802	ML8202 ML8302
UL/cUL	X	X	X
UL873 Plenum Rating, File No. E4436; Guide No. XAPX.	X	X	X
CE		X	X
C-TICK		X	



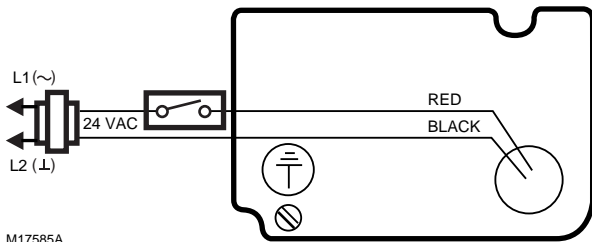
M17588A

Fig. 3. Typical 230 Vac wiring.

Dimensions:

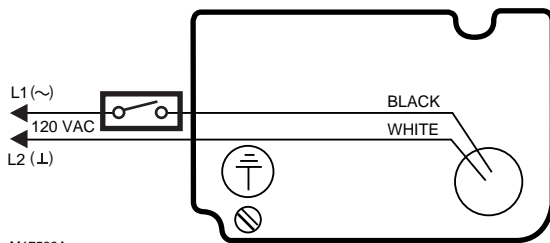


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M17585A

Fig. 1. Typical 24 Vac wiring.



M17589A

Fig. 2. Typical 120 Vac wiring.

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