

# Direct Coupled Actuators - Non-Spring Return

## ML6161; ML7161

### Non-Spring Return Direct Coupled Damper Actuators, 35 lb-in.



Used to control dampers in HVAC applications and for mounting on ball valves; suitable for use with modulating (2-10 Vdc) thermostats or building automation controls.

- Control for air damper applications with up to 10 sq. ft. assuming 3.5 lb-in. per sq. ft. of damper area, velocity independent
- Superior A/C synchronous submotor for consistent timing and actuator longevity
- Eliminate need for limit switches or mechanical stops by providing magnetic coupling
- All models include manual declutch lever, and bag assembly with two minimum position setscrews
- Mount directly on 3/8 inch or 1/2 inch square or round damper shaft
- Selectable 45, 60, and 90 stroke in either clockwise or counterclockwise direction

**Application:** HVAC

**Actuator Type:** Damper

**Frequency:** 50 Hz; 60 Hz

**Fail Safe Mode:** Non-Spring Return

**Torque Rating (lb-in.):** 35 lb-in.

**Torque Rating (Nm):** 4 Nm

**Additional Torque Ratings (lb-in.):** Maximum Stall – 70 lb-in.

**Additional Torque Ratings (Nm):** Maximum Stall – 8 Nm

**Internal Auxiliary Switch:** 0

**Rotation to Open:** ML6161 - By wiring; ML7161 - By switch

**Rotational Stroke Adjustment:** Mechanically limited at 45 or 60 degrees in CW or CCW directions

**Stroke:** 90 degrees

**Electrical Connections:** Screw terminals

**Mounting:** Direct Coupled

**Environmental, Electrical, or Ingress Protection Rating:** NEMA 1

**Materials:** Steel plate and Plenum rated plastic

**Maximum Noise Rating:** Driving (dB(A) @ 1m) – 45

**Shaft Adapter Type:** Aluminum Hub, two set screws

**Manual operation:** Declutch mechanism

**Shaft Dimensions:** 3/8 to 1/2 in. square or round (10 to 13 mm square/round)

**Ambient Temperature Range:** 20°F to 125°F (-18°C to +50°C)

**Shipping and Storage Temperature Range:** 20°F to 130°F (-18°C to +54°C)

**Approvals, Canadian Underwriters Laboratories Inc.:** cUL C22.2 No. 24-93

**Approvals, C-Tick:** N314

**Approvals, Underwriters Laboratories Inc.:** UL873, Plenum Rated

**Approvals, CE:** 89/336/ECC, 73/23/EEC

**Operating Humidity Range (% RH):** 5 to 95% RH, non-condensing

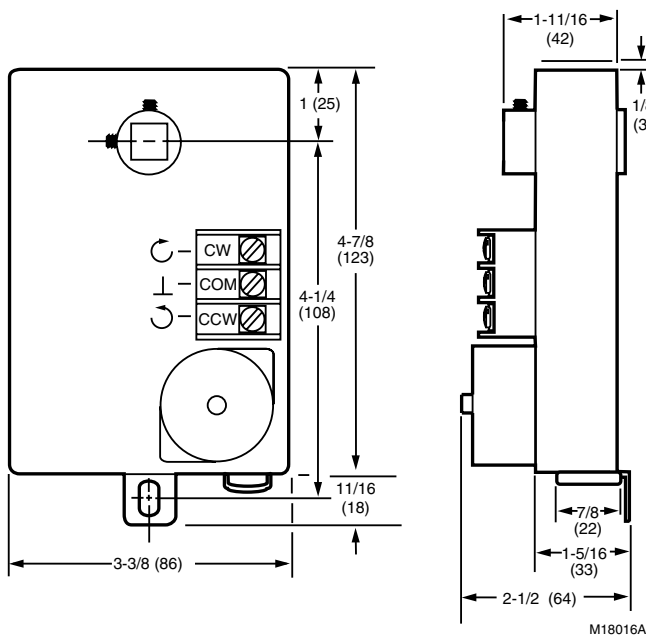
**Includes:** 4074ENY Bag Assembly

**Supply Voltage:** 24 Vac ±20%

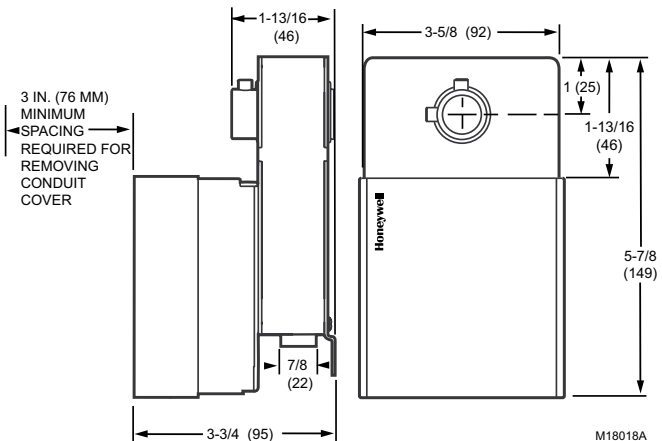
Material Number	Control Signal	Power Consumption	Timing, Nominal	Feedback	Input Impedance	Weight	Comments
ML6161A2009/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 90 sec	With accessory		1.5 lb (0.68 kg)	
ML6161A2017/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 420 sec	With accessory		1.5 lb (0.68 kg)	
ML6161A2025/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 180 sec	With accessory		1.5 lb (0.68 kg)	
ML6161B2024/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 90 sec			1.5 lb (0.68 kg)	
ML6161B2032/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 420 sec			1.5 lb (0.68 kg)	
ML6161B2073/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 180 sec			1.5 lb (0.68 kg)	
ML6161C2007/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 90 sec	With accessory		2 lb (0.91 kg)	Includes two 5/8 x 7/8 in. double knock-out conduit openings
ML6161D2006/U	Floating; SPDT; On/Off	Driving – 1.8 VA	Driving @ 60 Hz – 90 sec			2 lb (0.91 kg)	Includes two 5/8 x 7/8 in. double knock-out conduit openings
ML7161A2008/U	2-10 Vdc; 4-20 mA	Driving – 5.4 VA	Driving @ 60 Hz – 90 sec		45K ohm (2-10 Vdc signal), 536 ohm (4-20 mA signal)	2.4 lb (1.1 kg)	

# Direct Coupled Actuators - Non-Spring Return

ML6161A, B or ML6174A, B Dimensions in inches (millimeters)



ML6161A, B or ML6174A, B Dimensions in inches (millimeters)



ML6161A, B or ML6174A, B Dimensions in inches (millimeters)

