

142 lb-in. Spring Return Direct Coupled Actuators

ML4195, ML6195, ML6295, ML7295, ML8195

ISO 9001



The 142 lb-in. Spring Return Direct Coupled Actuators (DCA) are control motors that provide floating, proportioning or two-position control for valves and dampers. The floating and proportioning motors accept a current, voltage, or resistance signal from a controller to position a damper or valve at any chosen point between fully open and fully closed.

SPECIFICATIONS

Electrical Ratings:

Model	Power Input (50/60 Hz)	Power Consumption	
		Running	Holding
ML4195	120 Vac +10%, -20%	9 VA	9 VA
ML6195, ML6295	24 Vac +20%, -15%	8 VA	5 VA
ML7295	24 Vac +20%, -15%	9 VA	5 VA
ML8195	24 Vac +20%, -15%	8 VA	3 VA

Cable Ratings:

- Control: Standard models include non-plenum UL/CSA rated 30V, 140°F (60°C) 18-gauge cable.
- Auxiliary Switch: UL/CSA rated 300V, 194°F (90°C) 18-gauge cable.

Controller Type:

- 0 to 10 Vdc or 4 to 20 mA.
- All models have a feedback signal.

Torque Rating (at rated voltage):

- Lift and Hold: 142 lb-in. (16 N•m).
- Spring Return: 142 lb-in. (16 N•m).
- Stall Maximum: 354 lb-in. (40 N•m).
- Actuator Stroke: 95° ±2°, mechanically limited.
- Actuator Timing at 90° Stroke: 90 seconds.
- Spring Return: 15 seconds.

Temperature:

- Ambient: -25°F to +130°F (-32°C to +55°C).
- Storage: -25°F to +158°F (-32°C to +70°C).

Humidity:

- 5 to 95 percent relative humidity, noncondensing.

Mounting:

- Mounts directly on a 3/8 in. to 1 in. (9 to 25 mm) round or 1/4 in. to 3/4 in. (6 to 18 mm) square shaft.
- Minimum shaft length required is 3/4 in. (20 mm).

SPECIFICATION DATA

FEATURES

- Microprocessor controlled brushless DC motor.
- Mounts directly on 3/8 in. to 1 in. round and 1/4 in. to 3/4 in. square shafts.
- Self-centering shaft coupling.
- Spring return direction field-selectable.
- Manual override permits unpowered positioning.
- Highly-visible position indicator.
- All-metal alloy housing.
- Integral 3/8 in. conduit connection.
- Integral adjustable range-stop.
- Available with two line voltage auxiliary switches.

Device Weight:

- 4.85 lb (2.2 kg)

Noise Rating:

- Maximum: 45 dBA at 1m

Direction of Spring Return:

- Field-selectable.

Position Indicator:

- Mounted on shaft coupling.

Actuator Design Life:

- Minimum Life Full Stroke Cycles: 50,000.
- Full Load Repositions: 1,500,000.

Approvals:

- UL873.
- cUL (CSA C22.2 No. 24-93).

Environmental Protection Ratings:

- NEMA1.

Auxiliary Switches (ML7295C,H only):

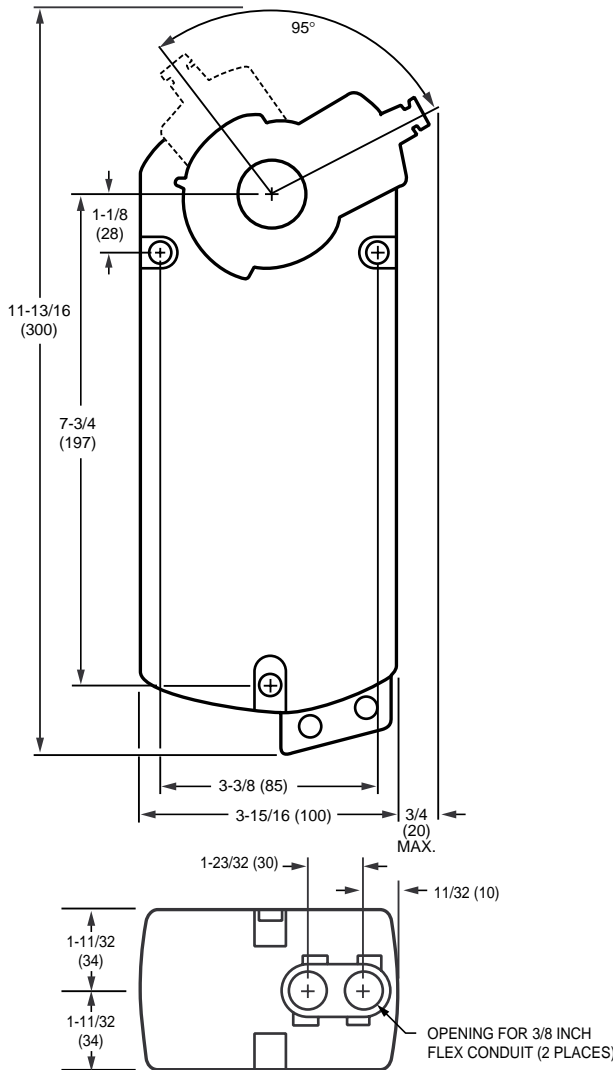
- Ratings:
- 24-240 Vac.
 - Resistive: 6A maximum.
 - AFL: 2A maximum.
 - Setting interval: 5°.
 - Switching hysteresis: 2°.



Models:

ML		Motor Linkage			
<input type="checkbox"/>	41	Two-position Control, 120 Vac			
<input type="checkbox"/>	61	Floating Control			
<input type="checkbox"/>	62	Floating Control w/1000 ohm linear feedback			
<input type="checkbox"/>	72	4-20 mA/2-10 Vdc Control w/0-10 Vdc feedback			
<input type="checkbox"/>	81	Two-position Control 24 Vac			
		9	142 lb. in. (16 Nm)		
		5	Spring Return		
<input type="checkbox"/>	A	Standard			
<input type="checkbox"/>	C	Includes 2 SPDT auxiliary switches			
<input type="checkbox"/>	H	Adjustable zero and span (Series 72 only)			
ML		9	5	X X X X	Varies by Model

Dimensions:



M14226

TYPICAL SPECIFICATION

Power-fail return actuator shall be direct coupled type that requires neither crankarm nor linkage and be capable of direct mounting to a jackshaft of up to one inch diameter. The actuator shall connect to the shaft using a removable output hub with a self-centering shaft coupling that provides concentric mounting. Actuators shall have integral conduit connections and an integral adjustable range-stop.

Upon power failure the hub must return by a spring-type mechanism internal to the actuator. The actuator design must be for use in either clockwise or counterclockwise fail-safe operation.

The actuator must provide two-position, floating, or proportional control. *Proportional control* refers to direct acceptance of 0-10 Vdc, or 4-20 mA and 2-10 Vdc input signal. The 4-20 mA model shall double as a 2-10 Vdc model because of an input impedance of 500 ohm. Proportional control models provide a 0-10 Vdc feedback signal.

Actuators shall use a brushless dc motor controlled by a microprocessor and protected from overload at all angles of rotation. Run time shall be constant and independent of load, temperature and supply voltage (within product-family specifications).

Actuators shall have a minimum performance of 50,000 full-stroke powered cycles, 50,000 spring-return cycles and 1,500,000 repositions documented in the product data literature. Actuators shall be UL and CUL listed, manufactured under ISO 9001 International Quality Control Standards.

Accessories:

- 210033 Frame mounting kit.
- 210034 Foot mounting kit.
- 210035 1.06 in. U-bolt coupling.

Honeywell

