

Direct Coupled Damper Actuator—Spring Return

Zelix™ S05 Series: MS3105; MS4105; MS7405; MS7505; MS8105 Spring Return Direct Coupled Actuator, 44 lb-in



The MS8105 is a 44 lb-in (5Nm), spring return direct-coupled, line voltage actuator that accepts two-position (SPST) control for: air dampers, air handlers, ventilation flaps, louvers, and ball valves.

- Brushless DC submotor with electronic stall protection on all models
- Self-centering shaft adaptor (shaft coupling) for wide range of shaft sizes
- Models available for use with two-position, SPST, line- (Series 40) or low- (Series 80) voltage controls
- Models available for use with floating or switched SPDT (Series 60) controls
- Models available for use with proportional current or voltage (Series 70) controls
- Models available with combined floating and modulating control in a single device
- Models available with an internal end switch
- Models available with three-foot, 18 AWG color-coded cable
- Access cover to facilitate connectivity
- Durable plastic housing with built-in mechanical end limits
- Spring return direction field selectable
- Shaft position indicator and scale
- UL (cUL) listed and CE compliant
- All models are plenum rated per UL873
- Integral 1/2 in. NPSM conduit connection on some models

Actuator Type: Damper; Valve
Rotational Stroke: 95 ±3 degrees
Fail Safe Mode: Spring Return
Torque Rating: 44 lb-in. (5 Nm)
Spring Return Torque: 44 lb-in. (5 Nm)
Spring Return Direction: By orientation
Dimensions, Approximate: 6 81/54 high x 3 55/84 wide x 3 5/32 deep
(177 mm high x 98 mm wide x 80 deep)
External Auxiliary Switches Available: No
Environmental Rating: NEMA2
Ingress Protection Rating: IP54
Feedback: Sylk-enabled
Frequency: 50 Hz; 60 Hz
Mounting: Direct Coupled
Maximum Noise Rating, Holding (dBA @ 1m): 20 (no audible noise)
Maximum Noise Rating, Driving (dBA @ 1m): 40
Rotation to Open: By switch
Rotational Stroke Adjustment: Mechanically limited 5 degree increments

Compatible Damper Shafts: 3/8 to 5/8 in. round or 1/4 to 1/2 in. square
(9 to 16 mm round or 6 to 13 mm square)

Shaft Adapter Type: Self-centering clamping

Supply Voltage: 24 Vac/dc

Materials: Plenum rated plastic housing

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

Temperature Ratings (Shipping): -40 F to +150F (-40 C to +65 C)

Ambient Temperature Range:

MS3105, MS7405, MS7505: -40 F to +149F (-40 C to +65 C)

MS4105, MS8105: -22 F to +149F (-30 C to +65 C)

Storage Temperature Range: -40 F to +150F (-40 C to +65 C)

Weight: 3.5 lb (1.6 kg)

Includes: Mounting bracket, self-centering shaft adapter

Approvals

CE: EMC 2004/108/EC; Certification Low Voltage Directive 2006/95/EC;
IEC 60730-1 and Part 2-14

C-Tick: N314

Underwriters Laboratories, Inc: UL 873

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

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Product Number	Control Signal	Feed-back	Timing (seconds)		Type of Internal Auxiliary Switch	Switch Ratings	Power Consumption		Input Impedance	Cable Entry	Electrical Connections	Electrical Connection Length		Number of Internal Auxiliary Switch
			Nominal Driving @ 60 Hz	Maximum Spring Return			Driving	Holding				(inch)	(m)	
MS3105J3030/U	Sylk-enabled	Sylk-enabled	90 sec	25 sec	—	—	6/3 VA	24 Vac/dc	—	—	Enclosed screw terminal strip (22 to 14 AWG)	—	—	0
MS3105J3130/U		Sylk-enabled	90 sec	25 sec	—	—	6/3 VA	24 Vac/dc	—	—		—	—	1
MS4105A1030/U	Two position; SPST	—	45 sec	25 sec	—	—	6/9 VA	100 to 250 Vac	—	—		—	—	0
MS4105A1130/U		—	45 sec	25 sec	adjustable 0-95 degrees	250 Vac, 8 A res (5 A ind)	6/9 VA	100 to 250 Vac	—	—		—	—	1
MS7405A2030/U	3 kOhm 2-10 Vdc (4-20 mA w/500 ohm resistor); On/Off; SPDT; Floating; Three position	2-10 Vdc	90 sec	25 sec	Min. Pos.	—	6/3 VA	24 Vac/dc	Min. 95 kOhm	—		—	—	0
MS7505A2030/U		(0)2-10 Vdc	90 sec	25 sec	—	—	6/3 VA	24 Vac/dc	Min. 95 kOhm	—		—	—	0
MS7505A2130/U		(0)2-10 Vdc	90 sec	25 sec	adjustable 0-95 degrees	250 Vac, 8 A res (5 A ind)	6/3 VA	24 Vac/dc	Min. 95 kOhm	—		—	—	1
MS7505W2030/U		(0)2-10 Vdc	90 sec	25 sec	—	—	6/3 VA	24 Vac/dc	Min. 95 kOhm	Threaded conduit connector		36 in.	0.9 m	0
MS7505W2130/U		(0)2-10 Vdc	90 sec	25 sec	adjustable 0-95 degrees	250 Vac, 8 A res (5 A ind)	6/3 VA	24 Vac/dc	Min. 95 kOhm	Threaded conduit connector		36 in.	0.9 m	1
MS8105A1030/U		—	45 sec	25 sec	—	—	6/3 VA	24 Vac/dc	—	—	Enclosed screw terminal strip (22 to 14 AWG)	—	—	0
MS8105A1130/U	Two position; SPST	—	45 sec	25 sec	adjustable 0-95 degrees	250 Vac, 8 A res (5 A ind)	6/3 VA	24 Vac/dc	—	—		—	—	1
MS8105W1030/U		—	45 sec	25 sec	—	—	6/3 VA	24 Vac/dc	—	Threaded conduit connector	18 AWG color-coded cable	36 in.	0.9 m	0
MS8105W1130/U		—	45 sec	25 sec	adjustable 0-95 degrees	250 Vac, 8 A res (5 A ind)	6/3 VA	24 Vac/dc	—	Threaded conduit connector		36 in.	0.9 m	1
		—	45 sec	25 sec	—	—	6/3 VA	24 Vac/dc	—	Threaded conduit connector		36 in.	0.9 m	1