

Direct Coupled Damper Actuators—Fire and Smoke

MS4120F; MS4620F; MS8120F

Fast-Acting, Two-Position Actuators, 175 lb-in



The MS8120F,S is a 175 lb-in (20Nm), spring return direct-coupled, 24 Vac actuator that accepts two position (SPST) control with an integral junction box. The actuator accepts an on/off signal from a single-pole, single-throw (SPST) controller. They are designed to operate reliably in smoke control systems requiring Underwriter's Laboratories Inc. UL555S ratings up to 350 F.

- Brush DC submotor with electronic stall protection for 2-position models
- Self-centering shaft adapter (shaft coupling) for wide range of shaft sizes
- Models available for use with two-position, single pole single throw (spst), line- (Series 40) or low- (Series 80) voltage controls
- Metal housing with built-in mechanical end limits
- Spring return direction field-selectable
- Shaft position indicator and scale
- Manual winding capability with locking function
- UL (cUL) listed and CE compliant
- All Models are plenum-rated per UL873

Actuator Type: Damper
Rotational Stroke: 95 ±3 degrees
Fail Safe Mode: Spring Return
Torque Rating: 175 lb-in. (20 Nm)
Minimum Driving Torque at 350 F: 175 b-in.
Spring Return Torque: 175 lb-in. (20 Nm)
External Auxiliary Switches Available: No
Electrical Connections: Teflon-jacketed cable
Electrical Connection Length: 40 in. (1 m)
Environmental Rating: NEMA2
Ingress Protection Rating: IP54
Frequency: 60 Hz
Manual operation: Manual crank
Mounting: Direct Coupled
Maximum Noise Rating, Holding (dBA @ 1m): 20 (no aud ble noise)
Maximum Noise Rating, Driving (dBA @ 1m): 70

Compatible Damper Shafts: 3/8 to 1.06 in. round or 3/8 to 11/16 in. square (10 to 27 mm round or 10 to 18 mm square)

Shaft Adapter Type: Self-centering clamping

Materials: Aluminum housing

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

Ambient Temperature Range: -40 F to +130 F (-40 C to +55 C)

Storage Temperature Range: -40 F to +140 F (-40 C to +60 C)

Weight: 8 lb (3.63 kg)

Includes: Self-centering shaft adapter, 3mm crank

Comments: Two integral 3/8 in. flexible conduit connections

Approvals

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

C-Tick: N314

Underwriters Laboratories, Inc: UL873, Plenum Rated

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

Product Number	Control Signal	Timing (seconds)		Switch Ratings	Power Consumption		Supply Voltage	Number of Internal Auxiliary Switch	Spring Return Direction
		Nominal Driving @ 60 Hz	Maximum Spring Return (sec)		Driving	Holding			
MS4120F1006/U	Two position; SPST	15 sec	15 sec	—	0.35A, 35W	0.15A, 10W	120 Vac ±10%	0	By orientation
MS4120F1204/U	Two position; SPST	15 sec	15 sec	250 Vac, 5 A res	0.35A, 35W	0.15A, 10W	120 Vac ±10%	2	By orientation
MS4620F1005/U	Two position; SPST	15 sec	15 sec	—	0.20A, 35W	0.14A, 10W	230 Vac ±10%	0	By orientation
MS4620F1203/U	Two position; SPST	15 sec	15 sec	250 Vac, 5 A res	0.20A, 35W	0.14A, 10W	230 Vac ±10%	2	By orientation
MS8120F1002/U	Two position; SPST	15 sec	15 sec	—	45 VA	10 VA	24 Vac +20%, -10%	0	By orientation
MS8120F1200/U	Two position; SPST	15 sec	15 sec	250 Vac, 5 A res	45 VA	10 VA	24 Vac +20%, -10%	2	By orientation