

MS4620, MS8120 FAST-ACTING, TWO- POSITION ACTUATORS (Non-UL) FOR FIRE/SMOKE CONTROL APPLICATIONS

GENERAL

The MS4620F; MS8120F Fast-Acting, Two-Position Actuators are spring return direct coupled actuators (DCA) for on/off damper control. The actuator accepts an on/off signal from a single-pole, single-throw (spst) controller. Reversible mounting allows actuator to be used for either clockwise (cw) or counterclockwise (ccw) spring rotation. Designed to operate reliably in smoke control systems.

- Reversible mounting facilitates use in either clockwise (cw) or counterclockwise (ccw) spring rotation.
- No special cycling required during long-term holding.
- Integral spring return ensures level of return torque.
- Stainless steel internal spring.
- Fifteen-second spring return timing.
- No audible noise during holding.
- Patent pending design eliminates need for limit switches to reduce power consumption.
- Models available for 24 and 230 Vac.
- Ninety-five degree angle of rotation.
- Actuator holds rated torque at reduced power level.
- Housing design allows flush mounting to damper.
- Self-centering shaft adapter (SCSA), patent pending.
- Designed to operate reliably in smoke control systems.



MS4620F, MS8120F

- High temperature Teflon® lead wires.
- Models available with integral SPST position-indicating switches (7°, 85°).

Dimensions: • See Fig. 1.

Device Weight:
• 7 lb (3.2 kg).

Stroke:
• 95° ± 3°, mechanically limited.

Electrical Ratings:

Power Input:

- MS4620F: 230 Vac ±10%, 50/60 Hz.
- MS8120F: 24 Vac +20%, -10%, 50/60 Hz (Class 2).

Honeywell

SPECIFICATIONS

Table 1. Models

MATERIAL LIST

Model	Voltage (Vac)	Internal Auxiliary Switches
MS4620F1005NM/U	230	None
MS4620F1203NM/U	230	2 SPSTa
MS8120F1002NM/U	24	None

Power Consumption:

- MS4620F: Driving: 0.20A, 35W. Holding: 0.14A, 10W.
- MS8120F: Driving: 45 VA. Holding: 10 VA.

Electrical Connections:

Power Lead Wires:

- MS4620F, MS8120F: 1m Teflon wire.

Two integral 3/8 in. flexible conduit connections.

Timing (At Rated Torque and Voltage):

- Drive Open: 15 seconds Typical.
- Spring Close: 15 seconds Typical.

Auxiliary Switches:

- Ratings (maximum load): 250 Vac, 5A resistive, Dry Contact
- Settings (fixed): 7° nominal stroke, 85° nominal stroke.

Torque Rating (at rated voltage):

- Typical Holding (minimum at 350°F): 175 lb-in. (20 N•m).
- Spring Return (minimum at 350°F): 175 lb-in (20 N•m).
- Stall Maximum (Fully open at 75°F): 425 lb-in.(48.0 N•m).
- 350°F Minimum Driving: 175 lb-in. (20 N•m)

Design Life (at Rated Voltage):

- 30,000 full stroke cycles.

Minimum Damper Shaft Length:

- 1 in. (25 mm); 3-1/4 (83 mm) recommended

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.

Mounting:

- Self-centering shaft adapter.
- Round Damper Shafts: 0.5 to 1.06 in.
- Square Damper Shafts: 1/2 to 3/4 in.
- Actuator can be mounted with shaft in any position.

IMPORTANT

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

Noise Rating (Typical):

- Driving or Spring Return: 70 dB
- Holding: 20 dBA (no audible noise) Vibration:
- Not suitable for high vibration applications (Example installation environment: Truck Trailers or Railroad Cars)
- Acceptable Vibration levels 0.6g at 30 to 300

Temperature Ratings:

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

Humidity Ratings:

- 5% to 95% RH noncondensing

Environmental Protection Ratings:

- NEMA2 and IP54 when mounted on horizontal shaft and the base of the actuator below the shaft.

Accessories:

- 205649 Mounting Bracket (not supplied with actuator).

Approvals:

	MS4620F, MS8120F
CE	X
C-TICK	X

Controller Type:

- MS4620F: Line voltage (230 Vac), 2-position, spst (Series 40).
- MS8120F: Low voltage (24 Vac), 2-position, spst (Series 80).

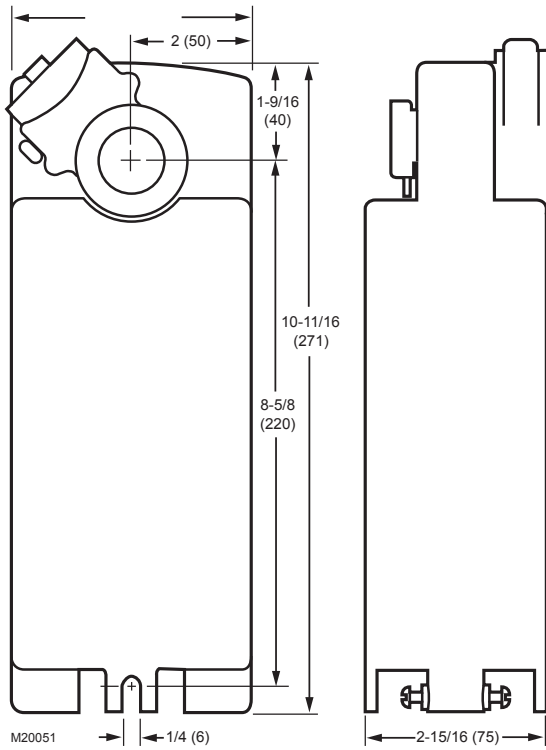


Fig. 1. Dimensions in in. (mm).

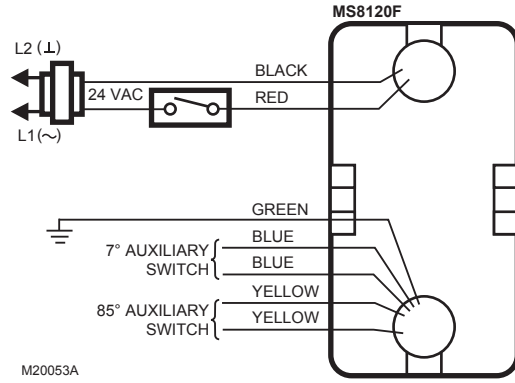


Fig. 2. Typical 24 Vac wiring (MS Series).

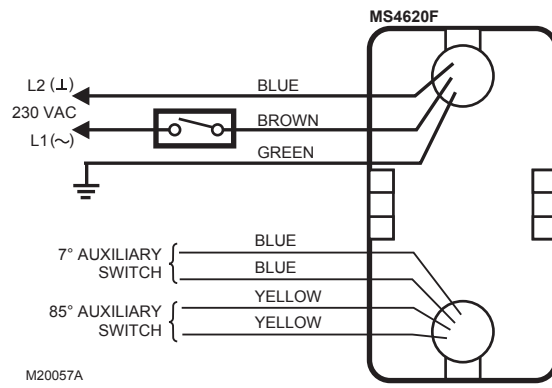


Fig. 3. Typical 230 Vac wiring (MS Series).

For more information,
<https://honeywellbuildings.in>
 Call: 1-800-103-0339
 Email: HBT-Indiabuildings@honeywell.com

Honeywell HBT India Buildings
 Unitech Trade Center, 5th Floor, Sector-43,
 Block C, Sushant Lok Phase - I,
 Gurgaon - 122 002

www.honeywell.com

© 2020 Honeywell International Inc.

MS4620, MS8120
FAST-ACTING, TWO-POSITION
ACTUATORS (Non-UL)
FOR FIRE/SMOKE CONTROL
APPLICATIONS

Honeywell