

Honeywell

MS4120F, MS4620F,S; MS8120F,S

Fast-Acting, Two-Position Actuators

FOR FIRE/SMOKE CONTROL APPLICATIONS



Electrical Ratings:

Power Input:

MS4120F: 120 Vac \pm 10%, 60 Hz.

MS4620F,S, S20230-F: 230 Vac \pm 10%, 50/60 Hz.

MS8120F,S; S2024-F: 24 Vac +20%, -10%, 50/60 Hz (Class 2).

Power Consumption:

MS4120F: Driving: 0.35A, 35W. Holding: 0.15A, 10W.

MS4620F,S; S20230-F: Driving: 0.20A, 35W. Holding: 0.14A, 10W.

MS8120F,S; S2024-F: Driving: 45 VA. Holding: 10 VA.

Electrical Connections:

Lead Wires:

MS4120F, MS4620F, MS8120F: 1m Teflon wire.

MS4620S, MS8120S, S2024-F, S20230-F:

1m halogenfree 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, 3A inductive.

Settings (fixed): 7° nominal stroke, 85° nominal stroke.

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.

Models:

Model	Voltage in Vac	Internal Auxiliary Switches
MS4120F1006	120	None
MS4120F1204	120	2 SPST ^a
MS4620F1005	230	None
MS4620F1203	230	2 SPST ^a
MS8120F1002	24	None
MS8120F1200	24	2 SPST ^a

^aInternal switches are designed to pass UL555S requirements (at 350°F).

MS4120F, MS4620F,S; MS8120F,S FAST-ACTING, TWO-POSITION ACTUATORS

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 (Maximum):

Driving or Spring Return: 70 dBA.
 Holding: 20 dBA (no audible noise).

Temperature Ratings:

IMPORTANT

The actuators are designed to meet UL555S standards at 350°F (176°C). These actuators must be tested with the damper to achieve this rating.

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 a horizontal shaft.

Controller Type:

MS4120F: Line voltage (120 Vac), 2-position, spst (Series 40).
 MS4620F,S; S20230-F: Line voltage (230 Vac), 2-position, spst (Series 40).
 MS8120F,S; S2024-F: Low voltage (24 Vac), 2-position, spst (Series 80).

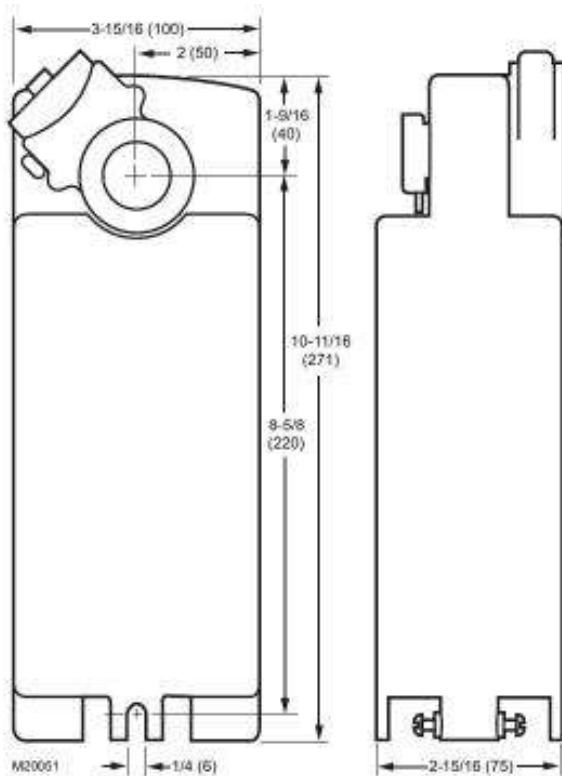


Fig. 1. Dimensions in in. (mm).

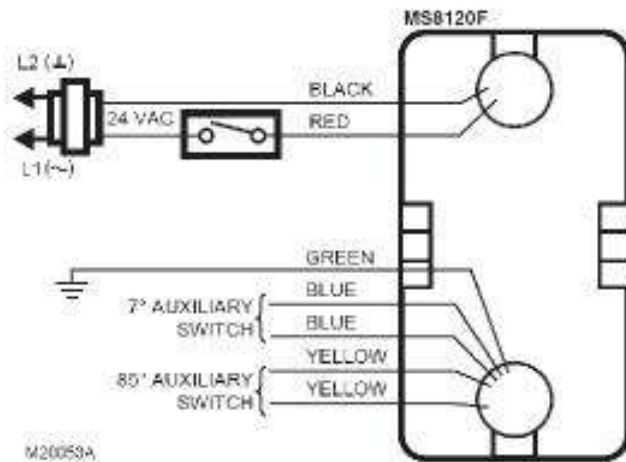


Fig. 2. Typical 24 Vac wiring (MS Series).

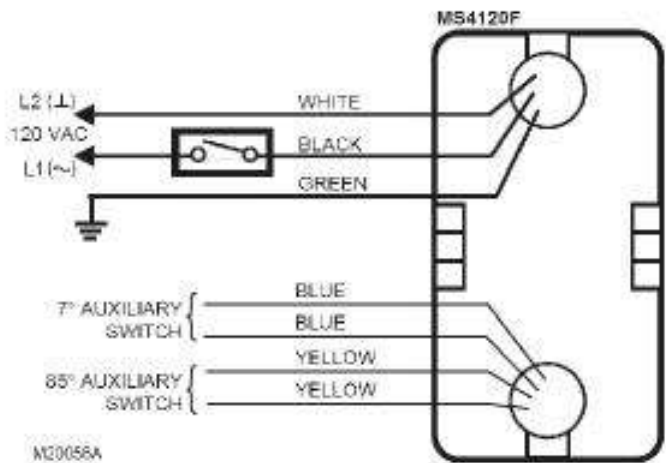


Fig. 3. Typical 120 Vac wiring.

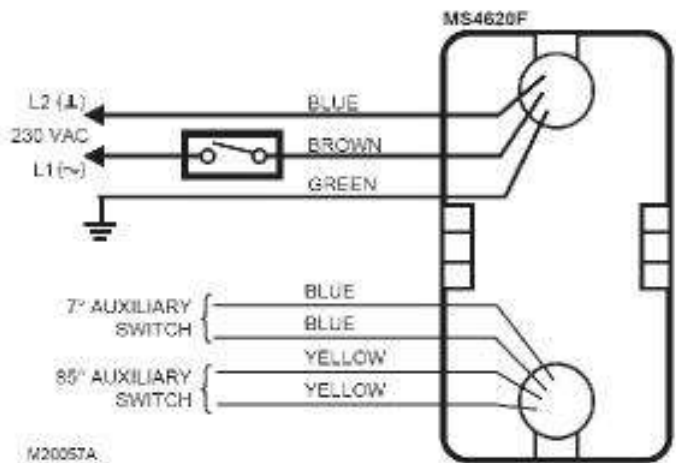


Fig. 4. Typical 230 Vac wiring (MS Series).