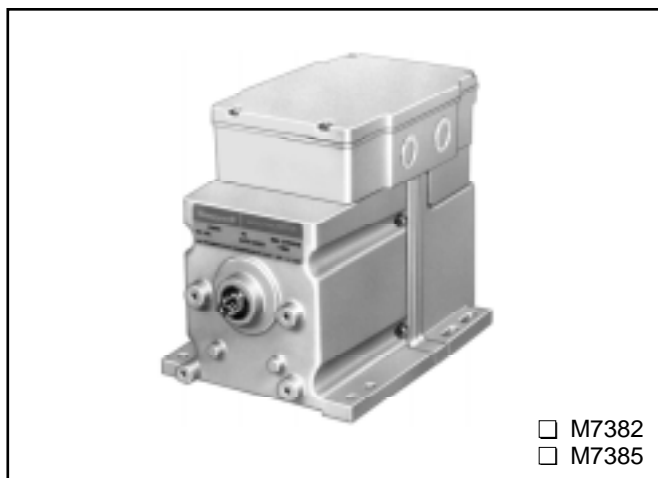


M7385, M7382 Modutrol IV™ Motors

SPECIFICATION DATA



APPLICATION

These electronic Modutrol IV Motors are used in Honeywell electronic control systems to provide proportioning control of dampers and gas, hot water, steam, and chilled water valves.

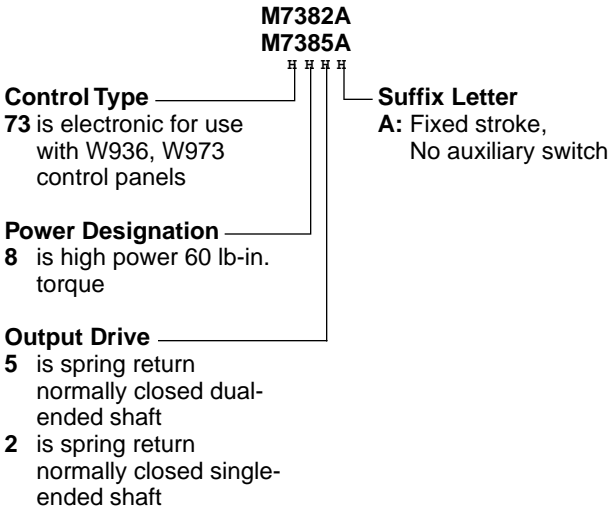
FEATURES

- Replace M745A,B,C,D,E,F motors.
- M7382, M7385 rated for 60 lb-in. torque.
- Internal spring that returns motor to the closed position when power is interrupted.
- Oil immersed motor and gear train for reliable performance and long life.
- Wiring box provides NEMA 3 weather protection.
- Actuator motor and circuitry operate from 24 Vac. Models available with factory installed transformer, or an internal transformer can be field added.
- Quick-connect terminals are standard—screw terminal adapter available.
- Adapter bracket for matching shaft height of older motors is standard with replacement motors.
- Die-cast aluminum housing.
- Available accessories include valve and damper linkages, explosion proof housing, and auxiliary switches.



SPECIFICATIONS

Standard Models



Electrical Ratings:

M7685	Volts (50/60 Hz)	Current Draw (A)	Power Consumption (W)
Without Transformer	24	1.0	23
With Internal Transformer	120	0.28	28
	208	0.16	28
	240	0.14	28

Motor Rotation:

Normally closed M7385A rotates to the fully counterclockwise position as viewed from the power end when the input signal is at a minimum or when power is interrupted.

Input Signal:

0-10 mA modulating current offset from W936 or W973 Controller.

Stroke:

Fixed 90° or 160° stroke models available.

Timing:

Nominal 30 seconds for 90° stroke and 60 seconds for 160° stroke.

Torque:

Maximum Operating: 60 lb-in. (6.8 N•m).
Breakaway: 200 lb-in. (23 N•m). Breakaway torque is the maximum torque available to overcome occasionally large loads such as a seized damper or valve. Motor must not be used continuously at this rating.

Dead Weight Load on Shaft:

Power or Auxiliary End: 200 lb (90.8 kg) maximum.
Maximum Combined Load: 300 lb (136 kg).

Ambient Temperature Ratings:

Maximum: 150°F (66°C) at 25% duty cycle.
Minimum: Minus 40°F (-40°C).

Shaft:

3/8 in. (9.5 mm) square.

Dimensions:

See Figure 1.

Underwriters Laboratories Inc. Listed:

File No.E4436, Guide No. XAPX.

Canadian Standards Association Certified:

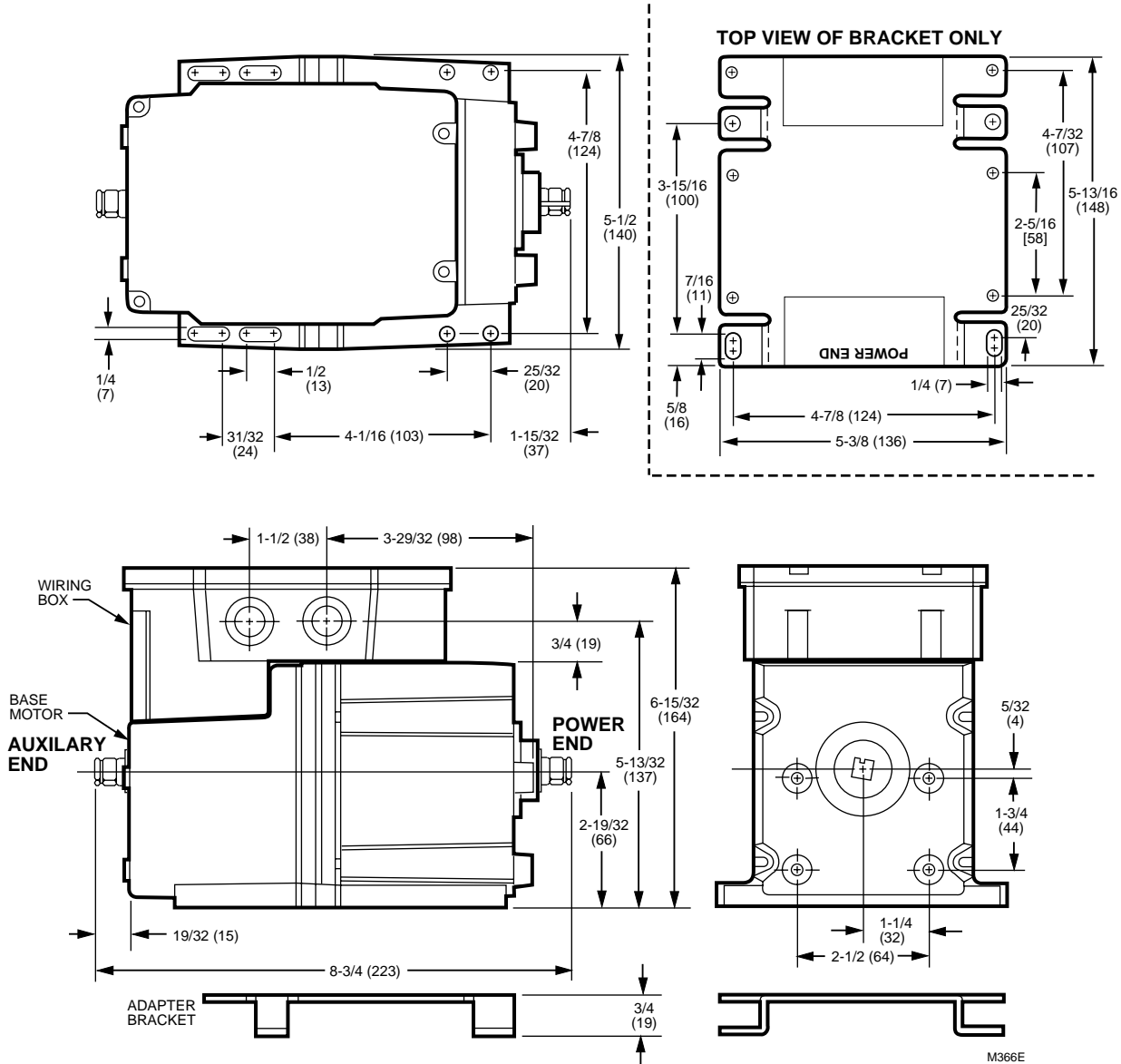
General Listed File No. LR1620, Guide No. 400-E.

Brake:

Electromechanical; holds load when motor is stopped and releases when motor is running or power is interrupted.

Accessories:

- ES650117 Explosion-proof Housing: Encloses motor for use in explosive atmospheres. Not for use with Q601, Q618, and Q455 Linkages. Order separately from Nelson Electric Co. Requires Honeywell 7617DM Coupling.
- Q607 External Auxiliary Switch: Controls auxiliary equipment as a function of motor position.
- Q605 Damper Linkage: Connects motor to damper. *Includes motor crank arm.*
- Q618 Linkage: Connects Modutrol motor to water or steam valve.
- Q601 Bracket and Linkage Assembly: Connects Modutrol motor to water or steam valve.
- Q100 Linkage: Connects Modutrol Motor to butterfly valve.
- 221455A Motor Crank Arm: Infinitely adjustable crank arm. Approximately 0.75 in. shorter than the 7616BR and 4074ELY Crank Arms, can rotate through downward position and clear base of motor without requiring use of adapter bracket.
- 7617ADW Crank Arm: Approximately 0.75 in. shorter than 7616BR Crank Arm.
- 220741A Screw Terminal Adapter: Converts the standard quick-connect terminals to screws terminals.
- Transformers: Mounted internally, provide 24 Vac power to motor
 - 198162JA: 24 Vac; 50/60 Hz (for electrical isolation).
 - 198162EA: 120 Vac; 50/60 Hz.
 - 198162GA: 220 Vac; 50/60 Hz.
 - 198162AA: 120/208/240 Vac; 50/60 Hz.
- 4074EAC Resistor Kit: Modifies output of W973 to provide comparable signal to M7385. Resistor for one motor control.



M366E

**Fig. 1. Dimensions in in. (mm).
NOTE: M7382 does not have auxiliary shaft. All other dimensions are the same.**

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