# Modutrol IV Motors

## M7284; M7285; M7286; M7294 Modutrol IV™ Series 2 Motors





**Series 72 Modutrol IV Motors are spring return and non-spring return motors (per motor type) used to control dampers and valves. The motors accept a current or voltage signal from an electronic controller to position a damper or valve at any point between open and closed.**

- Integral spring return returns motor to normal position in the event of power failure on spring return models
- Integral junction box provides NEMA 3 weather protection if motor is mounted in the upright position
- Motor and circuitry operate from 24 Vac
- Quick-connect terminals are standard--screw terminal adapter is available
- Adapter bracket for matching shaft height of older motors is available
- Motors have field adjustable stroke (90 to 160 degrees)
- Integral auxiliary switches are available factory mounted, or can be field added
- Spring return motors can operate valve linkages from power end or auxiliary end shafts for normally closed or normally open valve applications
- All models have dual shafts (slotted and tapped on both ends)
- All models have auxiliary switch cams
- Fixed torque throughout the entire voltage range
- Motors are designed for either normally open or normally closed valves and dampers
- Models available with adjustable start (zero) and span
- Models available with 4 to 20 mA input signal
- Models available with 2 to 10 Vdc input signal
- Die-cast aluminum housing

**Application Type:** Electric
**Dimensions, Approximate:** 6 7/16 in. high x 5 1/2 in. wide x 7 5/16 in. deep (164 mm high x 140 mm wide x 185 mm deep)
**Feedback:** No
**Frequency:** 50 Hz; 60 Hz
**External Auxiliary Switches Available:** Yes
**Auxiliary Switch Ratings AFL - 120 Vac:** 7.2A
**Auxiliary Switch Ratings ALR - 120 Vac:** 43.2A
**Auxiliary Switch Ratings AFL - 240 Vac:** 3.6A
**Auxiliary Switch Ratings ALR - 240 Vac:** 21.6A
**Internal Transformer:** 50004263-002
**Mounting:** Foot-mounted
**Motor Shafts:** Dual-ended shaft
**Shaft Shape:** square
**Shaft Dimensions:** 0.375 in. (10 mm)
**Shaft Rotation (upon control signal increase):**
M7284A,C,Q; M7285A,C,Q; M7294A,Q: Clockwise (as viewed from power end) (normally closed)
M7286G: Counter-clockwise (as viewed from power end) (normally open)
**Deadweight Load on Shaft (Either End):** 200 lbs.

**Deadweight Load (Combined on both Shafts):** 300 lbs.
**Ambient Temperature Range:** -40 F to +150 F (-40 C to +60 C)
**Weight:** 7.5 lb
**Approvals**
**CE:** EN55011 (Emission) EN50082-2 (Immunity) 73/23/EEC (LVD)
**Underwriters Laboratories, Inc:** Listed: File No. E4436, Guide No. XAPX for USA and Canada

**Accessories:**
**4074ERU-**Weatherproofing kit. Protects motor from driving rain when mounted in any position
**220736A-**Internal Auxiliary Switch Assembly - 1 Switch
**220736B-**Internal Auxiliary Switch Assembly - 2 Switches
**220738A-**Adapter Bracket. Adjusts shaft height to match Modutrol III motors
**220741A2-72-**Screw Terminal Adapter Kit for Series 72 Modutrol IV Series 2 motors - Converts quick-connect terminals to screw terminals
**221455A-**Infinitely adjustable Motor Crank Arm
**50017460-001-**24/120/230 Vac Internal Transformers for Series 2 and 3 Motors
**50017460-003-**120 Vac Internal Transformers for Series 2 and 3 Motors

| Product Number | Fail Safe Mode | Torque/Force | | Voltage | Nominal Timing (sec) | Electrical Connections | Control Signal | Internal Auxiliary Switch | Factory Stroke Setting | Stroke | Includes | Comments | Internal Transformer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | lb-in., lb | Nm, N | | | | | | | | | | |
| **M7284A1004/U** | Non-Spring Return | 150 lb-in. | 17 Nm | 120V | 30-60 sec | Screw terminals | Modulating, 4-20 mA | 0 | 90 degrees | Adjustable; 90 to 160 degrees, Symmetrical | Transformer and Screw Terminal Adapter | — | 50004263-002 |
| **M7284A1012/U** | Non-Spring Return | 150 lb-in. | 17 Nm | 120V | 30-60 sec | Screw terminals | Modulating, 4-20 mA | 0 | 160 degrees | Adjustable; 90 to 160 degrees, Asymmetrical | Transformer and Screw Terminal Adapter | — | 50004263-002 |
| **M7284A1038/U** | Non-Spring Return | 75 lb-in. | 8 5 Nm | 120V | 15-30 sec | Screw terminals | Modulating, 4-20 mA | 0 | 90 degrees | Adjustable; 90 to 160 degrees, Asymmetrical | Transformer and Screw Terminal Adapter | — | 50004263-002 |
| **M7284A1079/U** | Non-Spring Return | 150 lb-in. | 17 Nm | 24V | 30-60 sec | Quick-connect terminals | Modulating, 2-10 Vdc | 0 | 160 degrees | Adjustable; 90 to 160 degrees, Asymmetrical | — | — | None |
| **M7284C1000/U** | Non-Spring Return | 150 lb-in. | 17 Nm | 120V | 30-60 sec | Screw terminals | Modulating, 4-20 mA | 2 | 90 degrees | Adjustable; 90 to 160 degrees, Symmetrical | Transformer and Screw Terminal Adapter | — | 50004263-002 |
| **M7284C1083/U** | Non-Spring Return | 150 lb-in. | 17 Nm | 24/ 120/ 230V | 30 sec | Screw terminals | Modulating, 4-20 mA | 2 | 90 degrees | Fixed; 90 degrees, Symmetrical | Transformer | Enhanced models, additional repositions | 50004263-001 |