







## Modutrol IV™ Family of Motors

The following Modutrol IV™ motors can replace the old style Modutrol motors as shown below.

	Mod IV Replacement	Old Motors Replaced
<b>Non-Spring Return</b>	M6184 M9164 M6194 M9174 M6284 M9184 M6294 M9194 M7164 M9484 <b>M7284</b> M9494 M7294 	M644 M744 M941 M944 M954 M734 M934 
<b>Spring Return</b>	M4185 M7685 M6285 M8185 M7285 M9185 M7286 	M445 M745 M845 M945 M955 
<b>Medium Torque Spring Return</b>	M9175 	M765 M865 M965 M975 

Commercial Components

# Modutrol IV Motors

## The Honeywell Family of Modutrol IV™ Series 2 and Series 3 Motors

Actuator	Voltage Vac			Stroke	Timing	Control Input			Torque (lb-in.)					Spring Return	Recommended Controller
	24 <sup>a</sup>	120	230			On/Off	SPDT Floating	Modulating	35	60	75	150	300		
<i>*TRADELINE models.</i>															
M4185A1001/U		●		90-160	30-60	●				●				●	T775; T4031
M4185B1009/U		●		90-160	30-60	●				●				●	T775; T4031
M4185B1058/U	●	●	●	90-160	30-60	●				●				●	T775; T4031
M4185C1007/U	●	●		90-160	30-60	●				●				●	T775; T4031
M6184A1015/U	●			90-160	30-60		●				●				T775; T675; T678; T6031
M6184A1023/U		●		90-160	15-30		●				●				T775; T675; T678; T6031
M6184D1001/U	●			90-160	15-30		●				●				T775; T675; T678; T6031
*M6184D1035/U	●			90-160	30-60		●				●				T775; T675; T678; T6031
M6184D1068/U	●			90-160	120-240		●				●				T775; T675; T678; T6031
M6184F1014/U	●			90-160	30-60		●				●				T775; T675; T678; T6031
*M6194B1011/U	●			90-160	60-120		●					●			T775; T675; T678; T6031
*M6194D1017/U	●			90-160	120-240		●					●			T775; T675; T678; T6031
M6194E1006/U	●			90-160	120-240		●					●			T775; T675; T678; T6031
M6284A1055		●		90-160	30-60		●				●				T775; T675; T678; T6031
M6284A1071		●		90-160	30-60		●				●				T775; T675; T678; T6031
*M6284D1000	●			90-160	30-60		●				●				T775; T675; T678; T6031
*M6284D1026	●			90-160	30-60		●				●				T775; T675; T678; T6031
M6284F1013	●			90-160	30-60		●				●				T775; T675; T678; T6031
*M6285A1005	●			90-160	30-60		●			●			●		T775; T675; T678; T6031
M6285C1001	●			90-160	30-60		●			●			●		T775; T675; T678; T6031
*M6294D1008	●			90-160	120-240		●					●			T775; T675; T678; T6031
M7164A1017/U <sup>b</sup>	●			90-160	30-60			10.5-13.5 Vdc	●						T775; W7080
M7164G1030/U <sup>b</sup>		●		90-160	30-60			10.5-13.5 Vdc	●						T775; W7080
M7284A1004/U <sup>b</sup>		●		90-160	30-60			4-20 mA				●			T775, EXCEL 5000
M7284A1012/U <sup>b</sup>		●		90-160	30-60			4-20 mA				●			T775, EXCEL 5000
M7284A1038/U <sup>b</sup>		●		90-160	15-30			4-20 mA		●					T775, EXCEL 5000
M7284A1079/U <sup>b</sup>	●			90-160	30-60			2-10 Vdc				●			T775, EXCEL 5000
<b>M7284C1000/U<sup>b</sup></b>		<b>●</b>		<b>90-160</b>	<b>30-60</b>			<b>4-20 mA</b>				<b>●</b>			<b>T775, EXCEL 5000</b>
M7284C1083/U	●			90	30		●	4-20 mA				●			DDC
M7284C1091/U	●			160	60		●	4-20 mA				●			DDC
M7284Q1009/U <sup>b</sup>		●		90-160	30-60			4-20 mA				●			T775, EXCEL 5000
M7284Q1082/U	●			90	30		●	4-20 mA				●			DDC
M7284Q1090/U	●			160	60		●	4-20 mA				●			DDC
M7285A1003/U <sup>b</sup>		●		90-160	30-60			4-20 mA	●				●		T775, EXCEL 5000
M7285A1045/U <sup>b</sup>	●			90-160	30-60			2-10 Vdc	●				●		T775, EXCEL 5000
M7285C1009/U <sup>b</sup>		●		90-160	30-60			4-20 mA	●				●		T775, EXCEL 5000
M7285Q1008/U <sup>b</sup>		●		90-160	30-60			4-20 mA	●				●		T775, EXCEL 5000
M7286G1009/U <sup>b</sup>	●			90-160	30-60			2-10 Vdc	●				●		T775, EXCEL 5000
M7294A1010/U <sup>b</sup>	●			90-160	60-120			2-10 Vdc				●			T775, EXCEL 5000
M7294Q1007/U <sup>b</sup>		●		90-160	60-120			4-20 mA				●			T775, EXCEL 5000
M7685A1025/U <sup>b,c</sup>	●			90-160	30-60			14-17 Vdc	●				●		T775; W7080
*M8185D1006/U	●			90-160	30-60	●				●			●		T775
M9164A1005/U		●		90-160	30-60			135 ohm	●						T775; T915; T991

<sup>a</sup> All 24 Vac Modutrol motors have CE approval.

<sup>b</sup> Available only through Honeywell Authorized Distributors.

<sup>c</sup> Includes minimum position potentiometer.

# Modutrol IV Motors

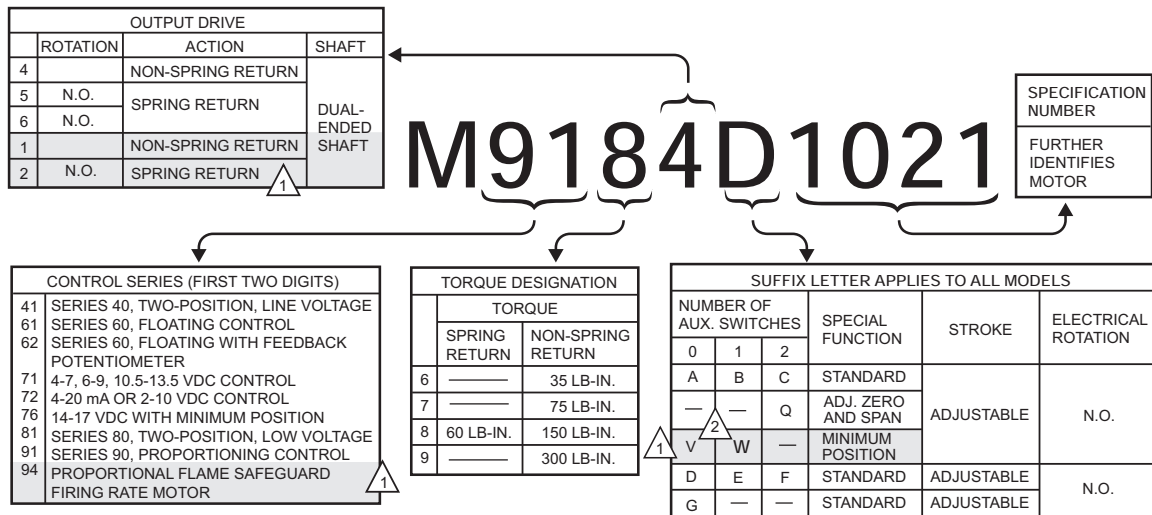
Actuator	Voltage Vac			Stroke	Timing	Control Input			Torque (lb-in.)					Spring Return	Recommended Controller
	24 <sup>a</sup>	120	230			On/Off	SPDT Floating	Modulating	35	60	75	150	300		
*TRADELINE models.															
M9164A1013/U	●	●	●	90-160	30-60			135 ohm	●						T775; T915; T991
M9164A1070/U	●			90-160	30-60			135 ohm	●						T775; T915; T991
M9164C1001/U	●			90-160	30-60			135 ohm	●						T775; T915; T991
M9164C1068/U		●		90-160	30-60			135 ohm	●						T775; T915; T991
*M9164D1009/U	●			90-160	30-60			135 ohm	●						T775; T915; T991
M9174B1027/U		●		90-160	30-60			135 ohm			●				T775; T915; T991
M9174C1025/U		●		90-160	30-60			135 ohm			●				T775; T915; T991
M9174C1033/U		●		90-160	30-60			135 ohm			●				T775; T915; T991
*M9174D1007/U	●			90-160	30-60			135 ohm			●				T775; T915; T991
M9184A1019/U	●			90-160	30-60			135 ohm				●			T775; T915; T991
M9184C1031/U	●			90-160	30-60			135 ohm				●			T775; T915; T991
M9184D1005/U	●			90-160	15-30			135 ohm			●				T775; T915; T991
*M9184D1021/U	●			90-160	30-60			135 ohm				●			T775; T915; T991
M9184F1034/U	●			90-160	30-60			135 ohm				●			T775; T915; T991
M9185A1018/U	●			90-160	30-60			135 ohm		●			●		T775; T915; T991
M9185C1006/U	●			90-160	30-60			135 ohm		●			●		T775; T915; T991
*M9185D1004/U	●			90-160	30-60			135 ohm		●			●		T775; T915; T991
M9185E1019/U	●			90-160	30-60			135 ohm		●			●		T775; T915; T991
*M9194D1003/U	●			90-160	120-240			135 ohm					●		T775; T915; T991
M9194E1000/U	●			90-160	120-240			135 ohm					●		T775; T915; T991

<sup>a</sup> All 24 Vac Modutrol motors have CE approval.

<sup>b</sup> Available only through Honeywell Authorized Distributors.

<sup>c</sup> Includes minimum position potentiometer.

## Modutrol IV™ Series 2 and Series 3 Motor Order Number Guide



1 MODEL NUMBERS IN SHADED AREAS ARE AVAILABLE SPECIAL ORDER ONLY. CONTACT YOUR HONEYWELL SALES REPRESENTATIVE.

2 SUFFIX LETTERS IN BOLD ARE OBSOLETE.

M13696A

# Modutrol IV Motors

## M4185 Line Volt; M8185 Low Volt Two-Position Modutrol IV™ Series 2 Motors



**Application Type:** Electric  
**Fail Safe Mode:** Spring Return  
**Control Signal:** Two position, SPST  
**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  
**Electrical Connections:** Quick-connect terminals  
**Mounting:** Foot-mounted  
**Motor Shafts:** Dual-ended shaft  
**Shaft Shape:** square  
**Shaft Dimensions:** 0.375 in. (10 mm)  
**Shaft Rotation (upon control signal increase):** Clockwise (as viewed from power end) (normally closed)  
**Deadweight Load on Shaft (Either End):** 200 lbs.  
**Deadweight Load (Combined on both Shafts):** 300 lbs.

Series 41 and Series 81 Modutrol IV motors are 2-position (line- and low-voltage per motor control) spring-return motors. They are used to operate dampers or valves in applications where it is necessary or desirable to have the controlled element return to the starting position in the event of power failure or interruption.

- Fixed torque throughout the entire voltage range
- Integral spring return returns motor to normal position in the event of power failure
- 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)
- Motors are designed for either normally open or normally closed valves and dampers
- Integral auxiliary switches are available factory mounted, or can be field added
- Motors can operate valve linkages from the 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)

**Ambient Temperature Range:** -40 F to +150 F (-40 C to +60 C)  
**Weight:** 9.5 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
- 220741A2-TP-**Screw Terminal Adapter Kit for 2 position 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	Torque/Force		Voltage	Nominal Timing (sec)	Internal Auxiliary Switch	Factory Stroke Setting	Stroke	Includes	Internal Transformer
	lb-in., lb	Nm, N							
M4185A1001/U	60 lb-in.	6.8 Nm	120V	30-60 sec	0	160 degrees	Adjustable; 90 to 160 degrees, Asymmetrical	Transformer	50004263-003
M4185B1009/U	60 lb-in.	6.8 Nm	120V	30-60 sec	1	160 degrees	Adjustable; 90 to 160 degrees, Asymmetrical	Transformer	50004263-003
M4185B1058/U	60 lb-in.	6.8 Nm	24/120/230V	30-60 sec	1	90 degrees	Adjustable; 90 to 160 degrees, Asymmetrical	Transformer	50004263-001
M4185C1007/U	60 lb-in.	6.8 Nm	120V	30-60 sec	2	90 degrees	Adjustable; 90 to 160 degrees, Asymmetrical	Transformer	50004263-003
* M8185D1006/U	60 lb-in.	6.8 Nm	24V	30-60 sec	0	160 degrees	Adjustable; 90 to 160 degrees, Asymmetrical	—	None

\* TRADELINE models • SUPER TRADELINE models