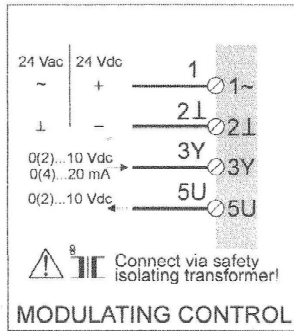


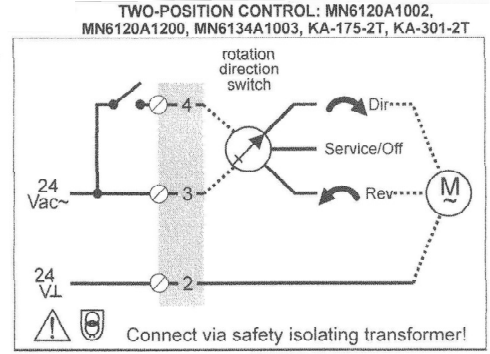
# WIRING FOR VALVE ASSEMBLIES WITH **HONEYWELL** **DIRECT COUPLED NON-SPRING RETURN ACTUATORS**

## MN7220 & MN7234 NON-SPRING RETURN MODULATING DIRECT COUPLED ACTUATORS

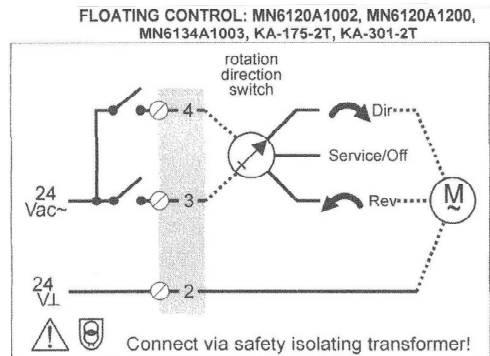
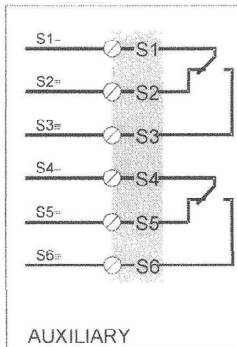
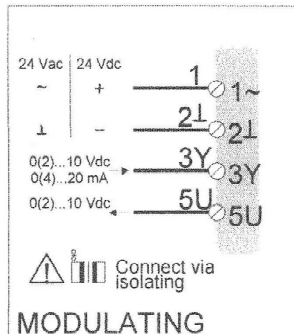
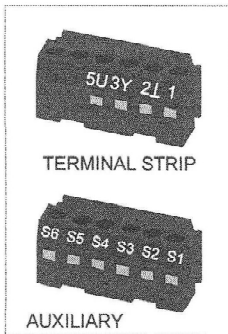
MN7220/MN7234



## MN6120 & MN6134 NON-SPRING RETURN FLOATING DIRECT COUPLED ACTUATORS

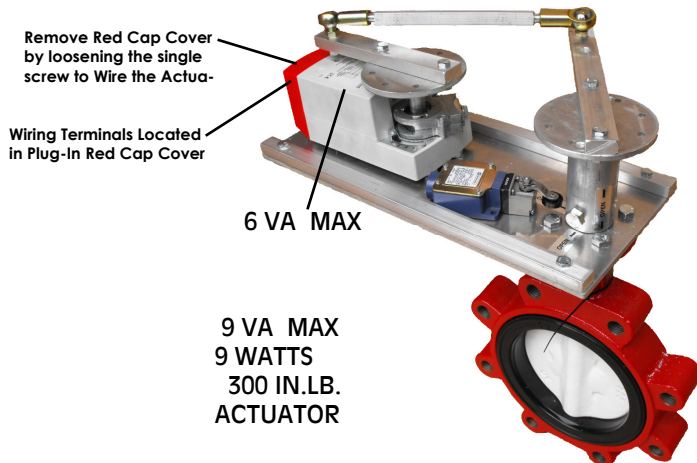


MN7220 WITH SWITCHES



NOTE: Internal auxiliary switches S1 and S4 must be connected to the same power source.

connecting cable	terminal	name	
supply and signal lines	1~	24 Vac- / 24 Vdc+	
	2L	24 Vac⊥ / 24 Vdc-	
	3Y	0(2)...10 Vdc / 0(4)...20 mA control signal	
	5U	0(2)...10 V feedback signal	
auxiliary switched (when included)	CCW (left) 5°	S1	Common
		S2	normally closed
		S3	normally open
	CW (right) 85°	S4	Common
		S5	normally closed
		S6	normally open



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# WIRING FOR VALVE ASSEMBLIES WITH **HONEYWELL** DIRECT COUPLED 2-POSITION SPRING RETURN ACTUATORS

S10, S20 SERIES SPRING RETURN DIRECT COUPLED ACTUATORS

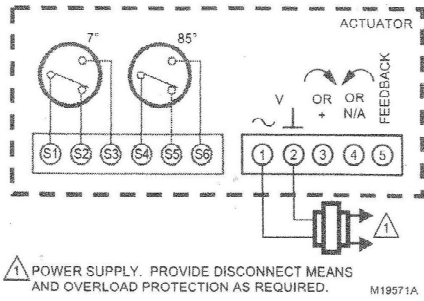


Fig. 11. Terminal block details.

Table 5. Wiring details.

Terminal	Floating	Modulating	Two-Position		Color <sup>a</sup>
			24 Vac	120 Vac 240 Vac	
1	~	power	power	power	Red
2	⊥	common	common	neutral	Black
3	↻	input	—	—	White
4	↻→	—	—	—	—
5	←	feedback	—	—	Brown

<sup>a</sup> Only applies to models with wires.

### Sxx24-2POS Models

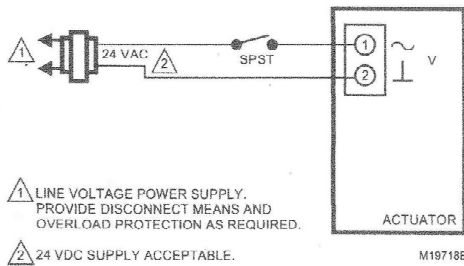


Fig. 12. Wiring for low-voltage two-position control.

### Sxx120-2POS, Sxx230-2POS Models

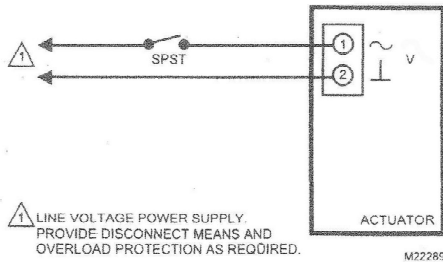


Fig. 13. Wiring for line-voltage two-position control.

### Sxx010 Models Series 60 Floating

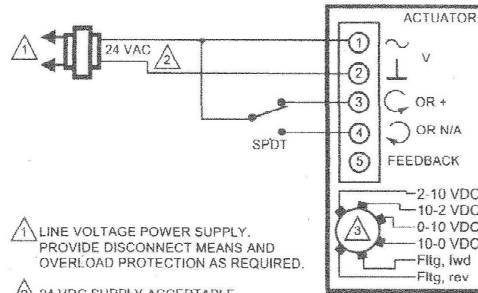


Fig. 14. Wiring for SPDT on/off control.

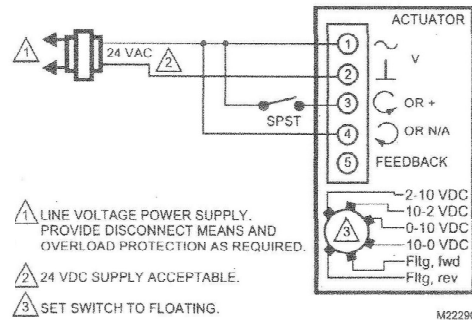


Fig. 15. Wiring for SPST on/off control.

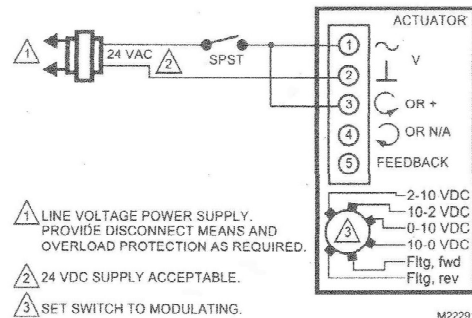
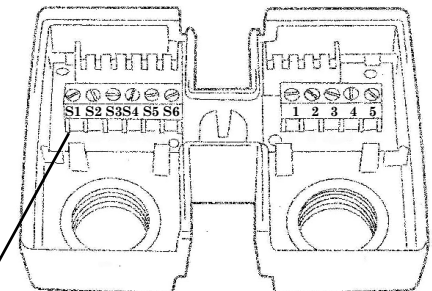
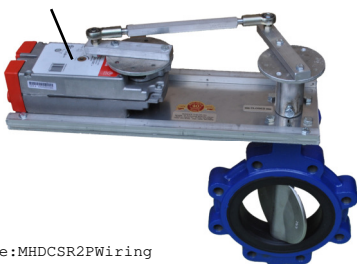


Fig. 16. Wiring for two-wire SPST on/off control.



Actuator Terminal Block Details

60 VA MAX  
36 WATTS  
2-POSITION



2-POSITION  
40 VA MAX  
24 WATTS



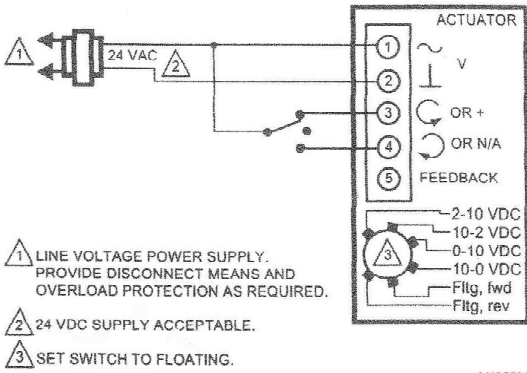
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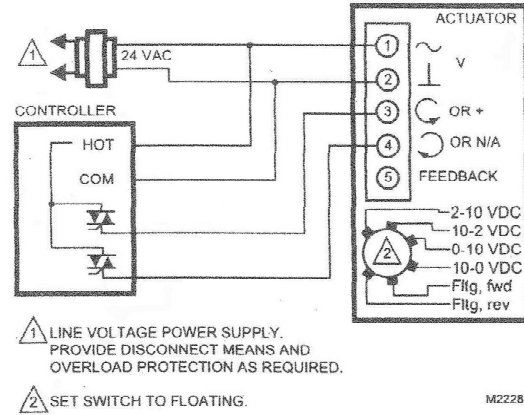
# **WIRING FOR VALVE ASSEMBLIES WITH HONEYWELL**

## **DIRECT COUPLED FLOATING SPRING RETURN ACTUATORS**

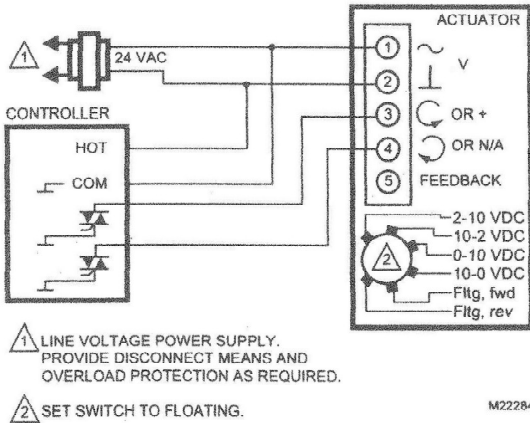
**S05, S10, S20 SERIES SPRING RETURN DIRECT COUPLED ACTUATORS**



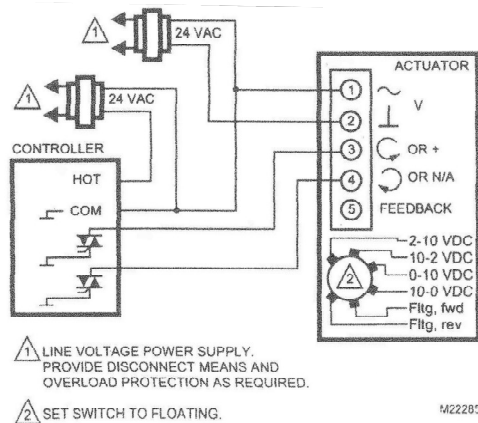
**Fig. 17. Wiring for floating control.**



**Fig. 20. Wiring for high side (triac source) floating control.**

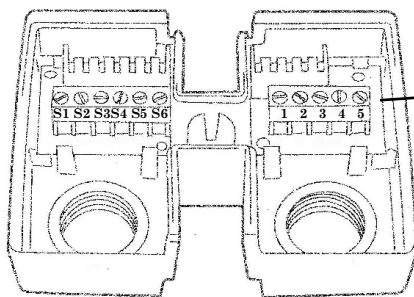


**Fig. 21. Wiring for low side (triac sink) floating control.**

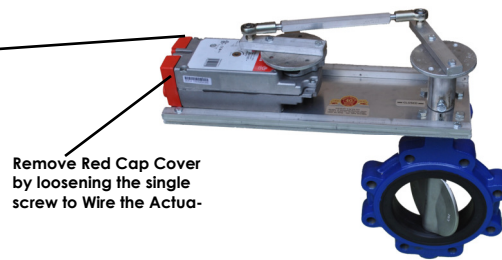


**Fig. 22. Wiring for low side (triac sink) floating control using separate transformers.**

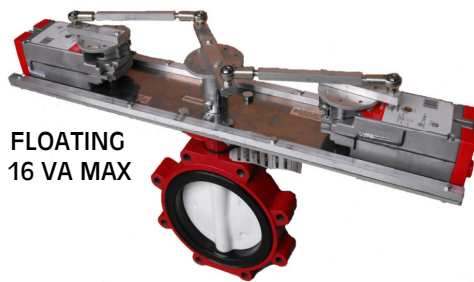
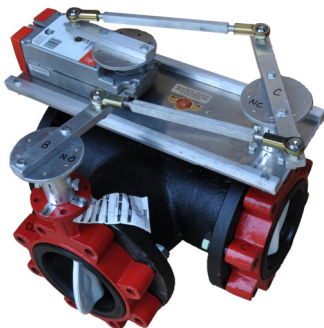
### **SERIES 60 FLOATING ACTUATORS**



**Actuator Terminal Block Details**



Remove Red Cap Cover by loosening the single screw to Wire the Actua-



**FLOATING  
16 VA MAX**



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# WIRING FOR VALVE ASSEMBLIES WITH **HONEYWELL** DIRECT COUPLED MODULATING SPRING RETURN ACTUATORS

S05, S10, S20 SERIES SPRING RETURN DIRECT COUPLED ACTUATORS

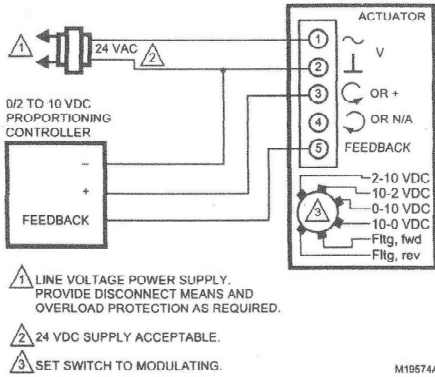


Fig. 18. Wiring for 0/2-10 Vdc proportioning controllers.

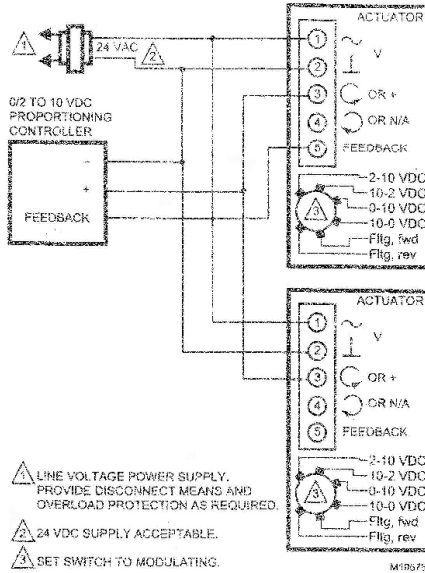


Fig. 23. Wiring for 0/2-10 Vdc proportioning controller operating multiple actuators.

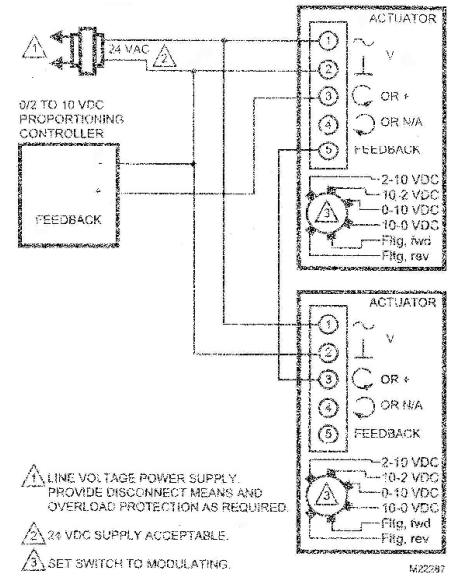


Fig. 25. Wiring for 0/2-10 Vdc proportioning controller operating multiple actuators as master/driver.

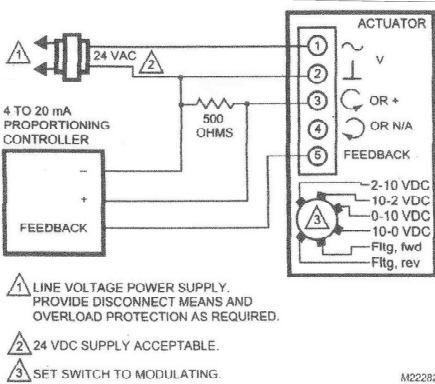


Fig. 19. Wiring for 4-20 mA proportioning controllers.

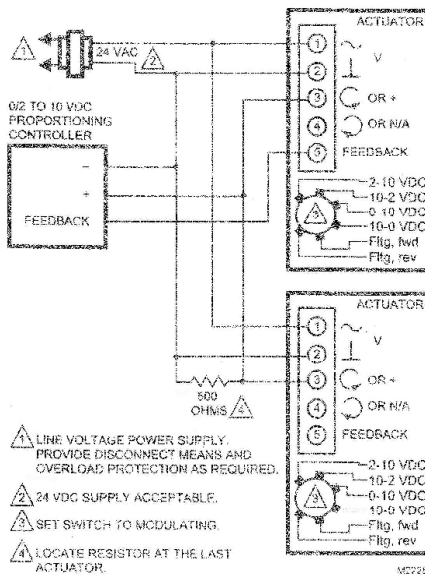


Fig. 24. Wiring for 4-20 mA proportioning controller operating multiple actuators.

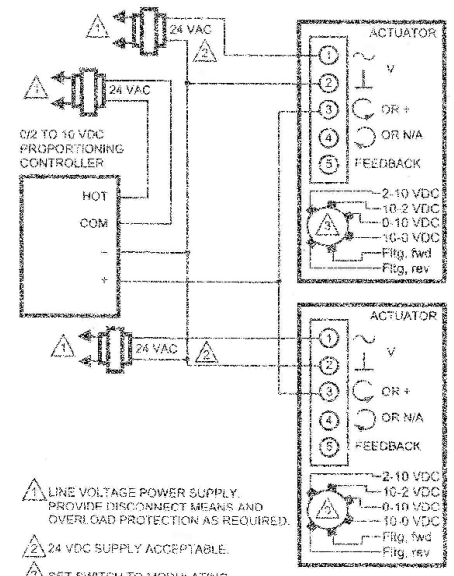
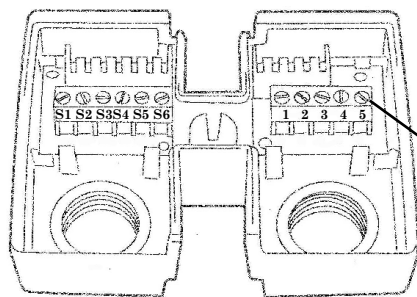


Fig. 26. Wiring for 0/2-10 Vdc proportioning controller operating multiple actuators with separate transformers.

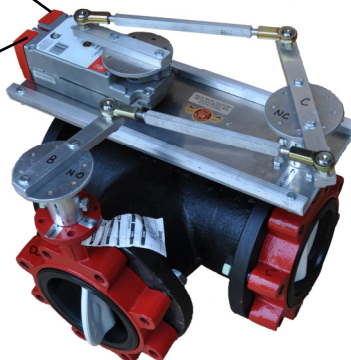


**Actuator Terminal Block Details**

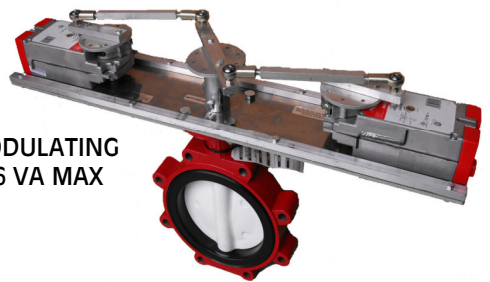
Remove Red Cap Cover by loosening the single screw to Wire the Actua-



**MODULATING  
16 VA MAX**



**MODULATING  
16 VA MAX**



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# WIRING FOR OVERRIDES & END SWITCHES ON **HONEYWELL**

## DIRECT COUPLED SPRING RETURN ACTUATORS

S05, S10, S20 SERIES SPRING RETURN DIRECT COUPLED ACTUATORS

### Actuator Override

To override the control signal (for freeze protection or similar applications):

1. Override to full open:
  - a. Disconnect the input signal (from terminal 3).
  - b. Apply 24 Vac to terminal 3.
  - c. See Fig. 27.
2. Override to full closed:
  - a. Disconnect the input signal (from terminal 3).
  - b. See Fig. 28.

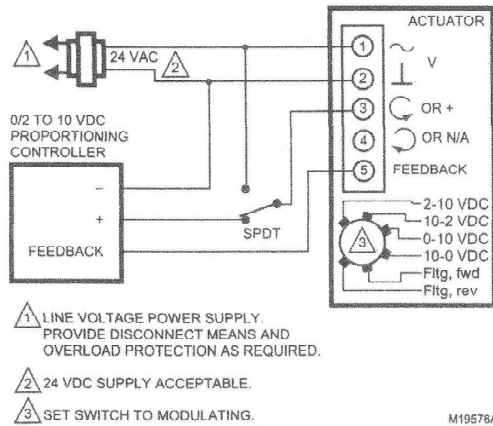


Fig. 27. Override to full open.

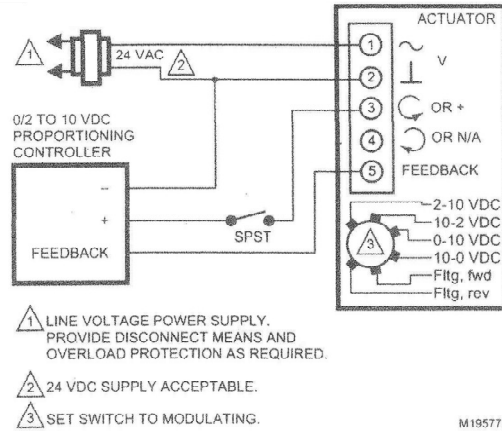


Fig. 28. Override to full close.

### End Switches

Some models include end switches (see Table 6). For wiring details, see Fig. 11.

### SPDT Switches (Fig. 29)

For SPDT end switch wiring, see Fig. 11.

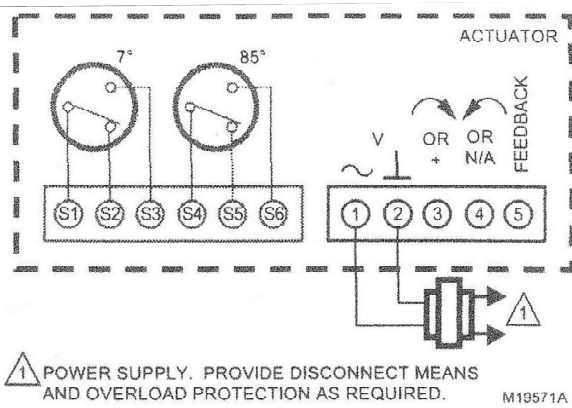


Fig. 11. Terminal block details.

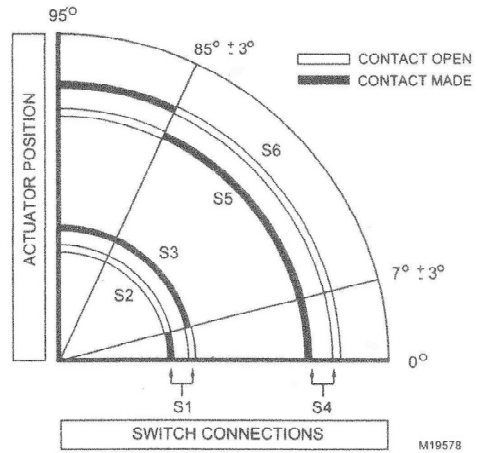
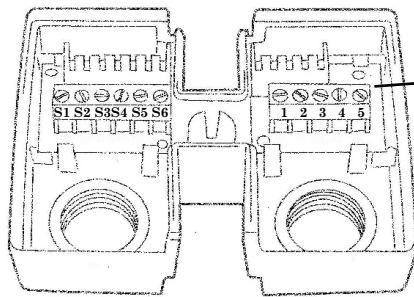


Fig. 29. SPDT End Switch Operation.

MODULATING  
16 VA MAX



Actuator Terminal Block Details

Remove Red Cap Cover by loosening the single screw to Wire the Actua-

2-POSITION  
40 VA MAX  
24 WATTS



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