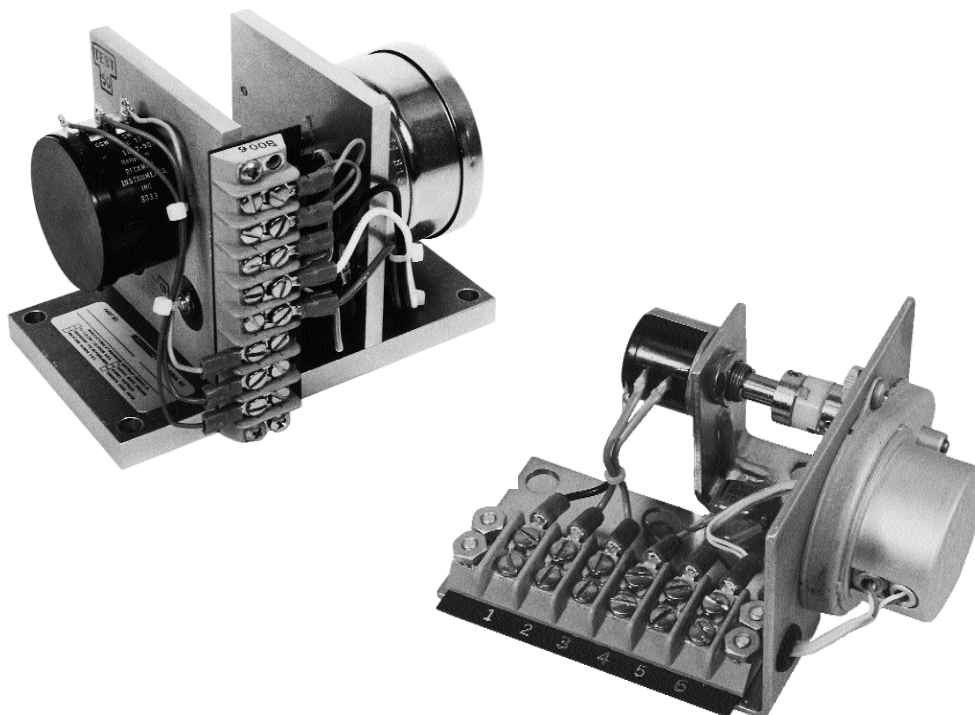


MOP

Motor Operated Potentiometer



- Low cost
- Simple, reliable design
- Standard resistance values
- 24 VDC, 115, or 230 VAC operation (AC MOPs are obsolete)

Application

This motor operated potentiometer (MOP) is a low-cost means of remote speed adjustment or speed trim for Woodward 2301, 2301A, 2500, and Electrically Powered Governor (EPG) controls. The MOP is also used as a power level adjustment for the Woodward Generator Load Control and the family of Import/Export controls.

The MOPs covered in this product specification have 1 rpm motors except MOPs 8272-131 and 8271-877, which have 3 rpm motors.

Description

The MOP is an assembly of a potentiometer driven through a coupling by an electric motor. The motor includes a friction clutch assembly to prevent damage to the potentiometer when it is turned to the end of its travel. The potentiometer and motor are mounted on a sheet steel bracket. Install the MOP at the electric control panel or remotely.

Specifications

MOP Assembly

Operating Temperature Range	29 to +66 °C (−20 to +150 °F)
Weight	Approximately 369 g (13 oz)

Potentiometer

Construction	Wire wound
Rotation	1 turn*, 3 turns, or 10 turns
Resistance Values	50, 100, 200, 500, 1000, 5000 Ω
Resistance Tolerance	± 5%
Linearity	± 0.25%
Power Loss	1 W at 70 °C (158 °F)
Power Rating	1 W

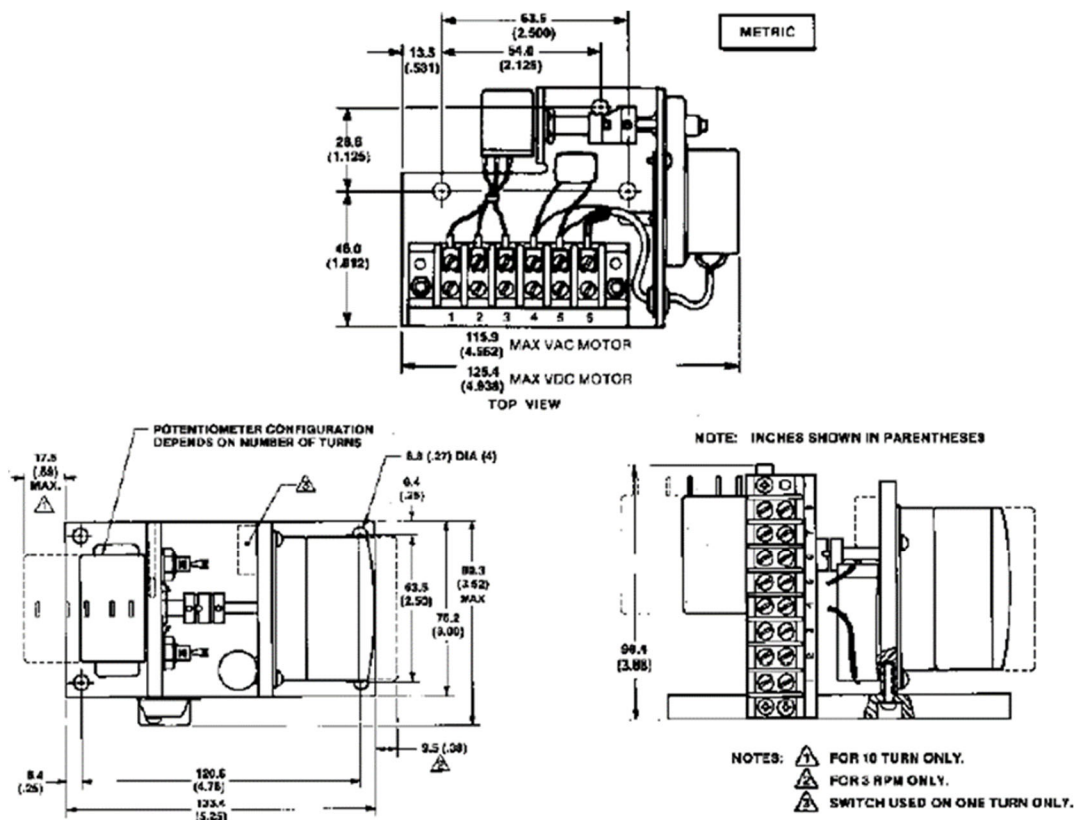
DC Motor (24 VDC)

Type	DC motor, electrically reversible
Voltage	24 VDC
Rotation	1 rpm
Coast Time	160 ms from power off to no change

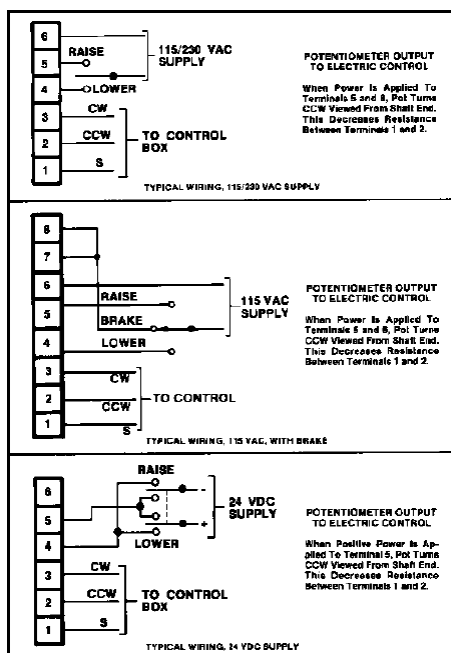
AC Motor (115 and 230 VAC)*

Type	AC motor, synchronous, electrically reversible
Voltage and Frequency	115 VAC, ±10%/60 Hz, ±5%, 230 VAC, ±10%/50 Hz, ±5%
Rotation	1 rpm
Current	15 mA nominal
Power Input	1.5 W nominal at 115 V, 60 Hz, and 25 °C
Coast Time	zero

*Obsolete



Outline Drawing (do not use for construction)



MOP Plant Wiring (do not use for construction)

Part Numbers	Voltage	Resistance	Pot Turns
8271-752	24VDC	100 Ω	3
8271-753	24VDC	200 Ω	3
8271-772	24VDC	500 Ω	3
8271-754	24VDC	1 k Ω	3
8272-464	24VDC	1 k Ω	10
8272-048	24VDC	5 k Ω	3
8272-447	24VDC	5 k Ω	10
8272-657	24VDC	10 k Ω	10
8272-669*	24VDC	5 k Ω	1
8272-671	24VDC	100 Ω	10
8272-653	24VDC	10 k Ω	3
8272-627	24VDC	2 k Ω	10
8272-626	24VDC	2 k Ω	3
8272-196*	115VAC, 60 Hz	50 Ω	3
8271-755*	115VAC, 60 Hz	100 Ω	3
8272-262*	115VAC, 60 Hz	100 Ω	10
8271-756*	115VAC, 60 Hz	200 Ω	3
8272-105*	115VAC, 60 Hz	200 Ω	10
8271-770*	115VAC, 60 Hz	500 Ω	3
8271-757*	115VAC, 60 Hz	1 k Ω	3
8272-266*	115VAC, 60 Hz	1 k Ω	10

Part Numbers	Voltage	Resistance	Pot Turns
8272-772*	115VAC, 50 Hz	1 k Ω	10
8272-399*	115VAC, 60 Hz	2 k Ω	3
8272-277*	115VAC, 60 Hz	5 k Ω	3
8271-924*	115VAC, 60 Hz	5 k Ω	10
8272-694*	115VAC, 60 Hz	10 k Ω	10
8272-686*	115VAC, 60 Hz	10 k Ω	3
8271-771*	230VAC, 50 Hz	100 Ω	3
8271-812*	230VAC, 50 Hz	200 Ω	3
8271-813*	230VAC, 50 Hz	1 k Ω	3
8272-697*	230VAC, 50 Hz	2 k Ω	3
8272-388*	230VAC, 50 Hz	5 k Ω	3
For units with braking circuit			
8270-476*	115VAC, 60 Hz	100 k Ω	3
8270-048*	115VAC, 60 Hz	200 Ω	3
8271-643*	115VAC, 60 Hz	200 Ω	10
8270-784*	115VAC, 60 Hz	500 Ω	3
8271-658*	115VAC, 60 Hz	500 Ω	10
8270-409*	115VAC, 60 Hz	1 k Ω	1
8272-131*	115VAC, 60 Hz	1 k Ω	1
8270-046*	115VAC, 60 Hz	1 k Ω	3
8271-637*	115VAC, 60 Hz	1 k Ω	10
8271-806*	115VAC, 60 Hz	5 k Ω	10
8271-877*	115VAC, 60 Hz	5 k Ω	10

*Obsolete



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