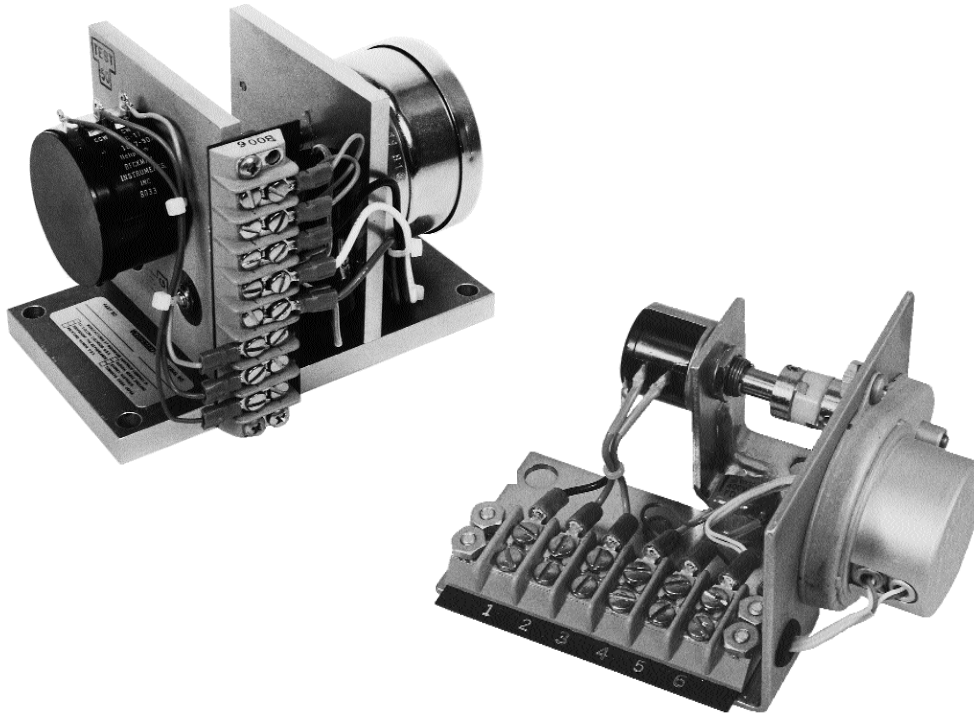


MOP

Motor Operated Potentiometer



- Low cost
- Simple, reliable design
- Standard resistance values
- 24 Vdc, 115, or 230 Vac operation

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

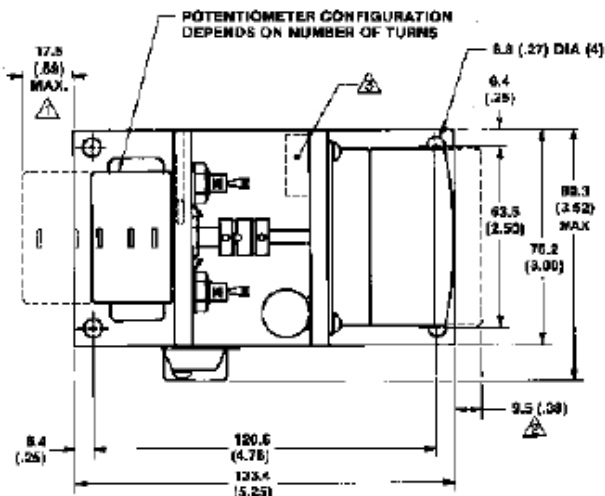
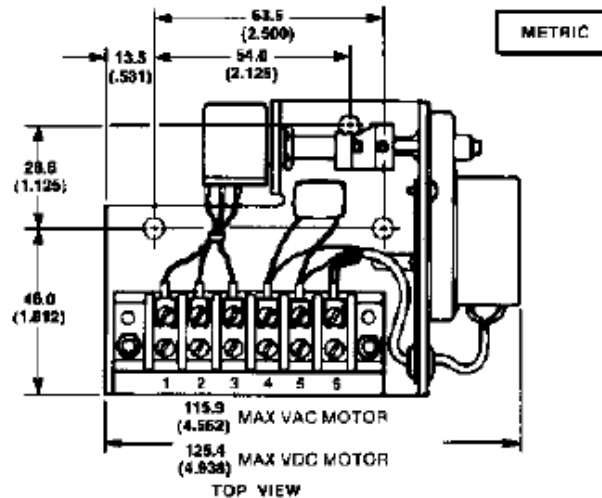
Construction	Wire wound
Rotation	1 turn, 3 turns, or 10 turns
Resistance Values	50, 100, 200, 500, 1000, 5000 Ω
Resistance Tolerance	± 5%
Linearity	± 0.25%
Power Loss	1 W at 70 °C (158 °F)
Power Rating	1 W

DC Motor (24 Vdc)

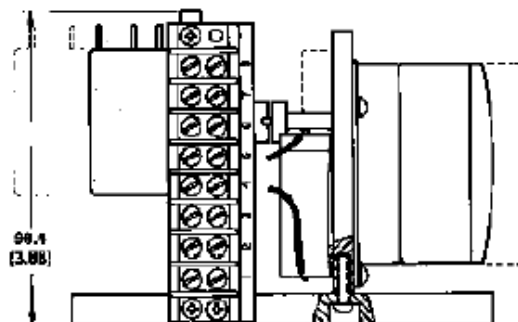
Type	DC motor, electrically reversible
Voltage	24 Vdc
Rotation	1 rpm
Coast Time	160 ms from power off to no change

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

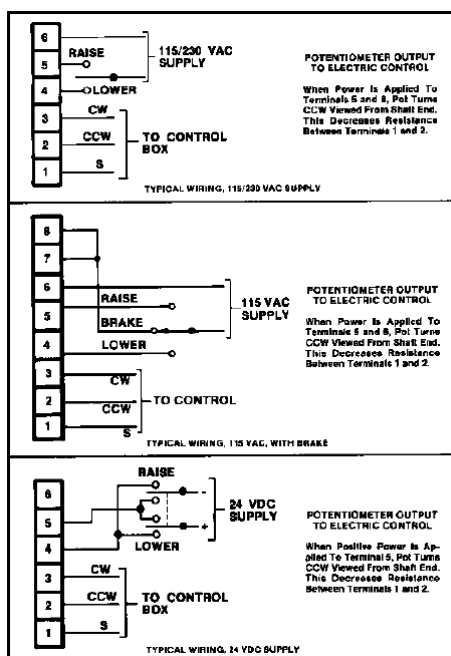


NOTE: INCHES SHOWN IN PARENTHESES



- NOTES:
- FOR 10 TURN ONLY.
 - FOR 3 RPM ONLY.
 - SWITCH USED ON ONE TURN ONLY.

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 kΩ	3
8272-464	24Vdc	1 kΩ	10
8272-048	24Vdc	5 kΩ	3
8272-447	24Vdc	5 kΩ	10
8272-657	24Vdc	10 kΩ	10
8272-669	24Vdc	5 kΩ	1
8272-671	24Vdc	100 Ω	10
8272-653	24Vdc	10 kΩ	3
8272-627	24Vdc	2 kΩ	10
8272-626	24Vdc	2 kΩ	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 kΩ	3
8272-266	115Vac, 60 Hz	1 kΩ	10

Part Numbers	Voltage	Resistance	Pot Turns
8272-772	115Vac, 50 Hz	1 kΩ	10
8272-399	115Vac, 60 Hz	2 kΩ	3
8272-277	115Vac, 60 Hz	5 kΩ	3
8271-924	115Vac, 60 Hz	5 kΩ	10
8272-694	115Vac, 60 Hz	10 kΩ	10
8272-686	115Vac, 60 Hz	10 kΩ	3
8271-771	230Vac, 50 Hz	100 Ω	3
8271-812	230Vac, 50 Hz	200 Ω	3
8271-813	230Vac, 50 Hz	1 kΩ	3
8272-697	230Vac, 50 Hz	2 kΩ	3
8272-388	230Vac, 50 Hz	5 kΩ	3
for units with braking circuit			
8270-476	115Vac, 60 Hz	100 kΩ	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 kΩ	1
8272-131	115Vac, 60 Hz	1 kΩ	1
8270-046	115Vac, 60 Hz	1 kΩ	3
8271-637	115Vac, 60 Hz	1 kΩ	10
8271-806	115Vac, 60 Hz	5 kΩ	10
8271-877	115Vac, 60 Hz	5 kΩ	10



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