

**7/8" (22.2mm) Ten Turn Wirewound Precision Potentiometer**



**FEATURES**

- 10 Standard Resistance Values
- Plastic or Metal Shaft
- Rugged Integrated Construction
- 0.25% Linearity

ELECTRICAL SPECIFICATIONS	
PARAMETER	
Total Resistance	Range 100Ω to 100K, tolerance ± 5%
Linearity (Independent)	± 0.25%
Noise	100Ω ENR maximum
Rotation	3600 + 10° - 0°
Power Rating	2.0 watts @ 70°C Derated to zero at 125°C
Insulation Resistance	1000MΩ minimum 500 VDC
Dielectric Strength	1000V <sub>RMS</sub> 60Hz
Absolute Minimum Resistance	Not to exceed 0.10% of total resistance or 1Ω whichever is greater
Tempco	20ppm/°C (wire only)
End Voltage	0.25% of total applied voltage maximum

ORDERING INFORMATION			
<p>This part number consists of four groups of digits. The first group is the Spectrol model number. The second digit describes the mechanical options available. The third digit describes the other optional features which can be supplied. The fourth group is the standard EIA resistance code</p>			
<b>536</b>	<b>1</b>	<b>1</b>	<b>103</b>
MODEL	MECHANICAL OPTIONS	OPTIONAL FEATURES	RESISTANCE CODE
	<ol style="list-style-type: none"> <li>1. 0.250 dia. plastic shaft</li> <li>2. 0.250 dia. metal shaft</li> <li>3. 6mm dia. plastic shaft</li> <li>4. 6mm dia. metal shaft</li> </ol>	<ol style="list-style-type: none"> <li>1. Single section</li> </ol>	<ol style="list-style-type: none"> <li>1. First significant figure</li> <li>0. Second significant figure</li> <li>3. Number of zeros following</li> </ol>
<p>Example:                      Part number 536-1-1-103 describes a Model 536 with 0.250 dia. plastic shaft single section and a total resistance pf 10KΩ                      Example: <b>536 - 1 - 1 - 103</b></p>			

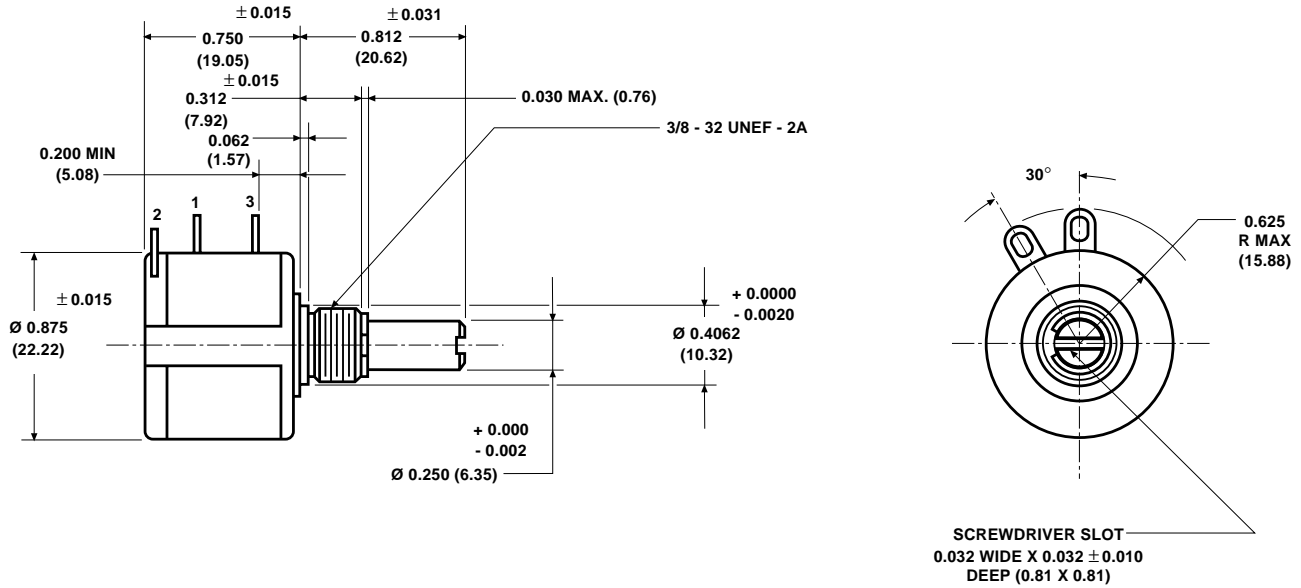
# Model 536

Spectrol

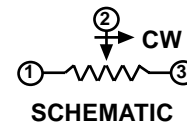
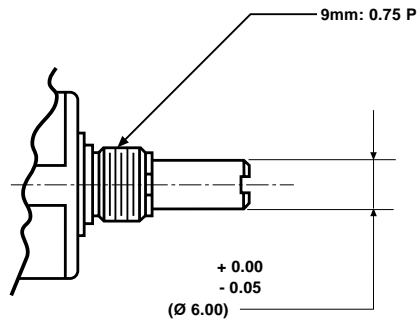
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DIMENSIONS in inches (millimeters)

## BUSHING MOUNT



## METRIC SHAFT/BUSHING THREAD



TOLERANCES: UNLESS OTHERWISE NOTED  
DECIMALS  $\pm 0.005$  ANGLES  $\pm 2^\circ$

MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	3600° + 10° - 0°	
Torque (Maximums)	<b>STARTING</b> 0.5 oz - in (36.00gm - cm)	<b>RUNNING</b> 0.4 oz - in (28.80gm - cm)
Mechanical Runouts		
Shaft (TIR)	0.005 in (0.13cm)	
Pilot dia (TIR)	0.003 in (0.08cm)	
Lateral Runout (TIR)	0.005 in (0.13cm)	
Shaft End Play	0.010 in (0.25cm)	
Shaft Radial Play	0.005 in (0.13cm)	
Weight (Maximum)	0.75 oz (21.26gm)	
Stop Strength	75 oz - in (static) (5.4Kgm - cm)	

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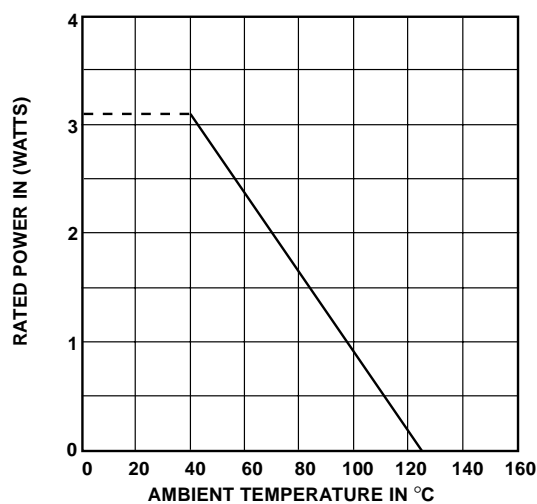
MATERIAL SPECIFICATIONS	
Front Lid	Stainless steel and nickel plated brass bushing
Housing	Molded glass filled thermoset plastic
Rear Lid	Thermo-glass filled
Shaft	Thermo-glass filled or plated metal
Terminals	Brass plated for solderability
Mounting Hardware Lockwasher Internal tooth: Panel nut:	Steel nickel plated Brass, nickel plated

ENVIRONMENTAL SPECIFICATIONS	
Vibration	15g thru 2000Hz
Shock	50g
Rotational Life	1 million shaft revolutions
Load Life	900 Hours
Operating Temperature Range	- 55°C to + 125°C
Moisture Resistant	-

### POWER RATING CHART

(Ratings for cup No. 1.

Additional cups 75% of values shown)



RESISTANCE ELEMENT DATA				
RESISTANCE VALUES (Ω)	RESOLUTION (%)	OHMS PER TURN	MAXIMUM CURRENT AT 70°C AMBIENT (mA)	MAXIMUM VOLTAGE ACROSS COIL (V)
100	0.060	0.0603	141.0	14.1
200	0.037	0.0746	100.0	20.0
500	0.031	0.1520	63.2	31.6
1K	0.025	0.2459	44.7	44.7
2K	0.021	0.4113	31.6	63.2
5K	0.016	0.8206	20.0	100.0
10K	0.017	1.7230	14.1	141.0
20K	0.015	3.0160	10.0	200.0
50K	0.009	4.6690	6.32	316.0
100K	0.007	7.4560	4.47	447.0

MARKING	
<b>Unit Identification</b>	Units shall be marked with Spectrol name and model no, resistance, resistance tolerance, linearity, terminal identification and date code