

Single Turn Precision Potentiometer

Model 5710 Series



Features:

- 3" diameter
- Wirewound



Model Styles

5711	1/4" Shaft, 1/2" Bushing
5713	1/4" Shaft, Servo

Electrical

Resistance Range, Ohms	25 to 145K
Standard Resistance Tolerance	±5%
Minimum Practical Resistance Tolerance	±1%
Independent Linearity	±0.5%
Minimum Practical Independent Linearity	±0.5%, <75 Ohms ±0.25%, 75-249 Ohms ±0.15%, 250-6,999 Ohms ±0.075%, ≥7K Ohms
Power Rating, Watts	5.0 at 40°C derating to 0 at 105°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Noise, Maximum	100 Ohms
Actual Electrical Travel	358° ±1°
Tap Tolerance	±1°
End Voltage, Maximum	Within Std. Linearity Tolerance

Environmental

Operating Temperature Range	Static: -65°C to +105°C Dynamic: -40°C to +125°C
Temperature Cycling	5 cycles, -65°C to +105°C
Shock, 6ms Half Sine	100G's
Vibration	5G's, 10 to 500 Hz
Moisture	Ten 24 hour cycles
High Temperature Exposure	1,000 hours at 105°C
Rotational Life	1 Mil. Shaft Rev.
Rotational Load Life	1 mil. shaft rev. plus 900 hrs. at rated wattage at 40°C

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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Mechanical

Total Mechanical Travel	360° Continuous	
Number of Cups, Maximum	4	
Weight, Nominal	5.8 oz. Single Cup 1.3 oz. Each Added Cup	
Backlash, Maximum	1°	
Shaft End Play, Maximum	.005"	
	5711	5713
Shaft Runout, T.I.R., Maximum	.0005"	.001"
Pilot Diameter Runout, T.I.R., Maximum	.002"	.0015"
Lateral Runout, T.I.R., Maximum	.004"	.101"
Shaft Radial Play, Maximum	.004"	.002"
Starting Torque, Maximum	1.5 oz.-in.	1.3 oz.-in.
Running Torque, Maximum	1.2 oz.-in.	0.7 oz.-in.

Standard Resistance Values, Ohms

Total Resistance	Theoretical Resolution (% Nominal)	Tempco of Wire
1K	0.062	±130 ppm/°C
2K	0.050	±130 ppm/°C
5K	0.038	±130 ppm/°C
10K	0.031	±130 ppm/°C
20K	0.027	±130 ppm/°C
50K	0.024	± 20 ppm/°C
100K	0.022	± 20 ppm/°C

METRIC CONVERSIONS

1 in.	25.4 mm	1 oz.-in.	0,007 N-m
1 oz.	28.4 gm	1 lb.-in.	0,113 N-m

Special Features

Center Tap	CT
Linearity Tape	LT
Rear Shaft Extension	RS
Flatted Shaft	FS
Slotted Shaft	SS
Anti-Fungus Treatment	AF

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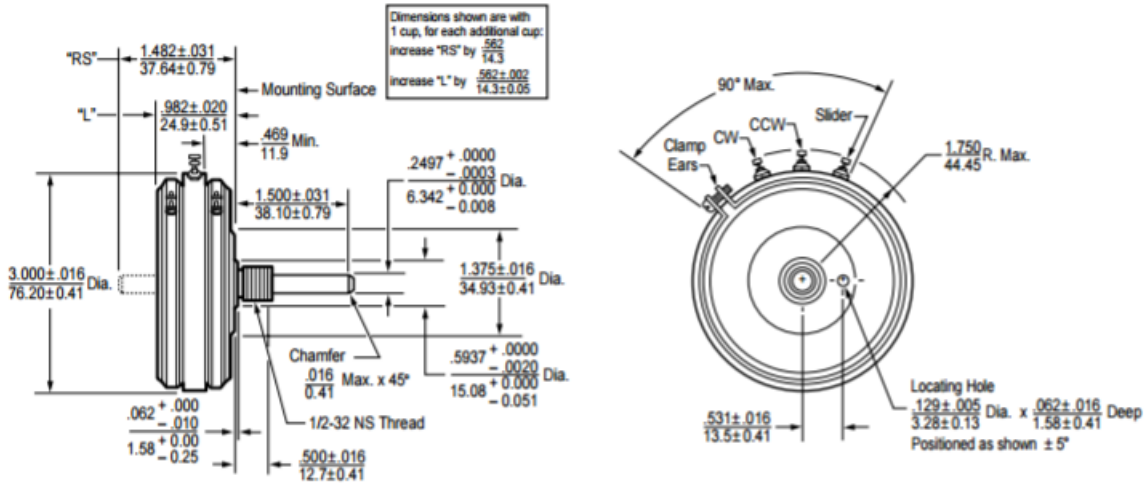
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Model 5710 Series

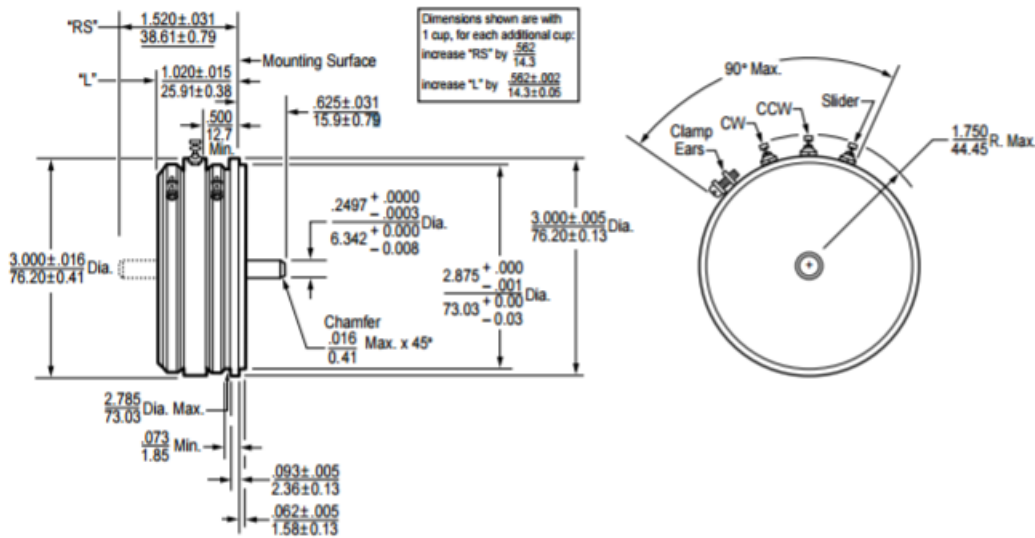


Outline Drawings

Model 5711 - Bushing Mount



Model 5713 - Servo Mount



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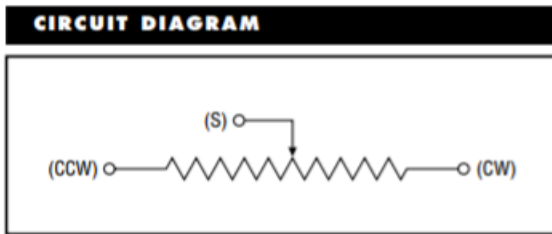
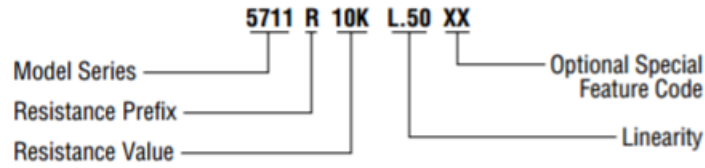
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Ordering Information



NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

Tolerances unless otherwise specified:
Linear = ± .01 inches (.25mm)
Angular = ± 2 degrees

The notes section includes a small diagram showing a dimension line with 'INCH' and 'mm' labels, and a symbol for 'THIRD ANGLE PROJECTION'.

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