

# MODEL 6370 SERIES

1-5/16" Diameter

Single Turn

Conductive Plastic

Precision Potentiometer /  
Position Sensor



2

## FEATURES

- Anodized Aluminum Housing
- Front and Rear Ball Bearings

## MODEL STYLES

6371	1/4" Shaft, 3/8" Bushing
6373	1/4" Shaft, Servo

## ELECTRICAL

Resistance Range, Ohms	1K to 300K
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	±5%
Independent Linearity*	±0.5%
Minimum Practical Independent Linearity	±0.1%
Input Voltage, Maximum	400Vdc not to exceed power rating
Power Rating, Watts	2.0 at 70°C derating to 0 at 125°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Output Smoothness, Maximum	0.1%
Actual Electrical Travel, Nominal	348°
Electrical Continuity Travel, Minimum	350°
End Voltage, Maximum	0.35% of Input Voltage
Tap Tolerance	0.5% of Input Voltage
Resolution	Essentially infinite
Temperature Coefficient**	-800 ppm/°C

Specifications subject to change without notice.

\* Linearity is measured between 1% and 99% of input voltage.

\*\* Special tempco available to ±100ppm/°C.

**ENVIRONMENTAL (MIL-R-39023)**

Operating Temperature Range	Static: -65°C to +125°C Dynamic: -40°C to +125°C
Temperature Cycling	5 cycles, -65°C to +125°C (10% ΔR)
Shock, 6ms Sawtooth	100G's (0.1ms discontinuity max.)
Vibration	15G's, 10 to 2,000 Hz (2% ΔR, 0.1ms discontinuity max.)
Moisture Resistance	Ten 24 hour cycles (10% ΔR)
High Temperature Exposure	1,000 hours at 125°C (0.5% ΔR)
Rotational Load Life	5 mil. shaft rev. +900 hrs. at rated wattage at 70°C (10% ΔR)

**MECHANICAL**

Total Mechanical Travel	360° continuous
Number of Gangs, Maximum	1
Weight, Nominal	2.0 oz.
Shaft Runout, T.I.R., Maximum	.001"
Pilot Diameter Runout, T.I.R., Maximum	.0015"
Lateral Runout, T.I.R., Maximum	.002"
Shaft Radial Play, Maximum	.002"
Start/Run Torque, Maximum	0.7 / 0.5 oz.-in.

**STANDARD RESISTANCE VALUES, OHMS**

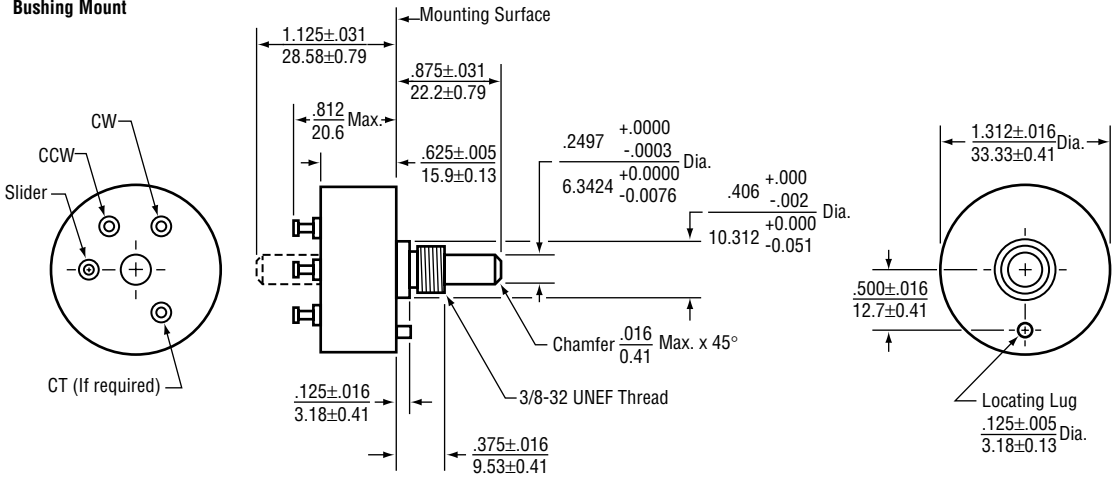
1K	2K	5K	10K	20K	50K
----	----	----	-----	-----	-----

**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

**OUTLINE DIMENSIONS (Inch/mm)**

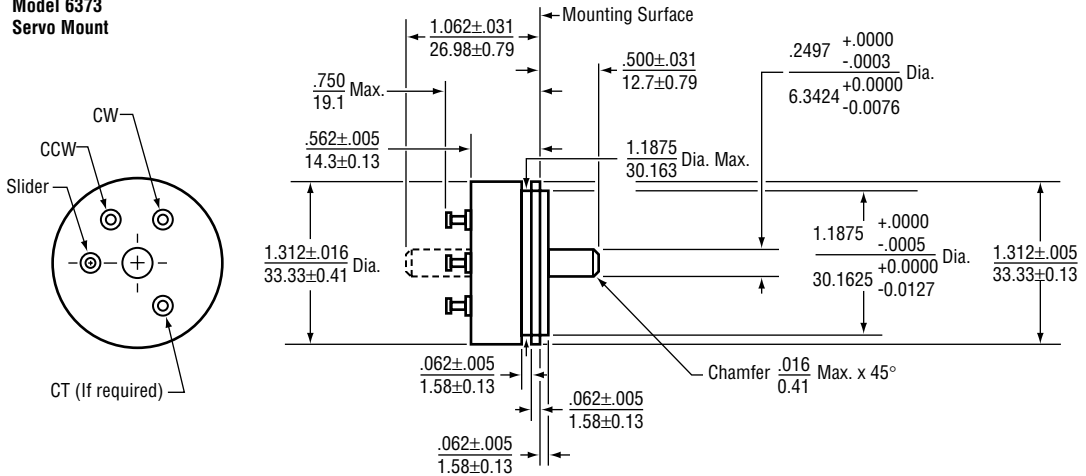
**Model 6671  
Bushings Mount**



2

**OUTLINE DIMENSIONS (Inch/mm)**

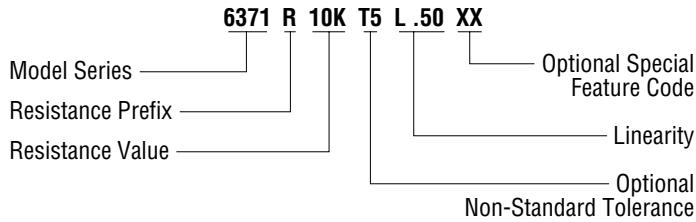
**Model 6373  
Servo Mount**



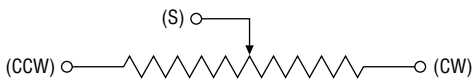
## SPECIAL FEATURES

Center Tap	CT
Linearity Tape	LT
Flatted Shaft	FS
Slotted Shaft	SS
Rear Shaft	RS
Shaft Lock (6371 only)	SL

## ORDERING INFORMATION



## CIRCUIT DIAGRAM



## 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

