

**MODEL 3371**  
**1-15/16" Diameter**  
**Precision Potentiometer / Position Sensor**  
**Single Turn, Conductive Plastic**  
**Excellent Output Smoothness**  
**Low Noise**  
**RoHS 2 Compliant**



For more information about this product, visit our website at:  
[www.potentiometers.com](http://www.potentiometers.com)

**Electrical Specifications**

Resistance Range, Ohms	1K to 900K
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	±5%
Independent Linearity*	±0.5%
Minimum Practical Independent Linearity	±0.25%
Input Voltage, Maximum	400Vdc not to exceed power rating
Power Rating	.75 Watt at 65°C derating to 0 at 105°C
Dielectric Strength	1,000V rms
Insulation Resistance	1,000 Megohms, minimum
Output Smoothness	0.1%, maximum
Actual Electrical Travel	348°, nominal
Electrical Continuity Travel	350°, minimum
End Voltage	0.5% of Input Voltage, maximum
Tap Tolerance	0.5% of Input Voltage, maximum
Resolution	Essentially infinite
Temperature Coefficient of Resistance**	-400 ppm/°C, typical
Temperature Coefficient of Output Voltage***	±10 ppm/°C, typical

**Environmental (MIL-R-39023)**

Operating Temperature Range	-25°C to +105°C
Temperature Cycling	5 cycles, -25°C to +105°C (10% ΔR)
Shock, 6ms Sawtooth	100G's (0.1ms discontinuity max.)
Vibration	10G's, 10 to 500 Hz (2% ΔR, 0.1ms discontinuity max.)
Moisture Resistance	Five 24 hour cycles (25% ΔR)
High Temperature Exposure	Mechanical operation at 105°C (0.5% ΔR)
Rotational Life	2 mil. shaft rev.
Rotational Load Life	2 mil. shaft rev. (10% ΔR)

Specifications subject to change without notice..

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

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

\*\*\* Measured with 10 VDC CW to CCW and slider at 50% of electrical travel



# MODEL 3371

## Mechanical Specifications

Total Mechanical Travel	360° continuous (350° ±2° with stop feature)
Number of Gangs	1, maximum
Weight, Nominal	1.5 oz.
Shaft Runout, T.I.R., Maximum	.0025"
Pilot Diameter Runout, T.I.R., Maximum	.0025"
Lateral Runout, T.I.R., Maximum	.003"
Shaft Radial Play, Maximum	.004"
Shaft End Play, Maximum	.007"
Start/Run Torque, Maximum	1.0 oz.-in

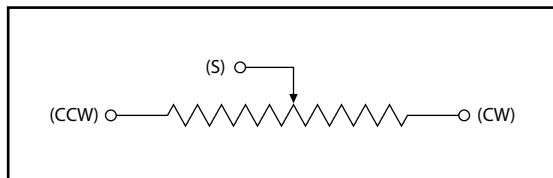
## Standard Resistance Values

1K	2K	5K	10K	20K	50K	100K
----	----	----	-----	-----	-----	------

## Metric Conversions

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

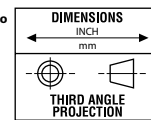
## Circuit Diagram



## Notes

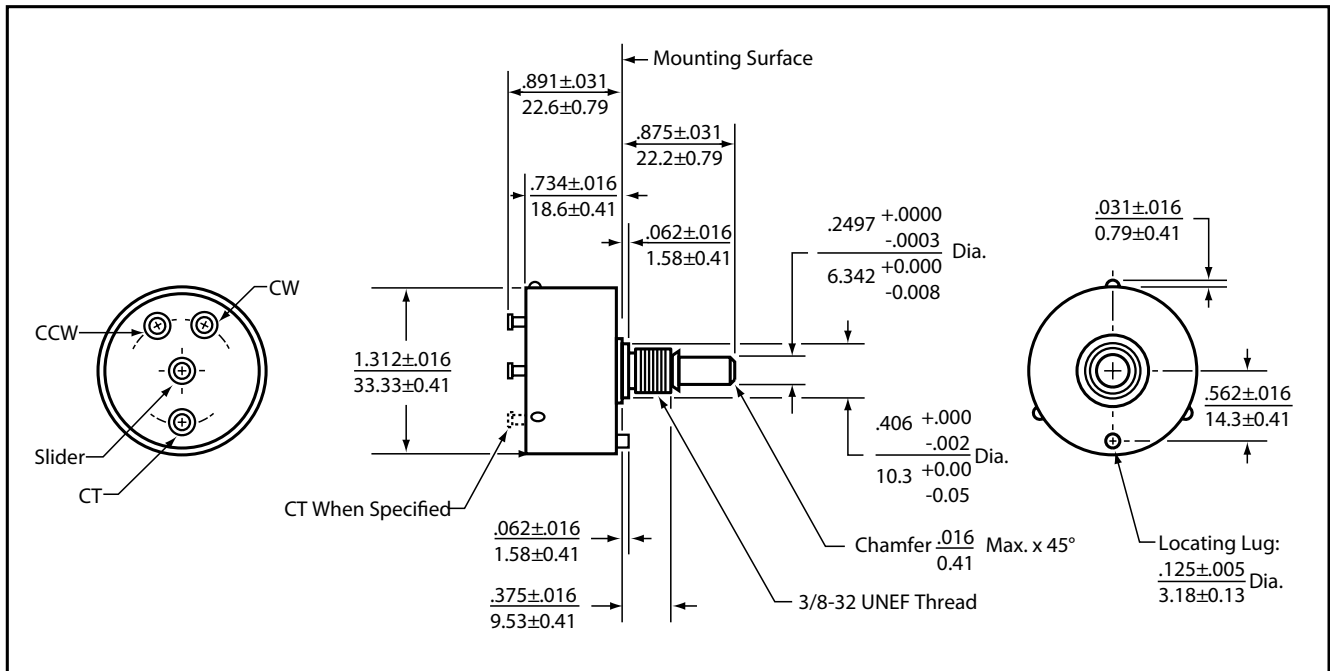
Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

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

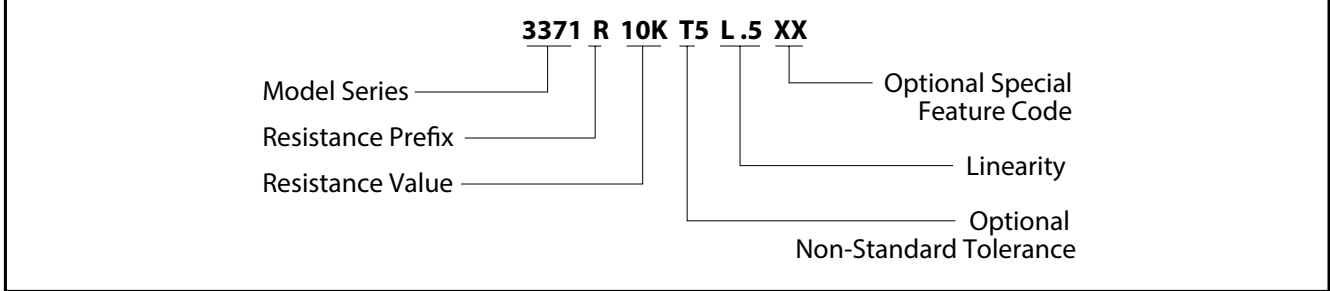


# MODEL 3371 SERIES

## Outline Dimensions (Inch/mm)



## Ordering Information



## Special Features

Center Tap	CT
Linearity Tape	LT
Flatted Shaft	FS
Slotted Shaft	SS
Shaft Lock	SL
Stop	ST
Seal (IP66)	ES



© State Electronics  
 36 State Route 10, STE 6 • East Hanover, NJ 07936-0436  
 973-887-2550 • Toll Free 1-800-631-8083 • Fax 973-887-1940  
<http://www.potentiometers.com>