

# Single-Turn Precision Potentiometer

## Model 5400 Series



### Features:

- 1-7/16" diameter
- Wirewound



## Models Available

5401	1/4" Shaft, 1/2" Bushing
5403	1/4" Shaft, Servo

## Electrical

Resistance Range, Ohms	25 to 50K
Standard Resistance Tolerance	±5%
Minimum Practical Resistance Tolerance	±1%
Independent Linearity	±1.0%, <100 Ohms ±0.5%, ≥100 Ohms
Minimum Practical Independent Linearity	±1%, <100 Ohms ±0.5%, 100-1,999 Ohms ±0.25%, 2K-9,999 Ohms ±0.15%, ≥10K Ohms
Power Rating, Watts	2.0 at 80°C derating to 0 at 125°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Noise, Maximum	100 Ohms
Actual Electrical Travel	354° ± 2°
Tap Tolerance	±1°
End Voltage, Maximum	Within Std. Linearity Tolerance

## Environmental

Operating Temperature Range	Static: -65°C to +125°C Dynamic: -40°C to +125°C
Temperature Cycling	5 cycles, -65°C to +125°C (5% ΔR)
Shock, 6ms Sawtooth	100G's (0.1%ms discontinuity, max.)
Vibration	15G's, 10 to 2,000 Hz (5% ΔR, 0.1%ms discontinuity, max.)
Humidity	Ten 24 hour cycles (3% ΔR)
High Temperature Exposure	1,000 hours at 125°C (5% ΔR)
Rotational Load Life	At rated wattage at 70°C (5% ΔR) 5401: 500K shaft rev. plus 900 hrs. 5403: 1 mil. shaft rev. plus 900 hrs.

### 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.

© TT electronics plc

TT Electronics | BI Technologies  
413 Rood RD, Suite 7  
Calxico, CA 92231  
Ph: +1 714 447 2345  
www.ttelectronics.com/bi-technologies

# Single-Turn Precision Potentiometer

Model 5311



## Mechanical

Total Mechanical Travel	360° Continuous	
Number of Cups, Maximum	4	
Weight, Nominal	2.0 oz. Single Cup 0.7 oz. Each Added Cup	
Backlash, Maximum	Negligible	
Shaft End Play, Maximum	.005"	
	<b>5401</b>	<b>5403</b>
Shaft Runout, T.I.R., Maximum	.005"	.001"
Pilot Diameter Runout, T.I.R., Maximum	.001"	.0015"
Lateral Runout, T.I.R., Maximum	.0025"	.004"
Shaft Radial Play, Maximum	.0015"	.004"
Starting Torque, Maximum (per gang)	1.6 oz.-in.	0.6 oz.-in.
Running Torque, Maximum (per gang)	0.8 oz.-in.	0.4 oz.-in.

## Standard Resistance Values, Ohms

Total Resistance	Theoretical Resolution (% Nominal)	Tempco of Wire
1K	0.125	±130 ppm/°C
2K	0.106	±130 ppm/°C
5K	0.081	±20 ppm/°C
10K	0.073	±20 ppm/°C
20K	0.059	±20 ppm/°C

### METRIC CONVERSIONS

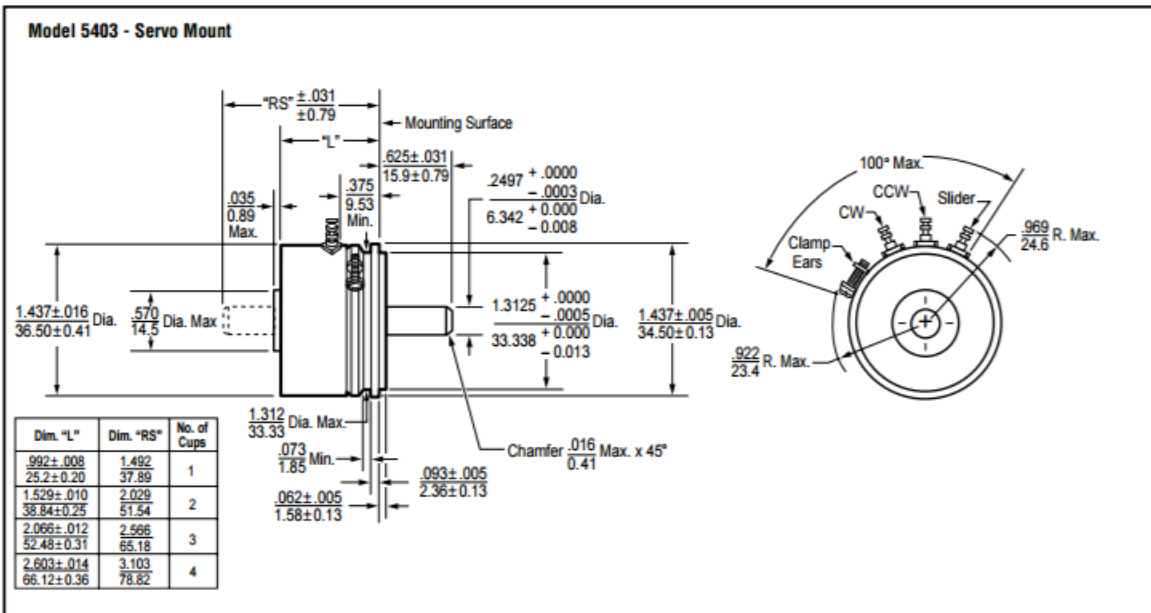
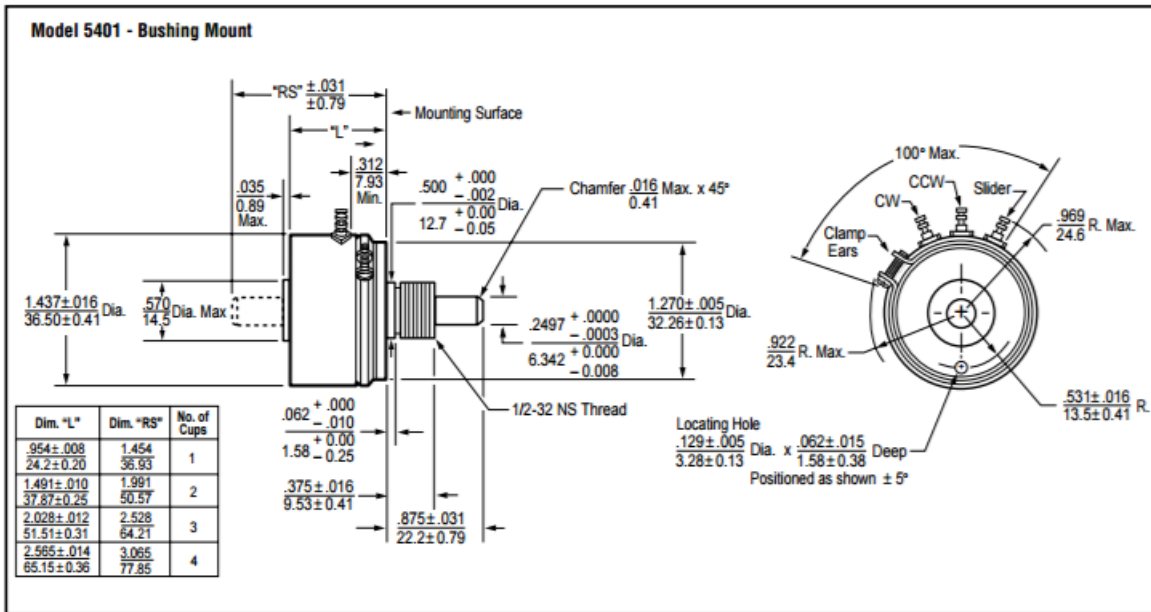
1 in.	25.4mm	1 oz.-in.	0,007 N-m
1 oz.	28.4 gm	1 lb.-in.	0,113 N-m

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.

TT Electronics | BI Technologies  
413 Rood RD, Suite 7  
Calexico, CA 92231  
Ph: +1 714 447 2345  
www.ttelectronics.com/bi-technologies

# Single-Turn Precision Potentiometer

## Model 5311



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.

TT Electronics | BI Technologies  
 413 Road RD, Suite 7  
 Calexico, CA 92231  
 Ph: +1 714 447 2345  
[www.ttelectronics.com/bi-technologies](http://www.ttelectronics.com/bi-technologies)

# Single-Turn Precision Potentiometer

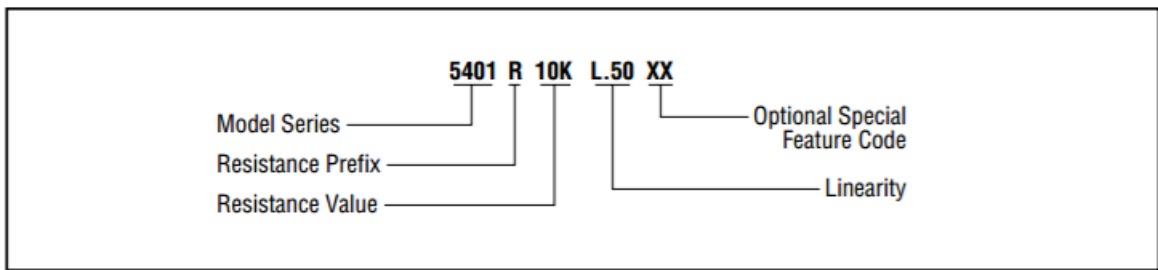
Model 5311



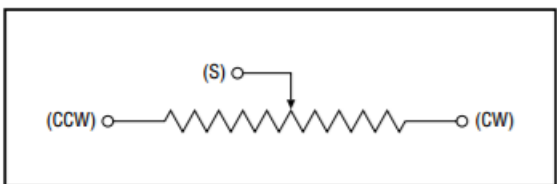
## SPECIAL FEATURES

Center Tap	CT
Linearity Tape	LT
Rear Shaft Extension	RS
Flatted Shaft	FS
Slotted Shaft	SS

## 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

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.

© TT electronics plc

TT Electronics | BI Technologies  
 413 Rood RD, Suite 7  
 Calexico, CA 92231  
 Ph: +1 714 447 2345  
[www.ttelectronics.com/bi-technologies](http://www.ttelectronics.com/bi-technologies)

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Gate Drivers](#) category:*

*Click to view products by [TT Electronics](#) manufacturer:*

Other Similar products are found below :

[00028](#) [00053P0231](#) [8967380000](#) [56956](#) [CR7E-30DB-3.96E\(72\)](#) [57.404.7355.5](#) [LT4936](#) [57.904.0755.0](#) [5801-0903](#) [5803-0901](#) [5811-0902](#)  
[5813-0901](#) [58410](#) [00576P0030](#) [00581P0070](#) [5882900001](#) [00103P0020](#) [00600P0005](#) [00-9050-LRPP](#) [00-9090-RDPP](#) [5951900000](#) [01-](#)  
[1003W-10/32-15](#) [LTI LA6E-1S-WH-RC-FN12VXCR1](#) [0131700000](#) [00-2240](#) [LTP70N06](#) [LVP640](#) [0158-624-00](#) [5J0-1000LG-SIL](#) [020017-13](#)  
[LY1D-2-5S-AC120](#) [LY2-0-US-AC120](#) [LY2-US-AC240](#) [LY3-UA-DC24](#) [00-5150](#) [00576P0020](#) [00600P0010](#) [LZNQ2M-US-DC5](#) [LZNQ2-](#)  
[US-DC12](#) [LZP40N10](#) [00-8196-RDPP](#) [00-8274-RDPP](#) [00-8275-RDNP](#) [00-8609-RDPP](#) [00-8722-RDPP](#) [00-8728-WHPP](#) [00-8869-RDPP](#) [00-](#)  
[9051-RDPP](#) [00-9091-LRPP](#) [00-9291-RDPP](#)