

MODEL B, D, E
3-5/16" Diameter
Multi-Turn, Wirewound
Precision Potentiometer



For more information about this product, visit our website at:
www.potentiometers.com



Electrical Specifications		B / BSP	D / DSP	E / ESP
		15 TURN	25 TURN	40 TURN
Range, Ohms		40 to 2 Meg	60 to 3.3 Meg	125 to 5.3 Meg
Standard Resistance Tolerance		±5%	±5%	±5%
Minimum Practical Resistance Tolerance		±1%	±1%	±1%
Independent Linearity		±0.50%	±0.50%	±0.50%
Input Voltage, Maximum (Not to Exceed Power Rating)		1,000Vdc	1,000Vdc	1,000Vdc
Power Rating, Watts (Derating to 0 at 85°C)		10 at 40°C	15 at 40°C	20 at 40°C
Dielectric Strength		1,000V rms	1,000V rms	1,000V rms
Insulation Resistance, Minimum		100 Megohms	100 Megohms	100 Megohms
Actual Electrical Travel, Nominal		5,400° +4° -0°	9,000° +4° -0°	14,400° +4° -0°
End Voltage, Maximum		<0.50% of Input Voltage	<0.50% of Input Voltage	<0.50% of Input Voltage
Minimum Practical Independent Linearity:				
	<100 Ohms	±0.10%	±0.05%	±0.05%
	100 Ohms to 999 Ohms	±0.05%	±0.05%	±0.05%
	≥1K Ohms	±0.035%	±0.035%	±0.035%
Noise:	500 Ohms, Maximum, RT =	≤8K	≤13K	≤30K
	250 Ohms, Maximum, RT =	>8K	>13K	>30K
Tap Tolerance:	±1.5°, RT =	<70 Ω	<100 Ω	<150 Ω
	±1.0°, RT =	≥70 Ω	≥100 Ω	≥150 Ω
Temperature Coefficient:	800ppm/°C, RT =	40 Ω to 265 Ω	60 Ω to 440 Ω	125 Ω to 700 Ω
	20ppm/°C, RT =	300 Ω to 8K, >142K	500 Ω to 13.5K, >230K	800 Ω to 30K, >340K
	130ppm/°C, RT =	8.6K to 128K	14K to 213K	34K to 340K

Environmental (MIL-R-12934)		B / BSP	D / DSP	E / ESP
		15 TURN	25 TURN	40 TURN
Temperature Cycling, -65° to +85°C		5% ΔR	5% ΔR	5% ΔR
Low Temperature Exposure, 24 hrs. at -65°C		5% ΔR	5% ΔR	5% ΔR

Specifications subject to change without notice.

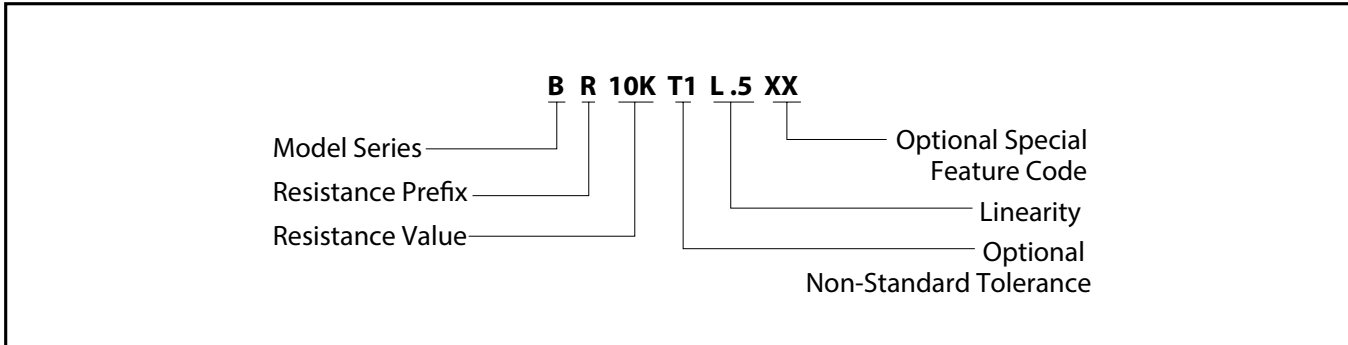
MODEL B, D, E

Mechanical Specifications	B / BSP	D / DSP	E / ESP
	15 TURN	25 TURN	40 TURN
Total Mechanical Travel	5,400° +4° -0°	9,000° +4° -0°	14,400° +4° -0°
Number of Gangs, Maximum	3	3	3
Weight, Nominal Per Gang	13 oz.	17 oz.	21 oz.
Static Stop Strength	1.150 oz.-in.	730 oz.-in.	730 oz.-in.
Backlash, Maximum	0.2°	0.2°	0.2°
Shaft End Play, Maximum	0.007" / 0.005"	0.016" / 0.007"	0.016" / 0.007"
Shaft Runout, T.I.R., Maximum	0.0005" / 0.001"	0.002"	0.002"
Pilot Diameter Runout, T.I.R., Maximum	0.002" / 0.0015"	0.002"	0.002"
Lateral Runout, T.I.R., Maximum	0.003" / 0.0065"	0.003" / 0.004"	0.003" / 0.004"
Start/Run Torque, Maximum	2.7 / 2.0 oz.-in.	3.5 / 2.5 oz.-in.	3.5 / 2.5 oz.-in.

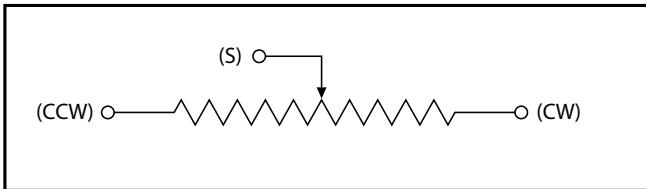
Special Features

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

Ordering Information



Circuit Diagram



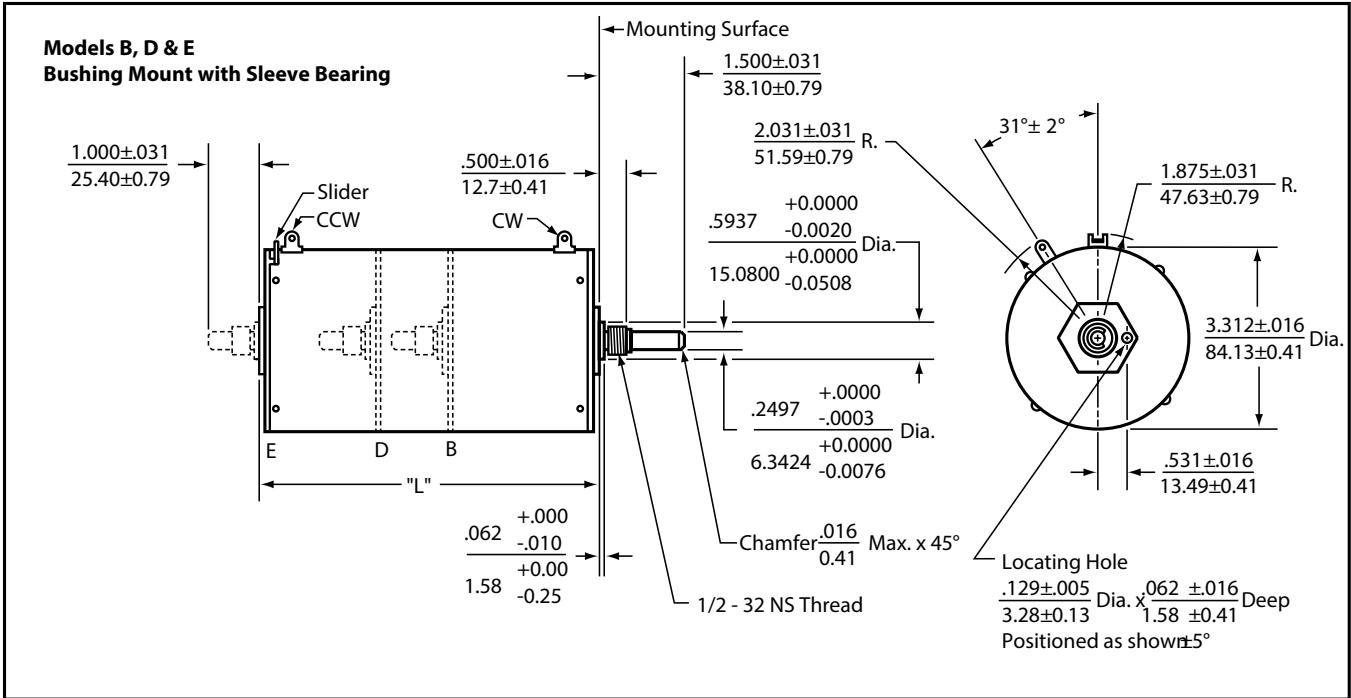
Notes

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.

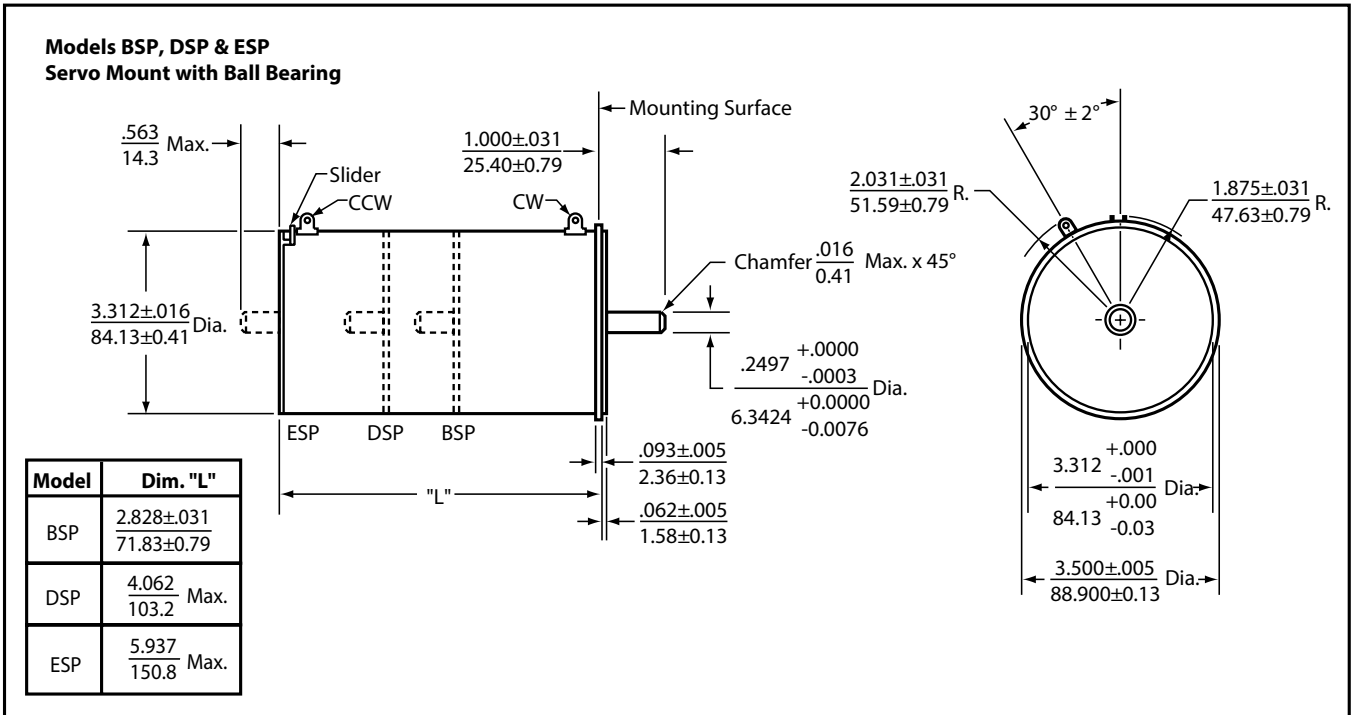
Tolerances unless otherwise specified:
 Linear = ± .01 inches (.25mm)
 Angular = ± 2 degrees

MODELS B,D,E

Outline Dimensions (Inch/mm)



Outline Dimensions (Inch/mm)



© 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>