

SERIES 400
Linear Actuation
Conductive Plastic
Precision Potentiometer / Position Sensor



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



Model Styles

Model #	Body Style	Termination Style	Weight (grams)
423	Round	Wire Leads	28 + (16 x mechanical travel)
424	Round	Gold Plated Terminals	28 + (16 x mechanical travel)
432	Round with Mounting Flange	Wire Leads	38 + (16 x mechanical travel)
434	Round with Mounting Flange	Gold Plated Terminals	38 + (16 x mechanical travel)
472	Rectangular	Wire Leads	21 + (12 x mechanical travel)
474	Rectangular	Gold Plated Terminals	21 + (12 x mechanical travel)
482	Rectangular with Mounting Flange	Wire Leads	23 + (12 x mechanical travel)
484	Rectangular with Mounting Flange	Gold Plated Terminals	23 + (12 x mechanical travel)

Electrical Specifications

Resistance Range, Ohms	See Table 1
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	± 5 %
Independent Linearity ²	See Table 1
Minimum Practical Independent Linearity	See Table 1
Input Voltage, Maximum	400Vdc, but not to exceed power rating
Power Rating, Watts	See Table 1
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Output Smoothness, Maximum	0.1% at 10" to 18"/ Minute
Actual Electrical Travel, Nominal	See Table 1
Electrical Continuity Travel, Minimum	Within Mechanical Travel
Resolution	Essentially infinite
Temperature Coefficient of Resistance ³	-400 ppm/°C typical
Temperature Coefficient of Output Voltage ⁴	-400 ppm/°C typical

1. Specifications subject to change without notice.
2. Linearity is measured between 1% and 99% of input voltage.
3. Special TCR available to ±100ppm/°C.
4. Measured with 10 VDC CW to CCW and slider at 50% of electrical travel.

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Mechanical Specifications

Total Mechanical Travel	See Table 1
Actuating Force	10 oz. maximum
Shaft Rotation	Continuous
Backlash	.003" maximum
Static Stop Strength	10 lb. minimum

Environmental Specifications (MIL-R-39023)

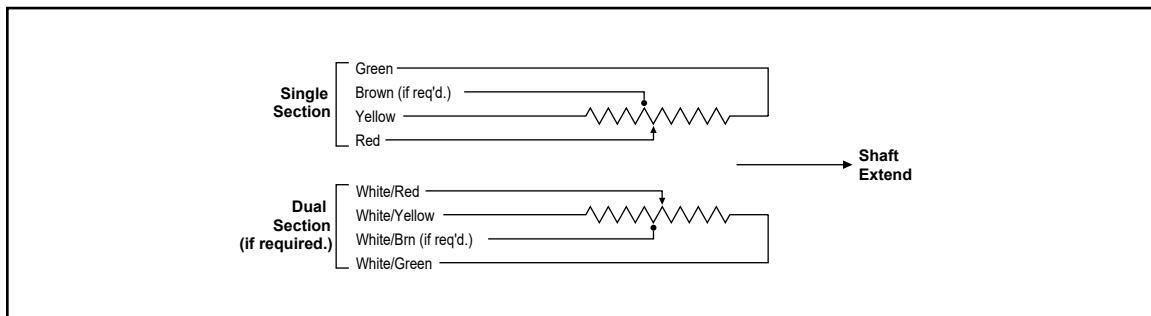
Operating Temperature Range	-40°C to +125°C dynamic, -55°C to +125°C static
Load Life	10 million shaft actuations at rated power & 70°C, maximum 10% ΔR

Table 1

Electrical Travel, Inches (Ordering #)	0.5" (-050)	1.0" (-100)	2.0" (-200)	3.0" (-300)
Standard Resistance Range, Ohms	1K to 150K	2K to 300K	4K to 600K	8K to 900K
Standard Independent Linearity	±1.0%	±0.75%	±0.5%	±0.5%
Minimum Practical Independent Linearity	0.5%	0.25%	0.25%	0.25%
Power Rating, Watts	0.5	0.75	1.0	1.5
Mechanical Travel, Inches	0.6"	1.1"	2.1"	3.1"

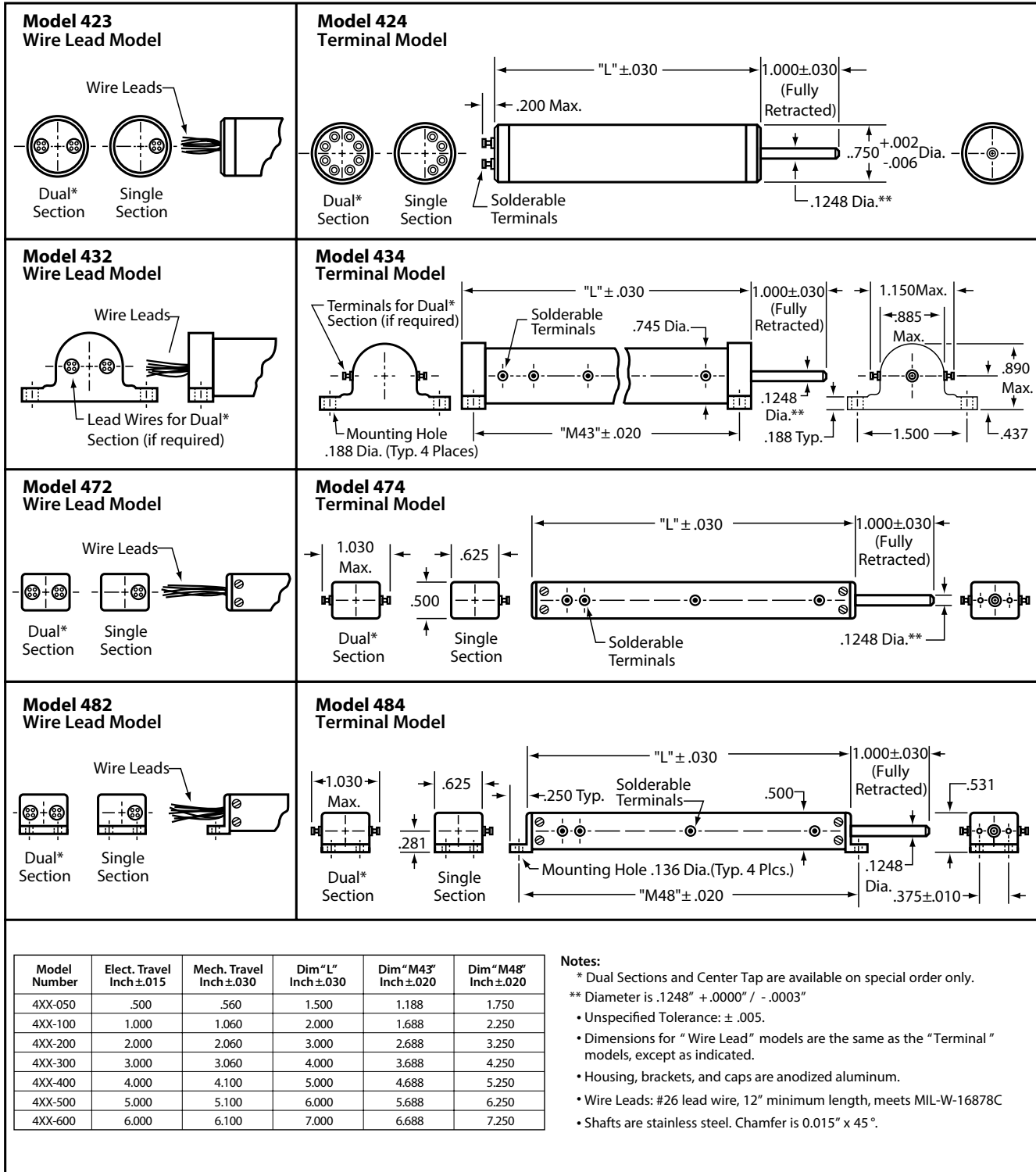
Electrical Travel, Inches (Ordering #)	4.0" (-400)	5.0" (-500)	6.0" (-600)
Standard Resistance Range, Ohms	1.2K to 1Meg	1.5K to 1.3Meg	2K to 1.5Meg
Standard Independent Linearity	±0.5%	±0.5%	±0.25%
Minimum Practical Independent Linearity	0.25%	0.25%	0.15%
Power Rating, Watts	2.0	2.5	3.0
Mechanical Travel, Inches	4.1"	5.1"	6.1"

Circuit Diagram



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Outline Dimensions (Inch)

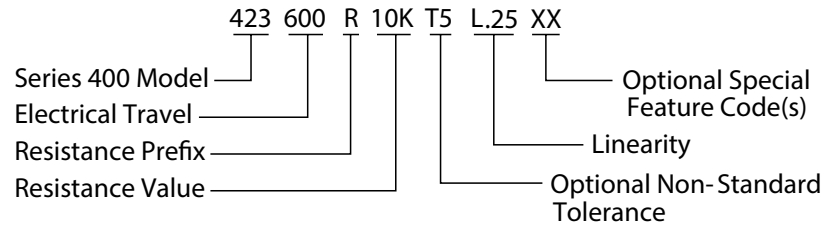


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Special Feature Codes

Center Tap	CT
Linearity Tape	LT
Two Gangs (Dual Section)	2G

Ordering Information



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