

# Model 6130 series

## Low Profile 7/8" Diameter Single Turn Conductive Plastic Bronze Bearing Position Sensor Precision Potentiometer



### MODEL STYLES AVAILABLE

6134	6 mm Shaft, 3/8" Bushing
6137	1/4" Shaft, 3/8" Bushing
6138 for heavy side load applications	1/4" Shaft, 3/8" Bushing
6130-XXX	Custom models are available; Contact Customer Service for special features or tolerances

### ELECTRICAL<sup>1</sup>

Resistance Range	1K to 100K Ohms
Standard Resistance Tolerance	±20%
Independent Linearity <sup>2</sup>	±1% (±2% for values greater than 20K Ohms)
Minimum Practical Independent Linearity	±0.5%
Input Voltage	400 VDC maximum, not to exceed power rating
Power Rating	1.0 Watt at 70°C, derating to 0 at 125°C
Dielectric Strength	750 V rms
Insulation Resistance	1,000 Megohms minimum
Output smoothness	0.1% maximum
Actual Electrical Travel	340° ±3° (300° ±3° with stop feature)
Electrical Continuity Travel	350° ±3° (343° ±3° with stop feature)
End Voltage	maximum 0.5% of input voltage
Resolution	essentially infinite
Temperature Coefficient of Resistance	-400 ppm/°C typical
Temperature Coefficient of Output Voltage <sup>3</sup>	±10 ppm/°C typical

### MECHANICAL

Total Mechanical Travel	360° continuous (343° with stop feature)
Weight	0.6 oz. typical
Backlash	1° maximum
Static Stop Strength	40 in.-oz. maximum
Start/Run Torque	0.5 in.-oz. maximum
Panel Nut Tightening Torque	25 in. lb. Max.
Construction	zinc die cast housing, stainless steel shaft, bronze bearing
Hazardous Materials	Pb free, E.U. RoHS compliant, no REACH SVHC's

<sup>1</sup> Specifications subject to change without notice.

<sup>2</sup> Linearity is measured between 1% and 99% of input voltage.

<sup>3</sup> Measured with 10 VDC CW to CCW and slider at 50% of electrical travel

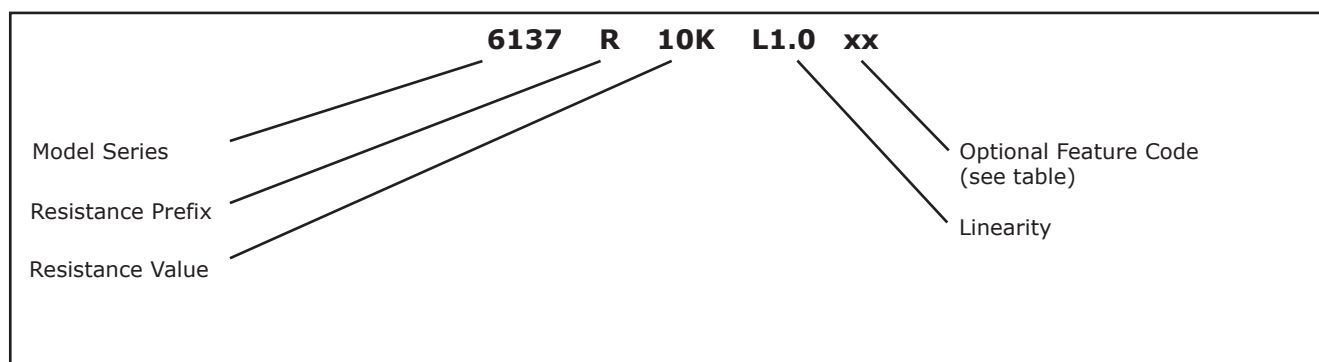


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## ENVIRONMENTAL (MIL-PRF-39023)

Operating Temperature Range	-25°C to +125°C
Temperature Cycling (static)	5 cycles, -40°C to +125°C, maximum 15% ΔR
Shock	6 ms sawtooth, 100 G's, 0.1 ms maximum discontinuity
Vibration	10 G's, 10 to 500 Hz, maximum 5% ΔR, 0.1 ms maximum discontinuity
Moisture Resistance	five 24 hour cycles, maximum 25% ΔR
High Temperature Exposure	1,000 hours at 125°C, maximum 0.5% ΔR
Rotational Life (model 6137)	5 million shaft revolutions with no sideload
Rotational Life (model 6138)	10 million shaft revolutions with up to 16 oz sideload at 90 RPM
Ingress Protection Rating (IP Code)	IP50

## ORDERING INFORMATION

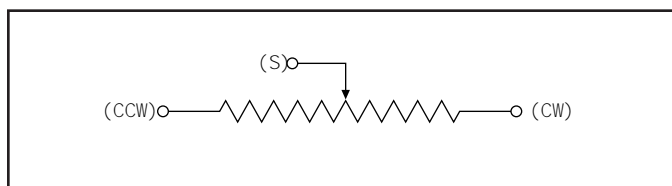


## FEATURE CODES

Center Tap	CT
Stop	ST
Flatted Shaft (slotted is standard)	FS

When multiple Optional Feature codes are used the P/N shall be in the same sequence as listed in this table (top to bottom).

## CIRCUIT DIAGRAM



## STANDARD RESISTANCE VALUES

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

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## OUTLINE DRAWING

