

**Model 6273**  
**1-1/16" Diameter**  
**Single Turn, Conductive Plastic**  
**Precision Potentiometer / Position Sensor**



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



**Electrical Specifications <sup>1</sup>**

Resistance Range	1K to 900K Ohms
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	±5%
Independent Linearity <sup>2</sup>	±0.5%
Minimum Practical Independent Linearity	±0.15%
Input Voltage	400 VDC maximum, not to exceed power rating
Power Rating	1.5 Watts at 70°C, derating to 0 at 125°C
Dielectric Strength	1,000 V rms
Insulation Resistance	1,000 Megohms minimum
Output smoothness	0.1% maximum
Actual Electrical Travel	340° nominal
Electrical Continuity Travel	346° minimum
Tap Tolerance	maximum 0.5% of input voltage
End Voltage	maximum 0.5% of input voltage
Resolution	essentially infinite
Temperature Coefficient of Resistance <sup>3</sup>	-400 ppm/°C typical
Temperature Coefficient of Output Voltage <sup>4</sup>	±10 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 ±100 ppm/°C.  
4 Measured with 10 VDC CW to CCW and slider at 50% of electrical travel.

**Mechanical Specifications**

Total Mechanical Travel	360° continuous
Number of Gangs	4 maximum
Weight	1.0 oz. single gang nominal, 0.7 oz. each added gang
Shaft Runout	maximum T.I.R. 0.001"
Pilot Diameter Runout	maximum T.I.R. 0.001"
Lateral Runout	maximum T.I.R. 0.002"
Shaft Radial Play	maximum 0.001"
Start/Run Torque	maximum 0.5 oz.-in. per gang

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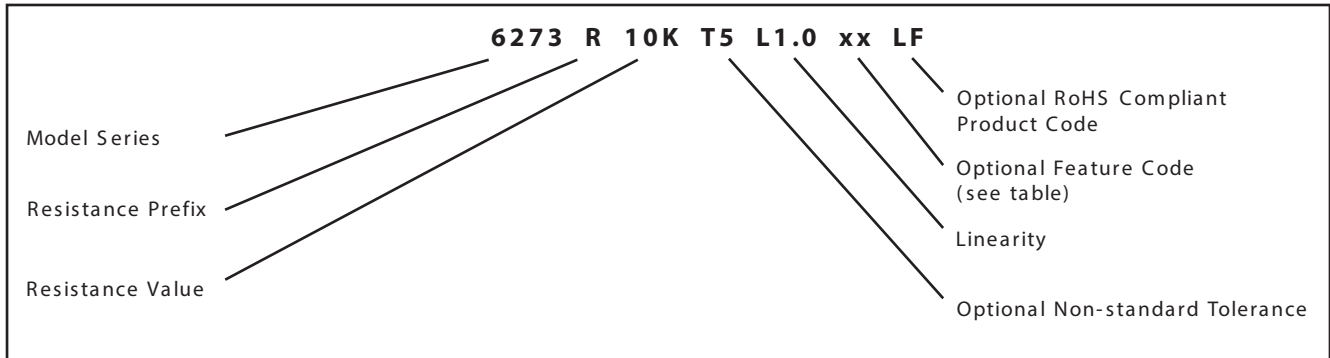
## Environmental (MIL-R-39023)

Operating Temperature Range	-40°C to +125°C dynamic, -65°C to +125°C static
Temperature Cycling	5 cycles, -65°C to +125°C, maximum 10% ΔR
Shock	6 ms Saw-tooth, 100 G's, 0.1 ms maximum discontinuity
Vibration	15 G's, 10 to 2,000 Hz, maximum 2% ΔR, 0.1 ms maximum discontinuity
Moisture Resistance	ten 24 hour cycles, maximum 10% ΔR
High Temperature Exposure	1,000 hours at 125°C, maximum 0.5% ΔR
Rotational Life	25 million shaft revolutions
Rotational Load Life	5 million shaft revolutions at 1.5 Watts & 70°C, maximum 10% ΔR

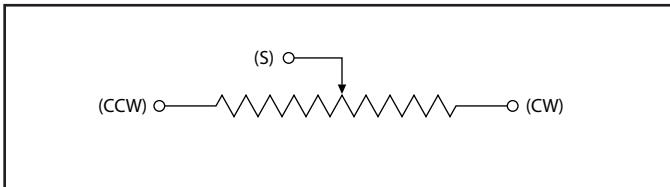
## Special Features

Center Tap	CT
Linearity Tape	LT
Flatted Shaft	FS
Slotted Shaft	SS
Rear Shaft Extension	RS
Additional Gangs	2G, 3G, or 4G

## Ordering Information



## Circuit Diagram



## Standard Resistance Values, Ohms

1K                      2K                      5K                      10K                      20K                      50K.

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## Outline Dimensions (Inch/mm)

Dim. "L"	Dim. "R S"	No. of Gangs
.500 12.7	1.000 25.40	1
.850 21.59	1.350 34.29	2
1.200 30.48	1.700 43.18	3
1.550 39.70	2.050 52.07	4

