

**MODEL C**  
**1-13/16" Diameter**  
**3-Turn, Wirewound**  
**Precision Potentiometer**



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



**Electrical Specifications**

Resistance Range, Ohms	5 to 194.7K
Standard Resistance Tolerance	< 100 Ohms = ±5%, ≥ 100 Ohms = ±3%
Minimum Practical Resistance Tolerance	± 1 %
Independent Linearity	±0.50%
Minimum Practical Independent Linearity	±0.5%, ≤ 25 Ohms ±0.25%, 26-99 Ohms ±0.15%, 100-1K Ohms ±0.10%, >1K Ohms
Power Rating, Watts	3.0 at 40°C derating to 0 at 85°C
Input Voltage, Maximum	1,000Vdc not to exceed power rating
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Noise, Maximum	500 Ohms: RT ≤ 800 Ohms 250 Ohms: RT > 800 Ohms
Actual Electrical Travel	1080° + 4° - 0°
Tap Tolerance	≤ 25 Ohms = ±2°, < 100 Ohms = ±1.5° ≥ 100 Ohms = ±1.0°
End Voltage, Maximum (% of Input Voltage)	<100Ω = 1%, >100Ω = .5%

Specifications subject to change without notice.  
 This model available in a hybrid version – contact State for details.

**Environmental (MIL-R-12934)**

Operating Temperature Range	Static: -65°C to +85°C Dynamic: -40°C to +85°C
Temperature Cycling	5 cycles, -65°C to +85°C (5% ΔR)
Shock, 6ms Sawtooth	100G's (0.1ms discontinuity max.)
Vibration	10G's, 10 to 500 Hz (5% ΔRT, 0.1ms discontinuity max.)
Moisture Resistance	Ten 24 hour cycles (3% ΔR)
High Temperature Exposure	1,000 hours at 85°C (5% ΔR)
Rotational Load Life	2 mil. shaft rev. + 900 hrs. at rated wattage at 40°C (5% ΔR)

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### Mechanical Specifications

Total Mechanical Travel	1080° + 4° - 0°
Number of Gangs, Maximum	3
Weight, Nominal (Single Gang)	2.5 oz.
Static Stop Strength	350 oz.-in.
Backlash, Maximum	1°
Panel Nut Tightening Torque, Maximum	25 lb.-in.
Shaft End Play, Maximum	.005"
Shaft Runout, T.I.R., Maximum	.0005"
Pilot Diameter Runout, T.I.R., Maximum	.002"
Lateral Runout, T.I.R., Maximum	.003"
Shaft Radial Play, Maximum	.004"
Start/Run Torque, Maximum (per gang)	3.0 oz.-in.

### Standard Resistance Values, Ohms

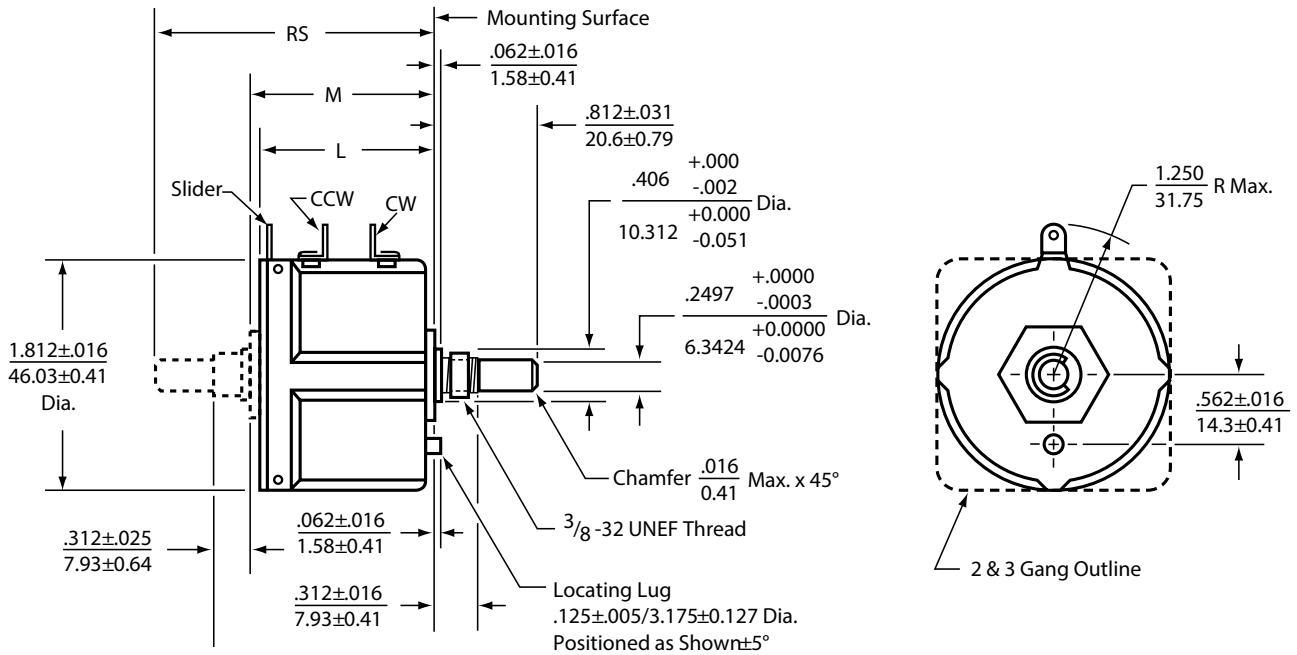
Total Resistance	Theoretical Resolution (% Nominal)	Tempco of Wire
100	0.084	±20 ppm/°C
200	0.074	±20 ppm/°C
500	0.056	±20 ppm/°C
1K	0.051	+130 ppm/°C *
2K	0.044	+130 ppm/°C *
5K	0.032	+130 ppm/°C *
10K	0.027	+130 ppm/°C *
20K	0.021	±20 ppm/°C
50K	0.017	±20 ppm/°C
100K	0.015	±20 ppm/°C

\* Lower tempco available as a special model.

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## Outline Dimensions (Inch/mm)

Dim. "L"	Dim. "M"	Dim. "RS"	No. of Gangs
$\frac{1.141}{28.98}$ Max.	$\frac{1.203}{30.56}$	$\frac{2.016}{51.12}$	1
$\frac{2.494}{63.348}$ Max.	$\frac{2.480}{62.992}$	$\frac{3.297}{83.744}$	2
$\frac{3.534}{89.764}$ Max.	$\frac{3.513}{89.230}$	$\frac{4.328}{109.931}$	3



## Metric Conversions

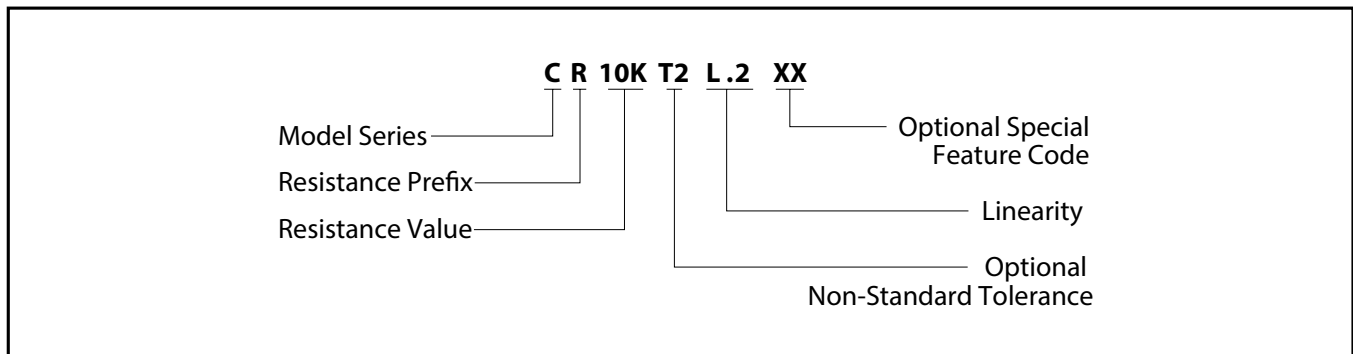
1 in.	25.4 mm	1 oz.-in.	0.007 N-m
1 oz.	28.4 gm	lb.-in.	0.113 N-m

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## Special Features

Center Tap	CT
Linearity Tape	LT
Rear Shaft Extension	RS
Flatted Shaft	FS
Slotted Shaft	SS
Shaft Lock	SL
Color Coded	CC
Additional Gangs	2G or 3G

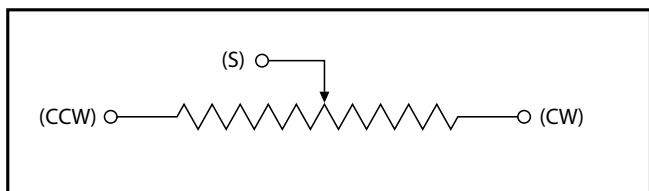
## Ordering Information



## Matching Turns Counting Dials

2606, 2606S, 2607, 2607S, 2626, 2627, 2646, 2646S, 2647, 2647S, 2126, RB

## 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

