

# Multi-Turn Precision Potentiometer

## Model 7246



### Features:

- 7/8" diameter
- 10-turn
- Wirewound



### Electrical

Resistance Range, Ohms	10 to 125K
Standard Resistance Tolerance	±5%
Minimum Practical Resistance Tolerance	±3%
Independent Linearity	±0.25%
Minimum Practical Independent Linearity	±0.25%, <100 Ohms ±0.15%, ≥ 100 Ohms
Power Rating, Watts	2.0 at 25°C derating to 0 at 85°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Noise, Maximum	100 Ohms
Actual Electrical Travel	3600° + 10° – 0°
Tap Tolerance	±5°, ≤20 Ohms ±3°, 21-50 Ohms ±2°, >50 Ohms
End Voltage, Maximum (% of input voltage)	0.5%, <100 Ohms 0.25%, ≥100 Ohms

### Environmental

Operating Temperature Range	–25°C to +85°C
Temperature Cycling	5 cycles, –25°C to +85°C (10% ΔR)
Shock, 6ms Sawtooth	50G's (0.1ms discontinuity max.)
Vibration	10G's, 10 to 500 Hz (2% ΔR, 0.1ms discontinuity max.)
Moisture Resistance	Five 24 hour cycles (25% ΔR)
High Temperature Exposure	Mechanical Operation at 85°C (0.5% ΔR)
Rotational Load Life	1 mil. shaft rev. (10% ΔR)

Specifications subject to change without notice.  
Available in a Hybrid version – contact factory for details.

#### General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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## Mechanical

Total Mechanical Travel	3600° + 10° – 0°
Number of Gangs, Maximum	1
Weight, Nominal	1.25 oz.
Static Stop Strength	60 oz.-in.
Backlash, Maximum	2°
Panel Nut Tightening Torque, Maximum	25 lb.-in.
Shaft End Play, Maximum	.015"
Shaft Radial Play, Maximum	.005"
Start/Run Torque, Maximum	0.8 / 0.6 oz.-in.

## Standard Resistance Values, Ohms

Total Resistance	Theoretical Resolution (% Nominal)	Tempco of Wire
10	0.083	+ 800 ppm/°C *
50	0.048	+ 800 ppm/°C *
100	0.040	+ 800 ppm/°C *
200	0.033	+ 800 ppm/°C *
500	0.031	±20 ppm/°C
1K	0.028	±20 ppm/°C
2K	0.025	±20 ppm/°C
5K	0.020	±130 ppm/°C *
10K	0.018	±130 ppm/°C *
20K	0.016	±130 ppm/°C *
50K	0.012	±20 ppm/°C
100K	0.011	±20 ppm/°C

\* Lower tempco available as a special model.

## Special Features

Center Tap	CT
Linearity Tape	LT
Flatted Shaft	FS
Shaft Lock	SL

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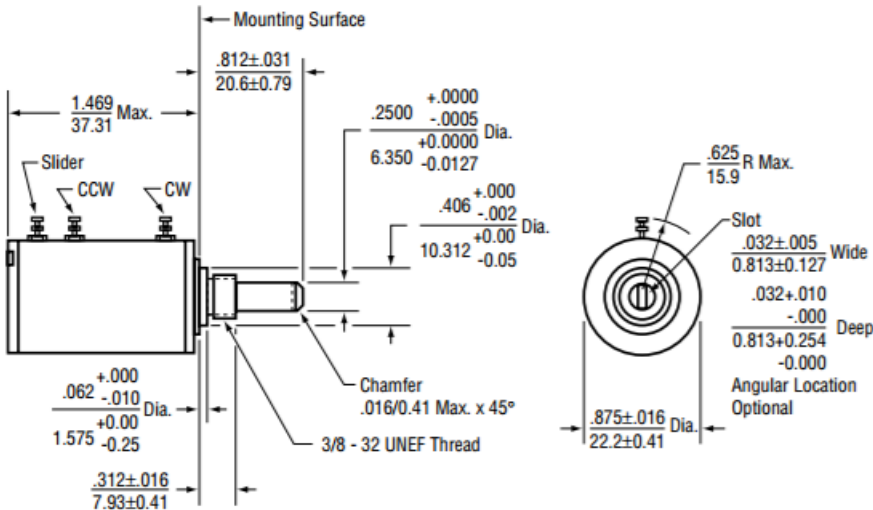
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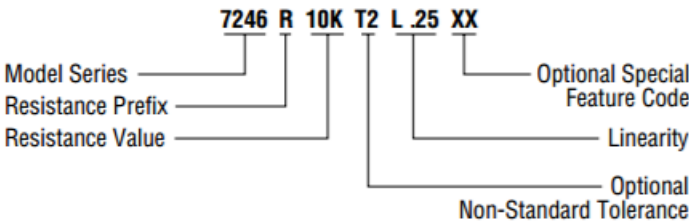
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### ORDERING INFORMATION



### MATCHING TURNS COUNTING DIALS

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

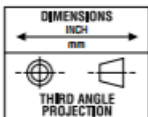
### CIRCUIT DIAGRAM



### 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 =  $\pm .01$  inches  
 (.25mm)  
 Angular =  $\pm 2$  degrees



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