

# Multi-Turn Precision Potentiometer

## Model 8136



### Features:

- 7/8" diameter
- Plastic 10-turn
- Hybrid



### Electrical

Resistance Range, Ohms	1K to 100K
Standard Resistance Tolerance	±10%
Independent Linearity	±0.25%
Power Rating, Watts	2.0 at 25°C derating to 0 at 105°C
Dielectric Strength	1,000V rms
Insulation Resistance, Minimum	1,000 Megohms
Output Smoothness, Maximum	100 Ohms
Actual Electrical Travel, Nominal	3600°
Tap Tolerance (Voltage Tap Only)	±0.05% of input voltage
End Voltage, Maximum	0.2% of input voltage
Resolution	Essentially Infinite
Temperature Coefficient	+100ppm/°C, -150ppm/°C

### Environmental

Operating Temperature Range	-25°C to +105°C
Temperature Cycling	5 cycles, -25°C to +105°C (5% ΔR)
Shock, 6ms Sawtooth	100G's (0.1ms discontinuity max.)
Vibration	10G's, 10 to 500 Hz (5% ΔR, 0.1ms discontinuity max.)
Moisture Resistance	Five 24 hour cycles (3% ΔR)
High Temperature Exposure	1,000 hours at 105°C (5% ΔR)
Rotational Load Life	1 mil. shaft rev. + 900 hrs. at rated wattage at 25°C (5% ΔR)

Specifications subject to change without notice.

#### 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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# Multi-Turn Precision Potentiometer

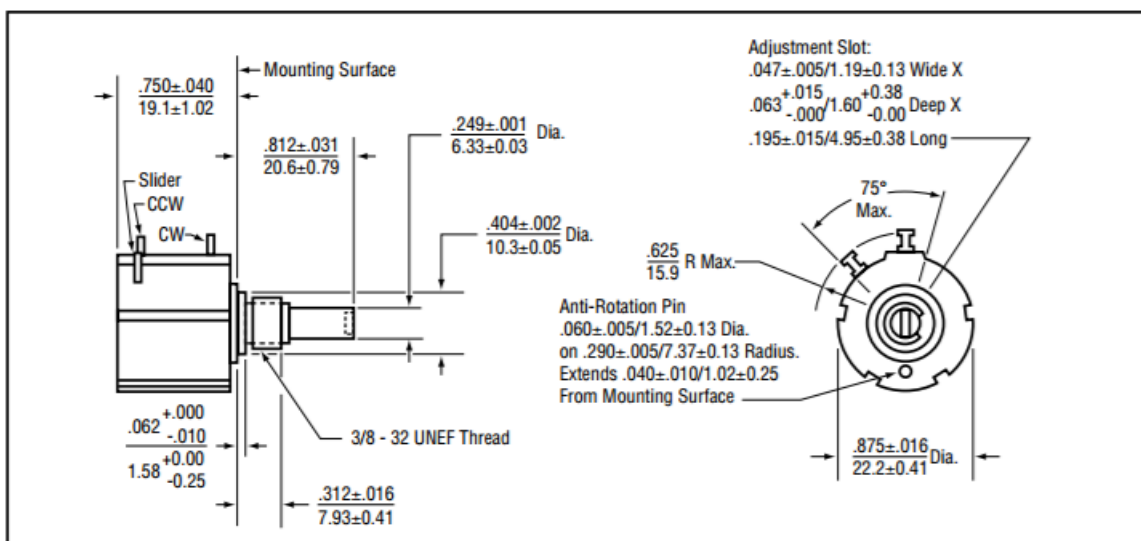
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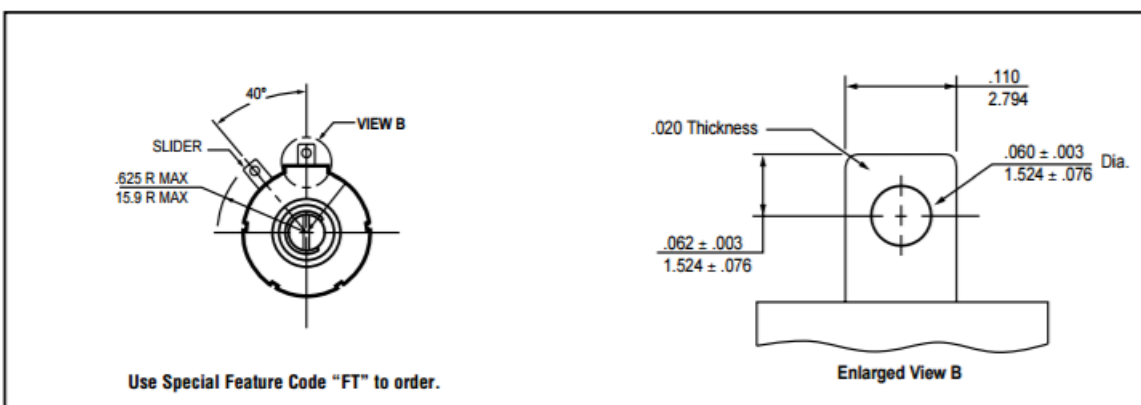
### Mechanical

Total Mechanical Travel	3600° + 15° - 0°
Number of Gangs, Maximum	1
Weight, Nominal	0.42 oz.
Static Stop Strength	60 oz.-in.
Backlash, Maximum	2°
Panel Nut Tightening Torque, Maximum	8 lb.-in.
Shaft End Play, Maximum	.010"
Start/Run Torque, Maximum	1.5 oz.-in.

#### OUTLINE DIMENSIONS (Inch/mm)



#### OPTIONAL TERMINAL CONFIGURATION



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### STANDARD RESISTANCE VALUES, OHMS

1K	2K	5K	10K	20K	50K	100K
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### SPECIAL FEATURES

Center Tap	CT
Linearity Tape	LT
Flatted Shaft	FS
Shaft Lock	SL
Gold Plated Solder Lug Terminals (see optional terminal configuration)	FT

### ORDERING INFORMATION

Model Series **8136** Resistance Prefix **R** Resistance Value **10K** Linearity **L .25**

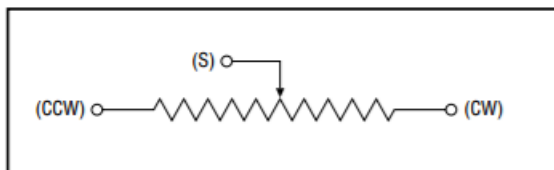
### MATCHING TURNS COUNTING DIALS

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

### METRIC CONVERSIONS

1 in.	25.4 mm	1 oz.-in.	0,007 N-m
1 oz.	28.4 gm	1 lb.-in.	0,113 N-m

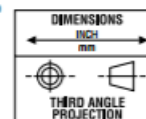
### CIRCUIT DIAGRAM



### 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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