

# Single Turn Trimmer

## Model 83



### Features:

- 1/4" diameter
- Single turn
- Cermet



## Electrical

Standard Resistance Range, Ohms	10 to 1Meg
Standard Resistance Tolerance	±10% (<100 Ohms = ±20%)
Input Voltage, Maximum	200 Vdc or rms not to exceed power rating
Slider Current, Maximum	100mA or within rated power, whichever is less
Power Rating, Watts	0.5 at 70°C derating to 0 at 150°C
End Resistance, Maximum	2 Ohms
Actual Electrical Travel, Nominal	220°
Dielectric Strength	400 Vrms
Insulation Resistance, Minimum	100 Megohms
Resolution	Essentially infinite
Contact Resistance Variation, Maximum	1% or 1 Ohms, whichever is greater

## Environmental

Seal	85°C Fluorinert® (No Leaks)
Temperature Coefficient, Maximum	±100ppm/°C
Operating Temperature Range	-55°C to +125°C
Thermal Shock	5 cycles, -55°C to +125°C (1% ΔRT, 1% ΔVR)
Moisture Resistance	Ten 24 hour cycles (1% ΔRT, IR 1,000 Megohms Min.)
Shock, 6ms Sawtooth	100G's (1% ΔRT, 1% ΔVR)
Vibration	20G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR)
High Temperature Exposure	250 hours at 125°C (2% ΔRT, 2% ΔVR)
Rotational Life	200 cycles (3% ΔRT)
Load Life at 0.5 Watts	1,000 hours at 70°C (2% ΔRT)
Resistance to Solder Heat	350°C for 3 sec. (1% ΔRT) 260°C for 10 sec. (1% ΔRT) 215°C for 120 sec. (1% ΔRT)

## Mechanical

Mechanical Stops	Solid
Torque, Starting Maximum	3 oz.-in. (0.021 N-m)
Weight, Nominal	.03 oz. (0.85 grams)

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.

© TT electronics plc

TT Electronics | BI Technologies  
413 Rood RD, Suite 7  
Calexico, CA 92231  
Ph: +1 (714) 447-2345  
www.ttelectronics.com/bi-technologies

Issue B 04/2019 Page 1

### Packaging Information

**Standard:** Boxes

Capacity = 100 Units

**Option:** Tubes (83Y only)

All units oriented with #1 pin to same side.

Magazine:	Width	=	0.30"
	Height	=	0.35"
	Length	=	19.1"
	Capacity	=	50 Units

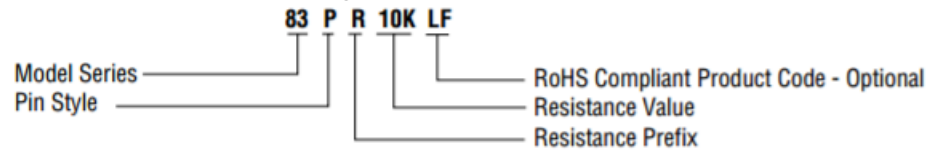
**Option:** Embossed Tape & Reel (83P only)

All units oriented with #1 pin to the right of the direction of feed.

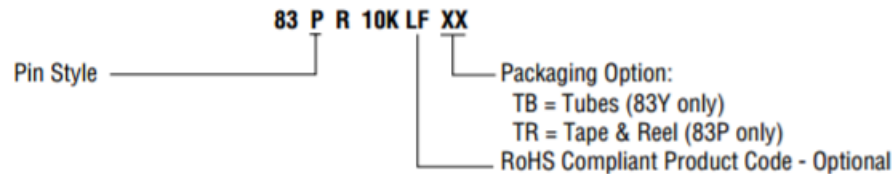
Tape:	Width	=	16 mm
	Sprocket	=	4 mm pitch
	Capacity	=	1,000 Units
Reel:	Diameter	=	14" (356 mm)

### Ordering Information

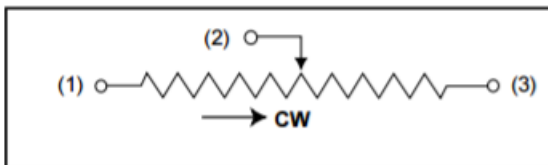
**Standard:**



**Options:**



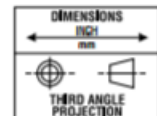
#### CIRCUIT DIAGRAM



#### 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.

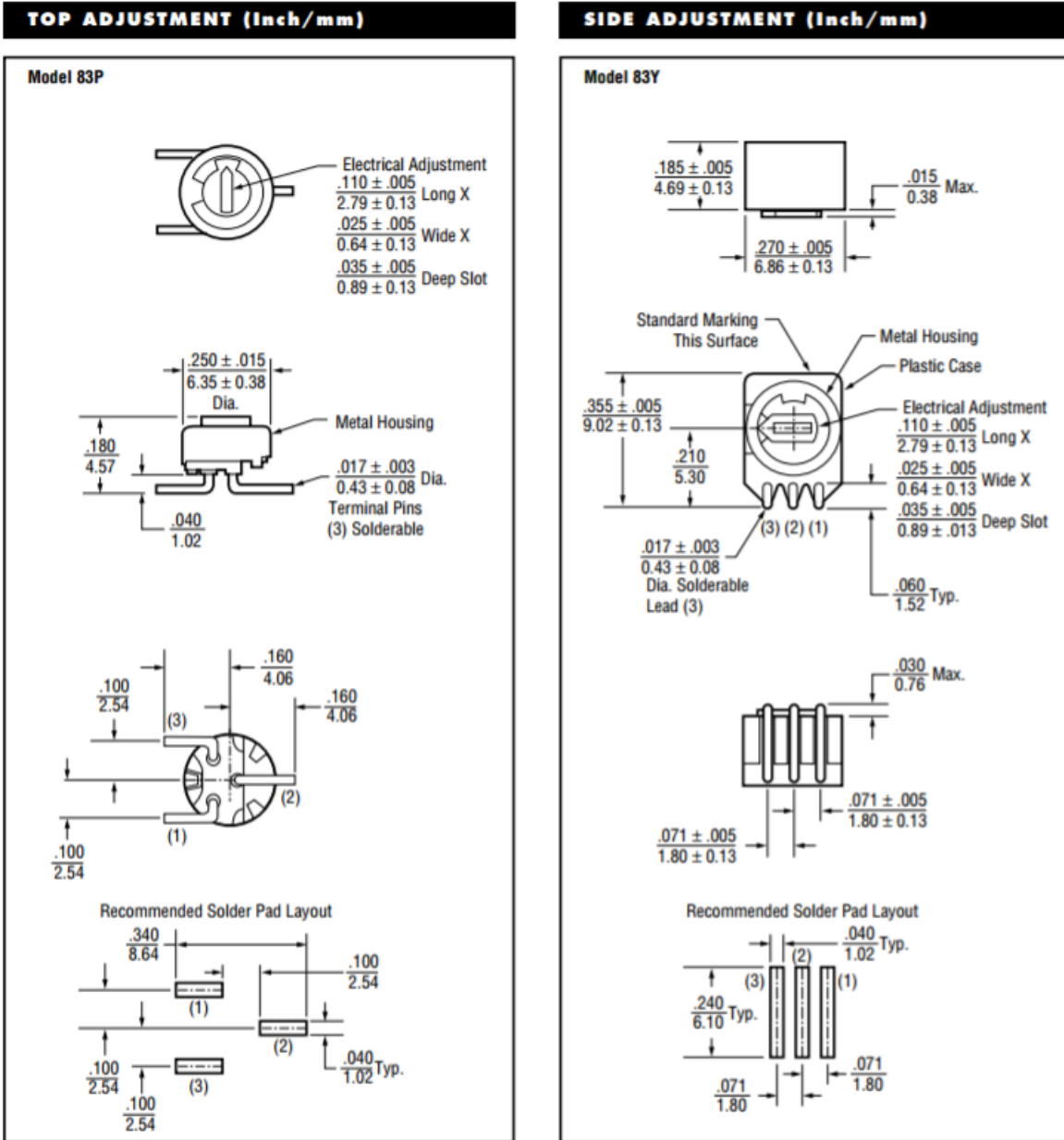
Tolerances unless otherwise specified:  
 Linear = ± .01 inches (.25mm)  
 Angular = ± 2 degrees



**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.

### Outline Drawings



**STANDARD RESISTANCE VALUES, OHMS**

10	100	1K	10K	50K	250K
20	200	2K	20K	100K	500K
50	500	5K	25K	200K	1Meg

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.