

# Multi-Turn Trimmer

## Model 84



### Features:

- 1/4" square
- Surface mount
- Cermet

## Electrical

|  |  |
|--|--|
| Standard Resistance Range, Ohms          | 10 to 2Meg                                     |
| Standard Resistance Tolerance            | ±10%   |
| 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                      | 0.25 at 85°C derating to 0 at 150°C            |
| End Resistance, Maximum                  | 2 Ohms   |
| Actual Electrical Travel, Turns, Nominal | 12   |
| Dielectric Strength                      | 900 Vrms                                       |
| Insulation Resistance, Minimum           | 1,000 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 (<100 Ohms = ±250ppm/°C)              |
| Operating Temperature Range      | -65°C to +150°C                                  |
| Thermal Shock                    | 5 cycles, -65°C to +150°C (1% ΔRT, 1% ΔVR)       |
| Moisture Resistance              | Ten 24 hour cycles (1% ΔRT, IR 100 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 150°C (2% ΔRT, 2% ΔVR)              |
| Rotational Life                  | 200 cycles (3% ΔRT)                              |
| Load Life at 0.25 Watts          | 1,000 hours at 85°C (2% ΔRT)                     |
| Resistance to Solder Heat        | 260°C for 10 sec. (1% ΔRT)                       |
| Temperature Exposure, Maximum    | 215°C for 3 min. (1% ΔRT)                        |

## Mechanical

|                          |                          |
|--------------------------|--------------------------|
| Mechanical Stops         | Clutch action, both ends |
| Torque, Starting Maximum | 3 oz.-in. (0.021 N-m)    |
| Weight, Nominal          | .014 oz. (.40 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.

### Packaging Information

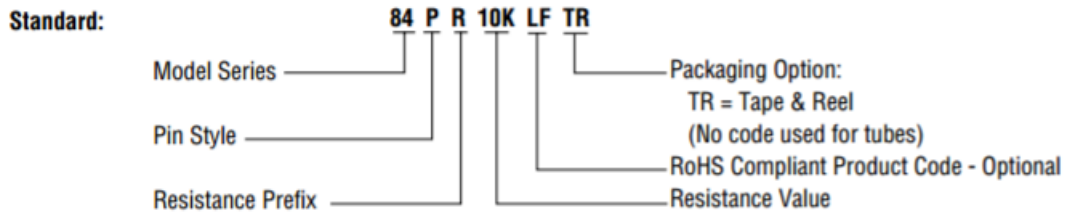
**Standard:** Tubes  
All units oriented with #1 pin to same side.

|          | Pin Style | = | P              | W/X            |
|----------|-----------|---|----------------|----------------|
| Magazine | Width     | = | 0.47"(11.93mm) | 0.37"(9.39mm)  |
|          | Height    | = | 0.32"(8.13mm)  | 0.47"(11.93mm) |
|          | Length    | = | 14.5"(368mm)   | 14.5"(368mm)   |
|          |           |   |                | 16.5"(429mm)   |
|          | Capacity  | = | 50 Units       | 50 Units       |

**Option:** Embossed Tape & Reel (84P & 84W only)  
All units oriented with #1 pin to the right of the direction of feed.

|      | Pin Style | = | P            | W/X         |
|------|-----------|---|--------------|-------------|
| Tape | Width     | = | 16 mm        | 24mm        |
|      | Sprocket  | = | 4 mm pitch   | 4mm pitch   |
|      | Capacity  | = | 500 Units    | 400 Units   |
| Reel | Diameter  | = | 13" (330 mm) | 13" (330mm) |

### Ordering Information

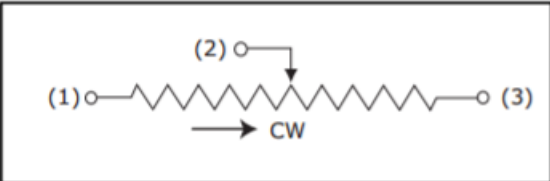


### Standard Resistance Values

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

2Meg

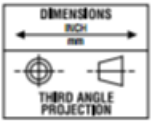
**CIRCUIT DIAGRAM**



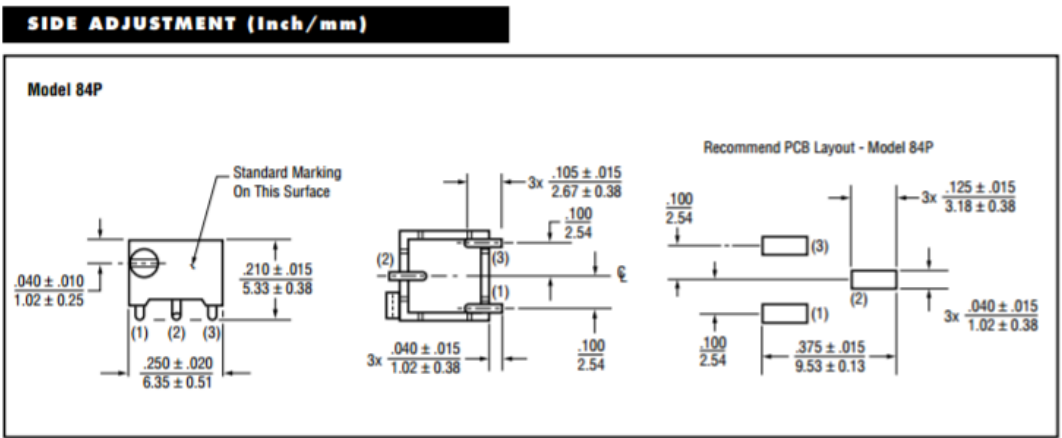
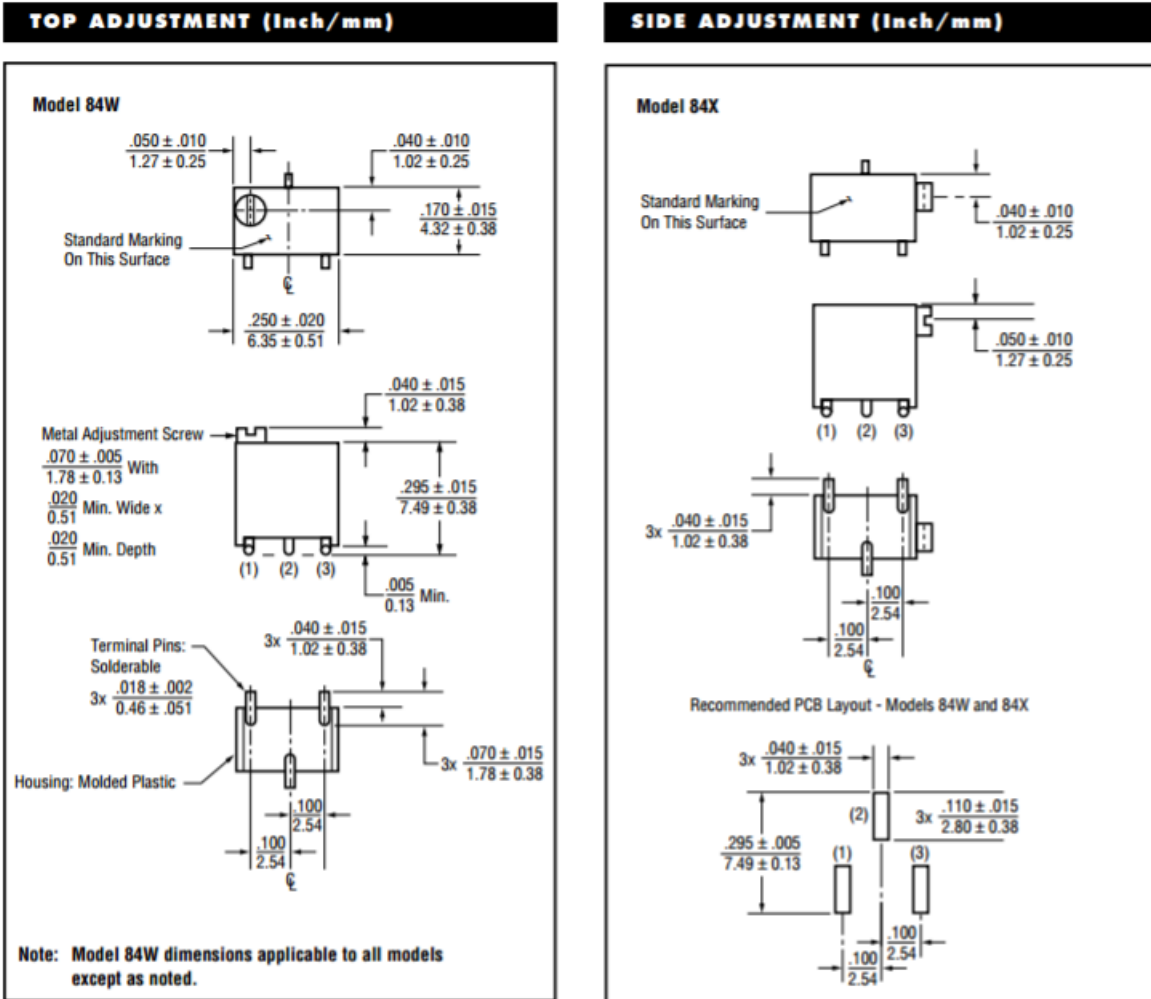
**NOTES**

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



### Outline Drawings



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