

# Model 44

## Cermet Trimming Potentiometer



### Features:

- Space saving SMD package for the most compact board designs
- Sealed to withstand aggressive water wash
- Long life—set and forget construction
- BI quality and reliability
- Available in top and side adjustment versions and J-Hook or gull wing termination



### Applications:

- Any application requiring adjustability or calibration
- Medical

- Consumer electronics

### Electrical

|                               |                                                      |
|-------------------------------|------------------------------------------------------|
| Standard resistance range     | 10 Ohms to 2 Megohms                                 |
| Standard resistance tolerance | ±10% (<100 Ohms = ±20%)                              |
| Input voltage                 | 300 Vdc max. or rms not to exceed power rating       |
| Slider current                | 100 mA max. or within rated power, whichever is less |
| Power rating                  | 0.25 Watts at 85°C derating to 0 at 150°C            |
| End resistance                | 1% or 2 Ohms max., whichever is greater              |
| Actual electrical travel      | 9 turns nominal                                      |
| Dielectric strength           | 600 Vrms                                             |
| Insulation resistance         | 1,000 Megohms minimum                                |
| Resolution                    | Essentially infinite                                 |
| Contact resistance variation  | 1% or 3 Ohm max., whichever is greater               |

### Environmental

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Seal                        | 85°C Fluorinert® (No Leaks)                       |
| Temperature coefficient     | ±100 ppm/°C (<100 Ohms = ±250 ppm/°C)             |
| Operating temperature range | -65°C to +150°C                                   |
| Thermal shock               | Five cycles -65°C to +150°C (2% ΔRT, 1% ΔVR)      |
| Moisture resistance         | Ten 24 hour cycles (2% ΔRT, IR 10 Megohms min.)   |
| Shock                       | 6 ms saw-tooth, 100 G's (1% ΔRT, 1% ΔVR)          |
| Vibration                   | 20 G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR)           |
| Rotational life             | 200 cycles (3% ΔRT, 1% CRV)                       |
| Load life                   | 1,000 hours at 85°C & 0.25 Watts (2% ΔRT, 1% CRV) |
| Resistance to solder heat   | 260°C for 10 sec. (1% ΔRT)                        |
| Temperature exposure        | 215°C for 3 min. maximum (1% ΔRT)                 |
| Solderability               | Per MIL-STD-202, method 208                       |

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

|                  |                              |
|------------------|------------------------------|
| Mechanical stops | Clutch action, both ends     |
| Torque, starting | 3 oz.-in. max. (0.021 N-m)   |
| Weight           | 0.01 oz. nominal (0.3 grams) |

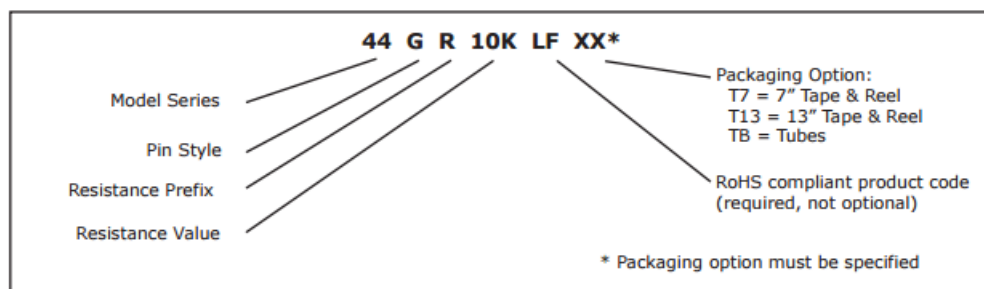
### Packaging

Standard: Embossed Tape & Reel. All units oriented with #1 pin to the right of the direction of feed.

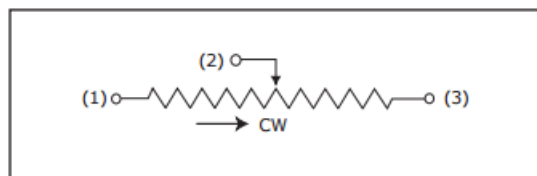
|      | Pin Style  | 13" Reel       |             | 7" Reel     |            |
|------|------------|----------------|-------------|-------------|------------|
|      |            | G & J          | W           | G & J       | W          |
| Tape | Width =    | 12 mm          | 16 mm       | 12 mm       | 16 mm      |
|      | Sprocket = | 4 mm pitch     | 4 mm pitch  | 4 mm pitch  | 4 mm pitch |
|      | Capacity = | 1,000 units    | 1,000 units | 500 units   | 250 units  |
| Reel | Diameter = | 13" (330.2 mm) |             | 7" (178 mm) |            |

Option: Anti-static tubes. All units oriented with #1 pin to same side. Tube capacity = 100 units.

### Ordering Information



### Circuit Diagram



#### General Note

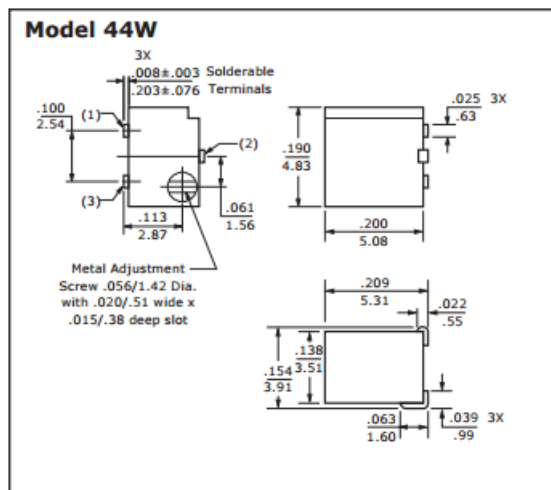
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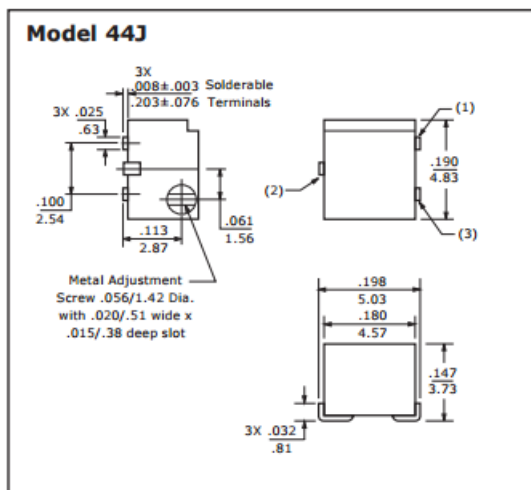
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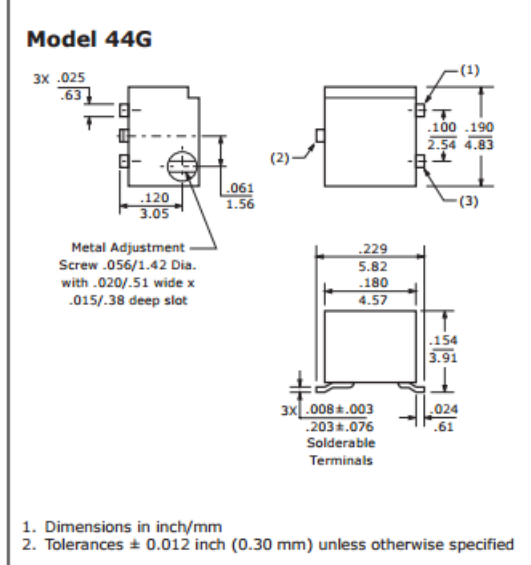
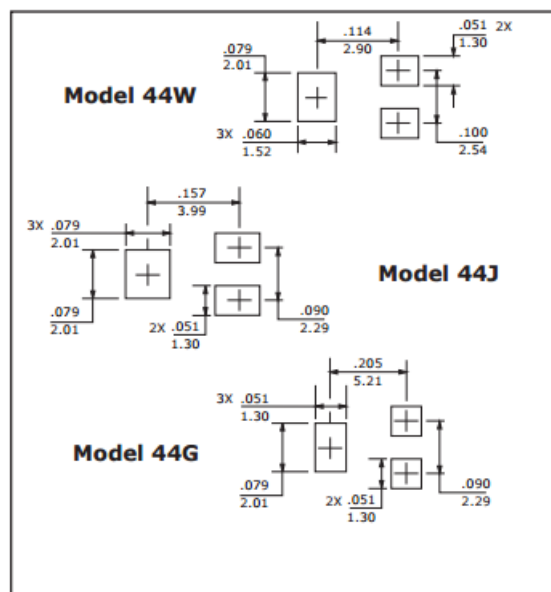
### Top Adjustment



### Side Adjustment



### Solder Pad Layout



### Standard Resistance Values

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

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