

# Multi-Turn Trimmer

## Model 68



### Features:

- 3/8" square
- Cermet



## Electrical

|                               |                                                      |
|-------------------------------|------------------------------------------------------|
| Standard Resistance Range     | 10 Ohms to 2 Megohms                                 |
| Standard Resistance Tolerance | ±10% (<100 Ohms = ±20%)                              |
| Input Voltage                 | 200 Vdc Max. or rms not to exceed power rating       |
| Slider Current                | 100 mA Max. or within rated power, whichever is less |
| Power Rating                  | 0.5 Watts at 85°C derating to 0 at 125°C             |
| End Resistance                | 2 Ohms Max.                                          |
| Actual Electrical Travel      | 20 turns nominal                                     |
| Dielectric Strength           | 900 Vrms                                             |
| Insulation Resistance         | 1,000 Megohms Min.                                   |
| Resolution                    | Essentially infinite                                 |
| Contact Resistance Variation  | 1% or 1 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 | -55°C to +125°C                                    |
| Thermal Shock               | Five cycles -55°C to +125°C (1% ΔRT, 1% ΔVR)       |
| Moisture Resistance         | Ten 24 hour cycles (1% ΔRT, IR 1,000 Megohms Min.) |
| Shock                       | 6 ms sawtooth, 100 G's (1% ΔRT, 1% ΔVR)            |
| Vibration                   | 20 G'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                   | 1,000 hours at 70°C & 0.5 Watts (2% ΔRT)           |
| Resistance to Solder Heat   | 260°C for 10 sec. (1% ΔRT)                         |

### 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 | BI Technologies  
4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300  
www.ttelectronics.com | sensors@ttelectronics.com

# Multi-Turn Trimmer

## Model 68



### Mechanical

|                  |                              |
|------------------|------------------------------|
| Mechanical Stops | Clutch action, both ends     |
| Torque, Starting | 5 oz.-in. Max. (0.035 N-m)   |
| Weight           | 0.04 oz. nominal (1.1 grams) |

### Packaging Information

Standard (no code): Boxes. Capacity = 100 units for 68W. 50 units for all other pin styles.

Option (TR code, available for 68W & 68X only): Tape & Reel. All units oriented with #1 pin to the right of the direction of feed.

|      |                                             |                             |
|------|---------------------------------------------|-----------------------------|
| Tape | Width =                                     | 18 mm                       |
|      | Sprocket =                                  | Single hole, 0.050" spacing |
|      | Capacity =                                  | 1,000 units                 |
|      | Seat plane to centerline of sprocket hole = | 0.71" (18 mm)               |
| Reel | Diameter =                                  | 14" (363 mm)                |

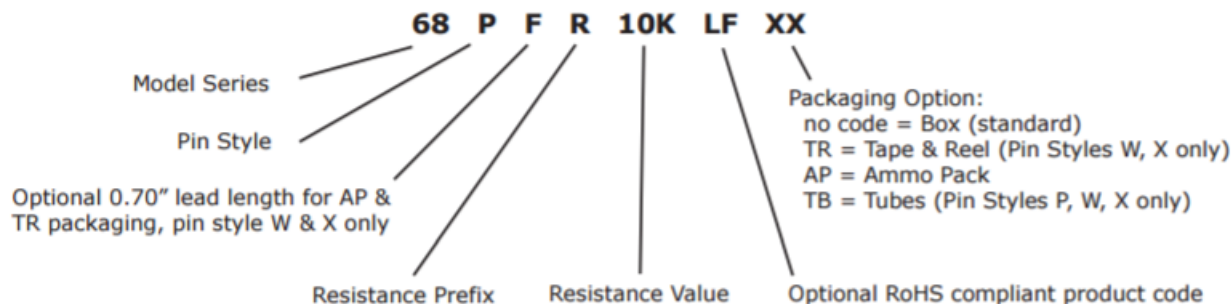
Option (AP code, available for 68W & 68X only): Ammo Pack. All units oriented with #1 pin to the right of the direction of feed.

|      |             |                                               |
|------|-------------|-----------------------------------------------|
| Ammo | Tape Fold = | 12" (305 mm)                                  |
|      | Box =       | 1.8" x 13" x 10"<br>(46 mm x 330 mm x 254 mm) |

Option (TB code): Tubes. All units oriented with #1 pin to same side. Tube capacity = 50 units.

|            | Pin Style | P     | W     | X     |
|------------|-----------|-------|-------|-------|
| Dimensions | Width =   | 0.57" | 0.33" | 0.33" |
|            | Height =  | 0.66" | 0.90" | 0.90" |
|            | Length =  | 20.9" | 20.4" | 24.4" |

### Ordering Information



#### 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 | BI Technologies  
4200 Bonita Place, Fullerton, CA USA 92835-1053 | Ph: +1 714-447-2300  
www.ttelectronics.com | sensors@ttelectronics.com

# Multi-Turn Trimmer

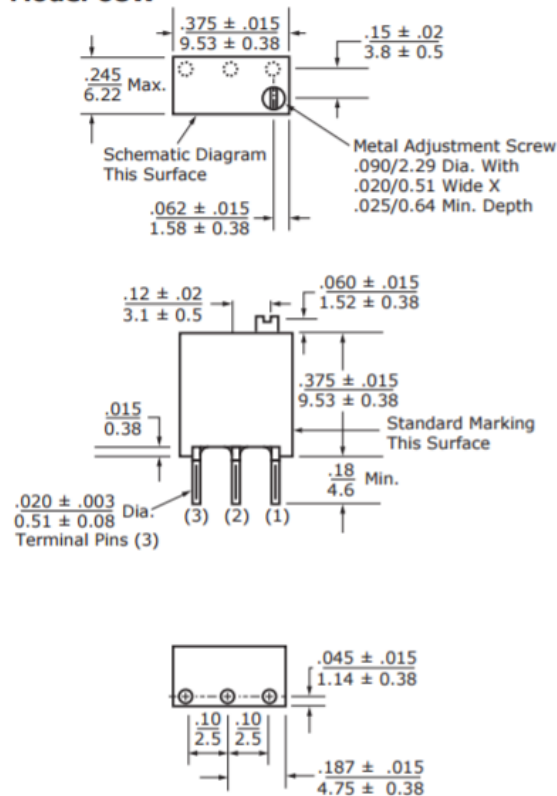
## Model 68



### Outline Drawings

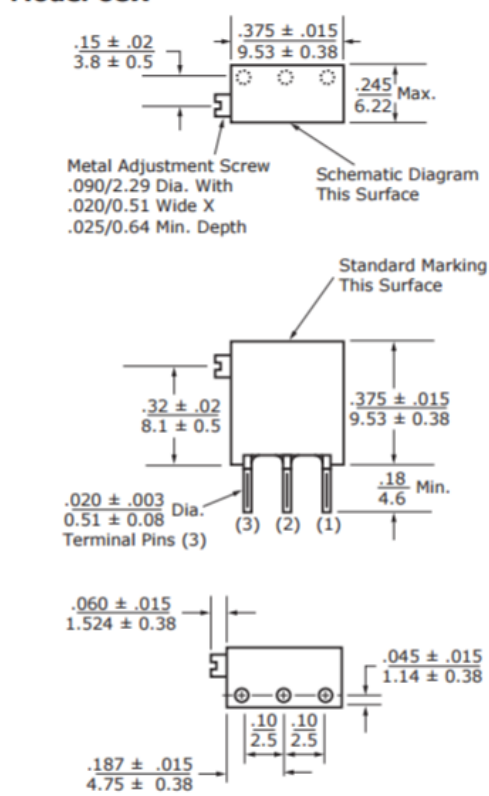
#### TOP ADJUSTMENT

##### Model 68W



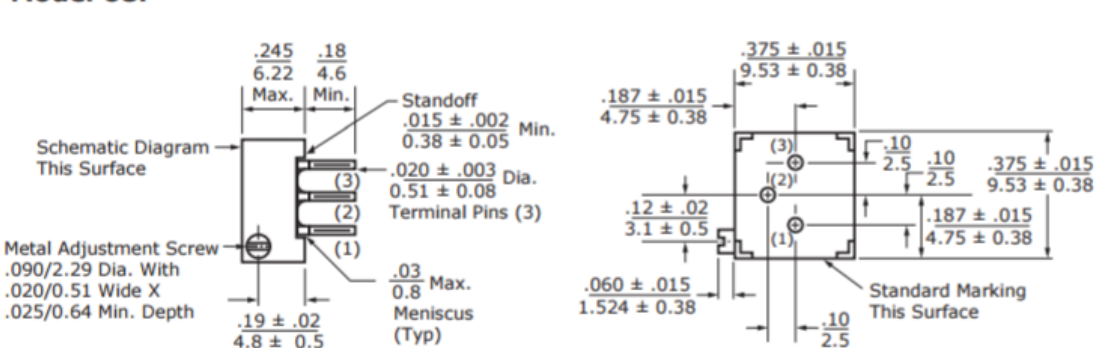
#### SIDE ADJUSTMENT

##### Model 68X



#### SIDE ADJUSTMENT

##### Model 68P



#### General Note

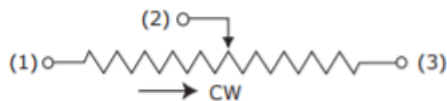
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

# Multi-Turn Trimmer

## Model 68



### Circuit Diagram



### Standard Resistance Values

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