# Multi-Turn Trimmer

## 64 Series

**Features:**

- 1/4” square
- Multi-turn
- Cermet

**Description:**

We offer a wide variety of trimming potentiometers in top and side adjust, through hole, and SMD packaging. Our trimming potentiometers are sealed to be compatible with aqueous PCB cleaning process. The cermet element printing technology offers high-reliability and long life.

The multi-turn trimmers from the BI Technologies brand are sealed to withstand aggressive water wash and have a very long life. These trimmers offer unmatched quality and reliability and feature package options that create efficient space saving solutions.

**Applications:**

- Any application requiring adjustability or calibration
- Medical
- Consumer electronics
- Air conditioners
- Food processors
- Smoke detectors
- Dishwaters
- Computer monitors

### ELECTRICAL

| | |
|---|---|
| Standard Resistance Range, Ohms | 10 to 1Meg |
| Standard Resistance Tolerance | ±10% |
| Input Voltage, Maximum | 200Vdc 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 | 900Vrms |
| Insulation Resistance, Minimum | 1,000 Megohms |
| Resolution | Essentially infinite |
| Contact Resistance Variation, Maximum | 1% or 1 Ohms, whichever is greater |

General Note
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## 64 Series

### ENVIRONMENTAL

| | |
|---|---|
| Seal | 85°C Fluorinert® (No Leaks) |
| Temperature Coefficient, Maximum | ±100ppm/°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 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 (2% 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) |

### MECHANICAL

| | |
|---|---|
| Mechanical Stops | Clutch action, both ends |
| Torque, Starting Maximum | 3 oz.-in. (0.021 N-m) |
| Weight, Nominal | .014 oz. (0.40 grams) |

### STANDARD RESISTANCE VALUES, OHMS

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

### ORDERING INFORMATION

**Standard:**

**64 P R 10K LF**

- 64 — Model Series
- P — Pin Style
- R — Resistance Prefix
- 10K — Resistance Value
- LF — RoHS Compliant Product Code - Optional

**Option:**

**64 Y F R 10K LF XX**

- 64 — Model Series
- Y — Pin Style
- F — Pin Style Suffix (Used with AP & TR packaging options. "F" designates 0.6" min. lead length.)
- R — Resistance Prefix
- 10K — Resistance Value
- LF — RoHS Compliant Product Code - Optional
- XX — Packaging Option
  - AP = Ammo pack
  - TR = Tape & Reel
  - (No code used for tubes)

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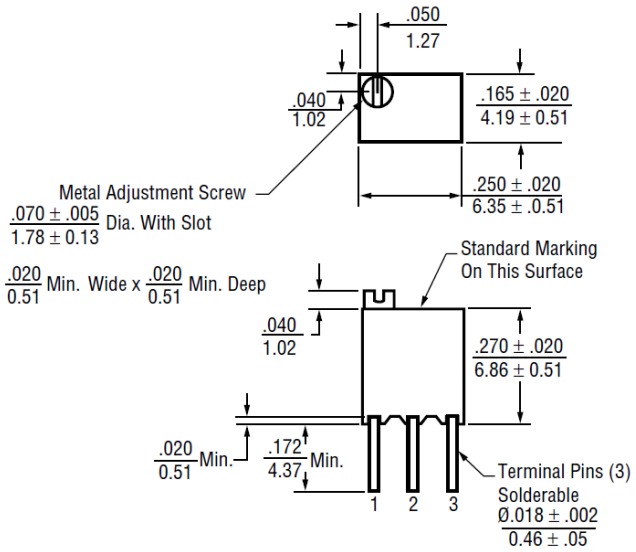
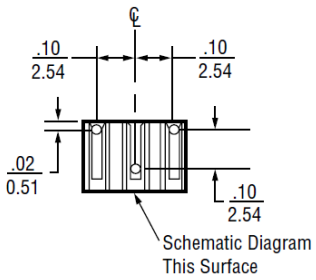
### TOP ADJUSTMENT (Inch/mm)

**Model 64W and 64Y**

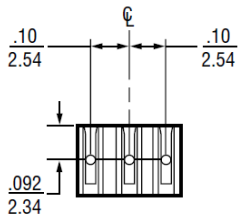



**Note: Model 64W dimensions applicable to all models except as noted.**

**Model 64W**




**Model 64Y**





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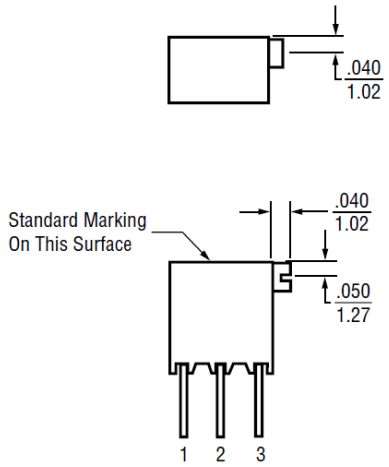
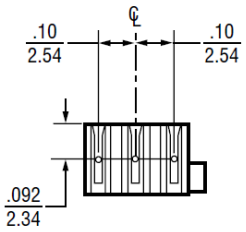
### SIDE ADJUSTMENT (Inch/mm)

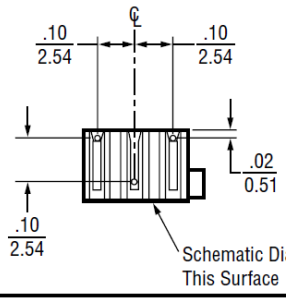
**Model 64X and 64Z**



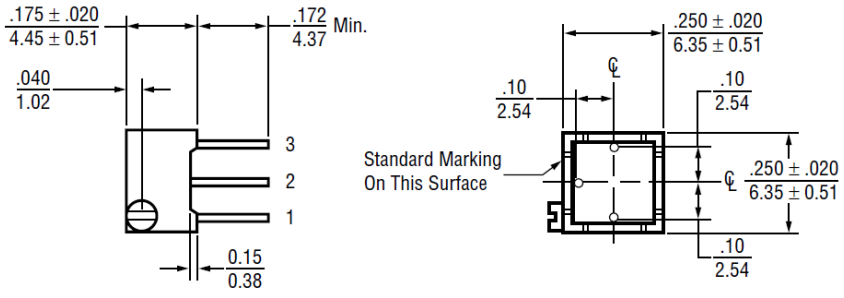

**Model 64Z**




**Model 64X**




**Model 64P**





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## PACKAGING

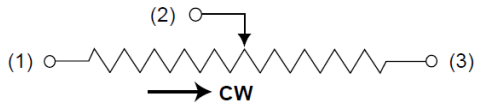
**Standard:** Tubes
All units oriented with #1 pin to same side.

| | Pin Style | | P,W,Y | X,Z |
|---|---|---|---|---|
| Magazine | Width | = | 0.38" (9.65 mm) | 0.38" (9.65 mm) |
| | Height | = | 0.62" (15.75mm) | 0.62" (15.75mm) |
| | Length | = | 14.5" (368 mm) | 16.9" (429 mm) |
| | Capacity | = | 50 Units | 50 Units |

**Option:** Tape & Reel, Ammo Pack (Available only for 64Y and 64Z)
All units oriented with #1 pin to the right of the direction of feed.

| | | | |
|---|---|---|---|
| | Seat Plane to Centerline of Sprocket Hole | = | .71" (18 mm) |
| Tape | Width | = | 18 mm |
| | Sprocket | = | Single Hole .50" spacing |
| | Capacity | = | 1,000 Units |
| Reel | Diameter | = | 14" (363 mm) |
| Ammo | Tape Fold | = | 12" |
| | Box | = | 1.8" x 13" x 10" (46mm x 330mm x 254mm) |

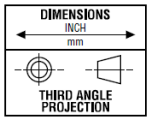
## CIRCUIT DIAGRAM




## 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





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