

# MODEL 72

## 3/8" Square

## Single Turn

## Cermet Trimming

## Potentiometer



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### ELECTRICAL

|                                       |                                                |
|---------------------------------------|------------------------------------------------|
| Standard Resistance Range, Ohms       | 10 to 2Meg                                     |
| Standard Resistance Tolerance         | $\pm 10\%$ (<100 Ohms = $\pm 20\%$ )           |
| 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 85°C derating to 0 at 125°C             |
| End Resistance, Maximum               | 2 Ohms                                         |
| Actual Electrical Travel, Nominal     | 244°                                           |
| Dielectric Strength                   | 900 Vrms                                       |
| Insulation Resistance, Minimum        | 1,000 Megohms                                  |
| Resolution                            | Essentially infinite                           |
| Contact Resistance Variation, Maximum | 1% or 1 Ohm, whichever is greater              |

### ENVIRONMENTAL

|                                  |                                                                          |
|----------------------------------|--------------------------------------------------------------------------|
| Seal                             | 85°C Fluorinert® (No Leaks)                                              |
| Temperature Coefficient, Maximum | $\pm 100\text{ppm}/^\circ\text{C}$                                       |
| Operating Temperature Range      | -55°C to +125°C                                                          |
| Thermal Shock                    | 5 cycles, -55°C to +125°C (1% $\Delta\text{RT}$ , 1% $\Delta\text{VR}$ ) |
| Moisture Resistance              | Ten 24 hour cycles (1% $\Delta\text{RT}$ , IR 100 Megohms Min.)          |
| Shock, 6ms Sawtooth              | 100G's (1% $\Delta\text{RT}$ , 1% $\Delta\text{VR}$ )                    |
| Vibration                        | 20G's, 10 to 2,000 Hz (1% $\Delta\text{RT}$ , 1% $\Delta\text{VR}$ )     |
| High Temperature Exposure        | 250 hours at 125°C (2% $\Delta\text{RT}$ , 2% $\Delta\text{VR}$ )        |
| Rotational Life                  | 200 cycles (3% $\Delta\text{RT}$ )                                       |
| Load Life at 0.5 Watts           | 1,000 hours at 70°C (2% $\Delta\text{RT}$ )                              |
| Resistance to Solder Heat        | 260°C for 10 sec. (1% $\Delta\text{RT}$ )                                |

### MECHANICAL

|                          |                       |
|--------------------------|-----------------------|
| Mechanical Stops         | Solid                 |
| Torque, Starting Maximum | 3 oz.-in. (0.021 N-m) |
| Weight, Nominal          | .025 oz. (0.70 grams) |

Fluorinert® is a registered trademark of 3M Company.  
Specifications subject to change without notice.

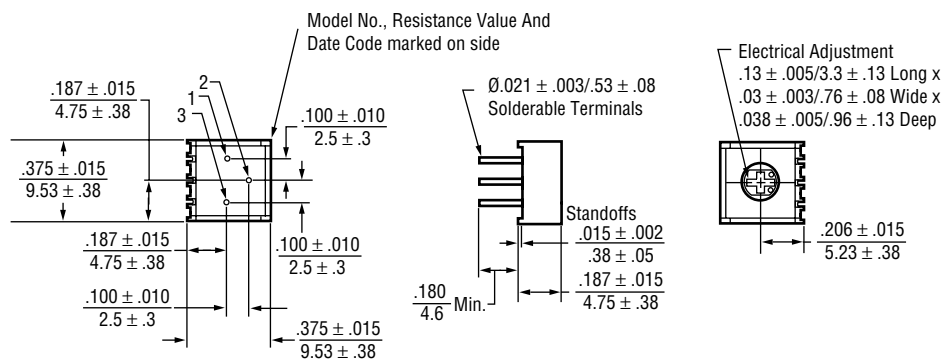


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Model 72

# TOP ADJUSTMENT (Inch/mm)

## Model 72P

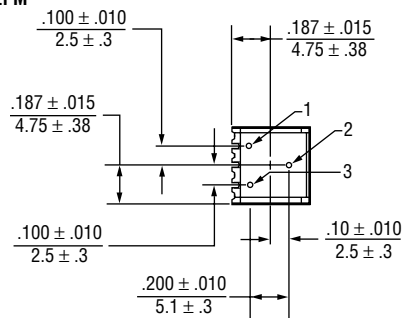


Note: Model 72P dimensions applicable to all other models except as noted.

## Model 72PL



## Model 72PM



## Model 72PX, 72RPX

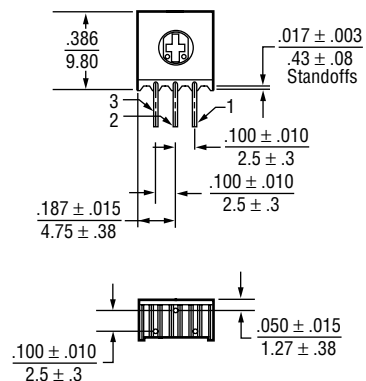


Model 72RPX - Terminals 1 and 3 are reversed

## Model 72RP

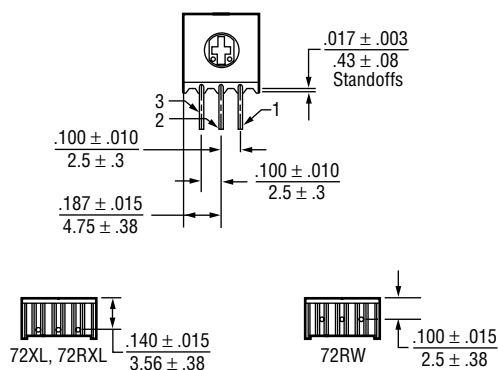


**Model 72X, 72RX**



Model 72RX - Terminals 1 and 3 are reversed

**Model 72XL, 72RXL, 72RW**



Model 72RXL And 72RW - Terminals 1 and 3 are reversed

**Model 72XW, 72RXW**

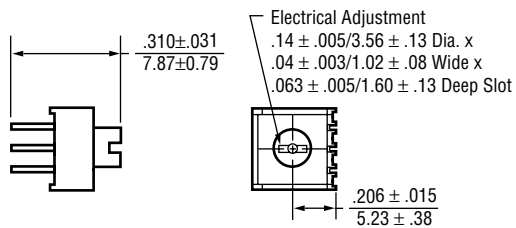


Model 72RXW - Terminals 1 and 3 are reversed

**EXTENDED ROTOR OPTION (Inch/mm)**

Available for all Model 72 pin styles:

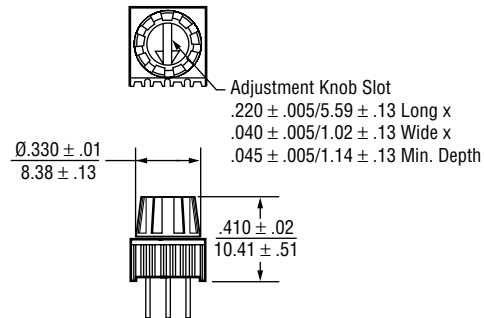
72PE, 72PLE, 72PME, 72PXE, 72RPXE, 72XE, 72RXE,  
72XLE, 72RXLE, 72RWE, 72XWE, 72RXWE

**ADJUSTMENT KNOB OPTION (Inch/mm)**

Available options:

72XT- Side Adjustment (See 72X for Pin Configuration)

72PT- Top Adjustment (See 72P for Pin Configuration)



72PT Shown - Dimensions applicable to 72XT

**STANDARD RESISTANCE VALUES, OHMS**

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

**Standard:** Boxes  
Capacity = 100 Units

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

|          | Pin Style | P, PM      | X, XL, XW, RW |
|----------|-----------|------------|---------------|
| Magazine | Width     | = 0.47"    | 0.29"         |
|          | Height    | = 0.54"    | 0.76"         |
|          | Length    | = 20.5"    | 20.1"         |
|          | Capacity  | = 50 Units | 50 Units      |

**Option:** Tape & Reel, Ammo Pack (Available only for 72RW only)  
All units oriented with #1 pin to the right of the direction of feed.

|      |                                                 |                                           |
|------|-------------------------------------------------|-------------------------------------------|
|      | Seat Plane to<br>Centerline of<br>Sprocket Hole | = .71" (18.03 mm)                         |
| Tape | Width                                           | = 18 mm                                   |
|      | Sprocket                                        | = Single Hole .50" spacing                |
|      | Capacity                                        | = 1,000 Units                             |
| Reel | Diameter                                        | = 14" (356mm)                             |
| Ammo | Tape Fold                                       | = 12" (305mm)                             |
|      | Box                                             | = 1.8" x 13" x 10" (46mm x 330mm x 254mm) |

## ORDERING INFORMATION

### Standard:

Model Series — 72 P R 10K LF  
 Pin Style —

RoHS Compliant Product Code - Optional  
 Resistance Value  
 Resistance Prefix

### Option:

Pin Style — 72 W R 10K LF TB

Packaging Option:  
 TB = Tubes  
 (Pin styles P, PM, X, XL, XW, RW)  
 RoHS Compliant Product Code - Optional

### Option:

Pin Style — 72 RW F R 10K LF TR

Pin Style Suffix: —  
 (Used with AP and TR packaging options.  
 Applicable to pin style RW only.  
 "F" designates 0.70" lead length.)

Packaging Option:  
 AP = Ammo pack  
 TR = Tape & Reel  
 (Pin style RW only)  
 RoHS Compliant Product Code - Optional

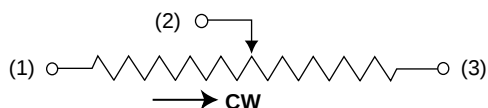
### Option:

Pin Style — 72 X T R 10K LF

RoHS Compliant Product Code - Optional

Adjustment Options: —  
 T = Knob Option  
 Applicable to pin style X & P only.  
 E = Extended Rotor Option  
 Applicable to all pin styles.

## 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 =  $\pm .01$  inches (.25mm)  
 Angular =  $\pm 2$  degrees

