

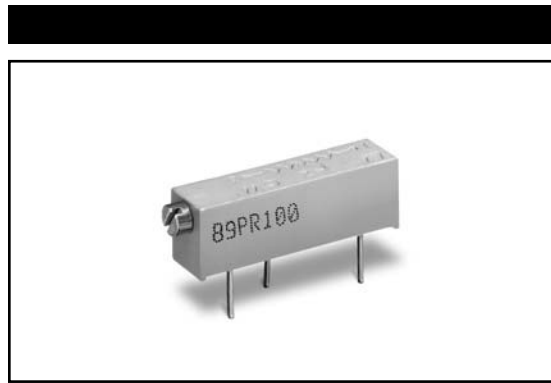
# MODEL 89

## 3/4" Rectangular

## Multiturn

## Cermet Trimming

## Potentiometer



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### ELECTRICAL

|                                          |                                                |
|------------------------------------------|------------------------------------------------|
| Standard Resistance Range, Ohms          | 10 to 2Meg                                     |
| Standard Resistance Tolerance            | ±10% (<100 Ohms = ±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                      | 0.75 at 85°C derating to 0 at 125°C            |
| End Resistance, Maximum                  | 2 Ohms                                         |
| Actual Electrical Travel, Turns, Nominal | 20                                             |
| Dielectric Strength                      | 1,000 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 | ±100ppm/°C                                       |
| Operating Temperature Range      | -55°C to +125°C                                  |
| Thermal Shock                    | 5 cycles, -55°C to +125°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 125°C (2% ΔRT, 2% ΔVR)              |
| Rotational Life                  | 200 cycles (3% ΔRT)                              |
| Load Life at 0.75 Watts          | 1,000 hours at 70°C (2% ΔRT)                     |
| Resistance to Solder Heat        | 260°C for 10 sec. (1% ΔRT)                       |

### MECHANICAL

|                          |                          |
|--------------------------|--------------------------|
| Mechanical Stops         | Clutch Action, both ends |
| Torque, Starting Maximum | 5 oz.-in. (0.035 N-m)    |
| Weight, Nominal          | .05 oz. (1.4 grams)      |

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

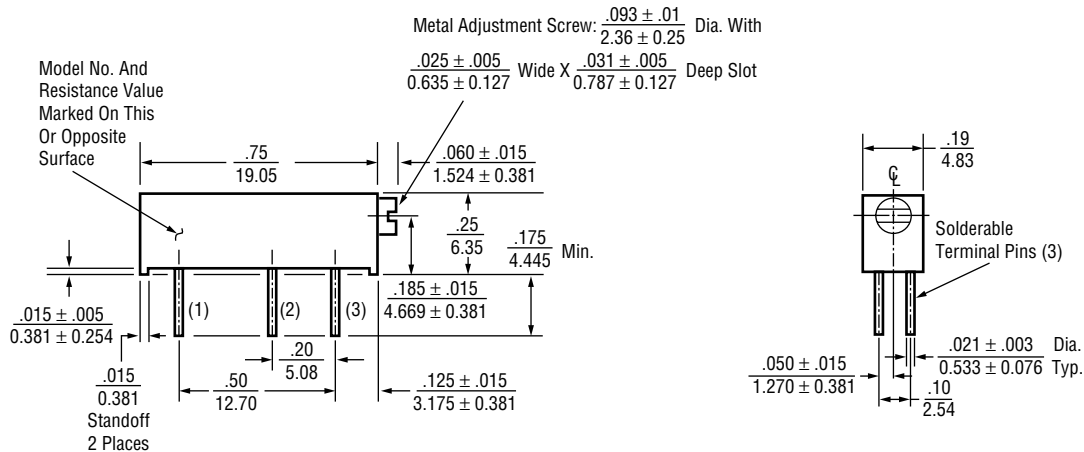


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Model 89

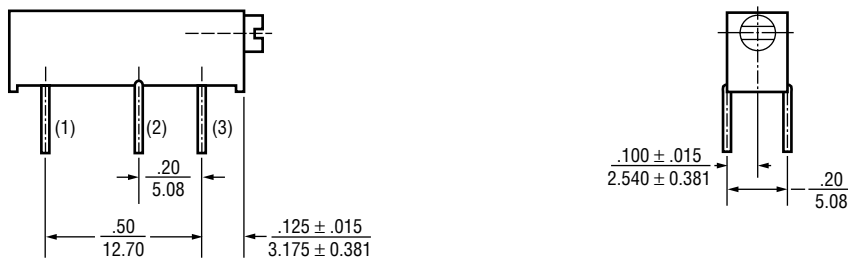
# LOW PROFILE (Inch/mm)

## Model 89P and 90P



Model 89P dimensions applicable to all other models except as noted.

## Model 89W



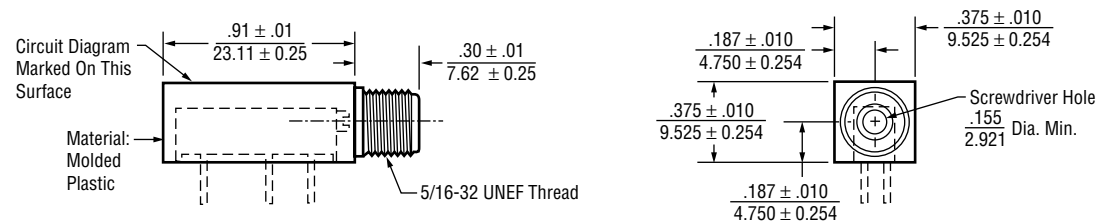
## Model 89X





## PANEL MOUNT ADAPTER (Inch/mm)

### Model 89B



## STANDARD RESISTANCE VALUES, OHMS

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

## PACKAGING

### Standard: Boxes

Capacity = 100 Units (89P)  
50 Units (All other styles)

**Option:** Tubes (Models 89P, 89PH, 89X, 89XH and 90P only.)  
All units oriented with #1 pin to same side.

|          |          |   |          |
|----------|----------|---|----------|
| Magazine | Width    | = | 0.28"    |
|          | Height   | = | 0.65"    |
|          | Length   | = | 21.5"    |
|          | Capacity | = | 25 Units |

## ORDERING INFORMATION

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### Standard:

Model Series **89** Pin Style **P** Resistance Prefix **R** Resistance Value **10K** RoHS Compliant Product Code - Optional **LF**

(Use Model 90 to order with transparent housing)

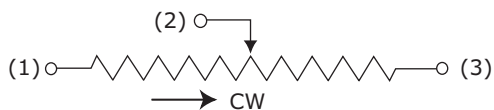
### Option:

Pin Style **89 P R 10K LF TB** Packaging Option: TB = Tubes (Models 89P, 89PH, 89X, 89H, 90P Only.)

### Option:

Pin Style **89 P B R 10K LF** Panel Mount Adapter (Use 89B to order Adapter without Trimmer)

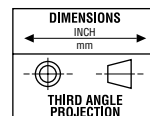
## CIRCUIT DIAGRAM



## 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



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