

# MODEL 82

1/4" Diameter

Single Turn

Cermet Trimming

Potentiometer

1



## ELECTRICAL

|                                       |                                                |
|---------------------------------------|------------------------------------------------|
| Standard Resistance Range, Ohms       | 10 to 1Meg                                     |
| 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 70°C derating to 0 at 125°C             |
| End Resistance, Maximum               | 2 Ohms                                         |
| Actual Electrical Travel, Nominal     | 220°                                           |
| Dielectric Strength                   | 600 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          | .02 oz. (0.60 grams)  |

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



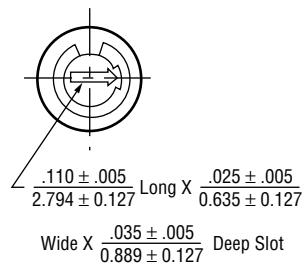
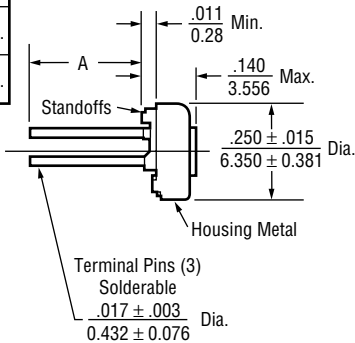
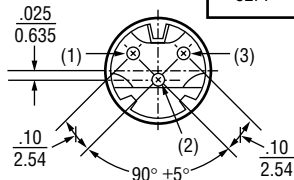
1-65

Model 82

## TOP ADJUSTMENT (Inch/mm)

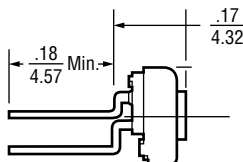
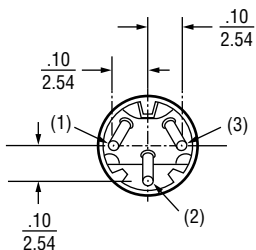
Model 82P, 82PF

| Model | Dim. A              |
|-------|---------------------|
| 82P   | .25<br>6.35 Min.    |
| 82PF  | .625<br>15.875 Min. |

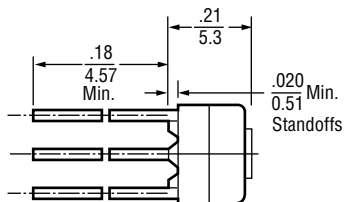
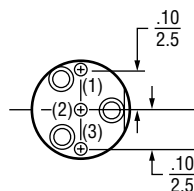


Note: Model 82P dimensions applicable to all models except as noted.

Model 82M

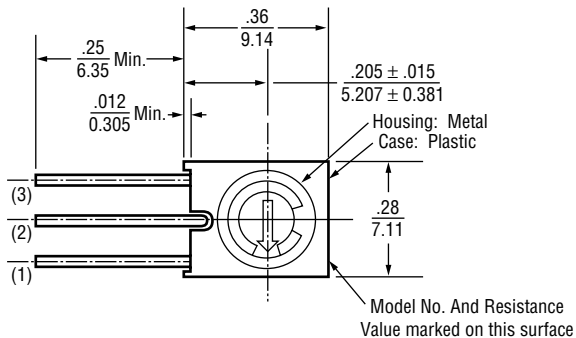
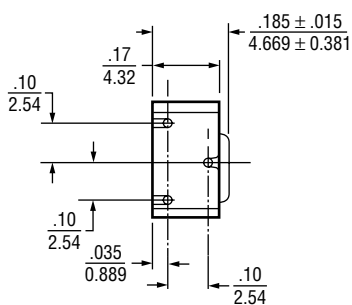


Model 82W



## SIDE ADJUSTMENT (Inch/mm)

Model 82PA



**STANDARD RESISTANCE VALUES, OHMS**

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

**1****PACKAGING****Standard:** Boxes

|          |   |                              |
|----------|---|------------------------------|
| Capacity | = | 50 Units (82PA, 82PF)        |
|          | = | 100 Units (All other styles) |

**Option:** Tubes

All units oriented with #1 pin to same side.

|          | Pin Style |   | PA       | P,M,W     |
|----------|-----------|---|----------|-----------|
| Magazine | Width     | = | 0.28"    | 0.34"     |
|          | Height    | = | 0.94"    | 0.65"     |
|          | Length    | = | 15.6"    | 27.5"     |
|          | Capacity  | = | 50 Units | 100 Units |

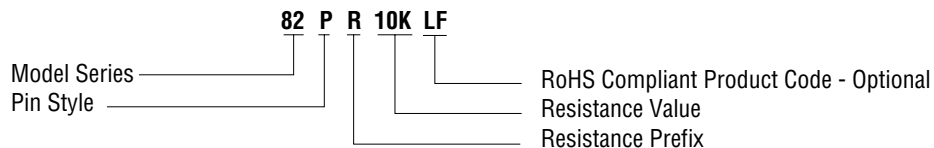
**Option:** Tape & Reel, Ammo Pack (Available for 82W Only)

All units oriented with #1 pin to the right of the direction of feed.

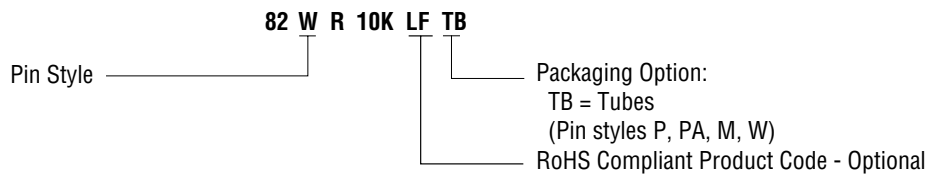
|      |                                                 |   |                          |
|------|-------------------------------------------------|---|--------------------------|
|      | Seat Plane to<br>Centerline of<br>Sprocket Hole | = | .71" (18.03 mm)          |
| Tape | Width                                           | = | 18 mm                    |
|      | Sprocket                                        | = | Single Hole .50" spacing |
|      | Capacity                                        | = | 1,000 Units              |
| Reel | Diameter                                        | = | 14" (356 mm)             |
| Ammo | Tape Fold                                       | = | 12" (305 mm)             |
|      | Box                                             | = | 1.5" x 13" x 10"         |

## ORDERING INFORMATION

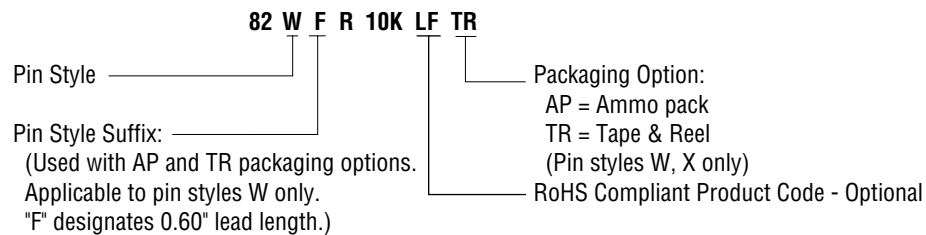
### Standard:



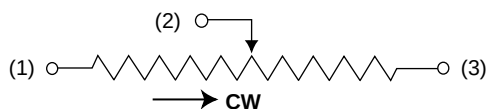
### Option:



### Option:



## 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

