

# MODEL 23A, B, S

4mm Square

Sealed Single Turn

Surface Mount

Cermet Trimming

Potentiometer



1

## ELECTRICAL

|                                       |                                           |
|---------------------------------------|-------------------------------------------|
| Standard Resistance Range, Ohms       | 10 to 2Meg                                |
| Standard Resistance Tolerance         | ±20%                                      |
| Input Voltage, Maximum                | 200 Vdc or rms not to exceed power rating |
| Power Rating, Watts                   | 0.25 at 70°C derating to 0 at 125°C       |
| End Resistance, Maximum               | 1% or 3 Ohms, whichever is greater        |
| Actual Electrical Travel, Nominal     | 210°                                      |
| Dielectric Strength                   | 500 Vrms                                  |
| Insulation Resistance, Minimum        | 100 Megohms                               |
| Resolution                            | Essentially infinite                      |
| Contact Resistance Variation, Maximum | 1% or 3 Ohms, whichever is greater        |

## ENVIRONMENTAL

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| Seal                             | 85°C Fluorinert® (No Leaks)                |
| Temperature Coefficient, Maximum | ±100ppm/°C (<200 Ohms, >1Meg = ±250ppm/°C) |
| Operating Temperature Range      | -55°C to +125°C                            |
| Thermal Shock                    | 5 cycles, -55°C to +125°C (2% ΔRT, 2% ΔVR) |
| Moisture Resistance              | Ten 24 hour cycles (3% ΔRT)                |
| 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                  | 100 cycles (5% ΔRT)                        |
| Load Life at 0.25 Watts          | 1,000 hours at 70°C (3% ΔRT, 1% ΔVR)       |
| Resistance to Solder Heat        | 260°C for 10 sec. (1% ΔRT)                 |

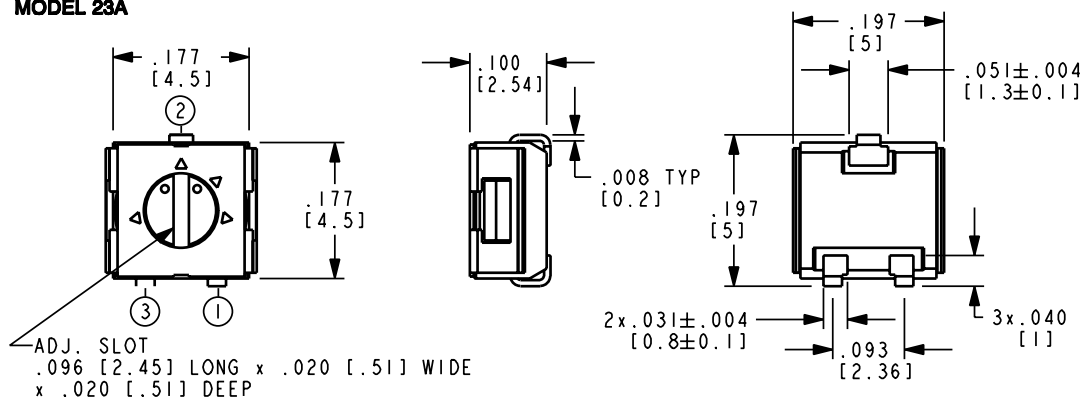
## MECHANICAL

|                        |                       |
|------------------------|-----------------------|
| Mechanical Stops       | Solid                 |
| Stop Strength, Minimum | 4 oz.-in. (300 gr-cm) |
| Torque, Maximum        | 2 oz.-in. (150 gr-cm) |
| Weight, Nominal        | .005 oz. (0.14 grams) |

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

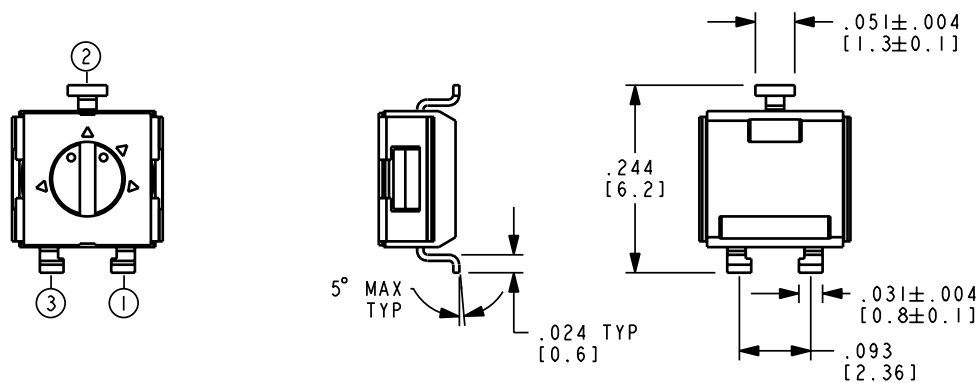


**MODEL 23A**

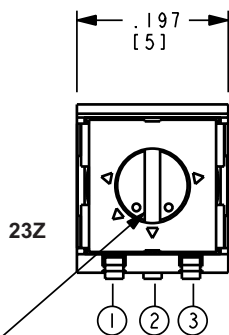


Note: Model 23A dimensions applicable to all models except as noted

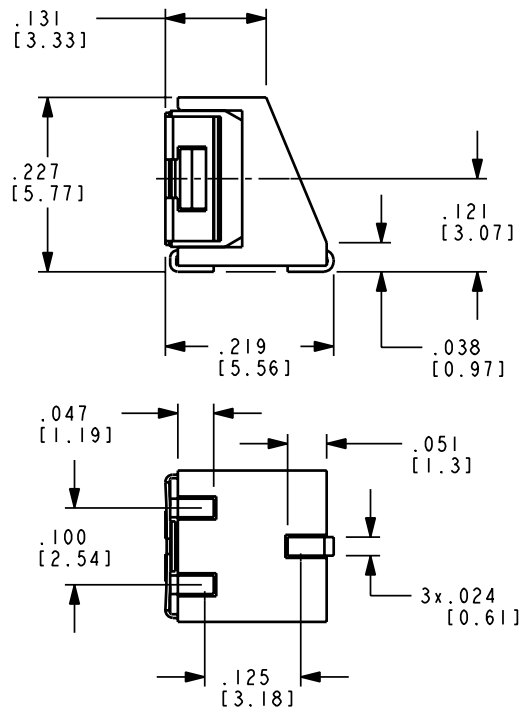
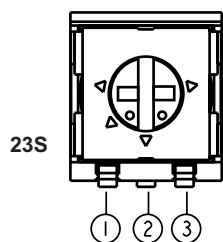
**MODEL 23B**



## MODEL 23S (CROSS SLOT) &amp; 23Z (STRAIGHT SLOT)

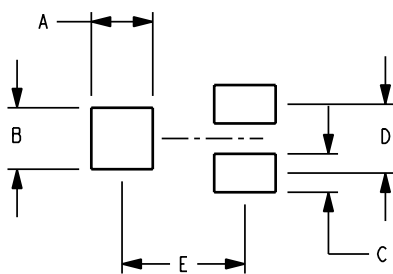


ROTOR POSITIONED AS SHOWN  
WITHIN  $\pm 22^\circ$  OF CENTERLINE  
OF TERMINAL 2



## RECOMMENDED PCB LAYOUT (Inch/mm)

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|   | 23A          | 23B         | 23S          |
|---|--------------|-------------|--------------|
| A | .079<br>2.00 | .051<br>1.3 | .079<br>2.0  |
| B | .079<br>2.00 | .079<br>2.0 | .079<br>2.0  |
| C | .051<br>1.3  | .051<br>1.3 | .051<br>1.3  |
| D | .091<br>2.3  | .091<br>2.3 | .10<br>2.54  |
| E | .157<br>4.00 | .217<br>5.5 | .137<br>3.48 |

DIMENSIONS ARE : INCHES (mm)  
TOLERANCES :  $\pm .010$  (.25) EXCEPT WHERE NOTED

## STANDARD RESISTANCE VALUES, OHMS

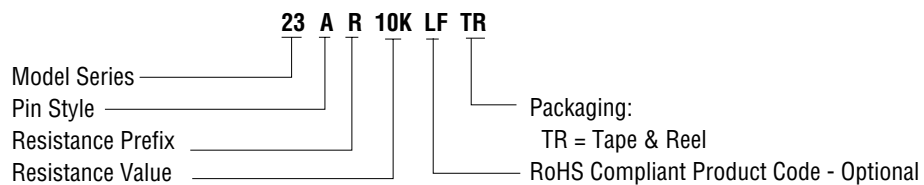
|    |     |    |     |      |      |
|----|-----|----|-----|------|------|
| 10 | 100 | 1K | 10K | 100K | 1Meg |
| 20 | 200 | 2K | 20K | 200K | 2Meg |
| 50 | 500 | 5K | 50K | 500K |      |

## PACKAGING

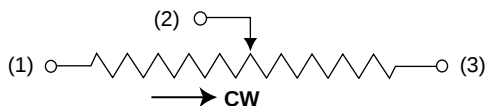
**Standard:** Embossed Tape  
All units oriented with #2 (slider) terminal adjacent to sprocket holes.

|      | Pin Style |   | A,B         | S           |
|------|-----------|---|-------------|-------------|
| Tape | Width     | = | 12 mm       | 12 mm       |
|      | Sprocket  | = | 4 mm Pitch  | 4 mm Pitch  |
|      | Capacity  | = | 500 Units   | 200 Units   |
| Reel | Diameter  | = | 7" (178 mm) | 7" (178 mm) |

## ORDERING INFORMATION



## CIRCUIT DIAGRAM



## NOTES

English equivalents are based on 1 inch = 25.4mm and are provided for general information only.

Tolerances unless otherwise specified:  
Linear =  $\pm 0.3$  mm (.01 inches)

