

## Features

- Flatted metal shaft option
- Horizontal & vertical mount option
- Audio & linear tapers
- PC pin layout for board mount
- Optional push momentary switch
- RoHS compliant\*

# PRS11R - 11 mm Rotary Metal Shaft Potentiometer

### Electrical Characteristics

Taper..... Audio, Linear  
 Standard Resistance ... 5k ohms to 250k ohms  
 Standard Resistance Tolerance  
 R < 250k ohms ..... ±20 %  
 R = 250k ohms ..... ±30 %  
 Residual Resistance ..... 0.4 % max.  
 Insulation Resistance  
 ..... 100 megohms minimum @ 250V DC  
 Dielectric Withstanding Voltage  
 Sea Level..... 300 V AC min.  
 Power Rating ..... 0.05 W  
 Maximum Operating Voltage  
 ..... 50V AC / 30V DC  
 Sliding Noise ..... 100 mV max.

### Environmental Characteristics

Operating Temperature Range  
 ..... -20 °C to +70 °C (-4 °F to +158 °F)  
 Storage Temperature Range  
 ..... -40 °C to +70 °C (-40 °F to +158 °F)  
 Soldering Condition  
 Wave Soldering ..... 260 °C for 3 s  
 Manual Soldering..... 350 °C for 3 s  
 IP Rating ..... IP 40

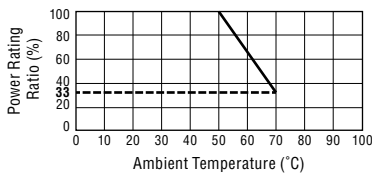
### Mechanical Characteristics

Mechanical Angle ..... 300 ° ± 10 ° max.  
 Torque  
 Running ..... 20-250 gf-cm  
 (Starting torque ignored)  
 Mounting ..... 3 kgf-cm max.  
 Stop Strength..... 3 kgf-cm min.  
 Rotational Life..... 15,000 cycles min.  
 Switch Life ..... 20,000 cycles min.  
 Hardware ..... One flat washer and one hex nut supplied with threaded bushing versions

### Switch Characteristics

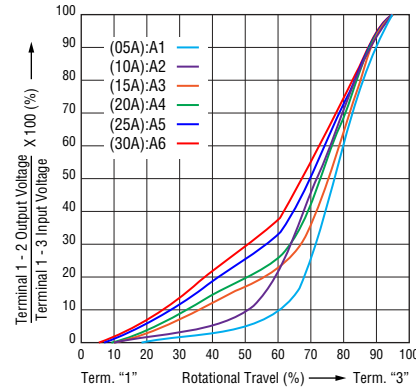
Switch Type ..... Push ON Momentary SPST  
 Power Rating (Resistive Load)  
 ..... 10 mA at 5 V DC  
 Switch Travel ..... 0.5 ± 0.4 mm  
 Switch Actuation Force ..... 600 ± 300 gf  
 Contact Resistance ..... 100 mΩ max.

### Derating Curve

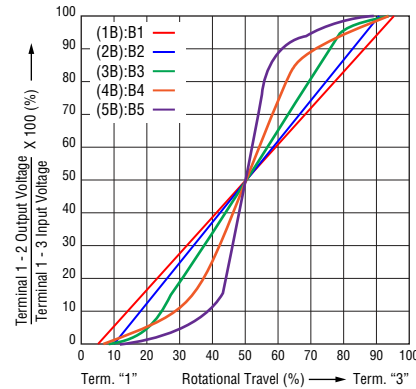


### Tapers

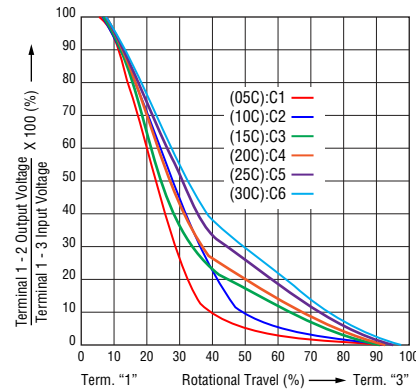
#### A Series



#### B Series



#### C Series



### Additional Information

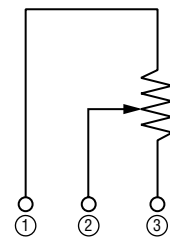
Click these links for more information:



### Tapers

Resistance (Ohms)	Resistance Code
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
250,000	254

### Circuit



### Switch Circuit



**WARNING**  
 Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

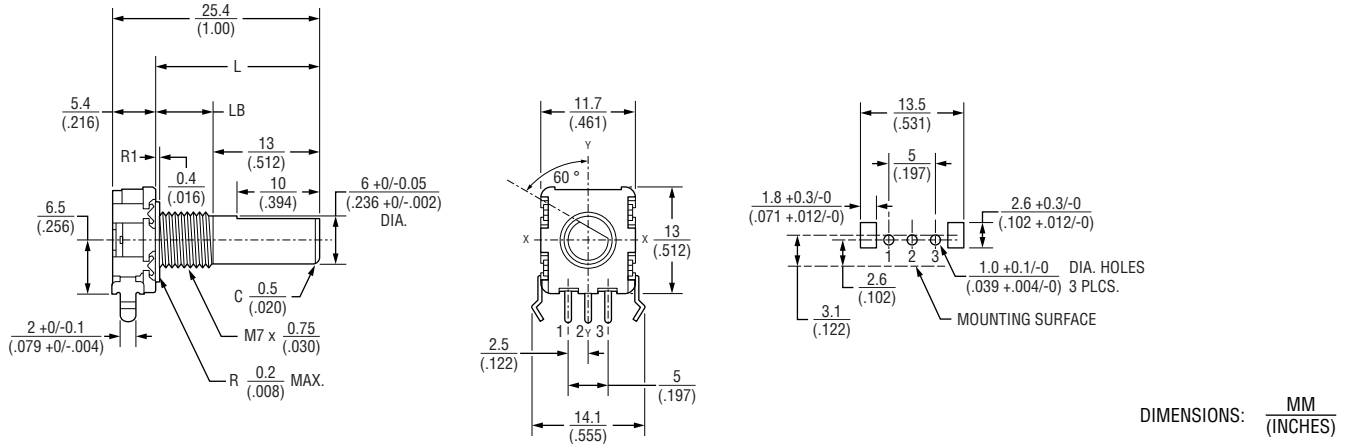
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
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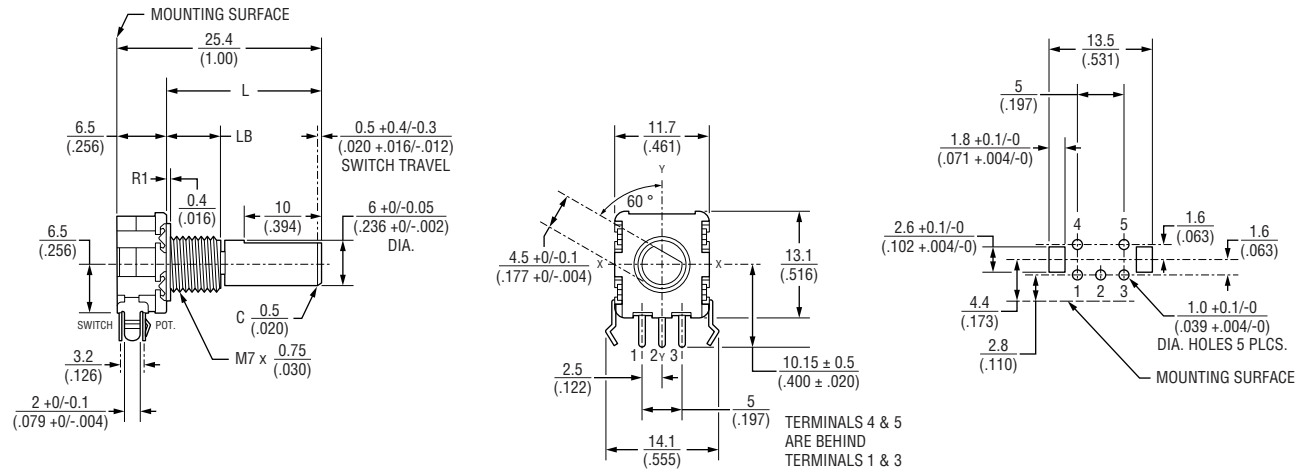
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## Product Dimensions

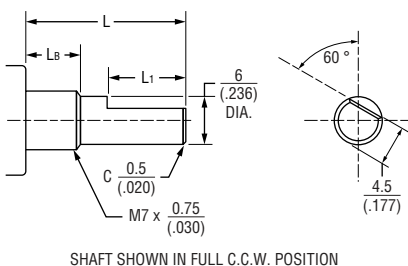
### PRS11R-2xxF-Nxxxxx



### PRS11R-2xxF-Sxxxxx



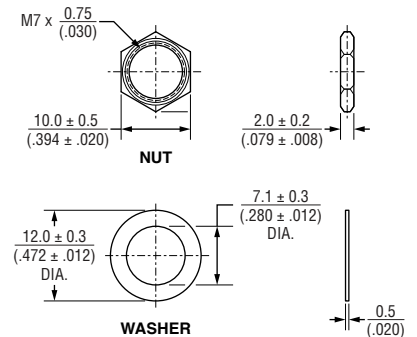
## Shaft and Bushing Dimensions



L	LB	L1
15 (.591)	7 (.276)	5 (.197)
20 (.787)	7 (.276)	10 (.394)
25 (.984)	7 (.276)	10 (.394)

DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Hardware



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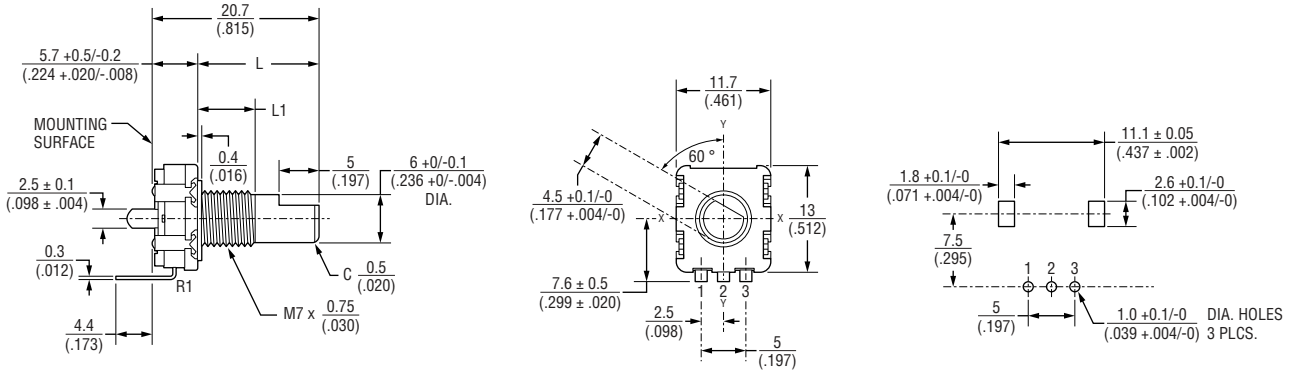
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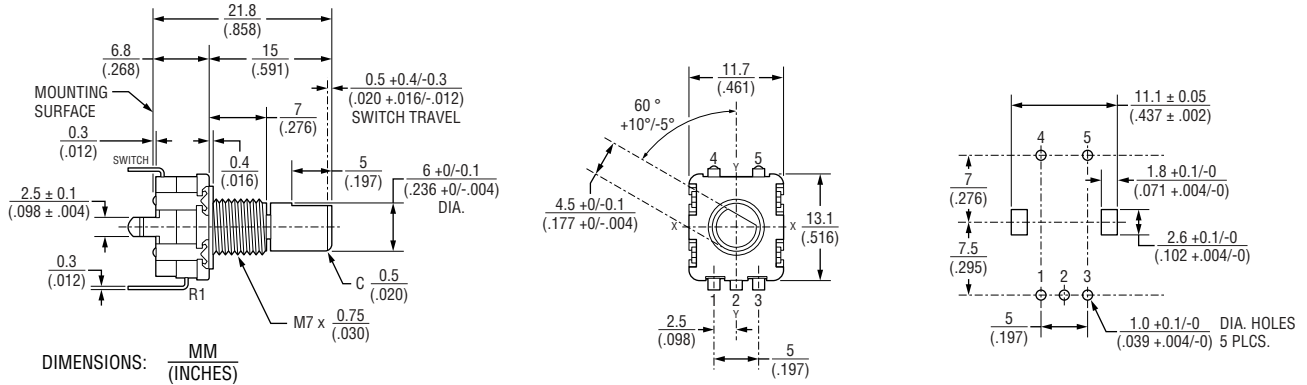
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## Product Dimensions

### PRS11R-4xxF-Nxxxxx



### PRS11R-4xxF-Sxxxxx



## How To Order

### PRS11R - 4 15 F - S103 B1

Model \_\_\_\_\_

Orientation \_\_\_\_\_  
 2 = PC Pins - vertical / side facing  
 4 = PC Pins - horizontal / rear facing

Shaft Length \_\_\_\_\_  
 15 = 15 mm    20 = 20 mm    25 = 25 mm

Shaft Style \_\_\_\_\_  
 F = Flatted

Switch Configuration \_\_\_\_\_  
 N = No Switch    S = Push Momentary Switch

Resistance Code (see table) \_\_\_\_\_

Resistance Taper (see Taper charts) \_\_\_\_\_

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