

## Features

- Various metal shaft options
- Horizontal & vertical mount option
- Dual-potentiometer
- Audio & linear tapers
- PC pin layout for board mount
- RoHS compliant\*

# PRS12R - 12 mm Rotary Metal Shaft Dual-Potentiometer

### Additional Information

Click these links for more information:



PRODUCT TECHNICAL INVENTORY SAMPLES CONTACT LIBRARY

### Electrical Characteristics

Taper..... Audio, Linear  
 Standard Resistance... 5k ohms to 500k ohms  
 Standard Resistance Tolerance  
 R < 250k ohms ..... ±20 %  
 R ≥ 250k ohms..... ±30 %  
 Residual Resistance..... 0.6 % 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  
 .....50 V AC / 10 V DC  
 Sliding Noise..... 100 mV max.

### Environmental Characteristics

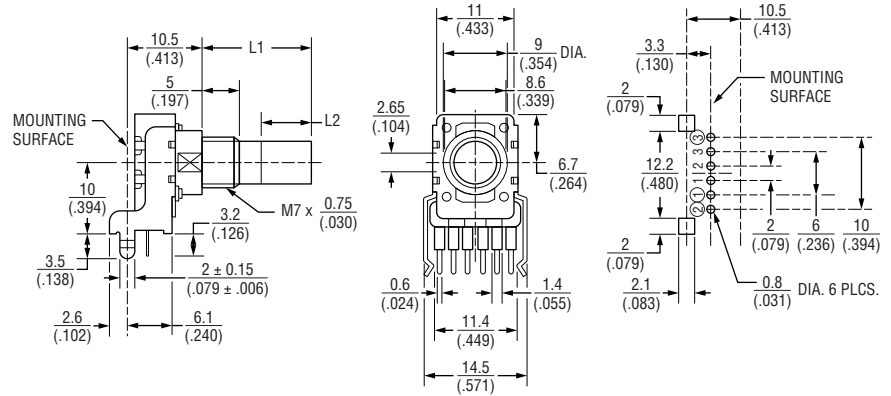
Operating Temperature..... -10 °C to +70 °C  
 Storage Temperature..... -40 °C to +70 °C  
 Soldering Condition  
 Wave Soldering ..... 260 °C for 5 s  
 Manual Soldering..... 350 °C for 3 s  
 IP Rating..... IP 40

### Mechanical Characteristics

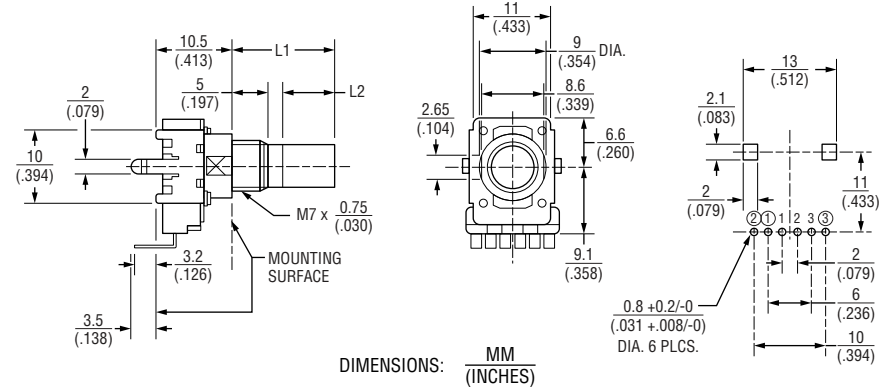
Mechanical Angle ..... 300 ° ± 5 ° max.  
 Torque  
 Starting & Running ..... 10-150 gf-cm  
 Detent ..... 20-200 gf-cm  
 Mounting..... 12 kgf-cm max.  
 Stop Strength..... 3.5 kgf-cm min.  
 Rotational Life..... 10,000 cycles min.  
 Hardware..... One flat washer and one hex nut supplied with threaded bushing versions

### Product Dimensions

#### PRS12R-2xxxx-xxxxx

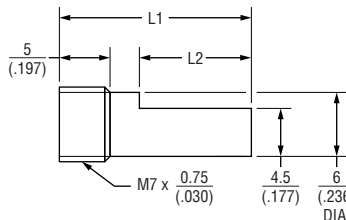


#### PRS12R-4xxxx-xxxxx



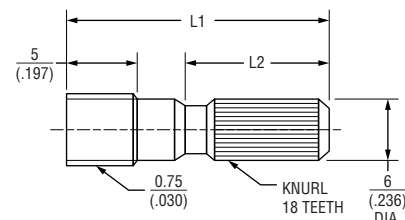
### Shaft & Bushing Dimensions

#### FLAT SHAFT



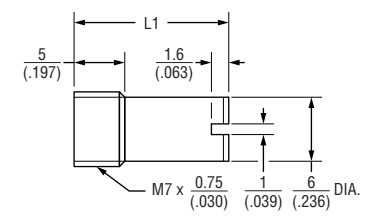
L1	15 (.591)	20 (.787)	25 (.984)
L2	7 (.276)	12 (.472)	12 (.472)

#### KNURLED SHAFT



L1	15 (.591)	20 (.787)	25 (.984)
L2	7 (.276)	11 (.433)	14 (.551)

#### SLOT SHAFT



L1	15 (.591)	20 (.787)	25 (.984)
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DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



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

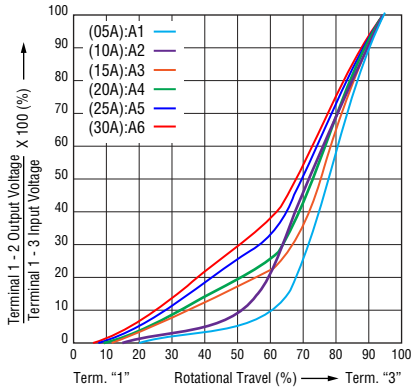
\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

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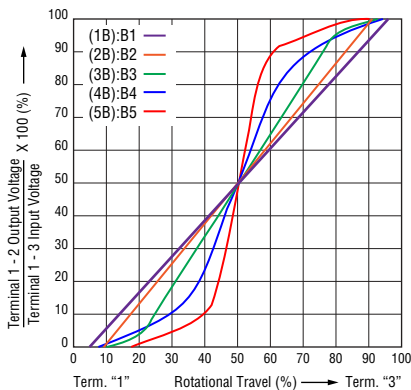
**BOURNS®**

## Tapers

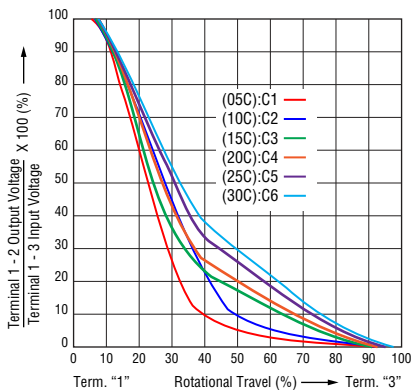
### A Series



### B Series



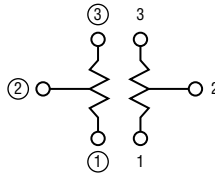
### C Series



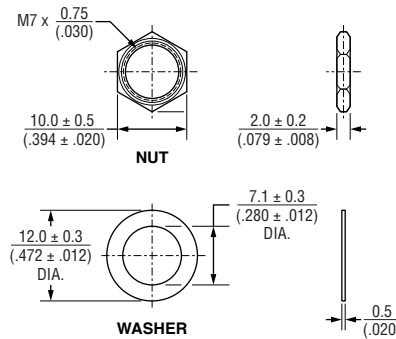
## Resistance Table

Resistance (Ohms)	Resistance Code
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
250,000	254
500,000	504

## Circuit



## Hardware



## How To Order

**PRS12R - 4015 F - 103 B1**

Model \_\_\_\_\_

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

Detent Configuration \_\_\_\_\_  
 0 = No Detent  
 1 = Center Detent

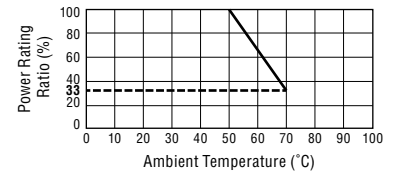
Shaft Length \_\_\_\_\_  
 15 = 15 mm  
 20 = 20 mm  
 25 = 25 mm

Shaft Style \_\_\_\_\_  
 F = Flatted  
 K = Knurled  
 S = Slotted

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

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

## Derating Curve



**BOURNS®**

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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