

## Features

- Single gang panel control
- RoHS compliant\*
- Carbon element
- Center detent option
- Wide range of resistance tapers
- Insulated shaft styles
- Assortment of pin layouts

## Applications

- Audio/TV sets
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

# PDB12 Series - 12 mm Rotary Potentiometer

### Electrical Characteristics

Taper..... Linear, audio  
 Standard Resistance Range ..... 1K ohms to 1M ohms  
 Standard Resistance Tolerance..... ±20 %  
 Residual Resistance ..... 10 ohms max.

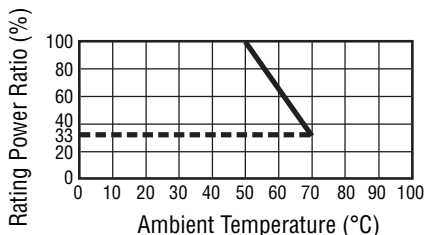
### Environmental Characteristics

Power Rating  
 Linear ..... 0.08 watt  
 Audio ..... 0.04 watt  
 Maximum Operating Voltage  
 Linear ..... 150 V  
 Audio ..... 100 V  
 Sliding Noise ..... 47 mV max.  
 Operating Temperature... -10 °C to +70 °C

### Mechanical Characteristics

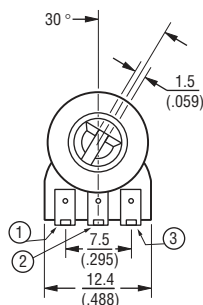
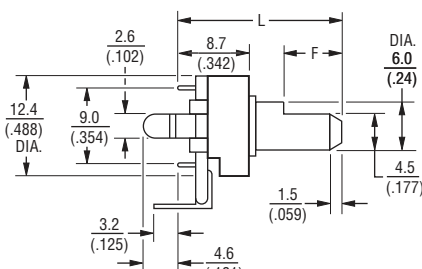
Mechanical Angle ..... 300 ° ±5 °  
 Rotational Torque ..... 20 to 200 g-cm  
 Stop Strength ..... 3 kg-cm min.  
 Rotational Life ..... 15,000 cycles  
 Soldering Condition  
 ..... 300 °C max. within 3 seconds  
 Hardware ..... No hardware supplied

### Derating Curve

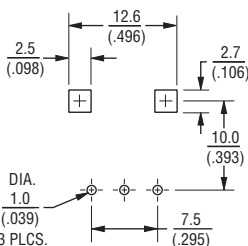


### Product Dimensions

PDB12-H

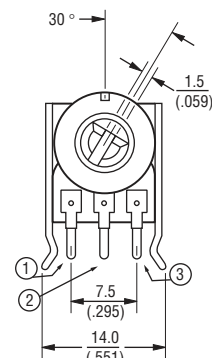
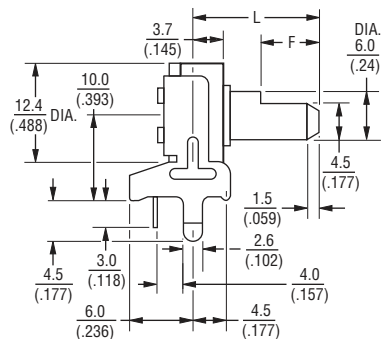


RECOMMENDED PCB LAYOUT

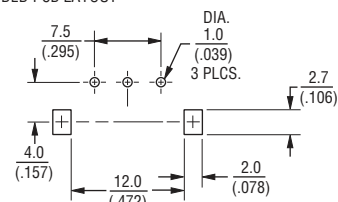


SHAFT SHOWN IN CCW POSITION

PDB12-G



RECOMMENDED PCB LAYOUT

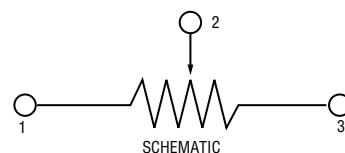


SHAFT SHOWN IN CCW POSITION

### PDB12 Dimensions

L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	7 (.276)	7 (.276)	12 (.472)	12 (.472)

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.

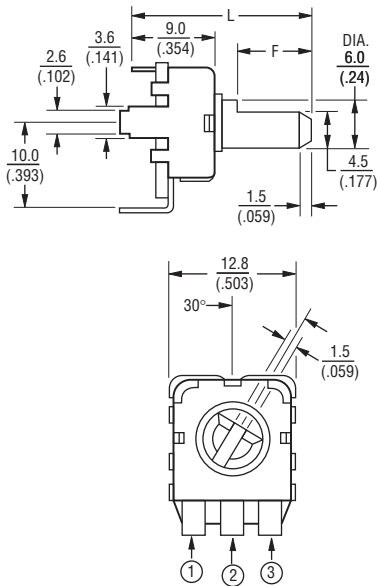
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# PDB12 Series - 12 mm Rotary Potentiometer

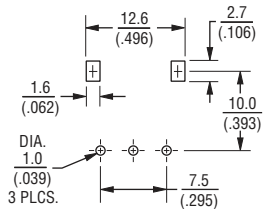
**BOURNS®**

## Product Dimensions

### PDB12-M



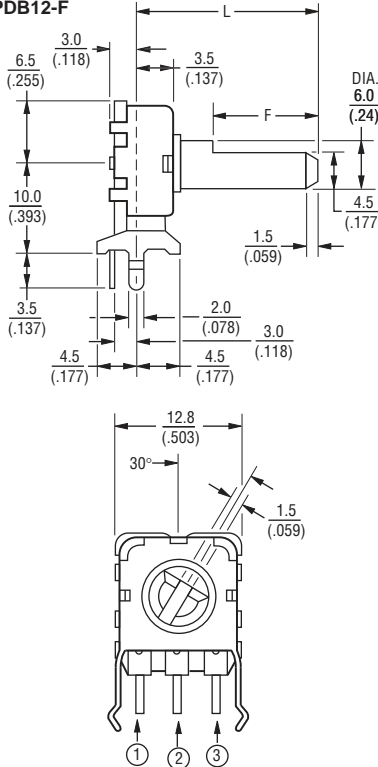
### RECOMMENDED PCB LAYOUT



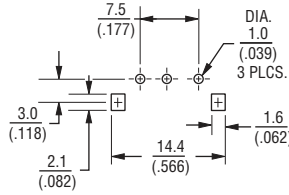
SHAFT SHOWN IN CCW POSITION

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

### PDB12-F



### RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

## How To Order

PDB12 - H 4 20 1 - 103 A F

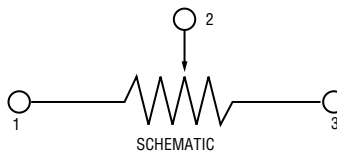
- Model
- Terminal Config. (see individual drawings)  
 H = PC pins, rear facing snap mount  
 G = PC pins, vertical/down facing/snap mount  
 M = PC pins, rear facing  
 F = PC pins, vertical/down facing/snap mount
- Option  
 • 2 = Center Detent  
 • 4 = No Detent
- Standard Shaft Length  
 • 15 = 15 mm  
 • 20 = 20 mm  
 • 25 = 25 mm  
 • 30 = 30 mm
- Number of Gangs  
 • 1 = Single Gang
- Resistance Code (See Table)
- Resistance Taper  
 • A = Audio Taper  
 • B = Linear Taper
- Shaft Style  
 • F = Flat Type Insulated Shaft
- Other styles available.

## Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105

## PDB12 Dimensions

	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
L				
F	$\frac{7}{(.276)}$	$\frac{7}{(.276)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$



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REV. 10/19

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