



## 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.

The products described herein and this document are subject to specific disclaimers as set forth on the last page of this document, and at [www.bourns.com/legal/disclaimer.pdf](http://www.bourns.com/legal/disclaimer.pdf).

# PDB12 Series - 12 mm Rotary Potentiometer

**BOURNS®**

## Product Dimensions

### PDB12-M



### RECOMMENDED PCB LAYOUT



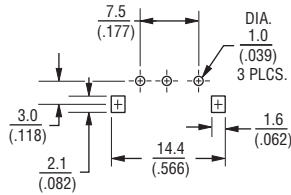
SHAFT SHOWN IN CCW POSITION

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

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



**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

www.bourns.com

REV. 10/19

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).