

\*RoHS COMPLIANT



**BOURNS®**

**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
- Car radio
- 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.

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



\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications

# 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	7 (.276)	7 (.276)	12 (.472)	12 (.472)



REV. 01/11

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