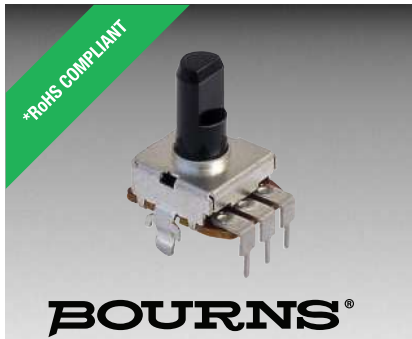




## Features

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

## Additional Information

Click these links for more information:



PRODUCT  
SELECTOR



TECHNICAL  
LIBRARY



INVENTORY



SAMPLES



CONTACT

## PDB12 Series - 12 mm Rotary Potentiometer

### Electrical Characteristics

Taper..... Linear, audio  
Standard Resistance Range  
..... 1K ohms to 1M ohms  
Standard Resistance Tolerance  
R ≤ 1 KΩ ..... ±30%  
1 KΩ < R < 1 MΩ ..... ±20%  
≥ 1 MΩ ..... ±30%  
Residual Resistance ..... 10 ohms max.

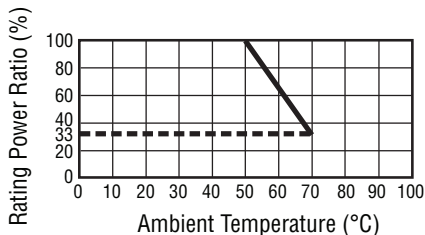
### Environmental Characteristics

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

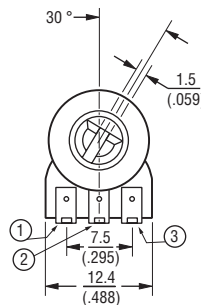
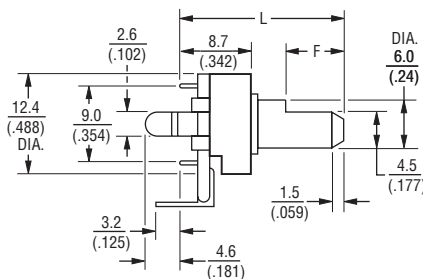
Mechanical Angle ..... 300 ° ± 5 °  
Rotational Torque ..... 20 to 200 g-cm  
Stop Strength ..... 3 kg-cm min.  
Rotational Life ..... 15,000 cycles  
Soldering Condition  
..... 300 °C max. within 3 seconds  
Hardware ..... No hardware supplied

### Derating Curve

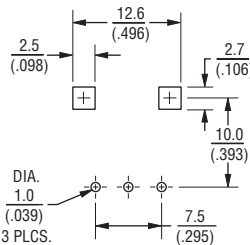


### Product Dimensions

#### PDB12-H



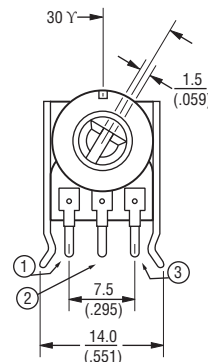
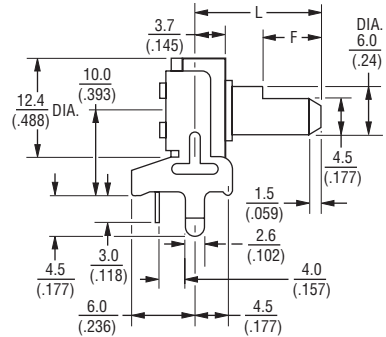
#### RECOMMENDED PCB LAYOUT



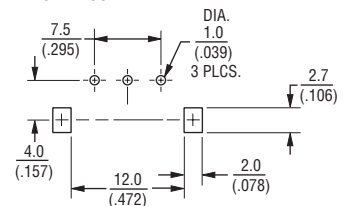
SHAFT SHOWN IN CCW POSITION

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

#### PDB12-G



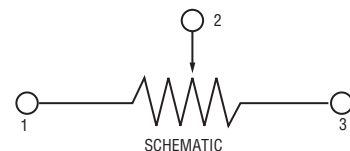
#### RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

### PDB12 Dimensions

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



SCHEMATIC



**CALIFORNIA WARNING** Can expose you to lead, a carcinogen and reproductive toxicant.  
See [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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## Applications

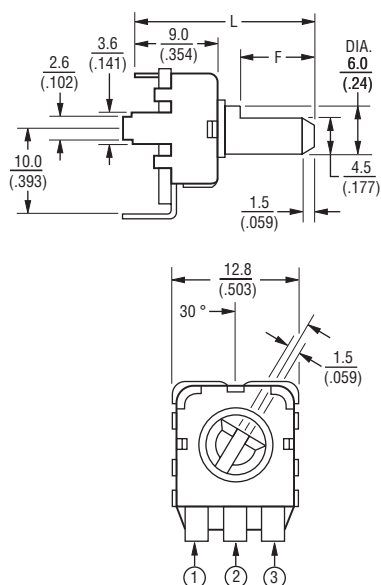
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

## PDB12 Series - 12 mm Rotary Potentiometer

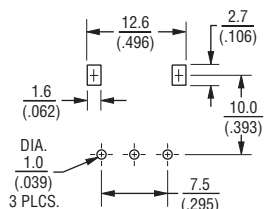
**BOURNS®**

### Product Dimensions

#### PDB12-M



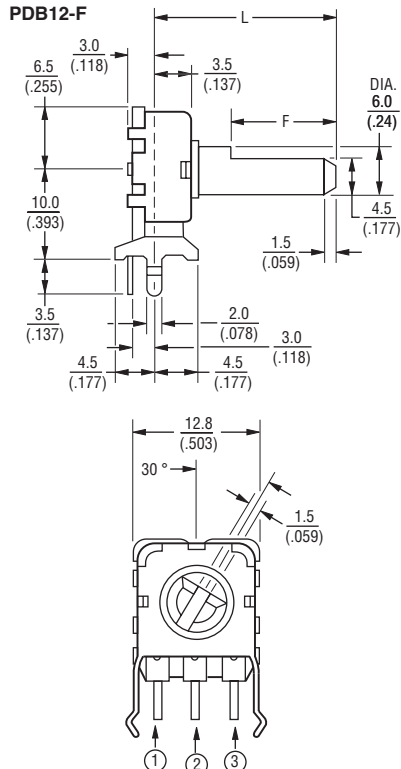
#### RECOMMENDED PCB LAYOUT



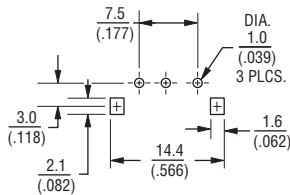
SHAFT SHOWN IN CCW POSITION

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

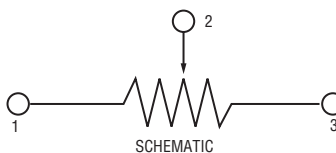
#### PDB12-F



#### 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             |

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