

## Features

- Single and dual section control
- Metal shaft styles
- Carbon element
- Center and multiple detent options
- Wide range of resistance tapers
- Plain or knurled shaft options



## PDB18 Series - 17 mm Rotary Potentiometer

### Electrical Characteristics

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

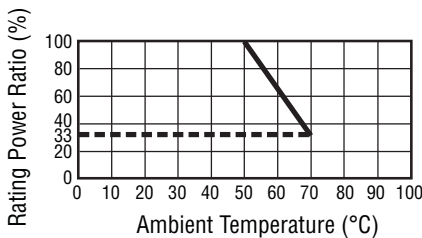
### Environmental Characteristics

Operating Temperature.... -10 °C to +50 °C  
 Power Rating  
 Linear ..... 0.2 watt  
 Dual Section..... 0.125 watt  
 Audio ..... 0.1 watt  
 Dual Section..... 0.06 watt  
 Maximum Operating Voltage  
 Linear ..... 200 V  
 Audio ..... 150 V  
 Sliding Noise ..... 47 mV max.

### Mechanical Characteristics

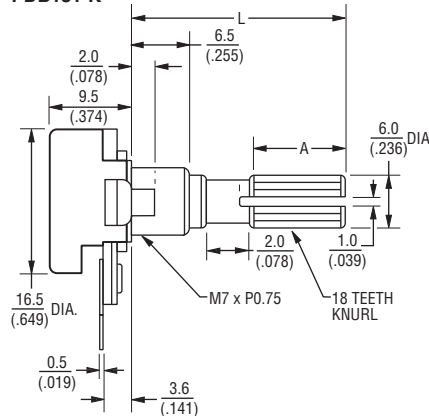
Mechanical Angle ..... 300 ° ±5 °  
 Rotational Torque ..... 10 to 150 gf-cm  
 Detent Torque ..... 150 to 500 g-cm  
 Stop Strength ..... 5 kg-cm min.  
 Rotational Life ..... 15,000 cycles  
 Soldering Condition  
 ..... 260 °C max. within 3 seconds  
 Hardware ..... One flat washer and  
 mounting nut supplied per  
 potentiometer with bushing

### Derating Curve

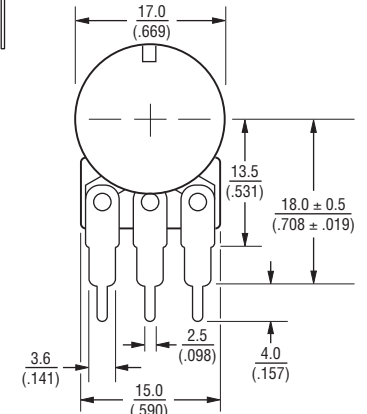
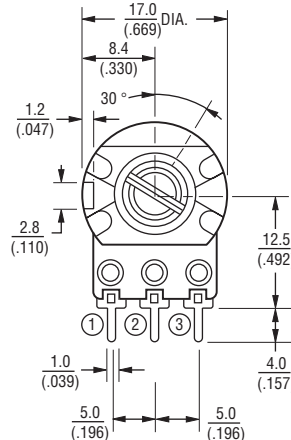
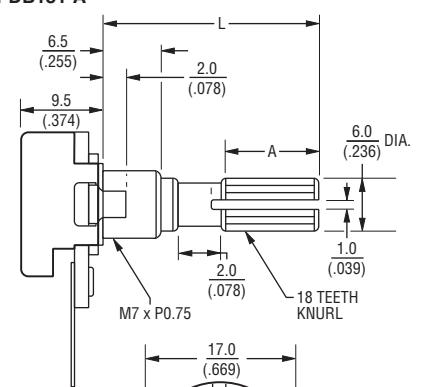


### Product Dimensions

PDB181-K

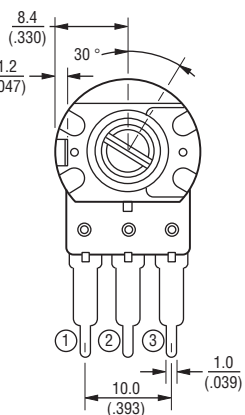
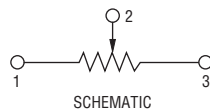


PDB181-A



SHAFT SHOWN IN CCW POSITION

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



SHAFT SHOWN IN CCW POSITION

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

## Additional Features

- Linear, audio and reverse audio taper options
- RoHS compliant\*

## Applications

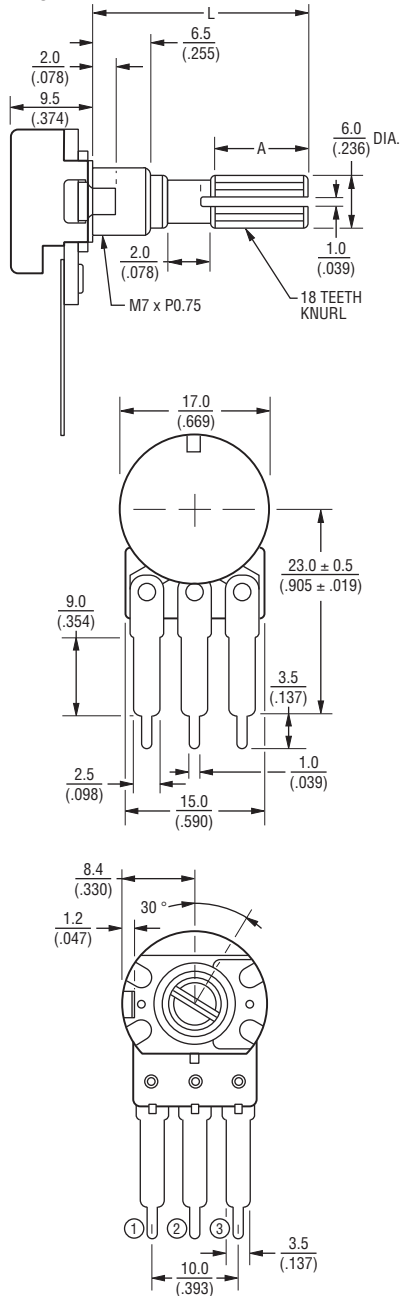
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

# PDB18 Series - 17 mm Rotary Potentiometer

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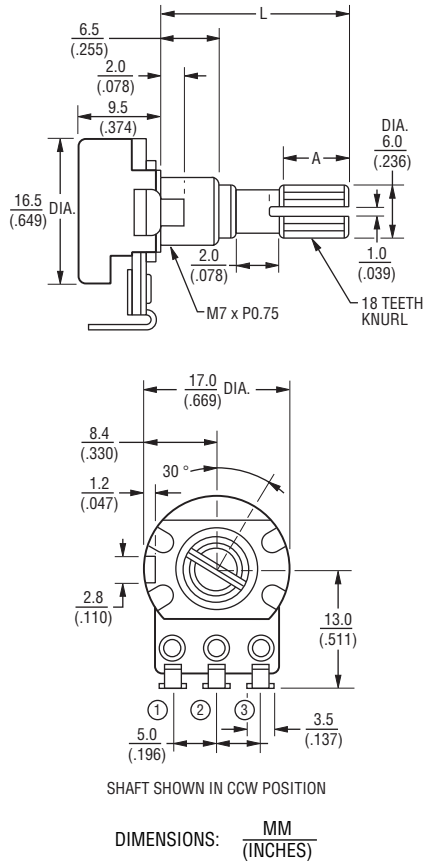
## Product Dimensions

PDB181-B



SHAFT SHOWN IN CCW POSITION

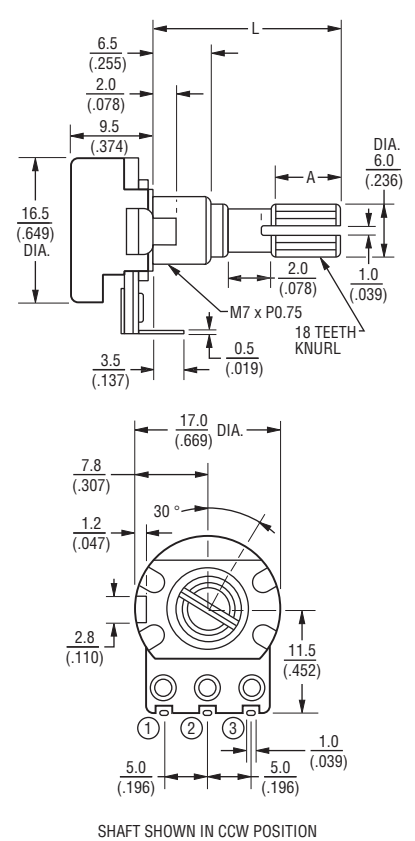
PDB181-E



SHAFT SHOWN IN CCW POSITION

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

PDB181-D



SHAFT SHOWN IN CCW POSITION

Specifications are subject to change without notice.

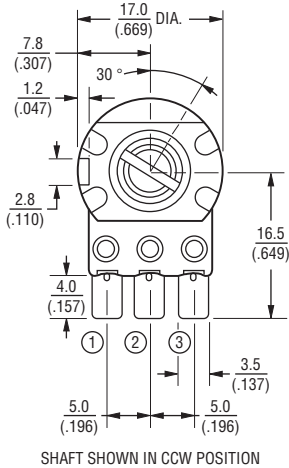
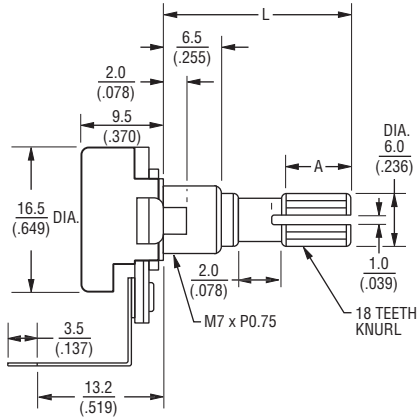
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# PDB18 Series - 17 mm Rotary Potentiometer

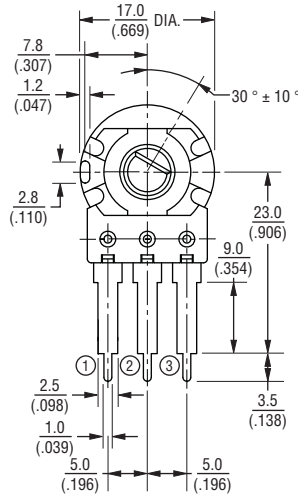
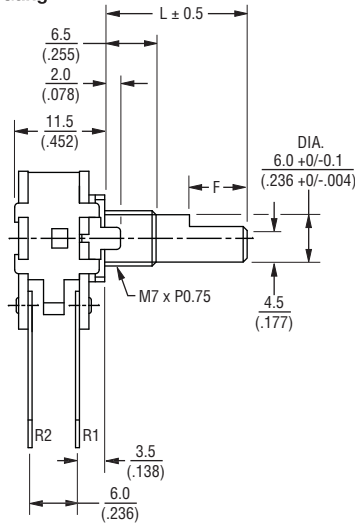
**BOURNS®**

## Product Dimensions

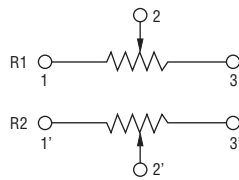
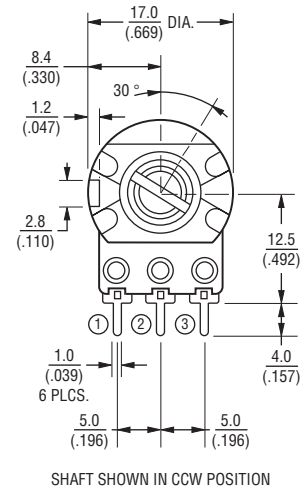
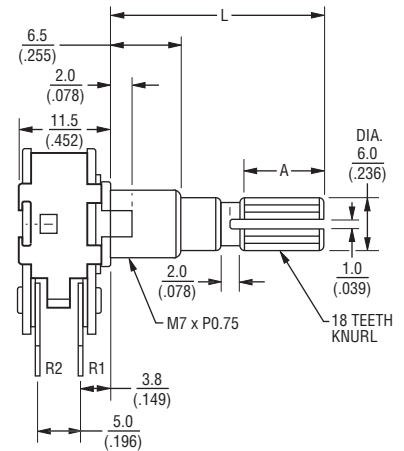
**PDB181-P**



**PDB182-B  
Dual Gang**



**PDB182-K  
Dual Gang**



SCHEMATIC

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

Specifications are subject to change without notice.

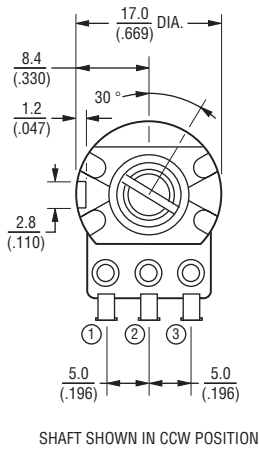
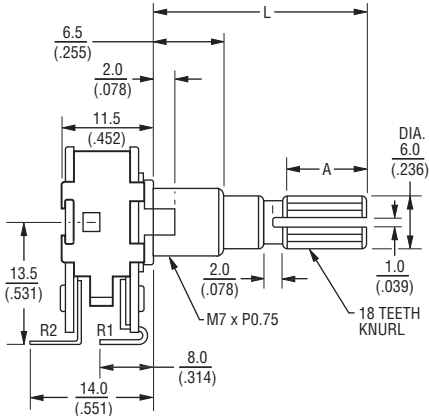
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# PDB18 Series - 17 mm Rotary Potentiometer

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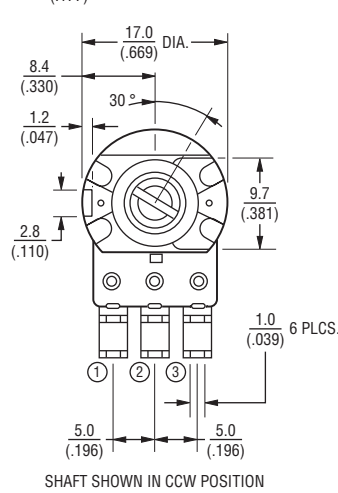
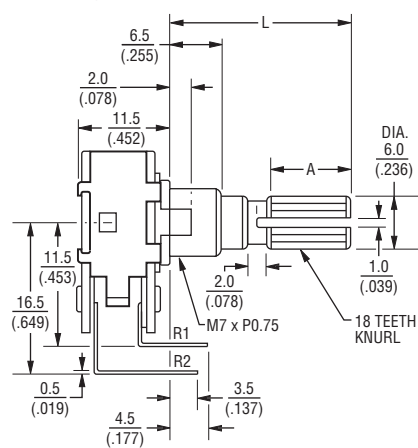
## Product Dimensions

**PDB182-E  
Dual Gang**



SHAFT SHOWN IN CCW POSITION

**PDB182-D  
Dual Gang**



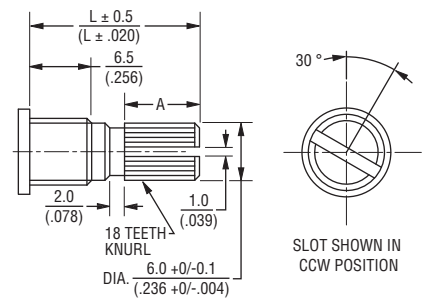
SHAFT SHOWN IN CCW POSITION

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

## Shaft Styles

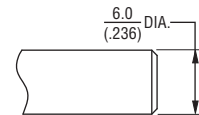
### K Type

L	15 (.591)	18 (.709)	20 (.787)	25 (.984)	30 (1.181)
A	6.5 (.256)	6.5 (.256)	11.5 (.453)	14 (.551)	19 (.748)



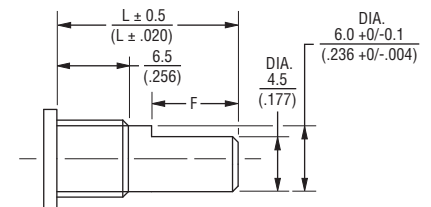
### P Type

L	20 (.787)	25 (.984)	30 (1.181)
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### F Type

L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)	35 (1.378)
F	7 (.276)	12 (.472)	12 (.472)	12 (.472)	12 (.472)

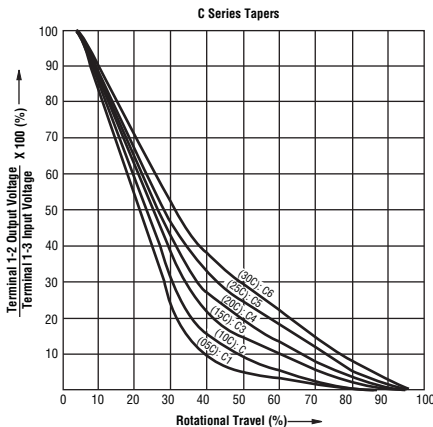
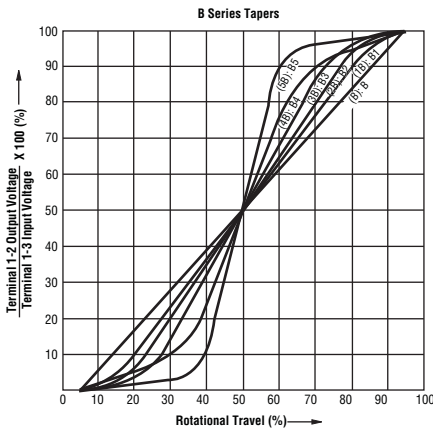
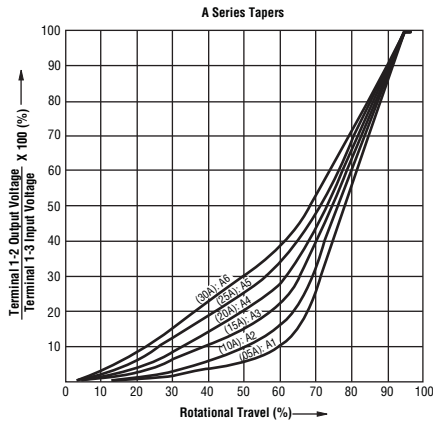


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# PDB18 Series - 17 mm Rotary Potentiometer

**BOURNS®**

## Tapers



## How To Order

**PDB18 1 - K 4 25 K - 103 A1**

- Model \_\_\_\_\_
- Number of Sections \_\_\_\_\_
- 1 = Single Section
  - 2 = Dual Section
- Terminal Configuration (Pin Layout) \_\_\_\_\_  
(see individual drawings)
- K = PC Pins vertical/Down Facing (12.5 mm)
  - A = PC Pins vertical/Down Facing (18.0 mm)
  - B = PC Pins vertical/Down Facing (23.0 mm)
  - E = Solder Lugs Rear Facing
  - P = PC Pins Rear Facing
  - D = PC Pins Front Facing
- Detent Option \_\_\_\_\_
- 2 = Center Detent
  - 4 = No Detents
  - 5 = 10 Detent / 11 Position
  - 6 = 20 Detent / 21 Position
  - 7 = 30 Detent / 31 Position
  - 8 = 40 Detent / 41 Position
- Standard Shaft Length \_\_\_\_\_
- 15 = 15 mm
  - 18 = 18 mm
  - 20 = 20 mm
  - 25 = 25 mm
  - 30 = 30 mm
- Shaft Style \_\_\_\_\_
- F = Metal Flatted Shaft
  - K = Metal Knurled Type Shaft 18 Toothed Serration Type
  - P = Metal Plain Shaft
- Resistance Code (See Table) \_\_\_\_\_
- Resistance Taper (See Taper Charts) \_\_\_\_\_  
Taper Series followed by Curve Number
- 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

REV. 03/13

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