



## 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.

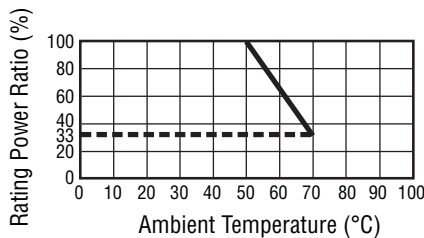
### Environmental Characteristics

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

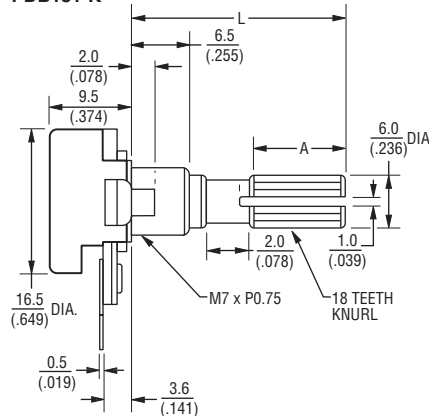
Mechanical Angle ..... 300 ° ±5 °  
 Rotational Torque ..... 10 to 150 gf-cm  
 Detent Torque ..... 150 to 500 g-cm  
 Stop Strength ..... 5 kg-cm min.  
 Rotational Life ..... 15,000 cycles  
 Soldering Condition  
 ..... 260 °C max. within 3 seconds  
 Hardware ..... One flat washer and  
 mounting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

### Derating Curve

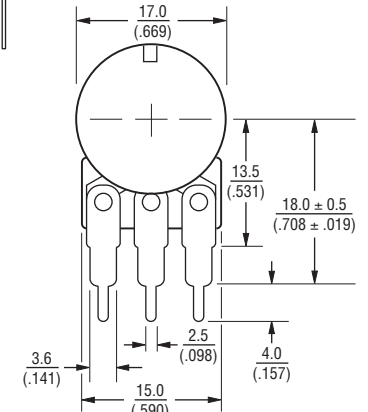
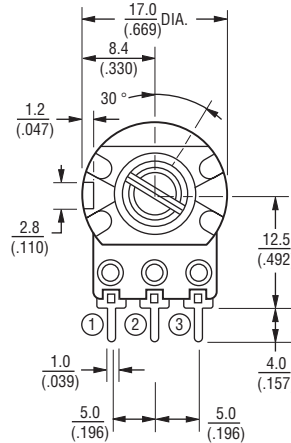
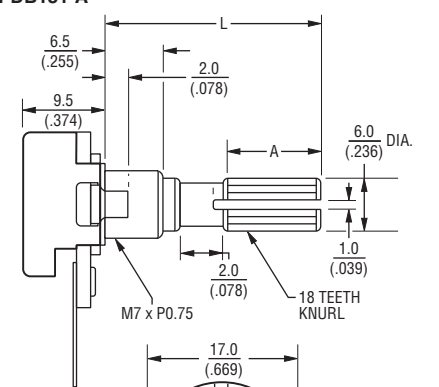


### Product Dimensions

PDB181-K

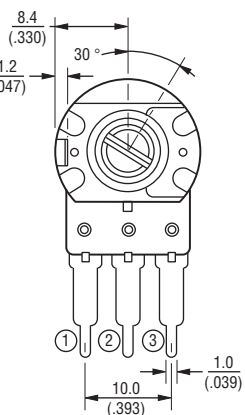
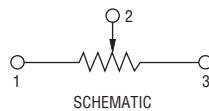


PDB181-A



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.

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Users should verify actual device performance in their specific applications.

## Additional Features

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

## Applications

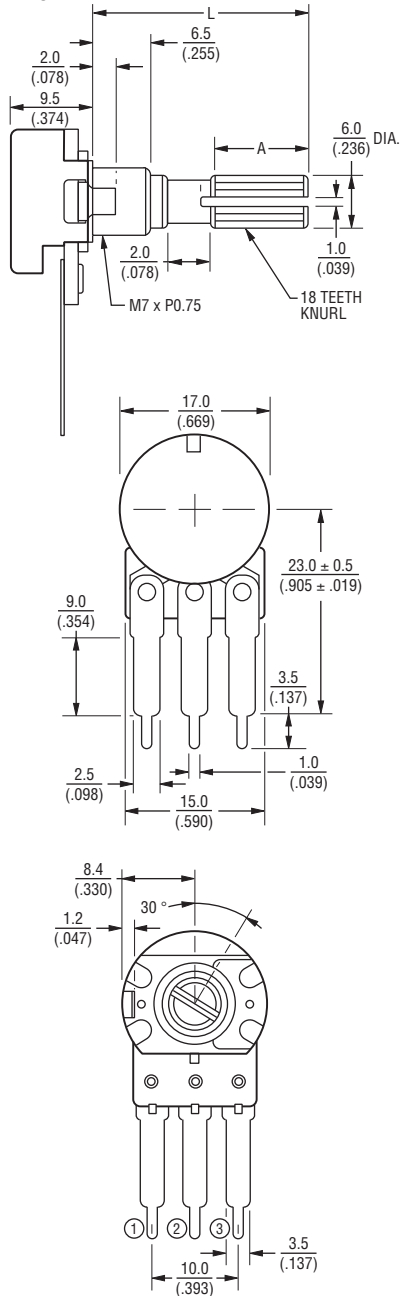
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

# PDB18 Series - 17 mm Rotary Potentiometer

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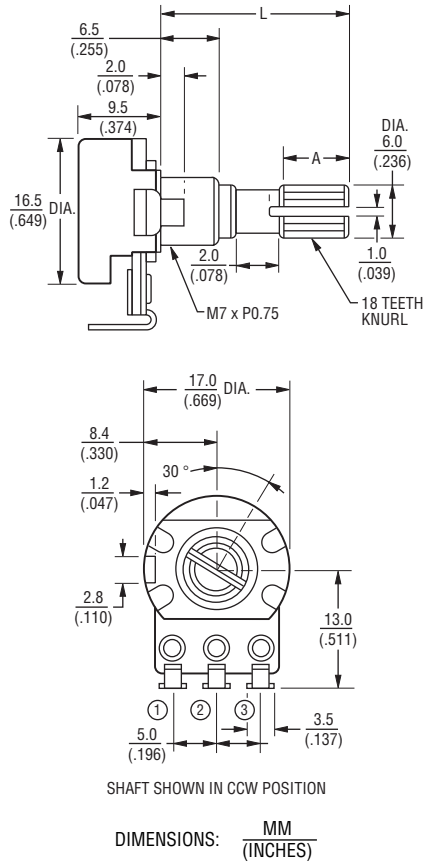
## Product Dimensions

PDB181-B



SHAFT SHOWN IN CCW POSITION

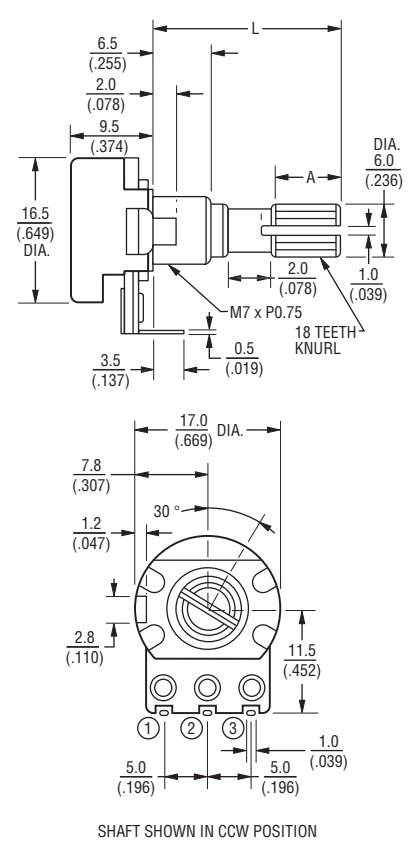
PDB181-E



SHAFT SHOWN IN CCW POSITION

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

PDB181-D



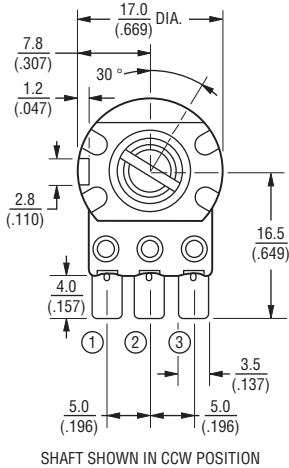
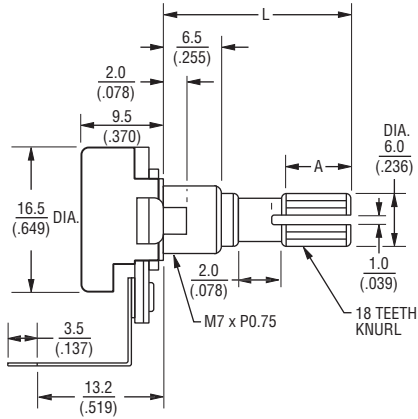
SHAFT SHOWN IN CCW POSITION

# PDB18 Series - 17 mm Rotary Potentiometer

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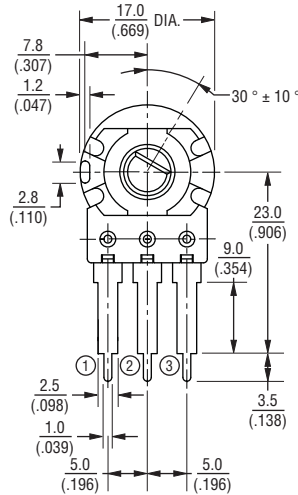
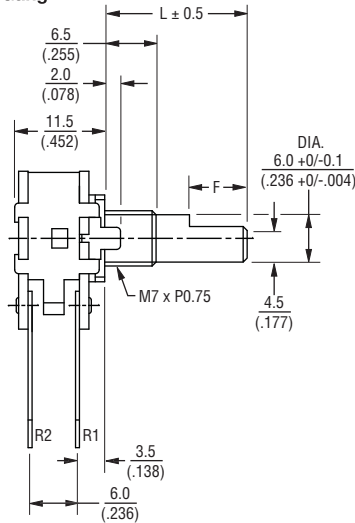
## Product Dimensions

**PDB181-P**



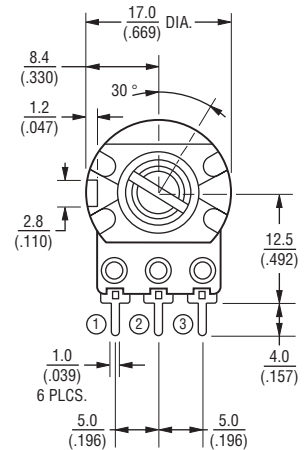
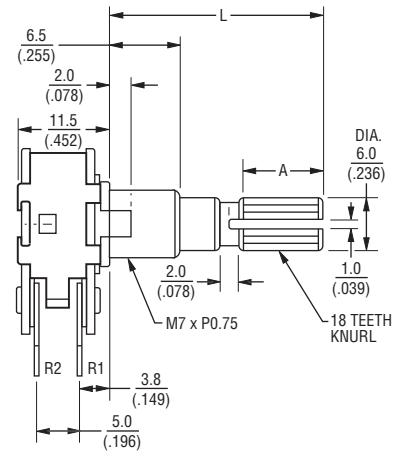
SHAFT SHOWN IN CCW POSITION

**PDB182-B  
Dual Gang**

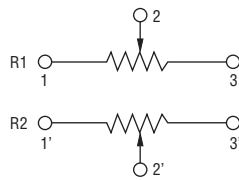


SHAFT SHOWN IN CCW POSITION

**PDB182-K  
Dual Gang**



SHAFT SHOWN IN CCW POSITION



SCHEMATIC

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

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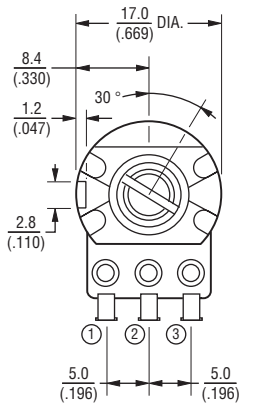
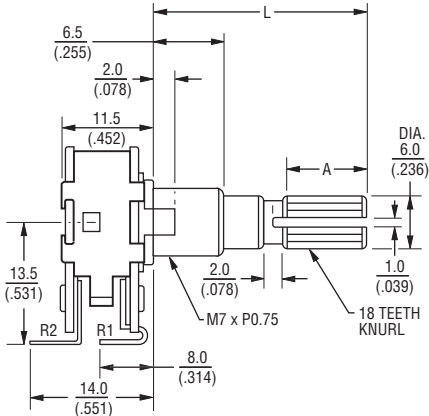
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# PDB18 Series - 17 mm Rotary Potentiometer

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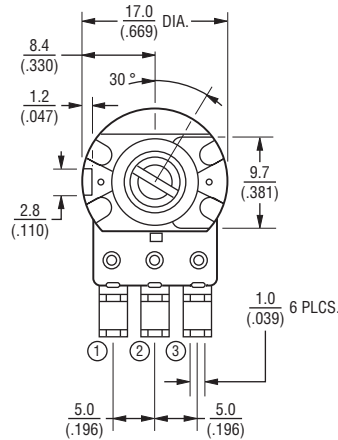
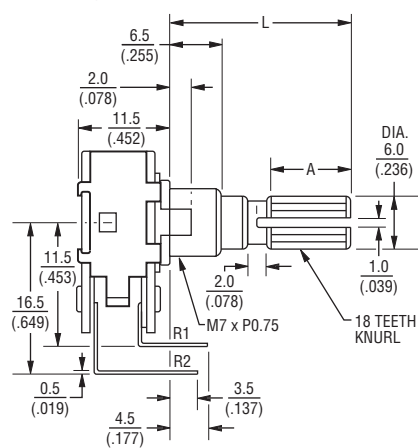
## Product Dimensions

**PDB182-E  
Dual Gang**



SHAFT SHOWN IN CCW POSITION

**PDB182-D  
Dual Gang**



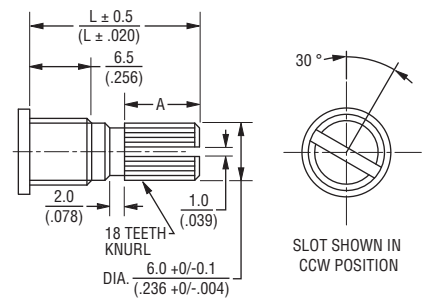
SHAFT SHOWN IN CCW POSITION

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

## Shaft Styles

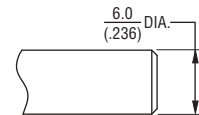
### K Type

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



### P Type

L	$\frac{20}{(.787)}$	$\frac{25}{(.984)}$	$\frac{30}{(1.181)}$
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### F Type

L	$\frac{15}{(.591)}$	$\frac{20}{(.787)}$	$\frac{25}{(.984)}$	$\frac{30}{(1.181)}$	$\frac{35}{(1.378)}$
F	$\frac{7}{(.276)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$



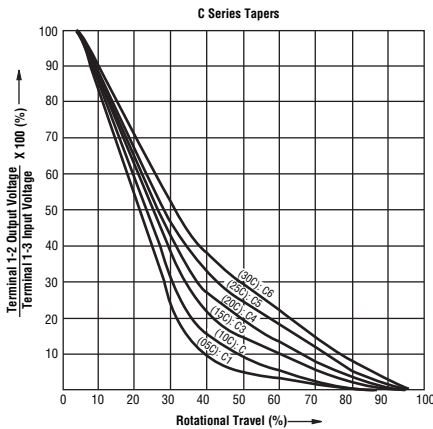
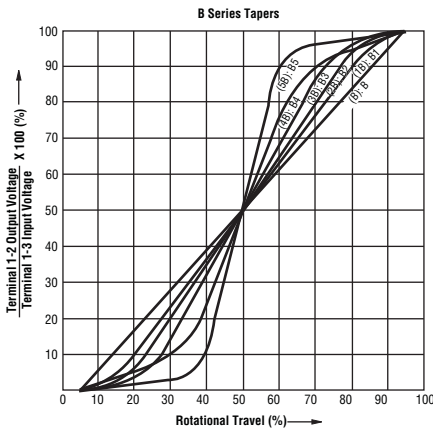
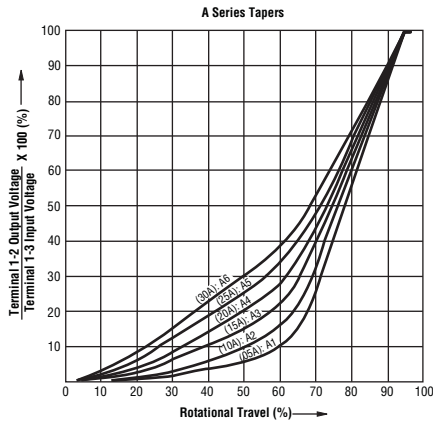
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# PDB18 Series - 17 mm Rotary Potentiometer

**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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