



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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.

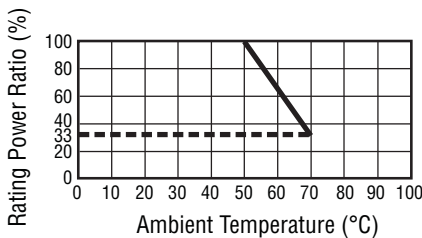
Environmental Characteristics

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

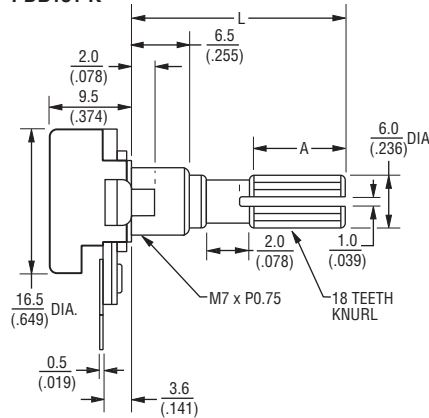
Mechanical Angle 300 ° ±5 °
 Rotational Torque 10 to 150 gf-cm
 Detent Torque 150 to 500 g-cm
 Stop Strength 5 kg-cm min.
 Rotational Life 15,000 cycles
 Soldering Condition
 260 °C max. within 3 seconds
 Hardware One flat washer and
 mounting nut supplied per
 potentiometer with bushing

Derating Curve

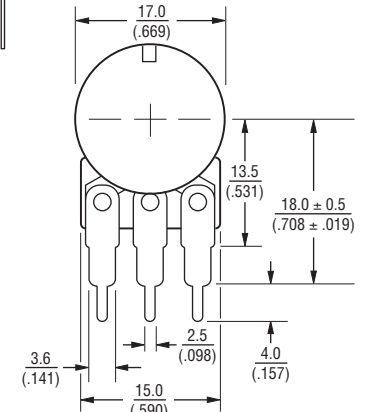
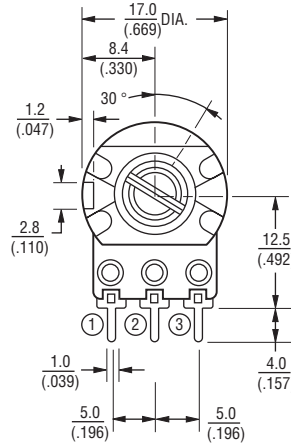
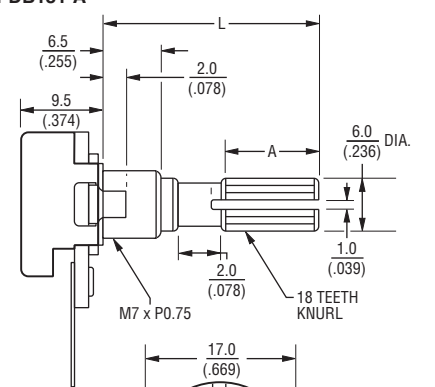


Product Dimensions

PDB181-K

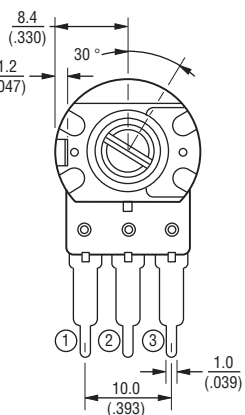
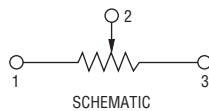


PDB181-A



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

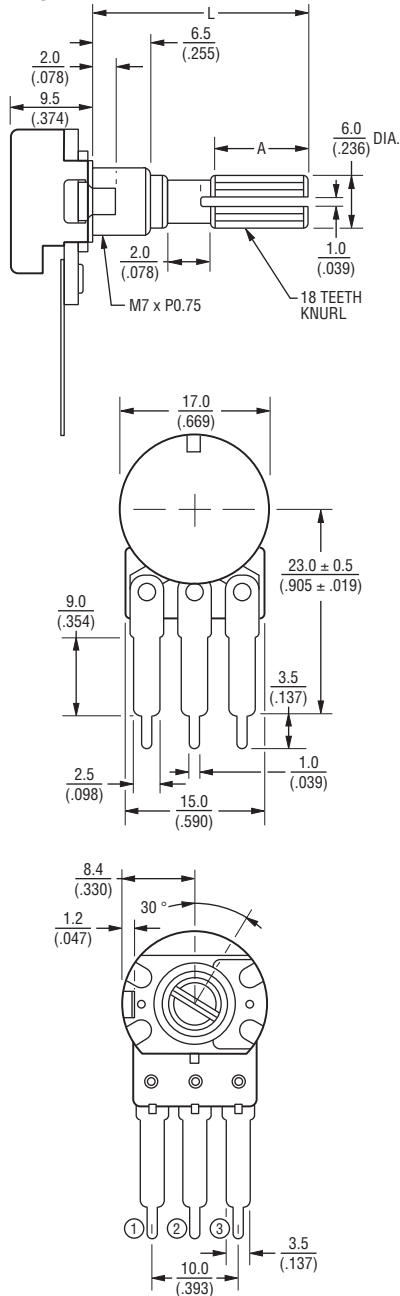
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

PDB18 Series - 17 mm Rotary Potentiometer

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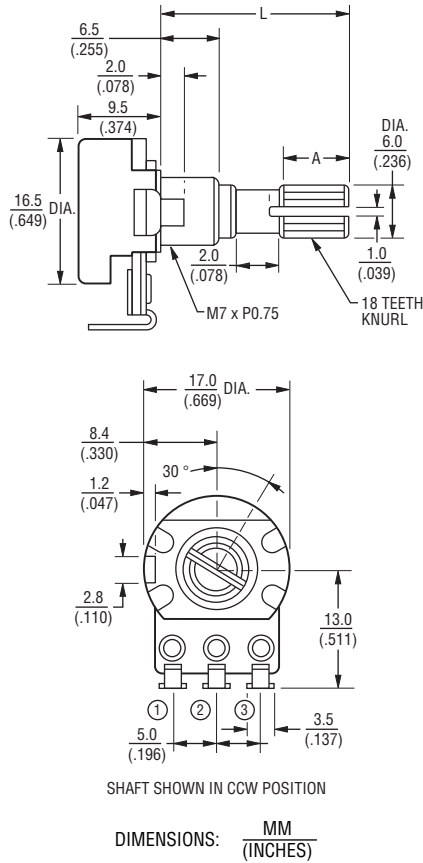
Product Dimensions

PDB181-B



SHAFT SHOWN IN CCW POSITION

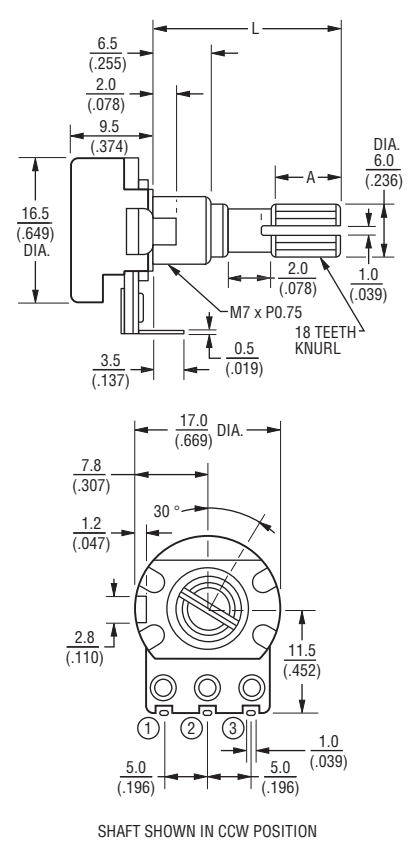
PDB181-E



SHAFT SHOWN IN CCW POSITION

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

PDB181-D



SHAFT SHOWN IN CCW POSITION

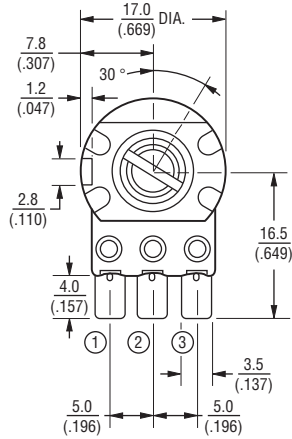
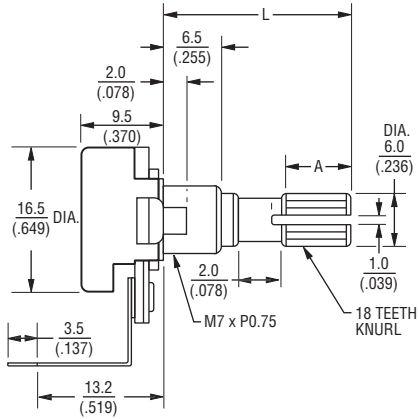
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PDB18 Series - 17 mm Rotary Potentiometer

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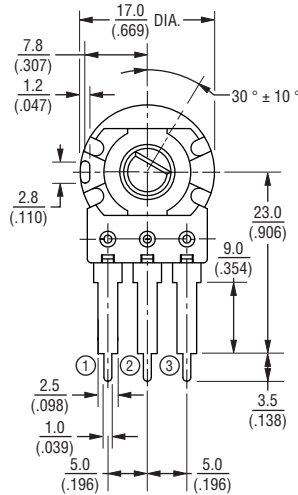
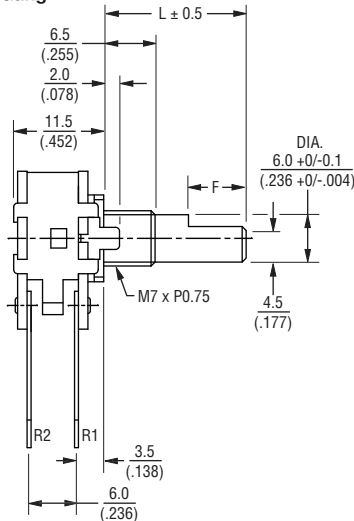
Product Dimensions

PDB181-P



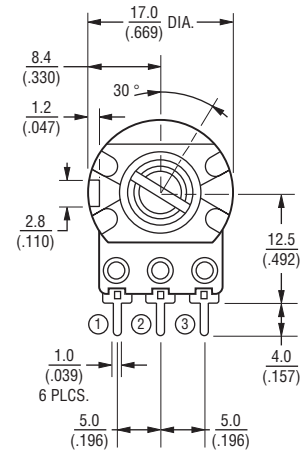
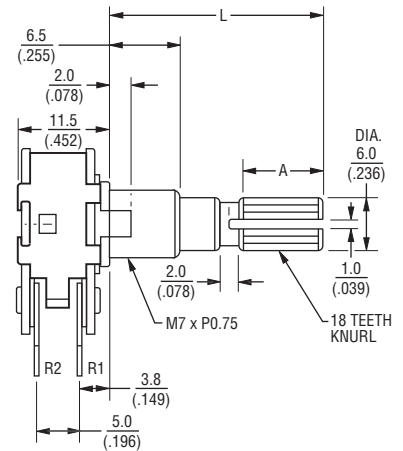
SHAFT SHOWN IN CCW POSITION

**PDB182-B
Dual Gang**

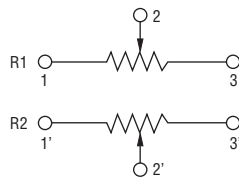


SHAFT SHOWN IN CCW POSITION

**PDB182-K
Dual Gang**



SHAFT SHOWN IN CCW POSITION



SCHEMATIC

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

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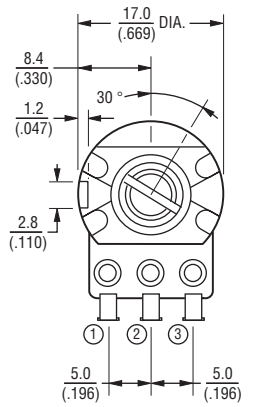
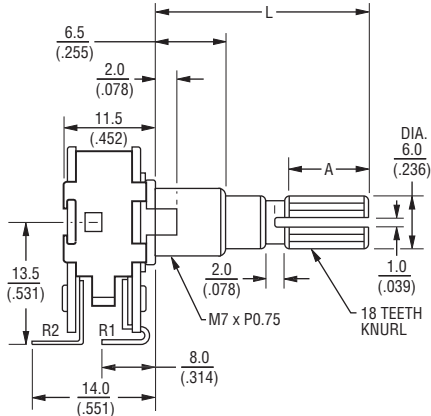
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PDB18 Series - 17 mm Rotary Potentiometer

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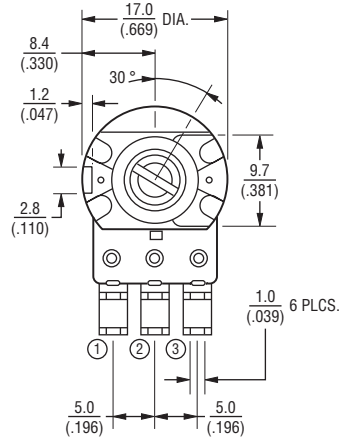
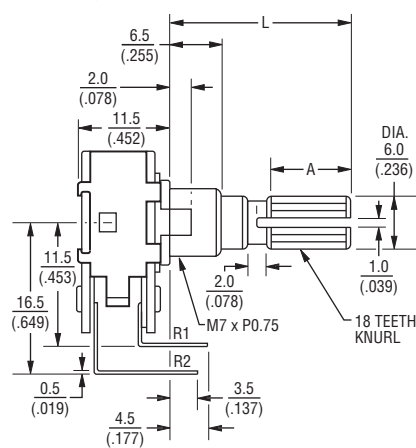
Product Dimensions

**PDB182-E
Dual Gang**



SHAFT SHOWN IN CCW POSITION

**PDB182-D
Dual Gang**



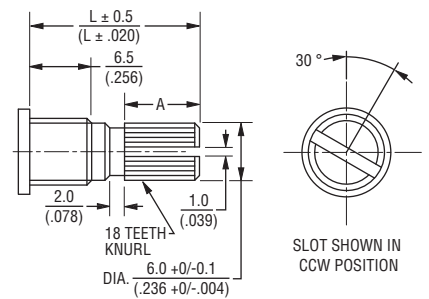
SHAFT SHOWN IN CCW POSITION

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

Shaft Styles

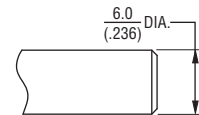
K Type

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



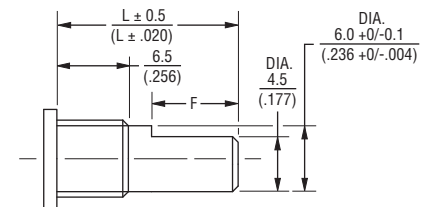
P Type

| | | | |
|---|---------------------|---------------------|----------------------|
| L | $\frac{20}{(.787)}$ | $\frac{25}{(.984)}$ | $\frac{30}{(1.181)}$ |
|---|---------------------|---------------------|----------------------|



F Type

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

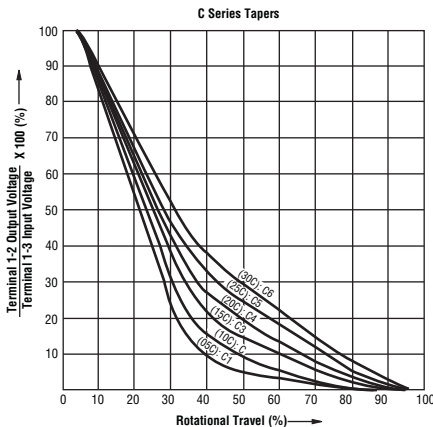
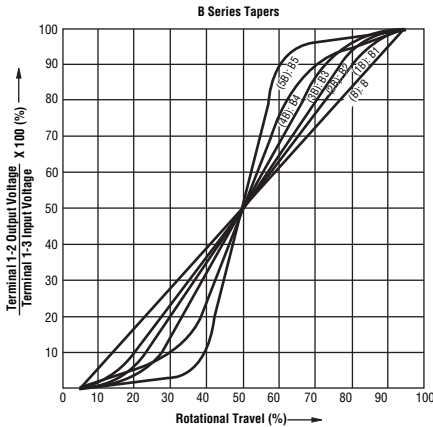
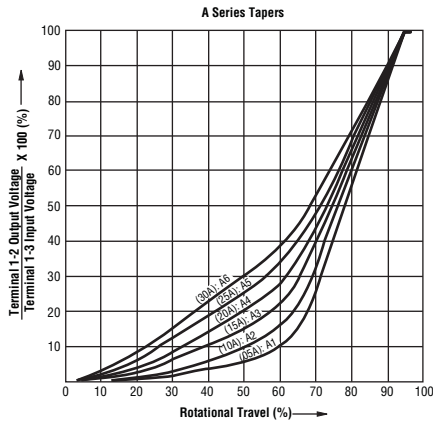


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PDB18 Series - 17 mm Rotary Potentiometer

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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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