



## Features

- Carbon element
- Metal housing
- 15-60 mm travel
- Single and dual gang
- Center detent option
- Dust cover option
- RoHS compliant\*



## PTA Series - Low Profile Slide Potentiometer

### Electrical Characteristics

Taper..... Linear, audio  
 Standard Resistance Range  
 ..... 1 K ohms to 1 M ohms  
 Standard Resistance Tolerance..... $\pm 20\%$   
 Residual Resistance  
 ..... 500 ohms or 1 % max.  
 Insulation Resistance  
 ..... Min. 100 megohms at 250 V DC

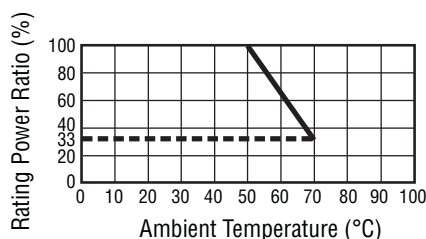
### Environmental Characteristics

Operating Temperature  
 .....  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$   
 Power Rating, Linear  
 15 mm ..... 0.05 W (0.025 W Dual Gang)  
 20 mm ..... 0.1 W (0.05 W)  
 30 mm ..... 0.2 W (0.1 W)  
 45 mm ..... 0.25 W (0.125 W)  
 60 mm ..... 0.25 W (0.125 W)  
 Power Rating, Audio  
 15 mm .. 0.025 W (0.015 W Dual Gang)  
 20 mm ..... 0.05 W (0.025 W)  
 30 mm ..... 0.1 W (0.05 W)  
 45 mm ..... 0.125 W (0.06 W)  
 60 mm ..... 0.125 W (0.06 W)  
 Maximum Operating Voltage, Linear  
 15 mm ..... 100 V DC  
 20-60 mm ..... 200 V DC  
 Maximum Operating Voltage, Audio  
 15 mm ..... 50 V DC  
 20-60 mm ..... 150 V DC  
 Withstand Voltage, Audio  
 ..... 1 Min. at 300 V AC  
 Sliding Noise ..... 100 mV maximum  
 Tracking Error ..... 3 dB at -40 to 0 dB

### Mechanical Characteristics

Operating Force ..... 30 to 250 g-cm  
 Stop Strength ..... 5 kg-cm min.  
 Sliding Life ..... 15,000 cycles  
 Soldering Condition  
 .....  $300^{\circ}\text{C}$  max. within 3 seconds  
 Travel ..... 15, 20, 30, 45, 60 mm

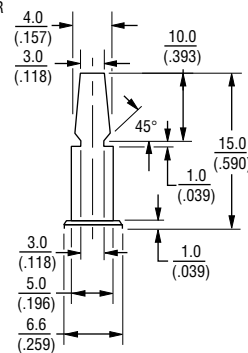
### Derating Curve



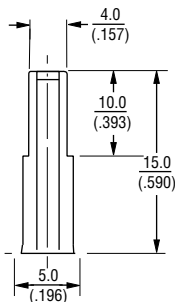
### Lever Style & Product Dimensions

Actuator Styles

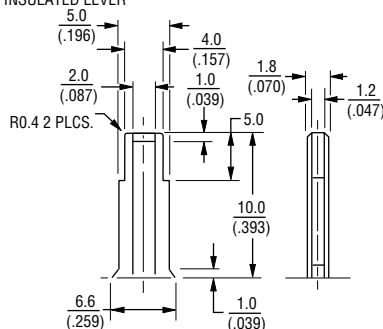
DP METAL LEVER



CP METAL LEVER



CI INSULATED LEVER



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

### How To Order

PTA 15 4 3 - 2 0 10 DP B 203

Model  
 Stroke Length  
 • 15 = 15 mm  
 • 20 = 20 mm  
 • 30 = 30 mm  
 • 45 = 45 mm  
 • 60 = 60 mm  
 Dust Cover Option  
 • 4 = No Dust Cover  
 • 5 = Rubber Dust Cover\*\*  
 No. of Gangs  
 • 3 = Single Gang  
 • 4 = Dual Gang  
 Pin Style  
 • 2 = PC Pins Down Facing  
 Center Detent Option  
 • 0 = No Detent  
 • 2 = Center Detent  
 Standard Lever Length (See Table)  
 • 10 = 10 mm (CI Lever)  
 • 15 = 15 mm (DP, CP and CI)  
 Lever Style  
 • DP = Metal Lever (Refer to Drawing)  
 • CP = Metal Lever (Refer to Drawing)  
 • CI = Insulated Lever (Refer to Drawing)  
 Resistance Taper  
 • A = Audio Taper  
 • B = Linear Taper  
 Resistance Code (See Table)

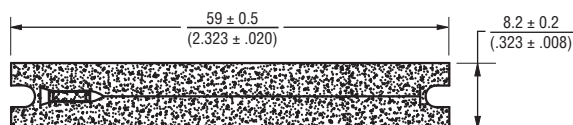
Other styles available.

\*\* Part numbers with dust covers must be mounted with screws to a panel to prevent issues with the dust cover during usage.

### 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             |

### Optional Dust Cover



NOTE: DUST COVER HAS ADHESIVE BACK.

$$T = \frac{0.3 \pm 0.1}{(.0118 \pm .004)}$$

\*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.

## Applications

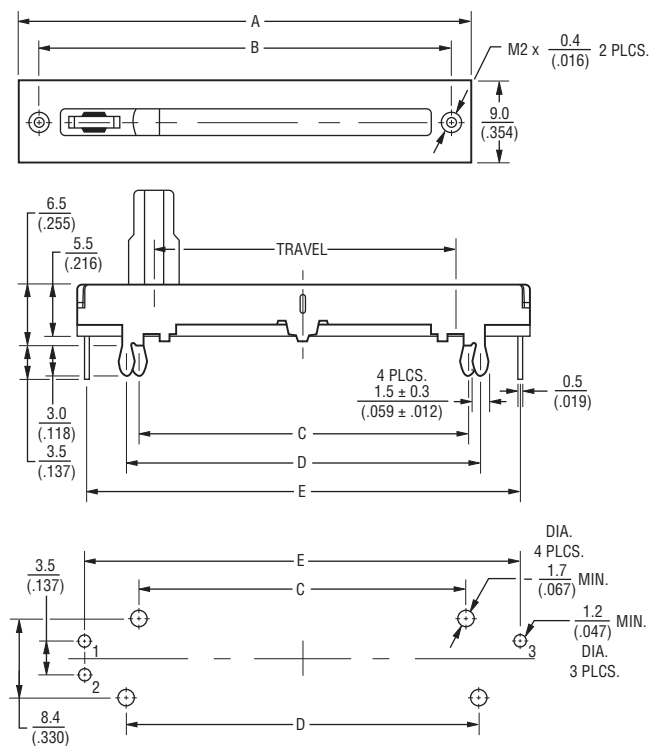
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

## PTA Series - Low Profile Slide Potentiometer

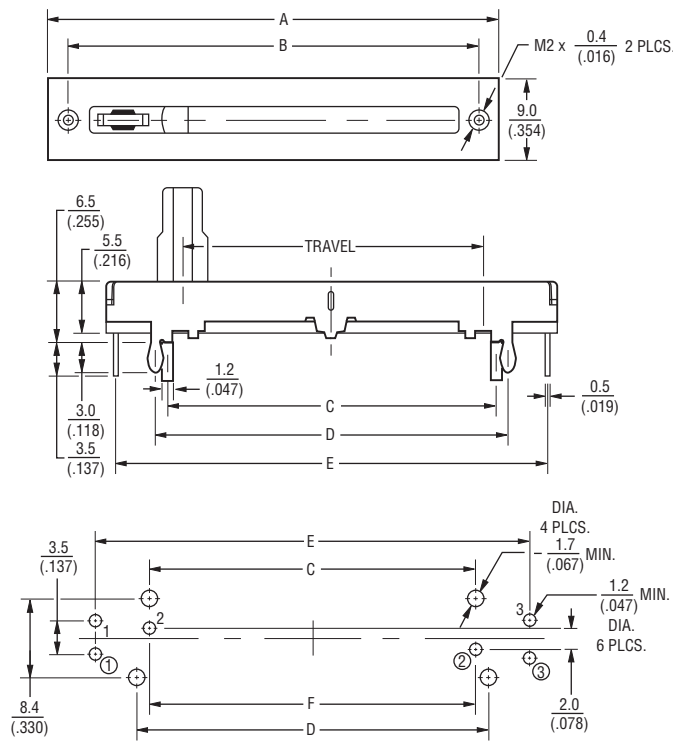
**BOURNS®**

### Product Dimensions

PTAxx43



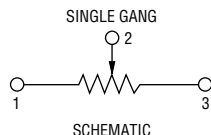
PTAxx44



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

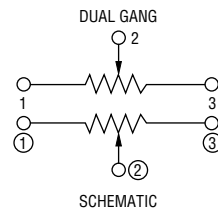
### Single Gang Dimensions

| Model   | A                   | B                   | C                     | D                     | E                     | Travel              |
|---------|---------------------|---------------------|-----------------------|-----------------------|-----------------------|---------------------|
| PTA1543 | $\frac{30}{(1.18)}$ | $\frac{26}{(1.02)}$ | $\frac{17.8}{(.700)}$ | $\frac{20.2}{(.795)}$ | $\frac{28.5}{(1.12)}$ | $\frac{15}{(.59)}$  |
| PTA2043 | $\frac{35}{(1.37)}$ | $\frac{31}{(1.22)}$ | $\frac{22.8}{(.897)}$ | $\frac{25.2}{(.992)}$ | $\frac{33}{(1.29)}$   | $\frac{20}{(.787)}$ |
| PTA3043 | $\frac{45}{(1.77)}$ | $\frac{41}{(1.61)}$ | $\frac{32.8}{(1.29)}$ | $\frac{35.2}{(1.38)}$ | $\frac{43.5}{(1.71)}$ | $\frac{30}{(1.18)}$ |
| PTA4543 | $\frac{60}{(2.36)}$ | $\frac{56}{(2.20)}$ | $\frac{47.8}{(1.88)}$ | $\frac{50.2}{(1.97)}$ | $\frac{58.5}{(2.30)}$ | $\frac{45}{(1.77)}$ |
| PTA6043 | $\frac{75}{(2.95)}$ | $\frac{71}{(2.79)}$ | $\frac{62.8}{(2.47)}$ | $\frac{65.2}{(2.56)}$ | $\frac{73.5}{(2.89)}$ | $\frac{60}{(2.36)}$ |



### Dual Gang Dimensions

| Model   | A                   | B                   | C                     | D                     | E                     | F                   | Travel              |
|---------|---------------------|---------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| PTA1544 | $\frac{30}{(1.18)}$ | $\frac{26}{(1.02)}$ | $\frac{17.8}{(.700)}$ | $\frac{20.2}{(.795)}$ | $\frac{28.5}{(1.12)}$ | $\frac{18}{(.708)}$ | $\frac{15}{(.59)}$  |
| PTA2044 | $\frac{35}{(1.37)}$ | $\frac{31}{(1.22)}$ | $\frac{22.8}{(.897)}$ | $\frac{25.2}{(.992)}$ | $\frac{33}{(1.29)}$   | $\frac{23}{(.905)}$ | $\frac{20}{(.787)}$ |
| PTA3044 | $\frac{45}{(1.77)}$ | $\frac{41}{(1.61)}$ | $\frac{32.8}{(1.29)}$ | $\frac{35.2}{(1.38)}$ | $\frac{43.5}{(1.71)}$ | $\frac{33}{(1.29)}$ | $\frac{30}{(1.18)}$ |
| PTA4544 | $\frac{60}{(2.36)}$ | $\frac{56}{(2.20)}$ | $\frac{47.8}{(1.88)}$ | $\frac{50.2}{(1.97)}$ | $\frac{58.5}{(2.30)}$ | $\frac{48}{(1.88)}$ | $\frac{45}{(1.77)}$ |
| PTA6044 | $\frac{75}{(2.95)}$ | $\frac{71}{(2.79)}$ | $\frac{62.8}{(2.47)}$ | $\frac{65.2}{(2.56)}$ | $\frac{73.5}{(2.89)}$ | $\frac{63}{(2.48)}$ | $\frac{60}{(2.36)}$ |



REV. 12/14

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