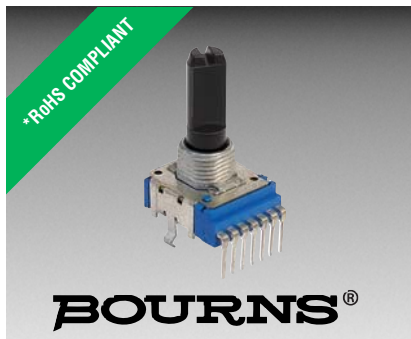




## Features

- Carbon element
- Insulated shaft
- Snap-in clip
- Center detent option
- Assorted pin layouts
- RoHS compliant\*



This series is obsolete and not recommended for new designs. Model PTV111 is an alternative option with a smaller size and footprint.

## PTV142B - 14 mm Dual 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.

### Environmental Characteristics

Operating Temp.....  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$   
Power Rating..... 0.05 watt  
Maximum Operating Voltage..... 50 V AC  
Sliding Noise ..... 100 mV maximum

### Mechanical Characteristics

Mechanical Angle .....  $300^{\circ} \pm 5^{\circ}$   
Rotational Torque ..... 20 to 200 g-cm  
Detent Torque ..... 30 to 300 g-cm  
Stop Strength ..... 5 kg-cm min.  
Rotational Life ..... 15,000 cycles  
Soldering Condition  
.....  $300^{\circ}\text{C}$  max. within 3 seconds  
Hardware ..... One flat washer and  
mounting nut supplied per  
potentiometer with bushing

### How To Order

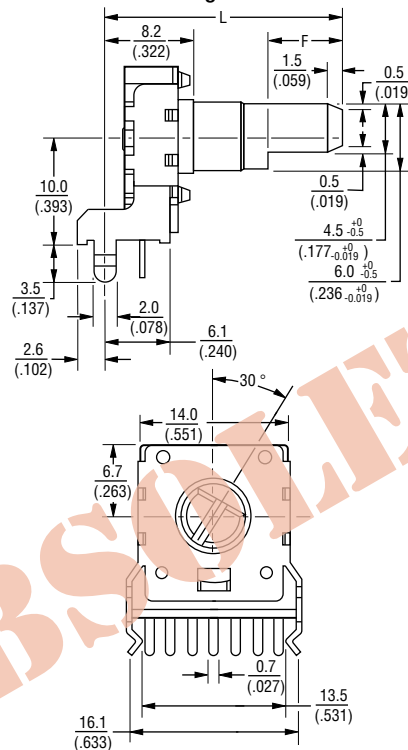
**PTV142B 2 0 E 1 20 A A 203**

Model \_\_\_\_\_  
Pin Style \_\_\_\_\_  
• 2 = PC Pins vert./  
Down Facing  
• 4 = PC Pins horz./  
Rear Facing  
Center Detent Option \_\_\_\_\_  
• 0 = No Detent  
• 2 = Center Detent  
Electrical Diagram  
(See Diagram) \_\_\_\_\_  
• E = for Tone application  
• Y = for Volume  
application  
Bushing Option \_\_\_\_\_  
• 0 = No Bushing  
• 1 = With Bushing  
(M9x0.75)x5 mm  
Standard Shaft Length \_\_\_\_\_  
• 15 = 15 mm  
• 20 = 20 mm  
• 25 = 25 mm  
Shaft Styles \_\_\_\_\_  
• A = Flat Type Insulated Shaft  
Resistance Taper \_\_\_\_\_  
• A = Audio Taper (5K to 1M available)  
• B = Linear Taper (1K to 1M available)  
Resistance Code (See Table) \_\_\_\_\_

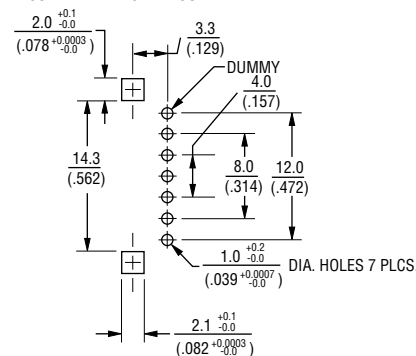
Other styles available.

### Product Dimensions

PTV142B-2 No Bushing

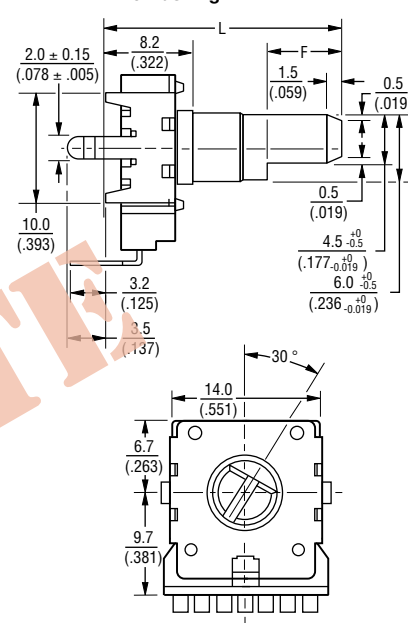


RECOMMENDED PCB LAYOUT

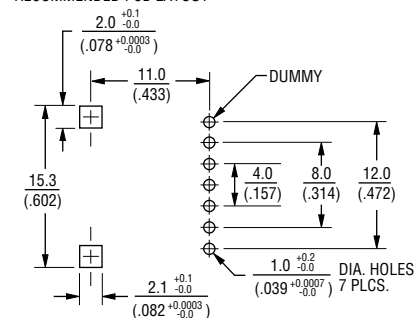


SHAFT SHOWN IN CCW POSITION

PTV142B-4 No Bushing



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

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

### Dimensions Without Bushing

|   |               |              |              |
|---|---------------|--------------|--------------|
| L | 15<br>(.591)  | 20<br>(.787) | 25<br>(.984) |
| F | 4.5<br>(.177) | 7<br>(.276)  | 12<br>(.472) |

\*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.

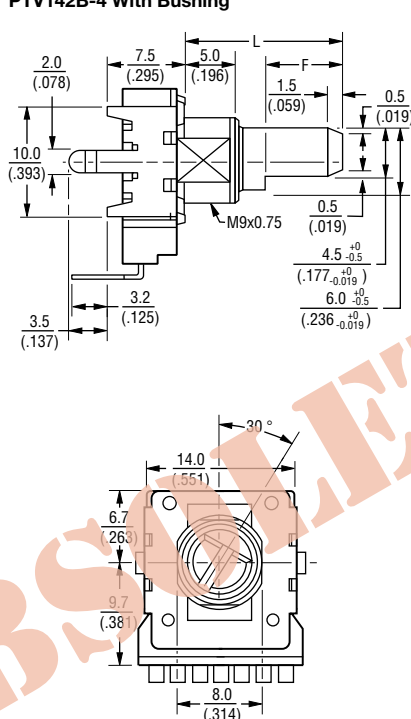
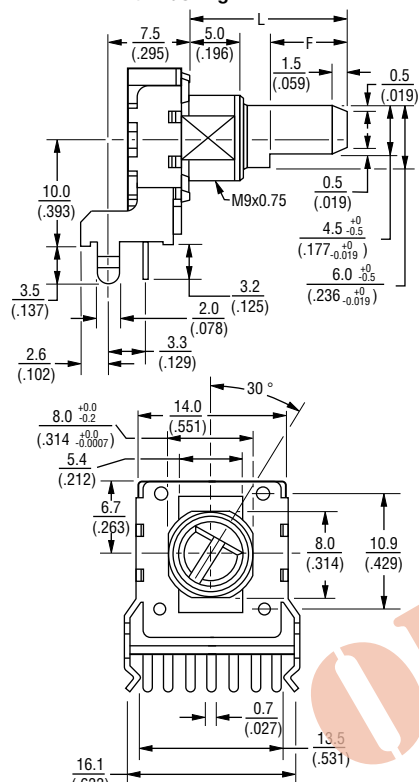
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

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

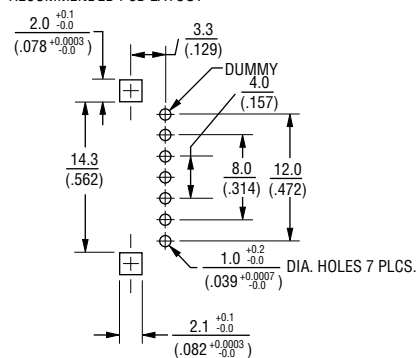
**BOURNS®**

## Electrical Diagrams

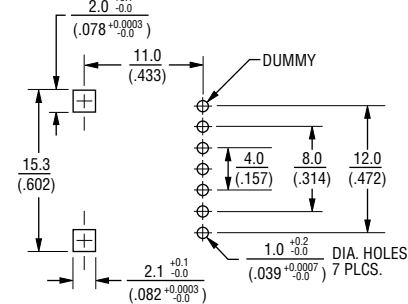
PTV142B-4 With Bushing



## RECOMMENDED PCB LAYOUT



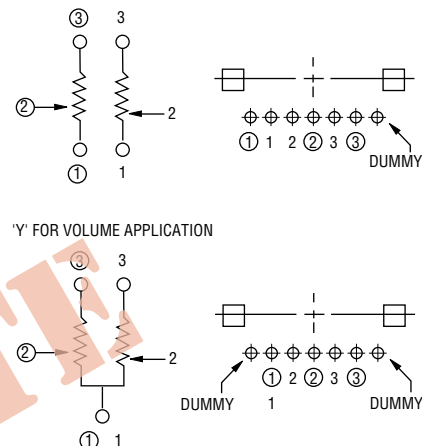
SHAFT SHOWN IN CCW POSITION



SHAFT SHOWN IN CCW POSITION

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

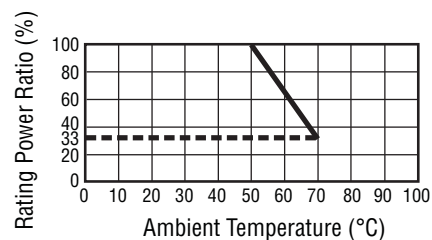
### "E" FOR TONE APPLICATION



### Standard Resistance Table

| Resistance<br>(Ohms) | Resistance<br>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                |

### Derating Curve



### Dimensions With Bushing

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

REV. 06/13

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.

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|                                           |                                           |                                           |                                           |
|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| <a href="#"><u>PTV142B20E025AB104</u></a> | <a href="#"><u>PTV142B20E120AA102</u></a> | <a href="#"><u>PTV142B20E120AA103</u></a> | <a href="#"><u>PTV142B20E120AA104</u></a> |
| <a href="#"><u>PTV142B20E120AA204</u></a> | <a href="#"><u>PTV142B20E120AA502</u></a> | <a href="#"><u>PTV142B20E120AA503</u></a> | <a href="#"><u>PTV142B20E120AA504</u></a> |
| <a href="#"><u>PTV142B20E120AB102</u></a> | <a href="#"><u>PTV142B20E120AB103</u></a> | <a href="#"><u>PTV142B20E120AB203</u></a> | <a href="#"><u>PTV142B20E120AB204</u></a> |
| <a href="#"><u>PTV142B20Y120AA103</u></a> | <a href="#"><u>PTV142B40E020AA104</u></a> | <a href="#"><u>PTV142B40E120AA102</u></a> | <a href="#"><u>PTV142B40E120AA103</u></a> |
| <a href="#"><u>PTV142B40E120AA104</u></a> | <a href="#"><u>PTV142B40E120AA503</u></a> | <a href="#"><u>PTV142B40E120AB102</u></a> | <a href="#"><u>PTV142B40E120AB103</u></a> |
| <a href="#"><u>PTV142B40E120AB104</u></a> | <a href="#"><u>PTV142B40E120AB204</u></a> | <a href="#"><u>PTV142B40E120AB502</u></a> | <a href="#"><u>PTV142B40E120AB503</u></a> |
| <a href="#"><u>PTV142B40E120AB504</u></a> | <a href="#"><u>PTV142B20E115AB203</u></a> | <a href="#"><u>PTV142B22E115AB203</u></a> |                                           |