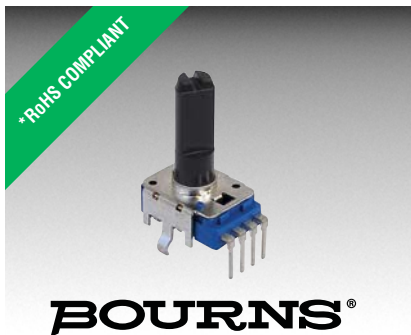




## Features

- Carbon element
- Insulated shaft
- Snap-in clip
- Center detent
- Center tap option
- Assorted pin layouts
- Dual gang option
- Various taper options

## PTV/PTT Series - 12 mm Potentiometer

### Electrical Characteristics

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

### Environmental Characteristics

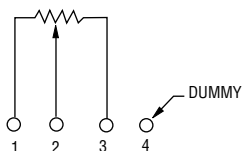
Operating Temperature  
 .....  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$   
 Power Rating..... 0.05 Watt  
 Maximum Operating Voltage  
 ..... 50 V AC, 20 V DC  
 Sliding Noise ..... 100 mV max.

### Mechanical Characteristics

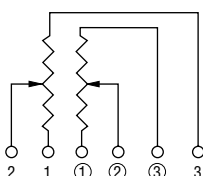
Mechanical Angle.....  $300^{\circ} \pm 5^{\circ}$   
 Rotational Torque ..... 20 to 200 g-cm  
 Detent Torque..... 30 to 300 g-cm  
 Stop Strength  
     no bushing ..... 3 kg-cm min.  
     with bushing..... 3 kg-cm min.  
 Rotational Life ..... 15,000 cycles  
 Soldering Condition  
     .....  $300^{\circ}\text{C}$  max. within 3 seconds  
 Hardware ..... One flat washer and  
     mounting nut supplied per  
     potentiometer with bushing

### Electrical Diagrams

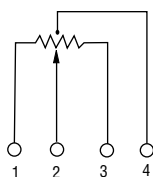
MODEL PTV 111



MODEL PTV 112

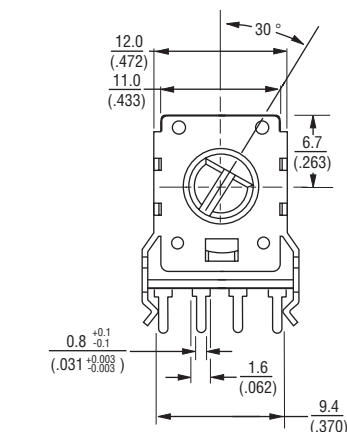
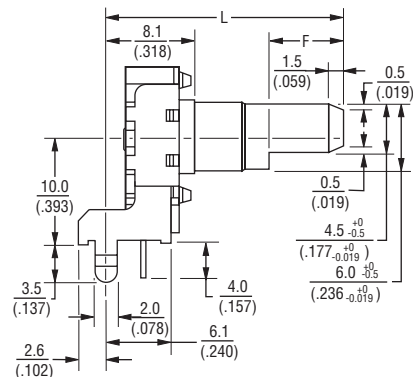


MODEL PTT 111

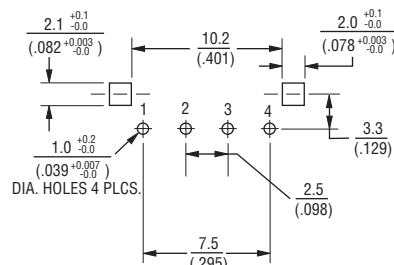


### Product Dimensions

PTV111-2

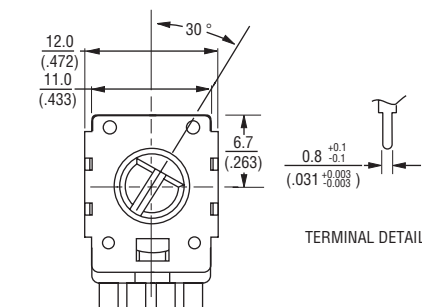
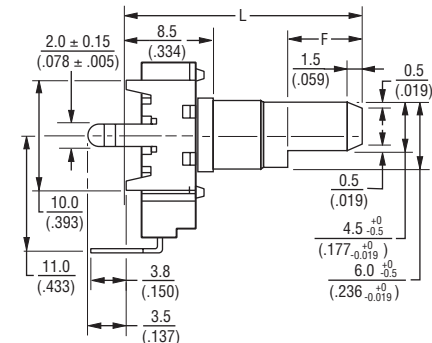


RECOMMENDED PCB LAYOUT



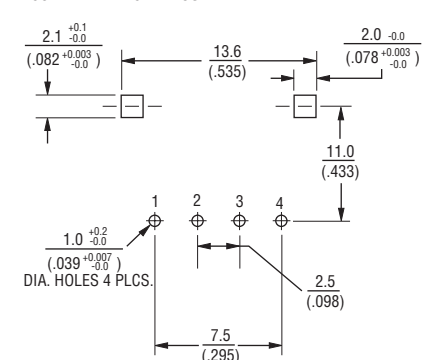
SHAFT SHOWN IN CCW POSITION

PTV111-4



TERMINAL DETAIL

RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

### Dimensions Without Bushing

|   |               |              |                |              |                 |
|---|---------------|--------------|----------------|--------------|-----------------|
| L | 15<br>(.591)  | 20<br>(.787) | 22.5<br>(.886) | 25<br>(.984) | 27.5<br>(1.083) |
| F | 4.5<br>(.177) | 7<br>(.276)  | 7<br>(.276)    | 12<br>(.472) | 12<br>(.472)    |

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

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.

## Applications

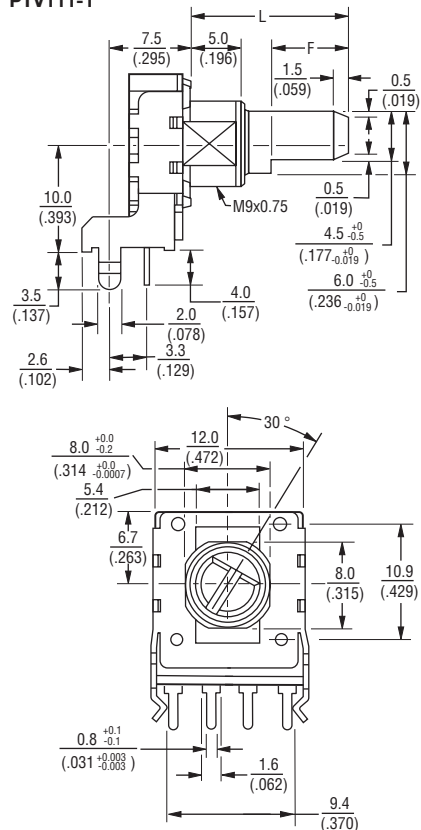
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

## PTV/PTT Series - 12 mm Potentiometer

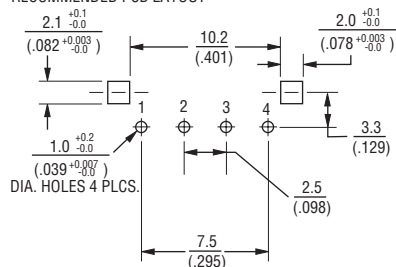
**BOURNS®**

### Product Dimensions

PTV111-1

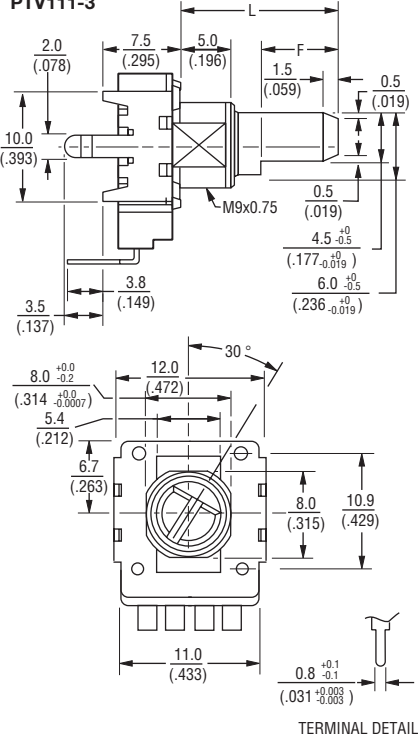


RECOMMENDED PCB LAYOUT

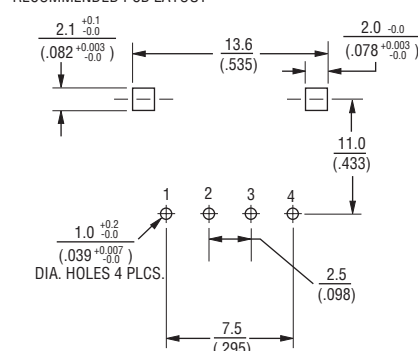


SHAFT SHOWN IN CCW POSITION

PTV111-3

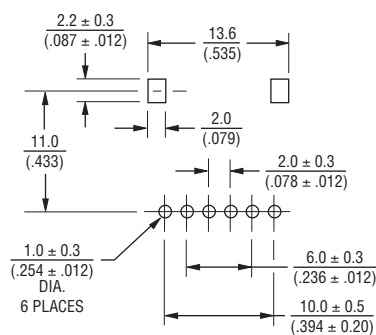
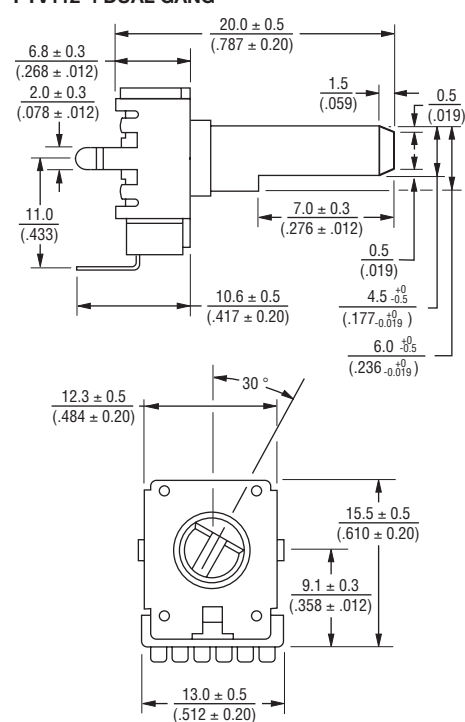


RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

PTV112-4 DUAL GANG



SHAFT SHOWN IN CCW POSITION

### Dimensions Without Bushing

|   |                |              |                |              |
|---|----------------|--------------|----------------|--------------|
| L | 12.5<br>(.492) | 15<br>(.591) | 17.5<br>(.689) | 20<br>(.787) |
| F | 7<br>(.276)    | 7<br>(.276)  | 12<br>(.472)   | 12<br>(.472) |

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

# PTV/PTT Series - 12 mm Potentiometer

**BOURNS®**

## How To Order

**PTV111 - 2 4 20 A - A1 104**

Model \_\_\_\_\_

(See Diagrams)

- PTV111 Standard
- PTT111 With Tap
- PTV112 Dual Gang

Pin Style \_\_\_\_\_

PC Pins vertical/

Down Facing:

- 1 = With Bushing
- 2 = No Bushing

PC Pins horizontal/

Rear Facing:

- 3 = With Bushing
- 4 = No Bushing

Center Detent Option \_\_\_\_\_

- 4 = No Detent
- 2 = Center Detent

Standard Shaft Length \_\_\_\_\_

- 12 = 12.5 mm\*
- 15 = 15 mm
- 17 = 17.5 mm\*
- 20 = 20 mm
- 22 = 22.5 mm\*\*
- 25 = 25 mm\*\*
- 27 = 27.5 mm\*\*

Shaft Styles \_\_\_\_\_

- A = Flat Type Insulated Shaft

Resistance Taper (See Taper Chart) \_\_\_\_\_

Taper Series followed by Curve Number

Resistance Code (See Table) \_\_\_\_\_

Other styles available.

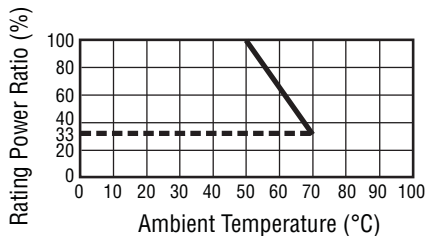
\* Available with Pin Styles 1 & 3 only.

\*\*Available with Pin Styles 2 & 4 only.

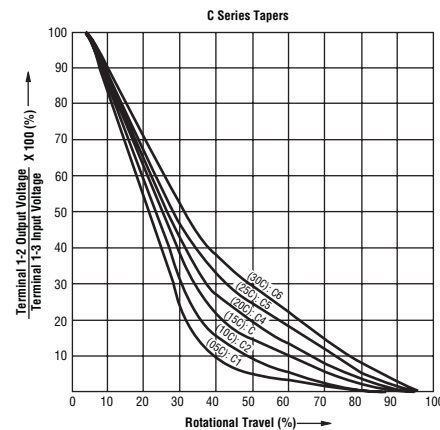
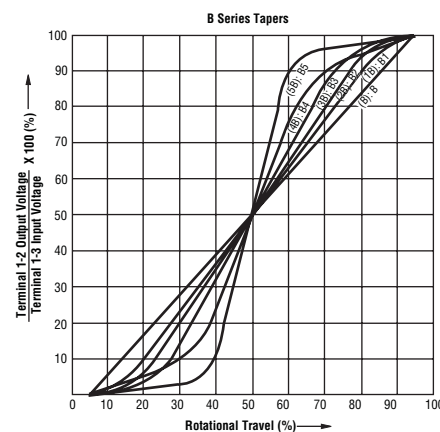
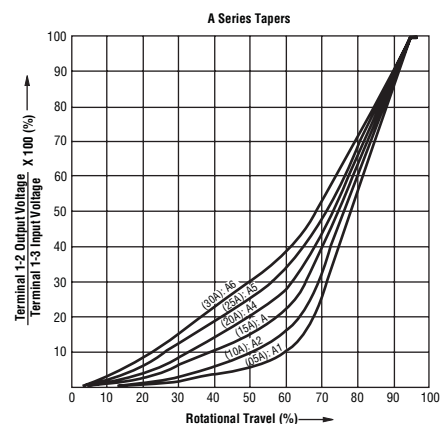
## Standard Resistance Table

| 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             |

## Derating Curve



## Tapers



REV. 07/10

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.