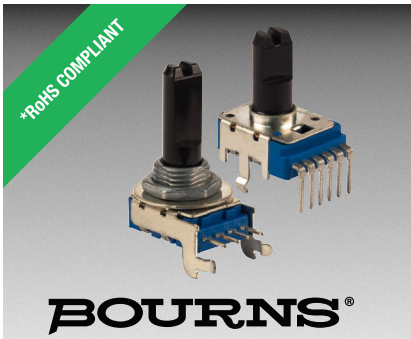




**THE DATASHEET OF
PTV111-4420A-B502**





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

Additional Information

Click these links for more information:



PRODUCT SELECTOR TECHNICAL LIBRARY INVENTORY SAMPLES CONTACT

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

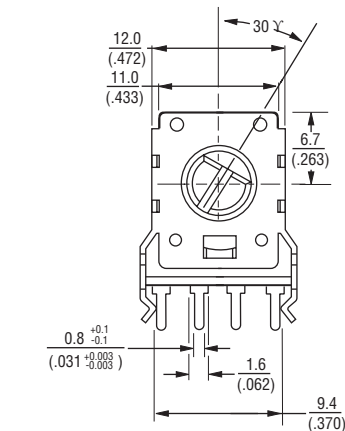
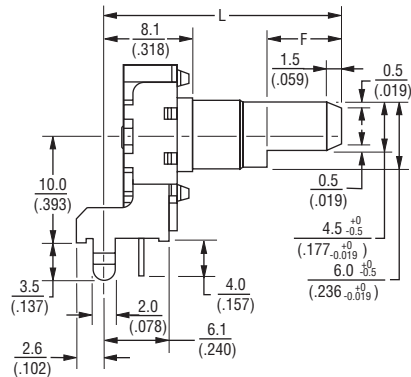
Operating Temperature
 -10 °C to +50 °C
 Power Rating 0.05 Watt
 Maximum Operating Voltage
 50 VAC, 20 VDC
 Sliding Noise 100 mV max.

Mechanical Characteristics

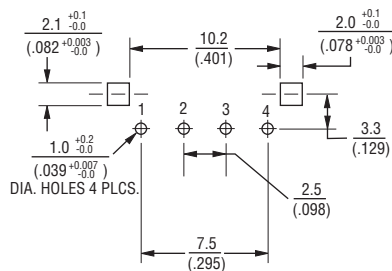
Mechanical Angle 300 ° ±5 °
 Rotational Torque 20 to 200 g-cm
 Detent Torque 30 to 300 g-cm
 Stop Strength
 no bushing 3 kg-cm min.
 with bushing 3 kg-cm min.
 Rotational Life 15,000 cycles
 Soldering Condition
 300 °C max. within 3 seconds
 Hardware One flat washer and
 mounting nut supplied per
 potentiometer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

Product Dimensions

PTV111-2



RECOMMENDED PCB LAYOUT

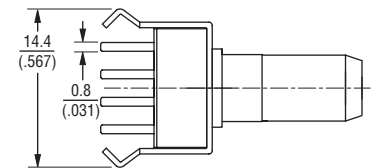
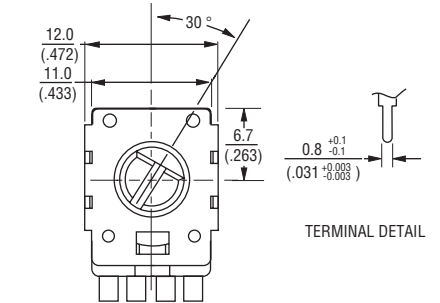
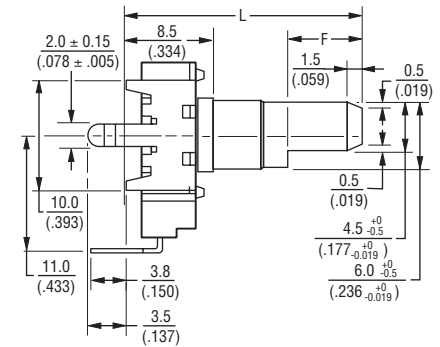


SHAFT SHOWN IN CCW POSITION

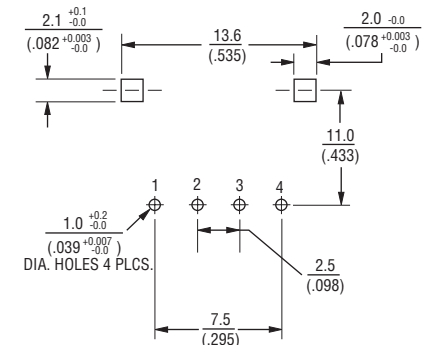
Dimensions Without Bushing

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

PTV111-4



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

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



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Applications

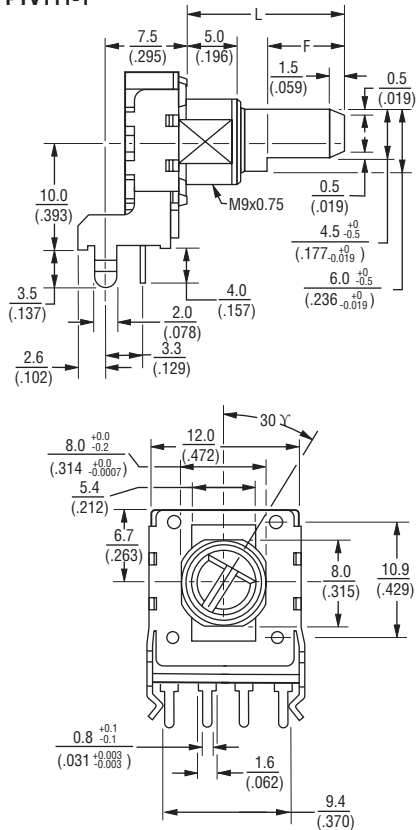
- Audio/TV sets
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

PTV/PTT Series - 12 mm Potentiometer

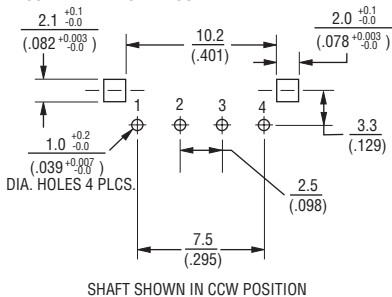
BOURNS®

Product Dimensions

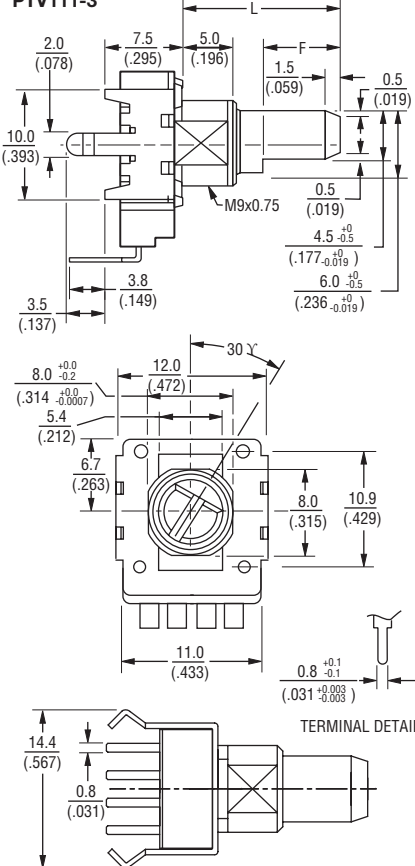
PTV111-1



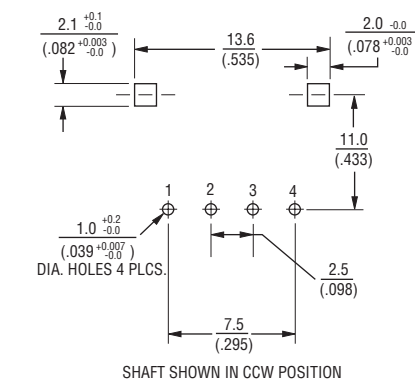
RECOMMENDED PCB LAYOUT



PTV111-3



RECOMMENDED PCB LAYOUT



Dimensions With Bushing

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

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

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

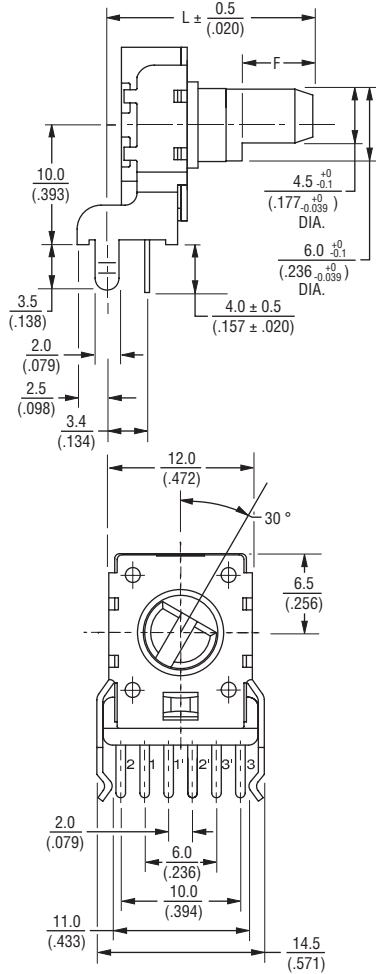
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PTV/PTT Series - 12 mm Potentiometer

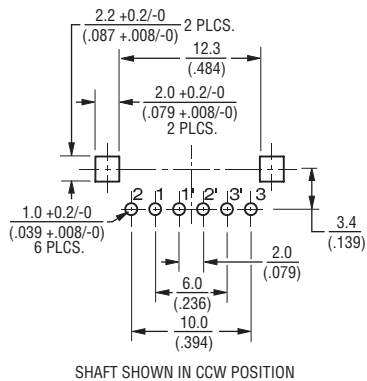
BOURNS®

Product Dimensions

PTV112-2 DUAL GANG

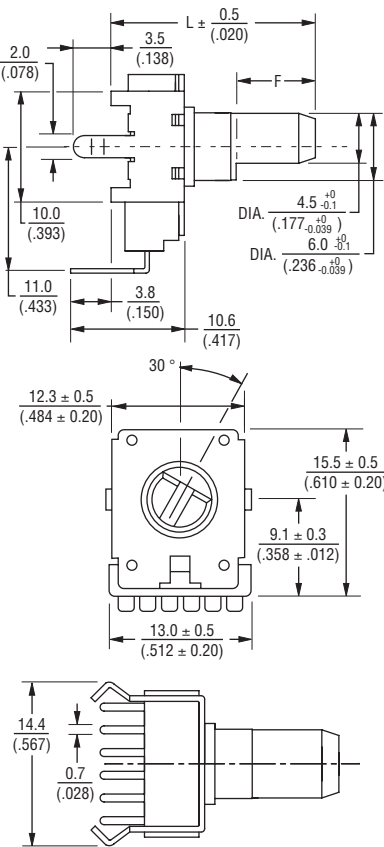


RECOMMENDED PCB LAYOUT

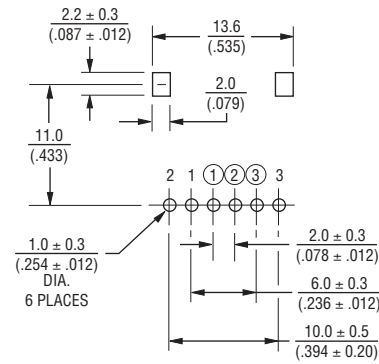


SHAFT SHOWN IN CCW POSITION

PTV112-4 DUAL GANG



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

Dimensions Without Bushing

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

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

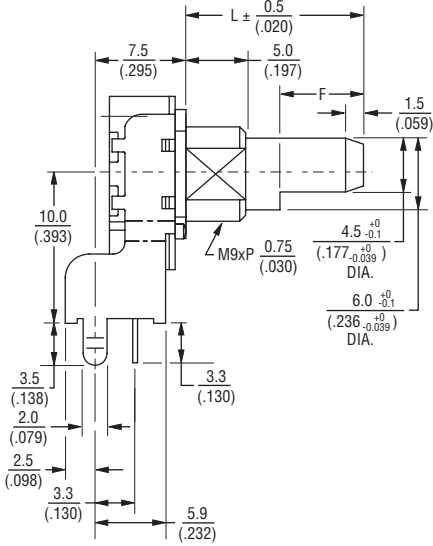
PTV/PTT Series - 12 mm Potentiometer

BOURNS®

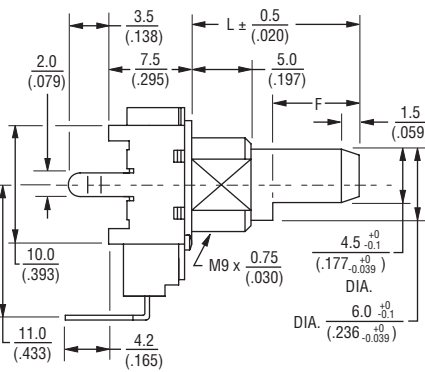
Product Dimensions

Dimensions With Bushing

PTV112-1 DUAL GANG

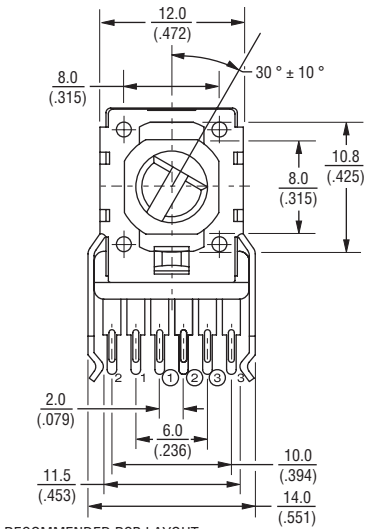


PTV112-3 DUAL GANG

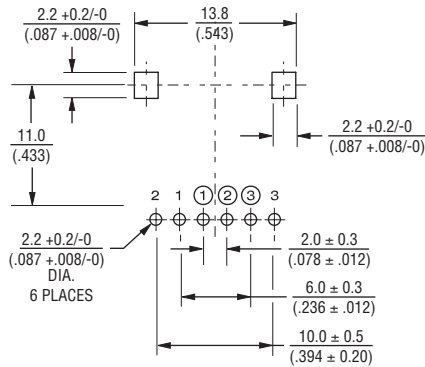


| | 12.5 (.492) | 15 (.591) | 17.5 (.689) | 20 (.787) |
|---|----------------|--------------|----------------|--------------|
| L | | | | |
| F | 7 (.276) | 7 (.276) | 12 (.472) | 12 (.472) |

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



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

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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.

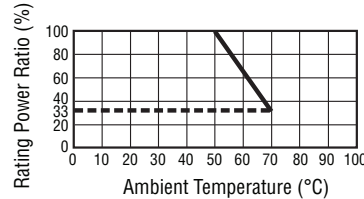
* Available with Pin Styles 1 & 3 only.

**Available with Pin Styles 2 & 4 only.

Standard Resistance Table

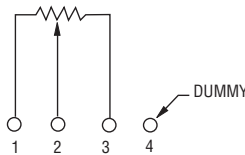
| Resistance (Ohms) | Resistance Code |
|-------------------|-----------------|
| 1,000 | 102 |
| 2,000 | 202 |
| 5,000 | 502 |
| 10,000 | 103 |
| 20,000 | 203 |
| 50,000 | 503 |
| 100,000 | 104 |
| 200,000 | 204 |
| 500,000 | 504 |
| 1,000,000 | 105 |

Derating Curve

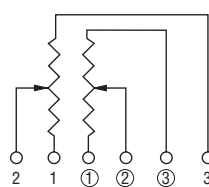


Electrical Diagrams

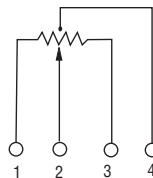
MODEL PTV 111



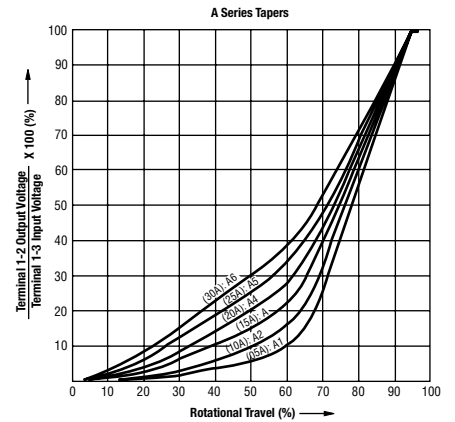
MODEL PTV 112



MODEL PTT 111

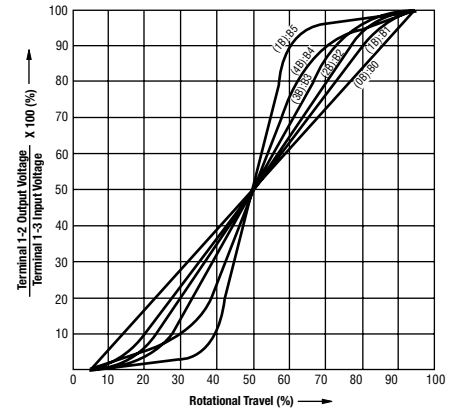


Tapers

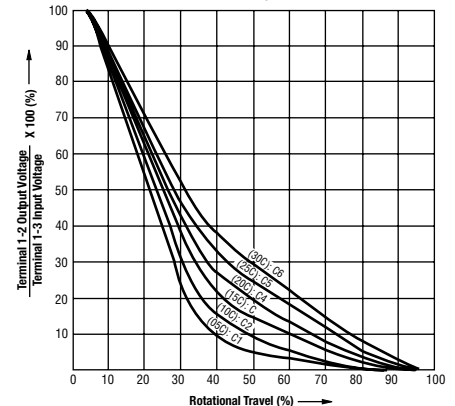


B Series Tapers

PTV111 Standard and PTT111: Linear taper "B" represents (0B)-B0 in taper chart.
PTV112 Dual Gang: Linear taper "B" represents (3B)-B3 in taper chart.



C Series Tapers



REV. 09/23

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