

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

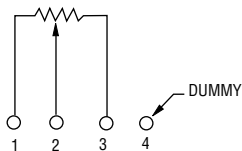
Operating Temperature
 -10°C to $+50^{\circ}\text{C}$
 Power Rating 0.05 Watt
 Maximum Operating Voltage
 50 V AC, 20 V DC
 Sliding Noise 100 mV max.

Mechanical Characteristics

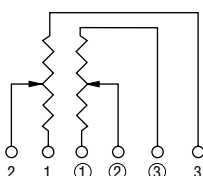
Mechanical Angle..... $300^{\circ} \pm 5^{\circ}$
 Rotational Torque 20 to 200 g-cm
 Detent Torque 30 to 300 g-cm
 Stop Strength
 no bushing 3 kg-cm min.
 with bushing..... 3 kg-cm min.
 Rotational Life 15,000 cycles
 Soldering Condition
 300°C max. within 3 seconds
 Hardware One flat washer and
 mounting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

Electrical Diagrams

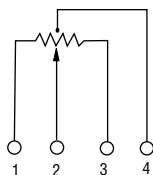
MODEL PTV 111



MODEL PTV 112

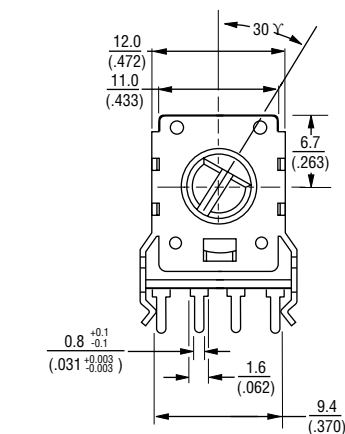
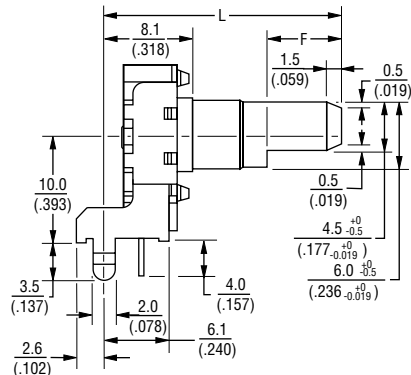


MODEL PTT 111

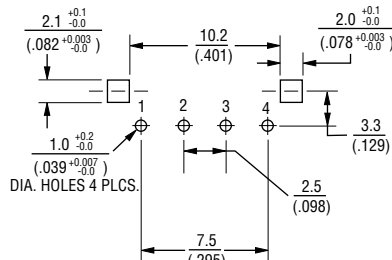


Product Dimensions

PTV111-2



RECOMMENDED PCB LAYOUT

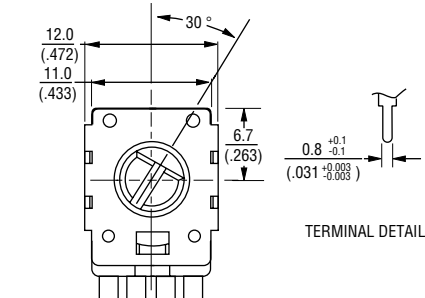
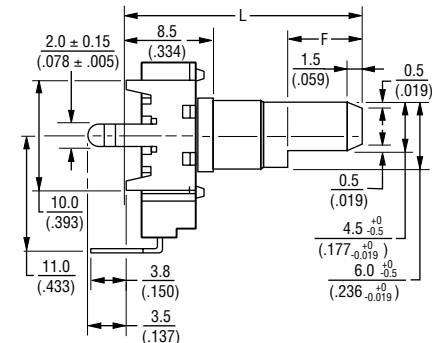


SHAFT SHOWN IN CCW POSITION

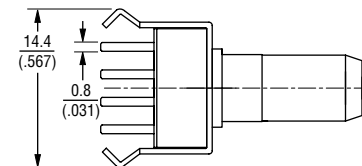
Dimensions Without Bushing

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)

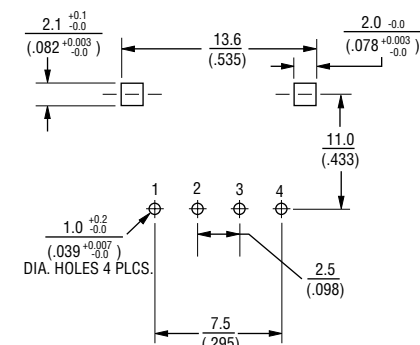
PTV111-4



TERMINAL DETAIL



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

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

*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

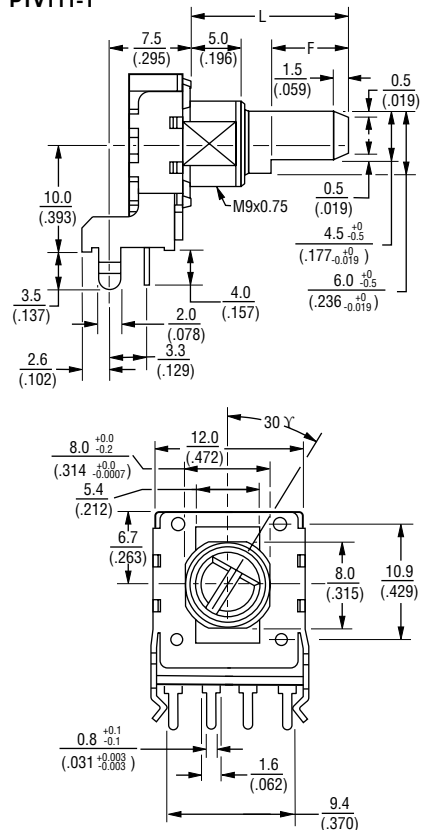
- Audio/TV sets
- Car radio
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

PTV/PTT Series - 12 mm Potentiometer

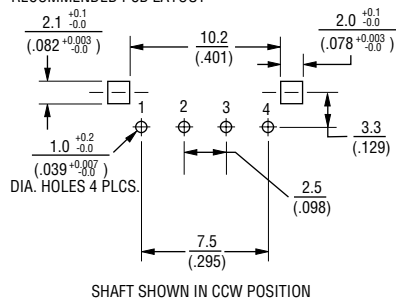
BOURNS®

Product Dimensions

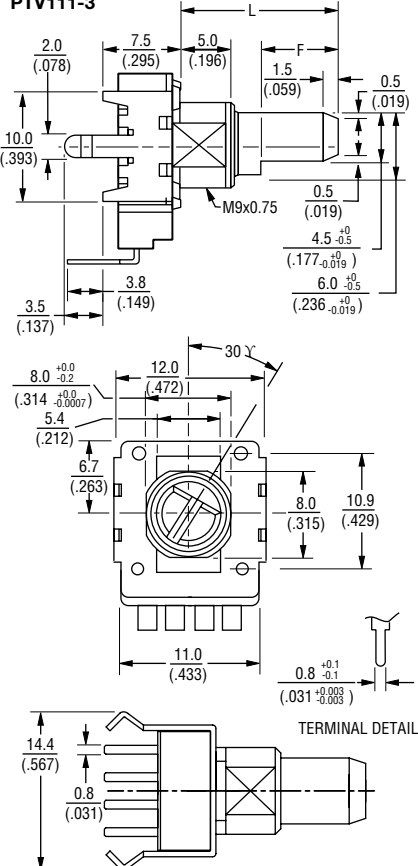
PTV111-1



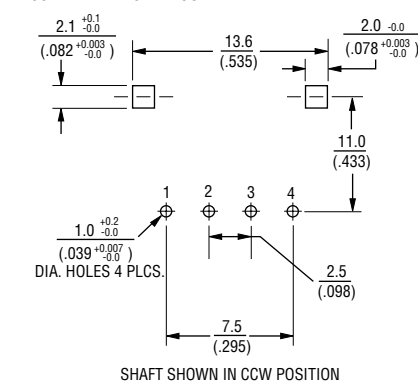
RECOMMENDED PCB LAYOUT



PTV111-3



RECOMMENDED PCB LAYOUT



Dimensions With Bushing

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

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

Specifications are subject to change without notice.

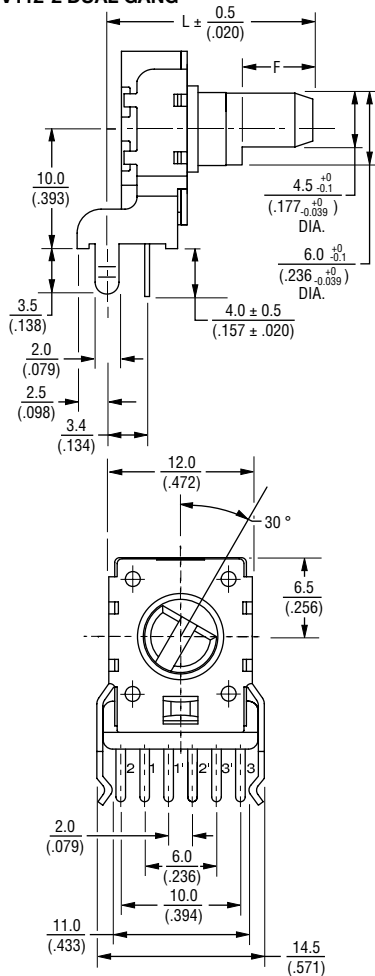
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PTV/PTT Series - 12 mm Potentiometer

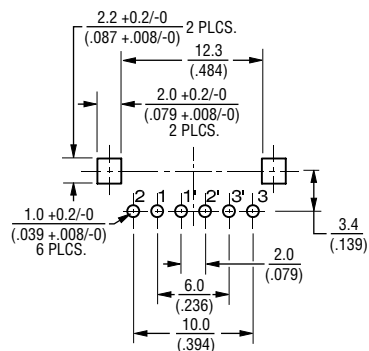
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Product Dimensions

PTV112-2 DUAL GANG

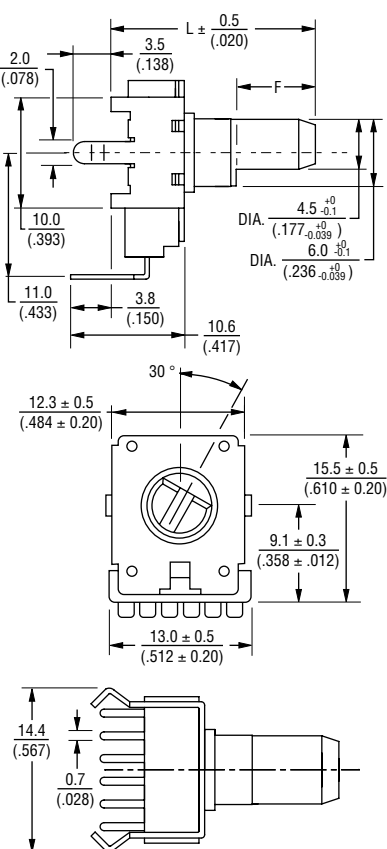


RECOMMENDED PCB LAYOUT

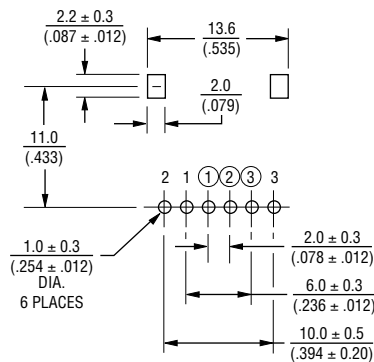


SHAFT SHOWN IN CCW POSITION

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

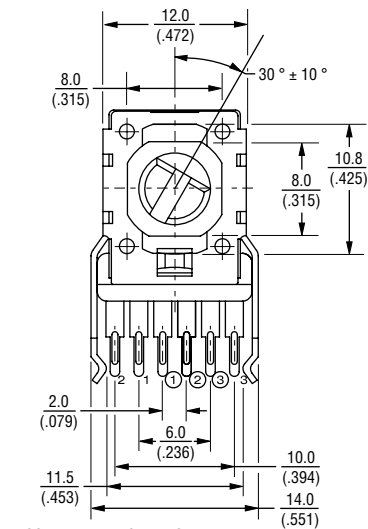
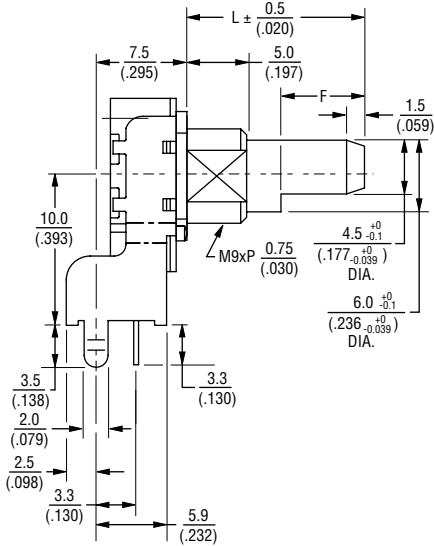
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PTV/PTT Series - 12 mm Potentiometer

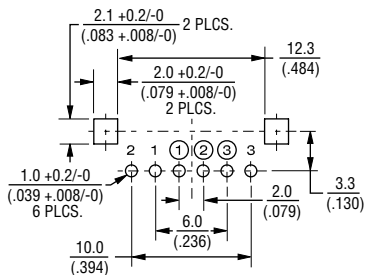
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Product Dimensions

PTV112-1 DUAL GANG

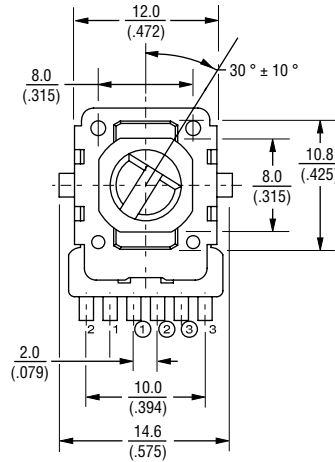
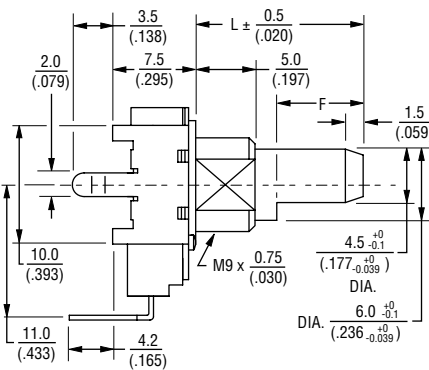


RECOMMENDED PCB LAYOUT

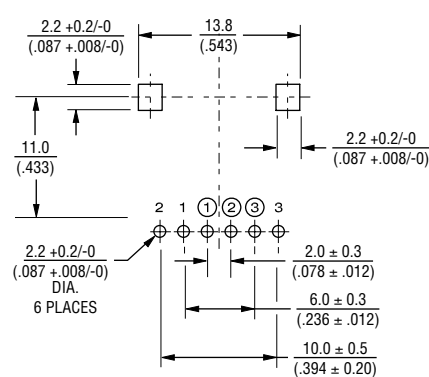


SHAFT SHOWN IN CCW POSITION

PTV112-3 DUAL GANG



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

Dimensions With Bushing

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

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

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PTV/PTT Series - 12 mm Potentiometer

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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.

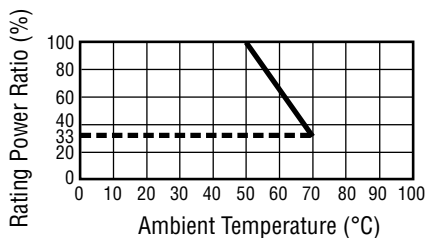
* Available with Pin Styles 1 & 3 only.

**Available with Pin Styles 2 & 4 only.

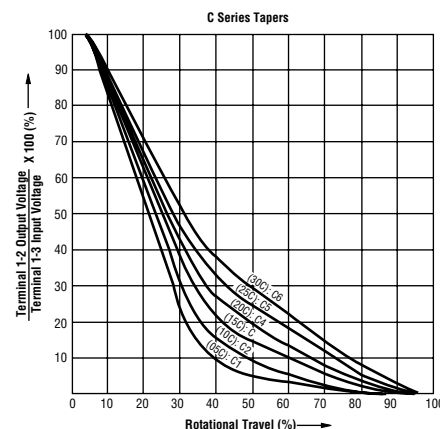
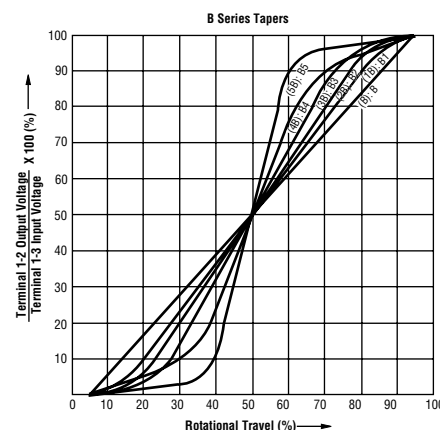
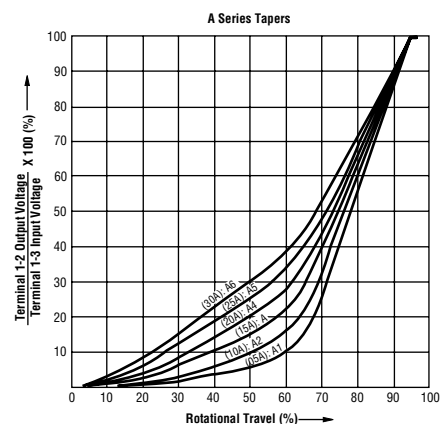
Standard Resistance Table

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. 02/17

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Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

<u>PTV111-4420A-C503</u>	<u>PTV112-4420A-A503</u>	<u>PTV112-4420A-B503</u>	<u>PTV111-3415A-A103</u>	<u>PTV111-4220A-B103</u>
<u>PTV111-3415A-B103</u>	<u>PTV111-3220A-B-103</u>	<u>PTV111-3415A-B503</u>	<u>PTV111-3420A-A203</u>	<u>PTV111-3420A-B103</u>
<u>PTV111-3420A-B503</u>	<u>PTV111-4220A-B104</u>	<u>PTV111-4420A-A104</u>	<u>PTV111-4420A-A502</u>	<u>PTV111-4420A-A503</u>
<u>PTV111-4420A-B104</u>	<u>PTV111-4420A-B502</u>	<u>PTV111-4420A-B503</u>	<u>PTV111-4420A-C104</u>	<u>PTV111-4420A-C502</u>
<u>PTV111-4425A-B103</u>	<u>PTT111-3220A-B503</u>	<u>PTT111-4425A-B502</u>	<u>PTV112-4220A-B103</u>	<u>PTV112-4420A-A103</u>
<u>PTV112-4420A-B103</u>	<u>PTT111-3217A-B503</u>	<u>PTV111-4215A-B502</u>	<u>PTV111-4420A-B105</u>	<u>PTV111-4425A-B105</u>
<u>PTV111-4427A-B105</u>	<u>PTV111-4425A-B502</u>	<u>PTV112-3212A-B103</u>	<u>PTV112-3412A-A203</u>	<u>PTV112-3412A-A204</u>
<u>PTV112-3412A-B503</u>	<u>PTV111-1415A-A1254</u>	<u>PTV111-3415A-B104</u>	<u>PTV111-4420A-B103</u>	<u>PTV111-3415A-B0102</u>
<u>PTV111-3417A-C503</u>	<u>PTV111-3415A-A104</u>	<u>PTT111-4420A-B103</u>	<u>PTV112-4420A-A504</u>	<u>PTT111-3415A-B103</u>
<u>PTV111-3417A-B0103</u>	<u>PTV111-4415A-B104</u>	<u>PTT111-3415A-B502</u>	<u>PTV112-4420A-C502</u>	<u>PTV112-4420A-C503</u>
<u>PTV112-4420A-B502</u>	<u>PTV112-4420A-C104</u>	<u>PTV112-4420A-A104</u>	<u>PTV112-4420A-B104</u>	<u>PTV112-4420A-A502</u>