

*RoHS COMPLIANT



BOURNS®

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..... ±20 %
 Residual Resistance..... 1 % max.

Environmental Characteristics

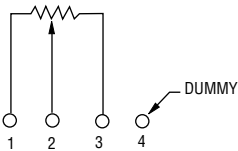
Operating Temperature -10 °C to +50 °C
 Power Rating..... 0.05 Watt
 Maximum Operating Voltage 50 V AC, 20 V DC
 Sliding Noise 100 mV max.

Mechanical Characteristics

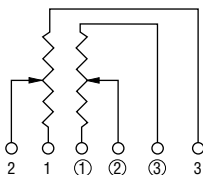
Mechanical Angle..... 300 ° ±5 °
 Rotational Torque 20 to 200 g-cm
 Detent Torque..... 30 to 300 g-cm
 Stop Strength
 no bushing 3 kg-cm min.
 with bushing..... 3 kg-cm min.
 Rotational Life 15,000 cycles
 Soldering Condition
 300 °C max. within 3 seconds
 Hardware One flat washer and mounting nut supplied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

Electrical Diagrams

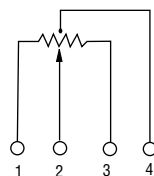
MODEL PTV 111



MODEL PTV 112

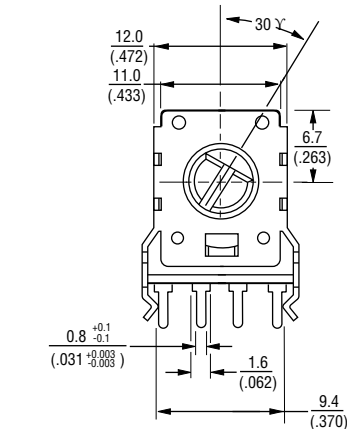
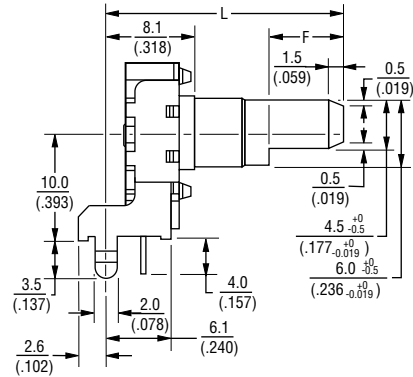


MODEL PTT 111

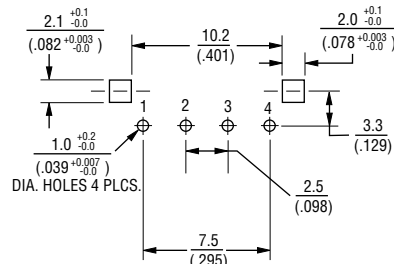


Product Dimensions

PTV111-2



RECOMMENDED PCB LAYOUT

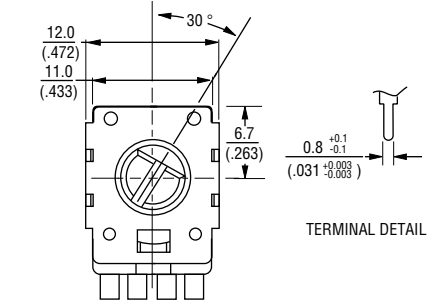
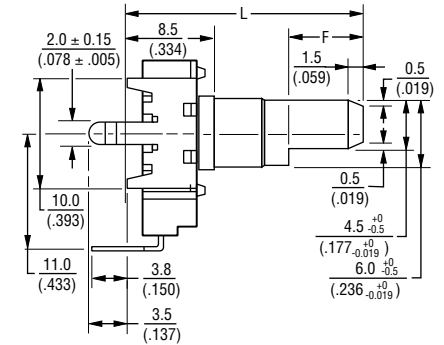


SHAFT SHOWN IN CCW POSITION

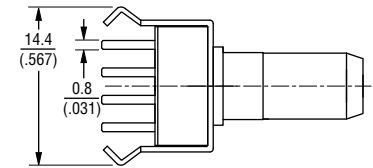
Dimensions Without Bushing

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)

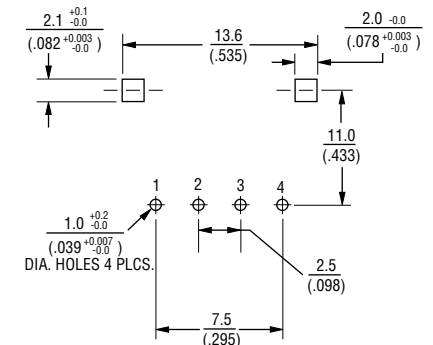
PTV111-4



TERMINAL DETAIL



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

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



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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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Applications

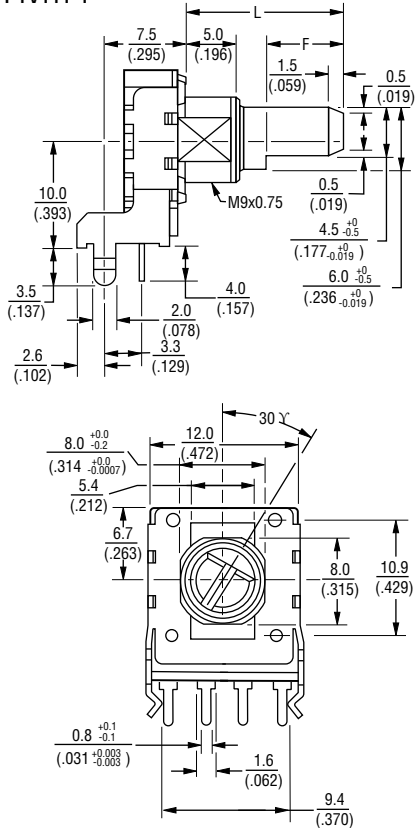
- Audio/TV sets
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

PTV/PTT Series - 12 mm Potentiometer

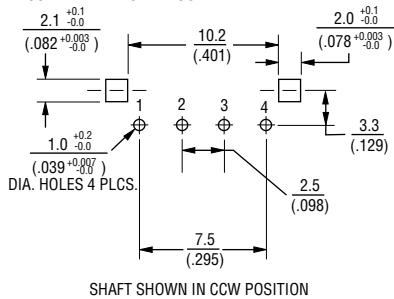
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Product Dimensions

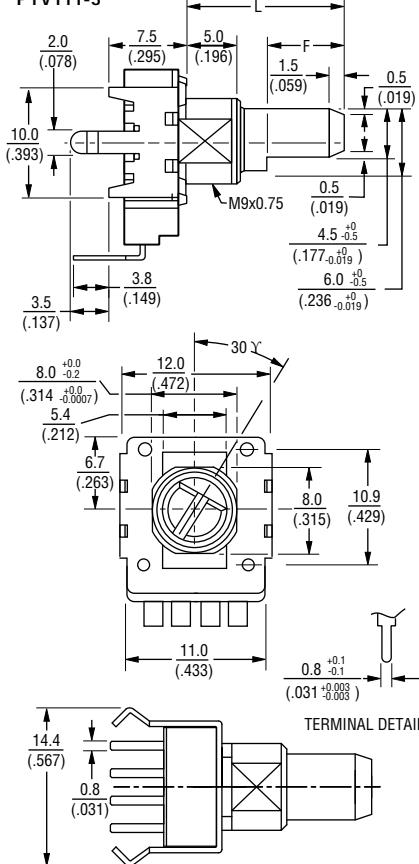
PTV111-1



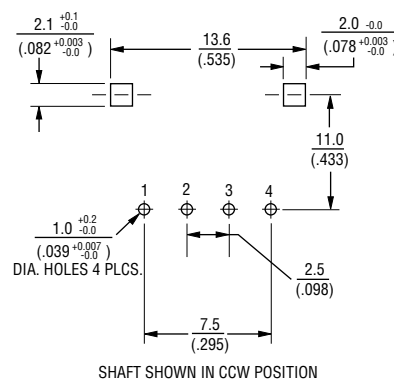
RECOMMENDED PCB LAYOUT



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

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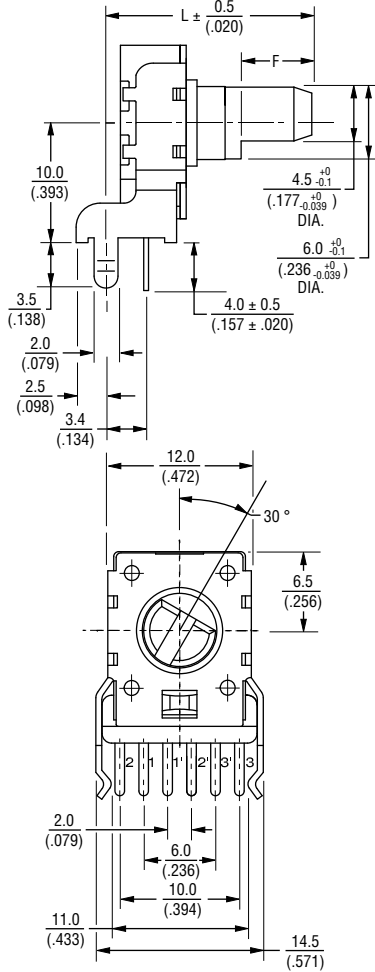
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PTV/PTT Series - 12 mm Potentiometer

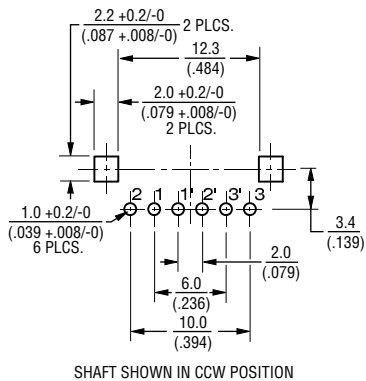
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Product Dimensions

PTV112-2 DUAL GANG

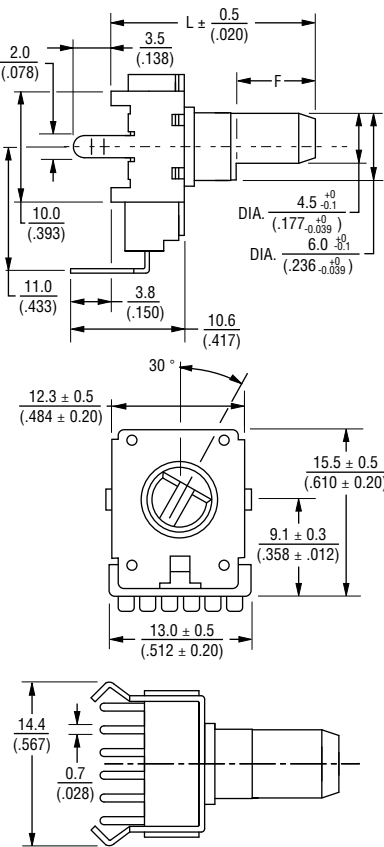


RECOMMENDED PCB LAYOUT

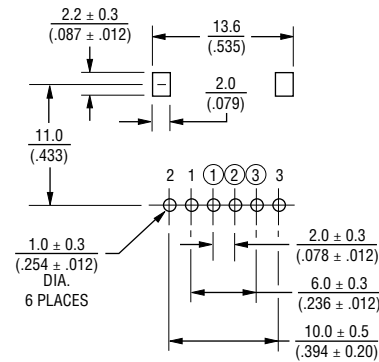


SHAFT SHOWN IN CCW POSITION

PTV112-4 DUAL GANG



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

Dimensions Without Bushing

L	$\frac{15}{(.591)}$	$\frac{20}{(.787)}$	$\frac{22.5}{(.886)}$	$\frac{25}{(.984)}$	$\frac{27.5}{(1.083)}$
F	$\frac{4.5}{(.177)}$	$\frac{7}{(.276)}$	$\frac{7}{(.276)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$

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

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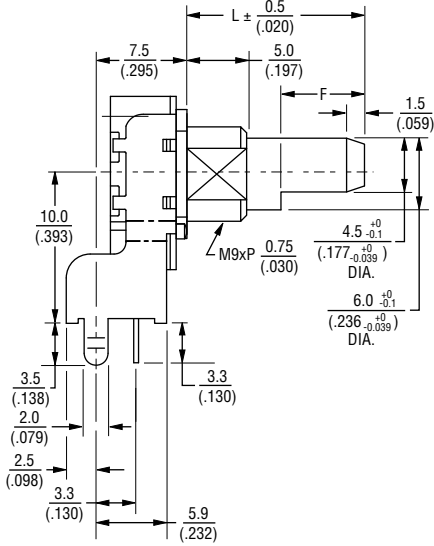
PTV/PTT Series - 12 mm Potentiometer

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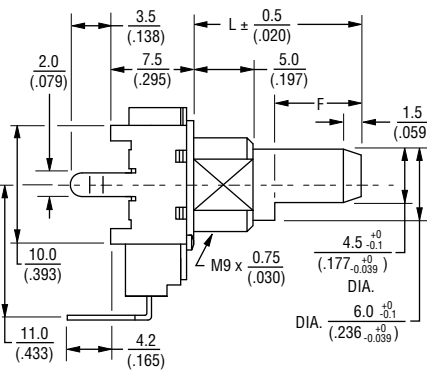
Product Dimensions

Dimensions With Bushing

PTV112-1 DUAL GANG

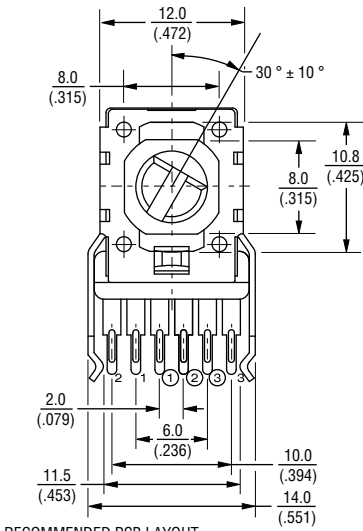


PTV112-3 DUAL GANG

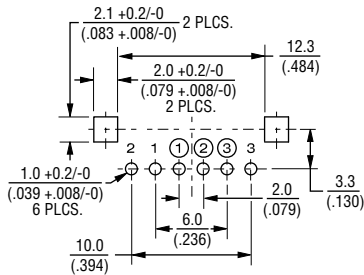


L	$\frac{12.5}{(.492)}$	$\frac{15}{(.591)}$	$\frac{17.5}{(.689)}$	$\frac{20}{(.787)}$
F	$\frac{7}{(.276)}$	$\frac{7}{(.276)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$

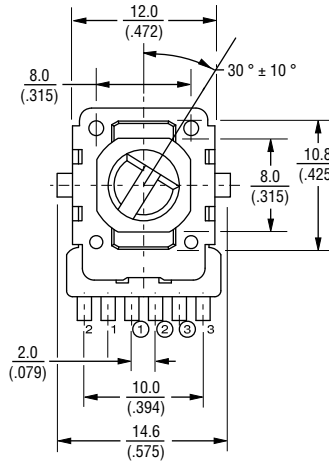
DIMENSIONS: $\frac{\text{MM}}{\text{INCHES}}$



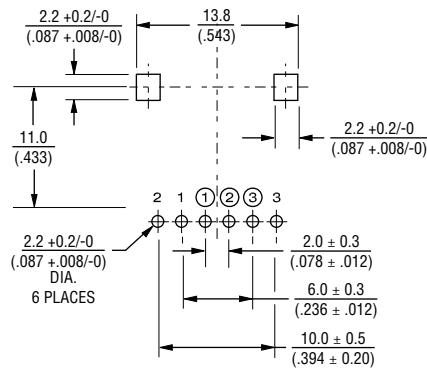
RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION



RECOMMENDED PCB LAYOUT



SHAFT SHOWN IN CCW POSITION

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PTV/PTT Series - 12 mm Potentiometer



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.

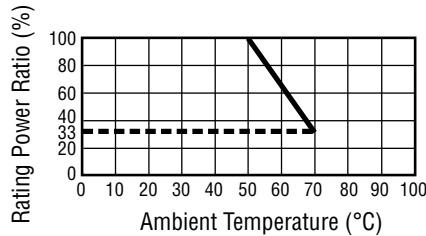
* Available with Pin Styles 1 & 3 only.

** Available with Pin Styles 2 & 4 only.

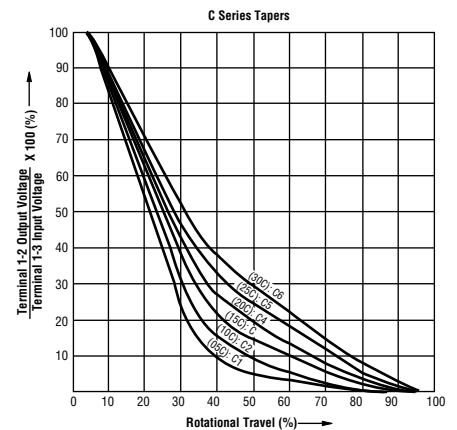
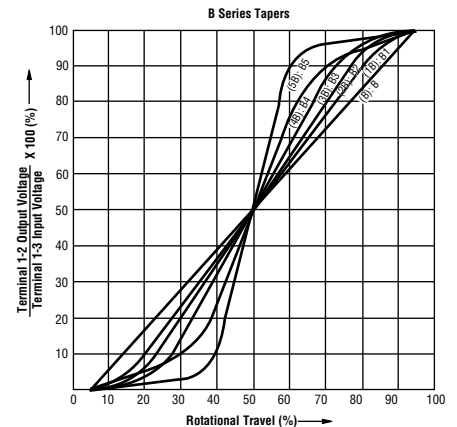
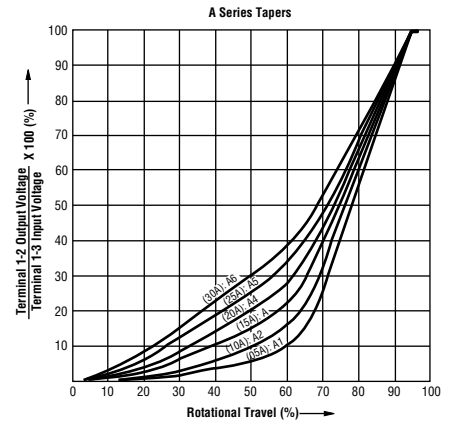
Standard Resistance Table

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



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REV. 10/19

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