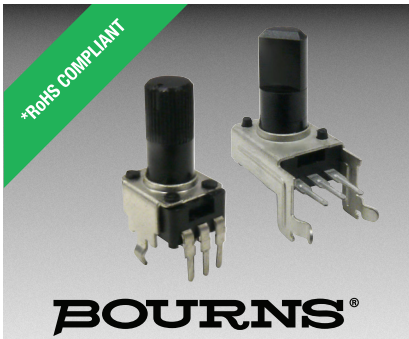




**THE DATASHEET OF
PTV09A-4020F-B103**





Features

- Carbon element
- Insulated shaft
- Wide variety of mounting styles
- Center detent option
- RoHS compliant*

Additional Information

Click these links for more information:



PTV09 Series - 9 mm 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 $\pm 1\%$ max.

Environmental Characteristics

Operating Temperature..... $-10\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$
 Power Rating
 (Linear and Audio).....0.05 watt
 Maximum Operating Voltage
 (Linear and Audio)..... 20 VDC, 50 VAC
 Sliding Noise 100 mV max.

Mechanical Characteristics

Mechanical Angle $280\text{ }^{\circ} \pm 10\text{ }^{\circ}$
 Rotational Torque 10 to 100 g-cm
 Detent Torque20 to 200 gf-cm
 Stop Strength 2 kg-cm min.
 Rotational Life 10,000 cycles
 Soldering Condition
 $300\text{ }^{\circ}\text{C}$ max. within 3 seconds
 Hardware One flat washer and one
 hex nut supplied with bushing version

How To Order

PTV09A - 2 0 20 F - B 203

Model _____

Terminal Configuration _____
 (Pin Layout)

1 = Horizontal/Rear Mount w/Sleeve Bushing
 2 = Vertical/Side Mount, Bushingless, 10 mm Height
 3 = Vertical/Side Mount, Bushingless, 6.5 mm Height
 4 = Horizontal/Rear Mount, Bushingless
 5 = Horizontal/Rear Mount w/Plastic Plain Bushing
 6 = Horizontal/Rear Mount w/Metal Threaded Bushing
 7 = Vertical/Side Mount w/Sleeve Bushing, 6.5 mm Height
 8 = Vertical/Side Mount w/Sleeve Bushing, 10 mm height

Option _____
 0 = No Detent 2 = Center

Standard Shaft Length _____
 15 = 15 mm** 25 = 25 mm
 20 = 20 mm 30 = 30 mm

Shaft Style _____
 F = Flat Type Insulated Shaft
 S = Insulated Knurled (18 Teeth)
 U = Insulated Knurled (40 Teeth)

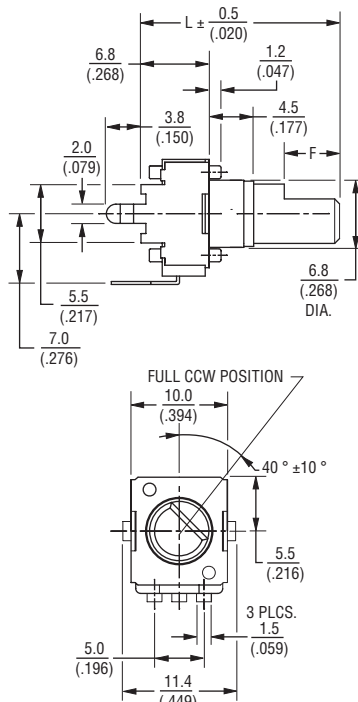
Resistance Taper _____
 Taper Series followed by Curve Number

Resistance Code (See Table) _____

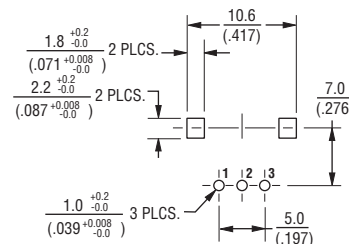
Other styles available.
 ** Bushingless version only.

Product Dimensions

PTV09A-1
 (Horizontal/Rear Mount w/Sleeve Bushing)

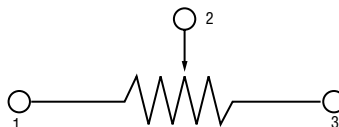


RECOMMENDED PCB LAYOUT
 (HORIZONTAL/REAR MOUNT)

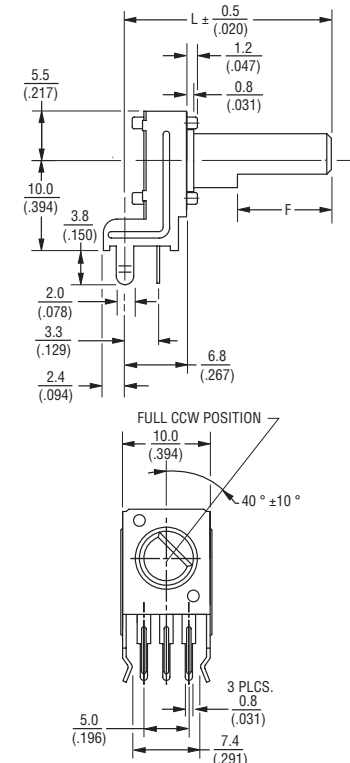


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

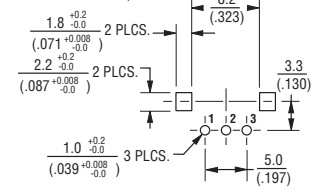
Schematic



PTV09A-2
 (Vertical/Side Mount,
 Bushingless, 10 mm Height)



RECOMMENDED PCB LAYOUT
 (VERTICAL/SIDE MOUNT)



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

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

Applications

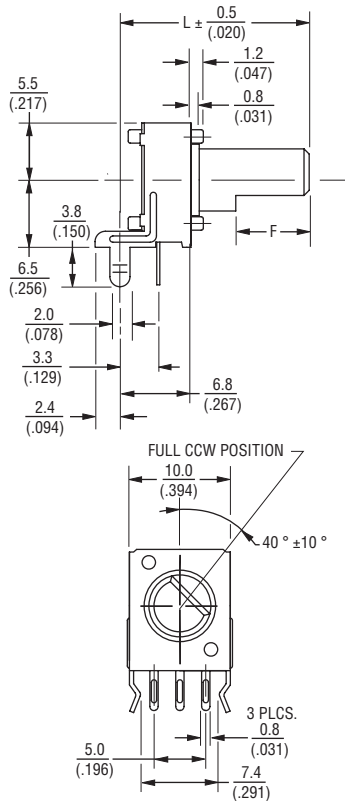
- Commercial communications equipment
- Portable electronics
- Amplifiers/mixers/drum machines/synthesizers
- Consumer goods
- Commercial appliances

PTV09 Series - 9 mm Potentiometer

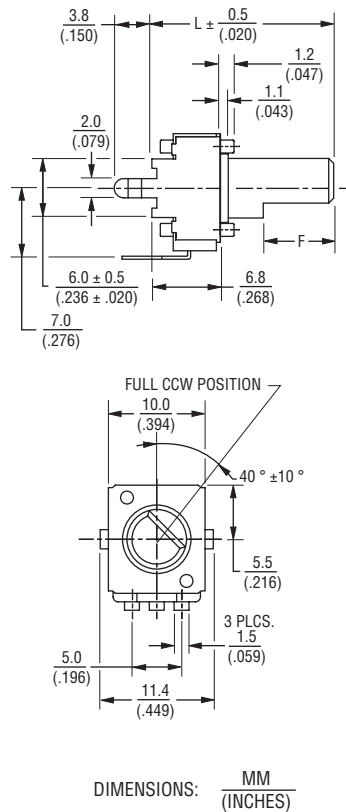
BOURNS®

Product Dimensions (Continued)

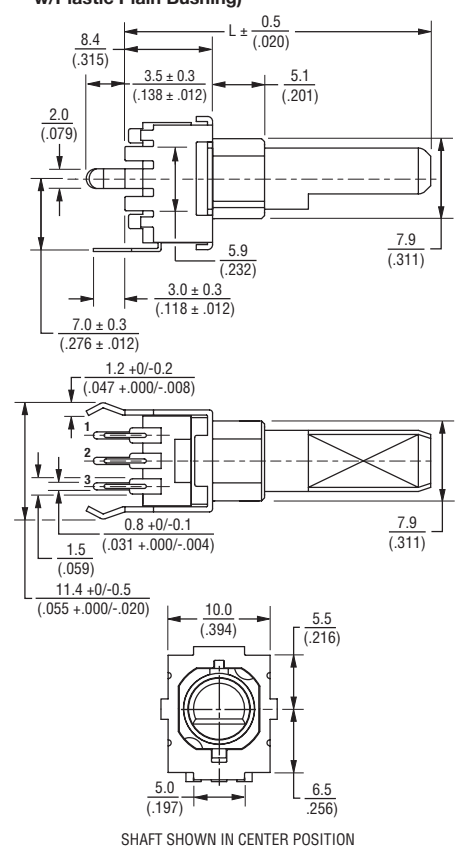
PTV09A-3
(Vertical/Side Mount,
Bushings, 6.5 mm Height)



PTV09A-4
(Horizontal/Rear Mount, Bushingless)

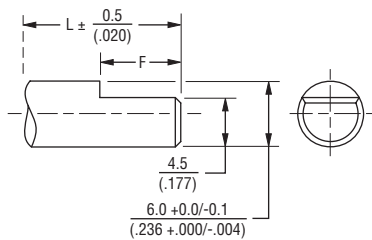


PTV09A-5
(Horizontal/Rear Mount
w/Plastic Plain Bushing)



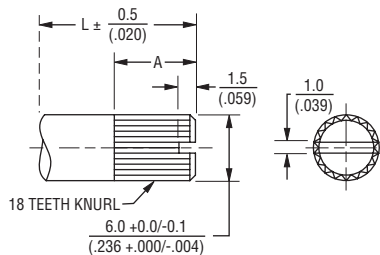
Shaft Styles

F-Type



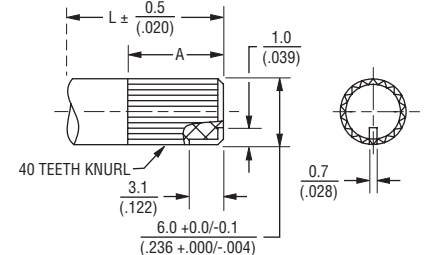
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	6 (.236)	7 (.275)	12 (.472)	12 (.472)

S-Type



L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
A	7 (.275)	7 (.275)	7 (.275)	7 (.275)

U-Type



L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
A	6 (.236)	7 (.275)	7 (.275)	7 (.275)

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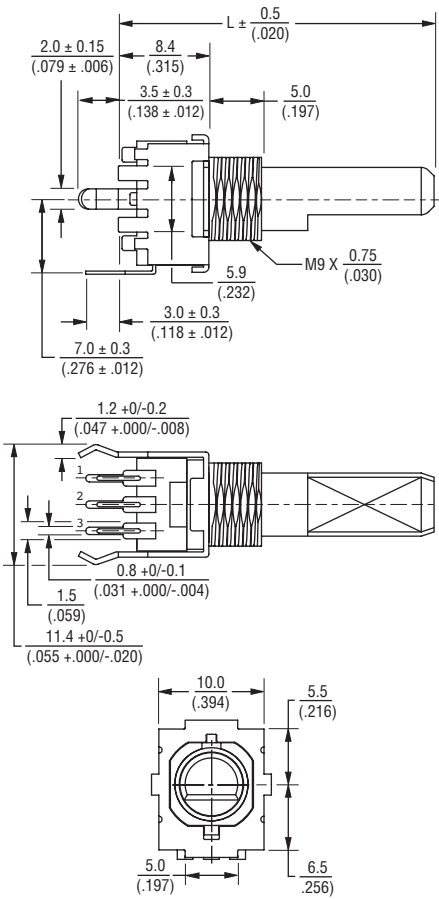
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PTV09 Series - 9 mm Potentiometer

BOURNS®

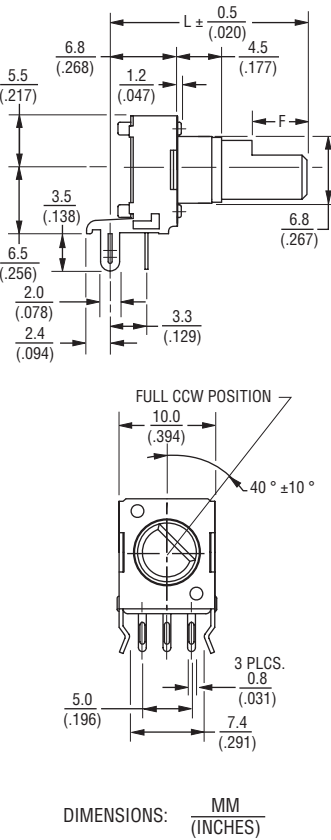
Product Dimensions (Continued)

PTV09A-6
(Horizontal/Rear Mount
w/Metal Threaded Bushing)

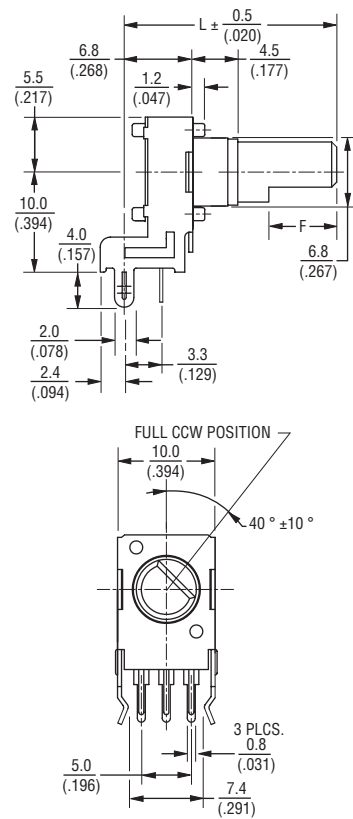


SHAFT SHOWN IN CENTER POSITION

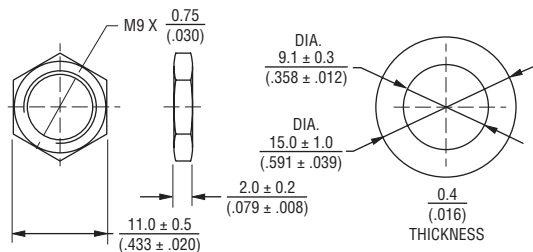
PTV09A-7
(Vertical/Side Mount
w/Sleeve Bushing, 6.5 mm Height)



PTV09A-8
(Vertical/Side Mount
w/Sleeve Bushing, 10 mm Height)



Mounting Hardware



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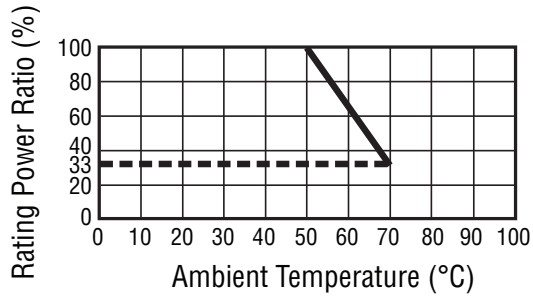
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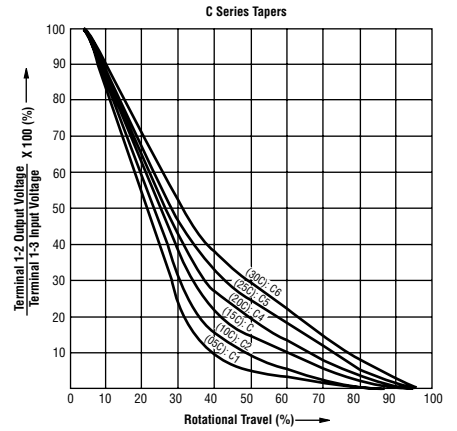
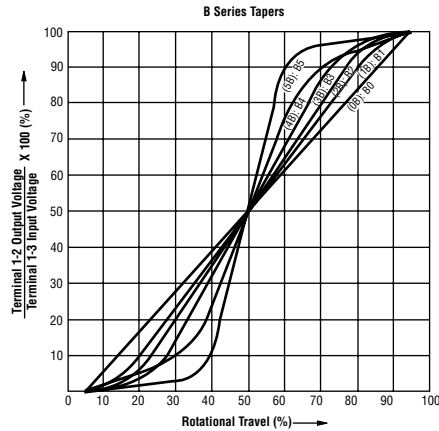
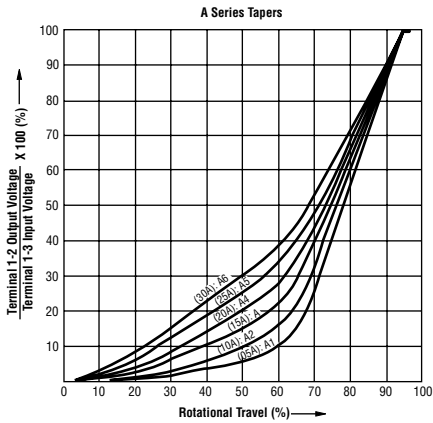
PTV09 Series - 9 mm Potentiometer

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Derating Curve



Tapers



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