

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

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## PTV09 Series - 9 mm Potentiometer

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

Operating Temperature.....-10 °C to +50 °C  
Power Rating  
(Linear and Audio).....0.05 watt  
Maximum Operating Voltage  
(Linear and Audio)..... 20 VDC, 50 VAC  
Sliding Noise ..... 100 mV max.  
IP Rating ..... IP40

Mechanical Angle ..... $280^{\circ} \pm 10^{\circ}$   
Rotational Torque ..... 10 to 100 g·cm  
Detent Torque ..... 20 to 200 gf·cm  
Stop Strength ..... 2 kg·cm min.  
Rotational Life ..... 10,000 cycles  
Soldering Condition  
..... $300^{\circ}\text{C}$  max. within 3 seconds  
Hardware ..... One flat washer and one  
hex nut supplied with bushing version

## PTV09A - 2 0 20 F - B 203

Model \_\_\_\_\_

Terminal Configuration \_\_\_\_\_  
(Pin Layout)

1 = Horizontal/Rear Mount  
w/Sleeve Bushing

2 = Vertical/Side Mount,  
Bushingleess,  
10 mm Height

3 = Vertical/Side Mount,  
Bushingleess,  
6.5 mm Height

4 = Horizontal/Rear Mount,  
Bushingleess

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

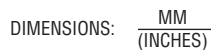
S = Insulated Knurled (18 Te

U = Insulated Knurled (40 Te

Resistance Code (See Table)

Other styles available.  
 \*\* Bushingless version only.

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



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

Technical drawing of the 3-PLC connector showing side and front views with dimensions in inches and millimeters.

**Side View Dimensions:**

- Overall length:  $L \pm 0.5$  (.020)
- Top flange thickness: 1.2 (.047)
- Bottom flange thickness: 0.8 (.031)
- Top flange width: 5.5 (.217)
- Distance from top flange to bottom flange: 10.0 (.394)
- Distance from bottom flange to bottom of connector: 3.8 (.150)
- Distance from bottom of connector to bottom of mounting holes: 2.0 (.078)
- Distance between mounting holes: 3.3 (.129)
- Distance from mounting holes to bottom of connector: 2.4 (.094)
- Distance from mounting holes to center of connector: 6.8 (.267)
- Distance from center of connector to end of cable: F

**Front View Dimensions:**

- Overall width: 10.0 (.394)
- Angle:  $40^\circ \pm 10^\circ$
- Distance between mounting holes: 5.0 (.196)
- Distance from mounting holes to center of connector: 7.4 (.291)
- Distance from center of connector to end of cable: 0.8 (.031)
- Label: 3 PLCS.

CRITICAL/SIDE MOUNT)

1.8<sup>+0.2</sup><sub>-0.0</sub> 2 PLCS. (0.071<sup>+0.008</sup><sub>-0.0</sub>)

2.2<sup>+0.2</sup><sub>-0.0</sub> 2 PLCS. (0.087<sup>+0.008</sup><sub>-0.0</sub>)

1.0<sup>+0.2</sup><sub>-0.0</sub> 3 PLCS. (0.039<sup>+0.008</sup><sub>-0.0</sub>)

8.2 (323)

3.3 (130)

5.0 (197)

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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## Applications

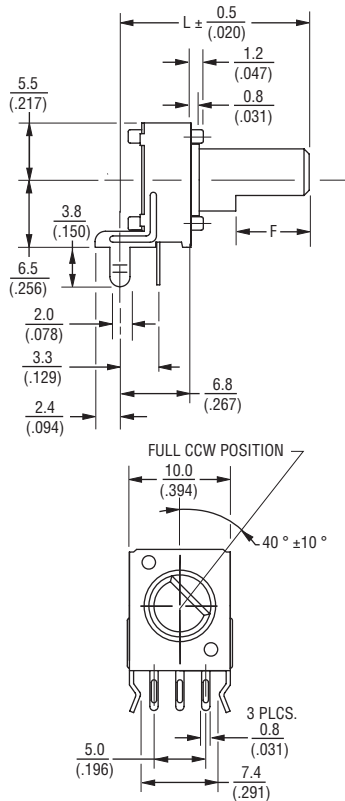
- Commercial communications equipment
- Portable electronics
- Amplifiers/mixers/drum machines/synthesizers
- Consumer goods
- Commercial appliances

## PTV09 Series - 9 mm Potentiometer

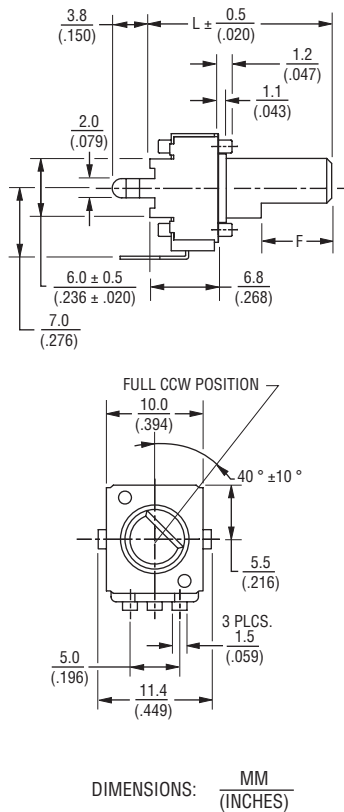
**BOURNS®**

### Product Dimensions (Continued)

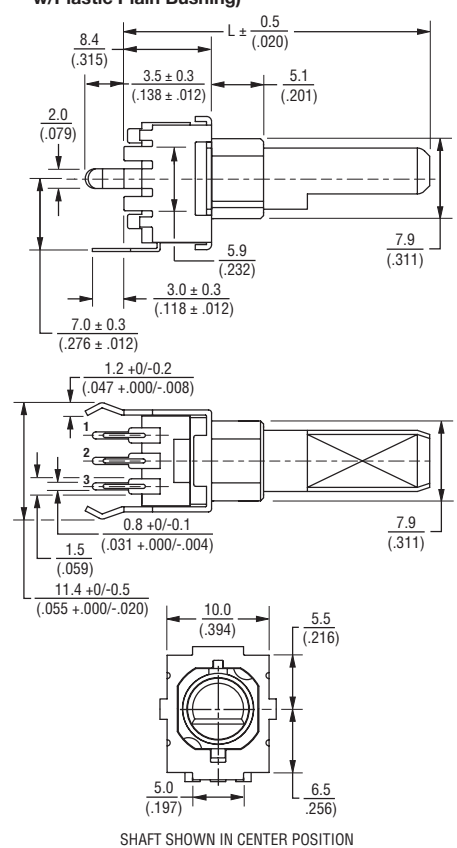
**PTV09A-3**  
(Vertical/Side Mount,  
Bushings, 6.5 mm Height)



**PTV09A-4**  
(Horizontal/Rear Mount, Bushingless)

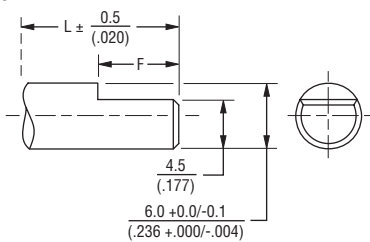


**PTV09A-5**  
(Horizontal/Rear Mount  
w/Plastic Plain Bushing)



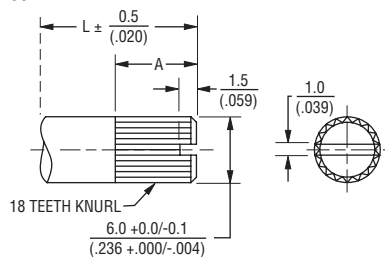
### Shaft Styles

**F-Type**



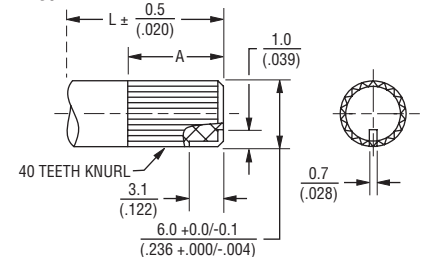
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	6 (.236)	7 (.275)	12 (.472)	12 (.472)

**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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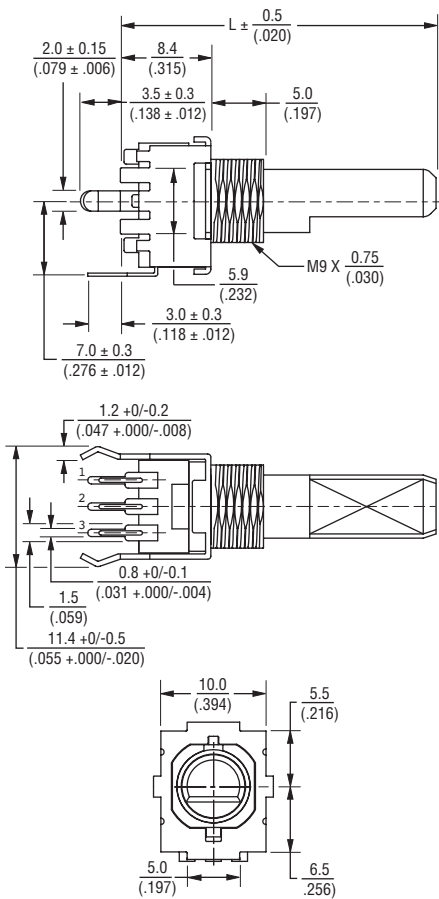
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# PTV09 Series - 9 mm Potentiometer

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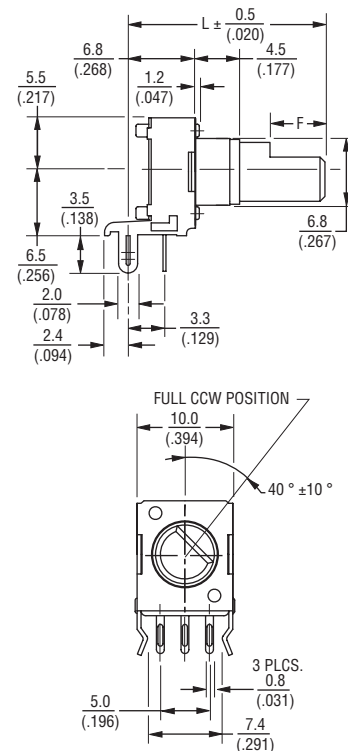
## Product Dimensions (Continued)

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



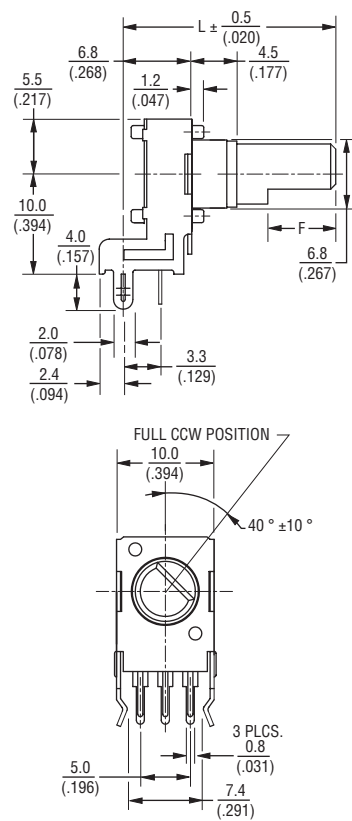
SHAFT SHOWN IN CENTER POSITION

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

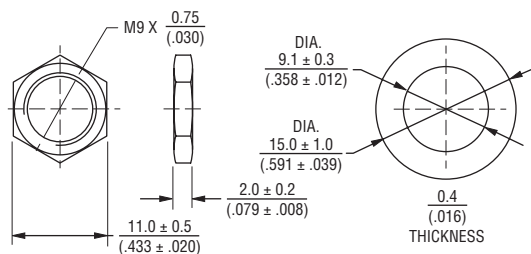


DIMENSIONS: MM  
(INCHES)

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



## Mounting Hardware



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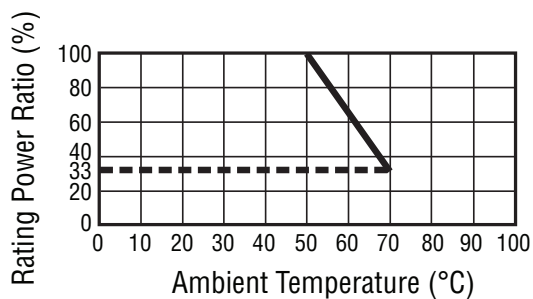
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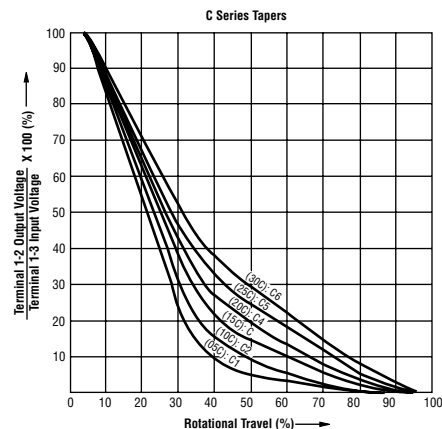
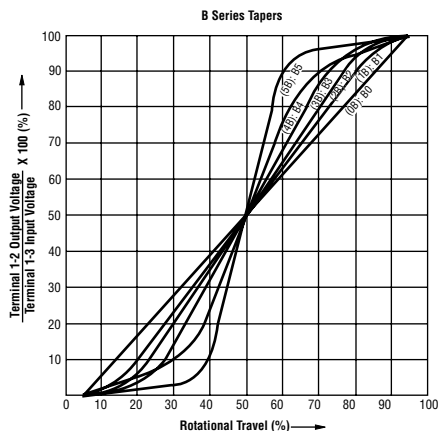
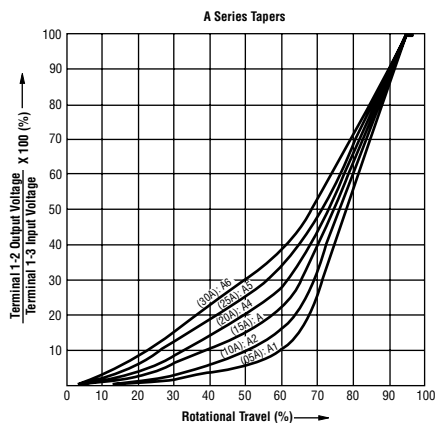
## PTV09 Series - 9 mm Potentiometer

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### Derating Curve



### Tapers



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