



- 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 Ω to 1 M Ω
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°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,
Bushingsless,
10 mm Height
- 3 = Horizontal/Side Mount,
Bushingsless,
6.5 mm Height
- 4 = Horizontal/Rear Mount,
Bushingsless
- 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

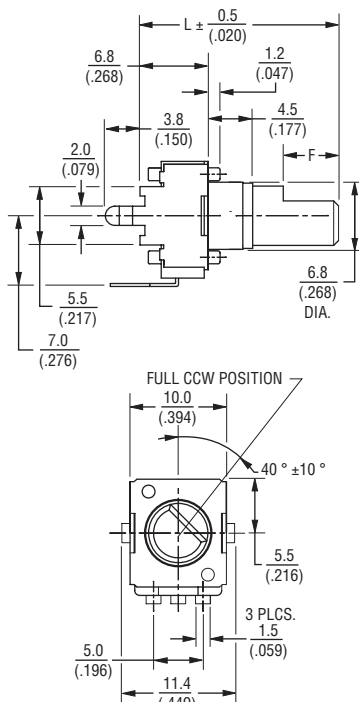
Shaft Style _____
 F = Flat Type Insulated Shaft
 S = Insulated Knurled (18 Teeth)
 U = Insulated Knurled (40 Teeth)

Resistance Taper _____
Taper Series followed by Curve Number

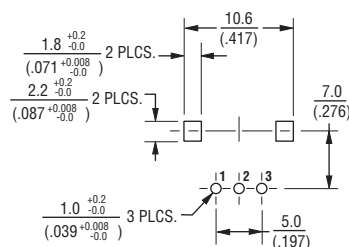
Resistance Code (See Table)

Other styles available.
 ** Bushingless version only.

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



RECOMMENDED PCB LAYOUT (HORIZONTAL/REAR MOUNT)



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



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

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

The technical drawing illustrates the 700 Series 3-Port Valve in two views: a side view (top) and a front view (bottom).

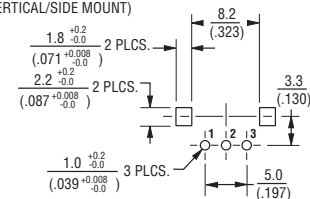
Side View Dimensions:

- Total length: $L \pm .05$ (.020)
- Top flange thickness: 1.2 (.047)
- Flange offset: 0.8 (.031)
- Vertical distance from top flange to centerline: 5.5 (.217)
- Distance from top flange to bottom port centerline: 10.0 (.394)
- Bottom port diameter: 3.8 (.150)
- Distance from bottom port centerline to mounting face: 2.0 (.078)
- Mounting face width: 3.3 (.129)
- Distance from mounting face to end of body: 2.4 (.094)
- Distance from mounting face to end of handle: 6.8 (.267)
- Handle length: F

Front View Details:

- Label: FULL CCW POSITION
- Distance between ports: 10.0 (.394)
- Angle: $40^\circ \pm 10^\circ$
- Number of ports: 3 PLCS.
- Port diameter: 0.8 (.031)
- Distance from mounting face to port centerlines: 5.0 (.196)
- Distance from mounting face to end of valve body: 7.4 (.291)

RECOMMENDED PCB LAYOUT (VERTICAL/SIDE MOUNT)



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

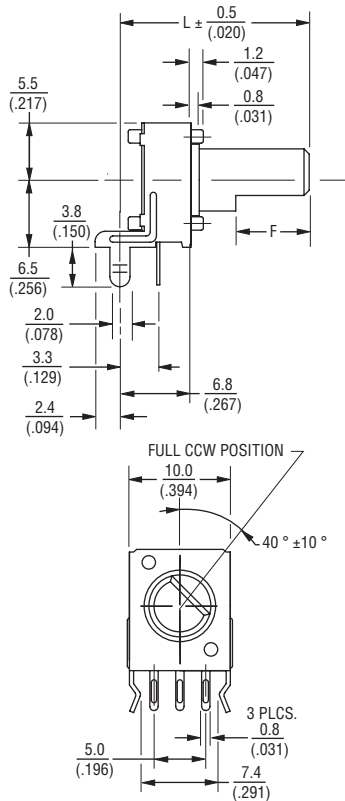
- Commercial communications equipment
- Portable electronics
- Amplifiers/mixers/drum machines/synthesizers
- Consumer goods
- Commercial appliances

PTV09 Series - 9 mm Potentiometer

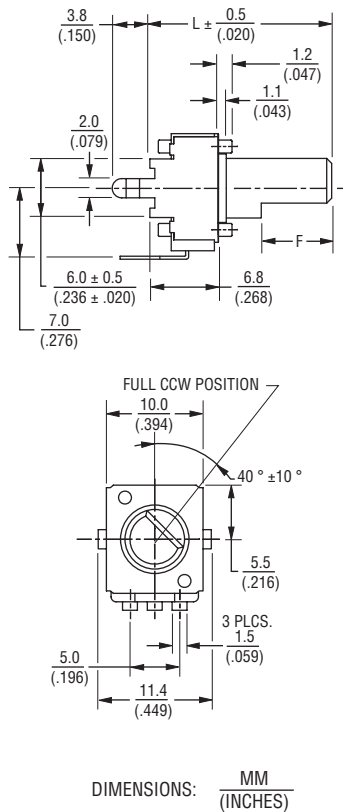
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Product Dimensions (Continued)

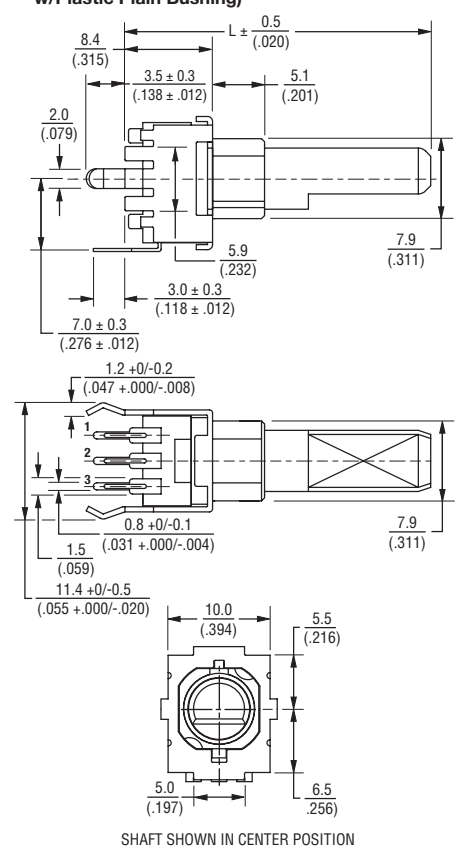
PTV09A-3
(Vertical/Side Mount,
Bushings, 6.5 mm Height)



PTV09A-4
(Horizontal/Rear Mount, Bushingless)

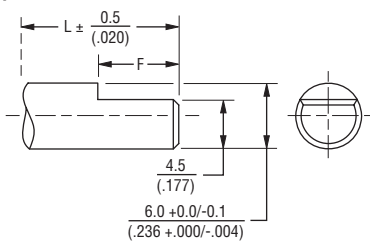


PTV09A-5
(Horizontal/Rear Mount
w/Plastic Plain Bushing)



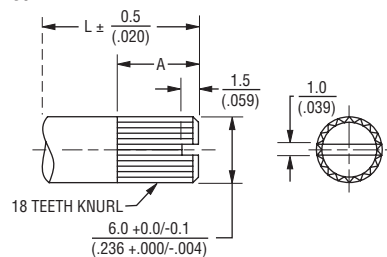
Shaft Styles

F-Type



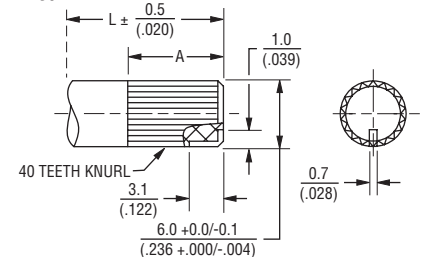
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	6 (.236)	7 (.275)	12 (.472)	12 (.472)

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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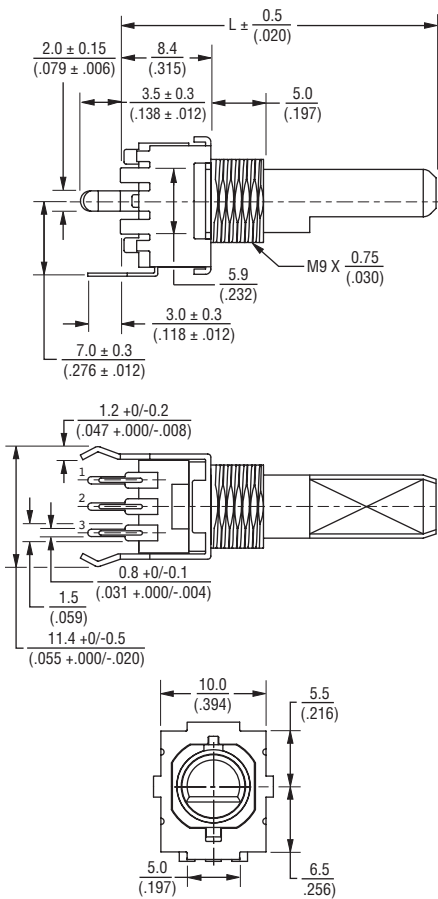
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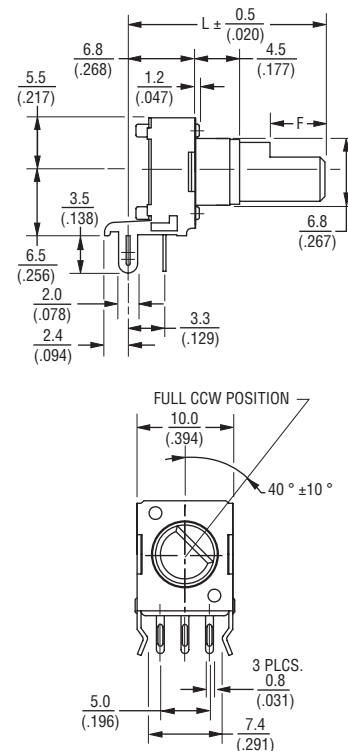
Product Dimensions (Continued)

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



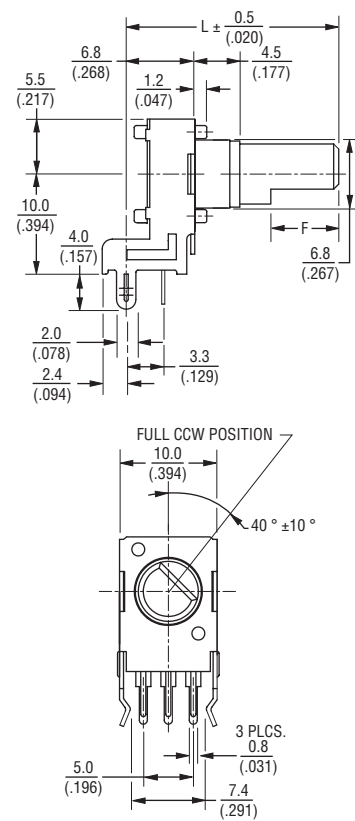
SHAFT SHOWN IN CENTER POSITION

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

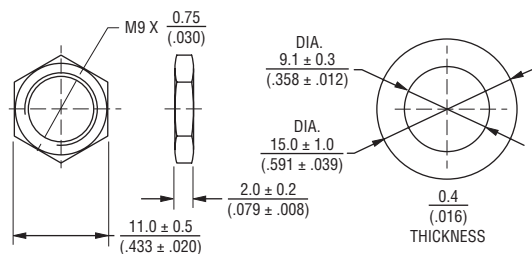


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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



Mounting Hardware



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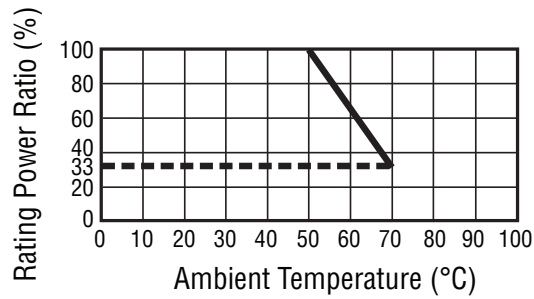
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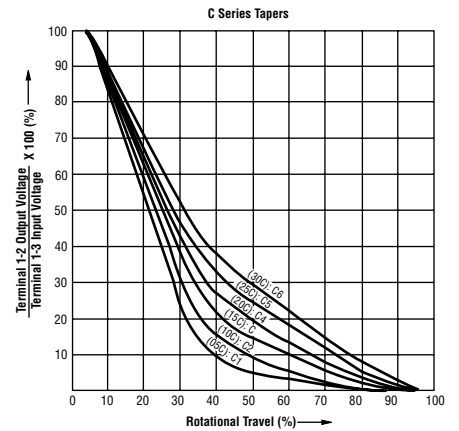
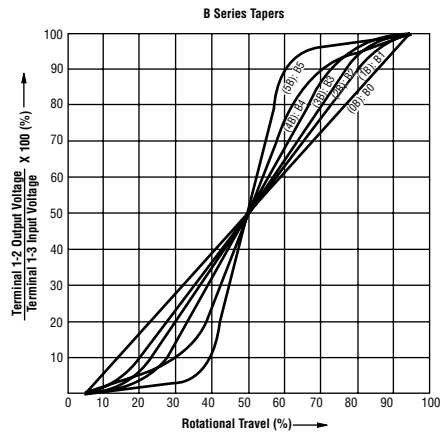
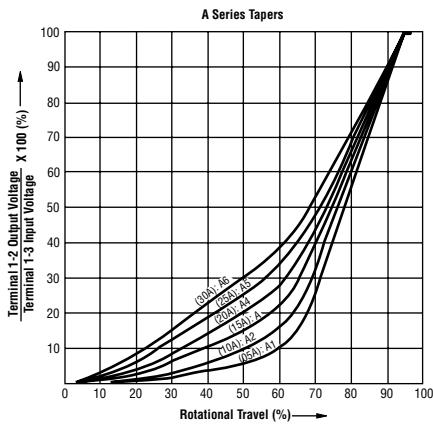
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Derating Curve



Tapers



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