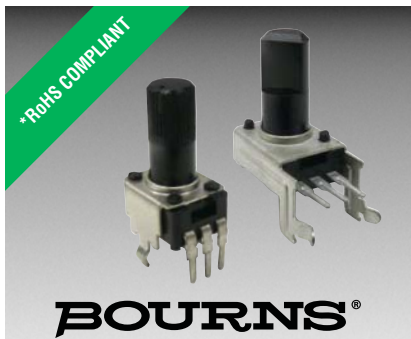




Features

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



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°C to $+50^\circ\text{C}$
 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 $280^\circ \pm 10^\circ$
 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

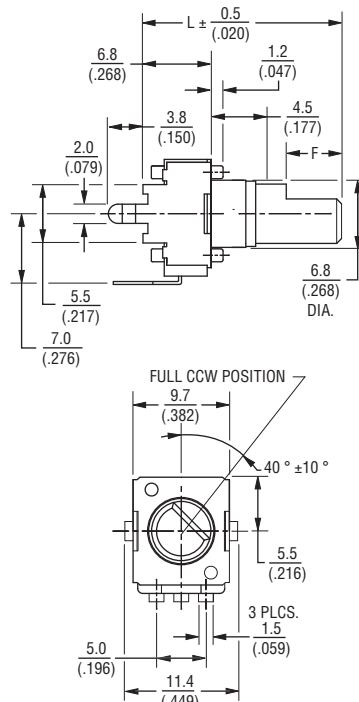
How To Order

PTV09A - 2 0 20 F - B 203

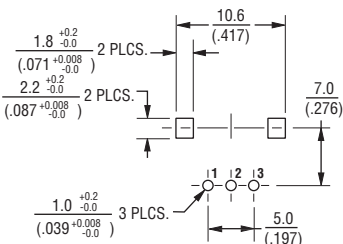
Model _____
 Terminal Configuration _____
 (Pin Layout)
 1 = Horizontal/Rear Mount
 w/Sleeve Bushing
 2 = Vertical/Side Mount,
 Bushingless,
 10 mm Height
 3 = Vertical/Side Mount,
 Bushingless,
 6.5 mm Height
 4 = Horizontal/Rear Mount,
 Bushingless
 5 = Horizontal/Rear Mount
 w/Plastic Plain Bushing
 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)

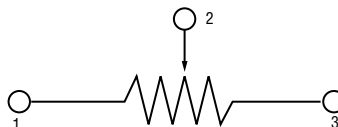


RECOMMENDED PCB LAYOUT
 (HORIZONTAL/REAR MOUNT)

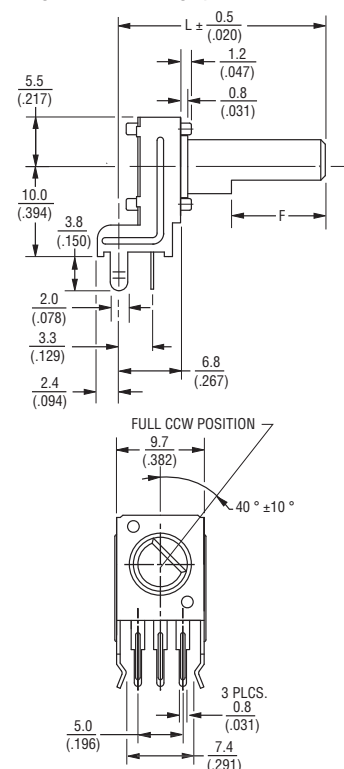


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

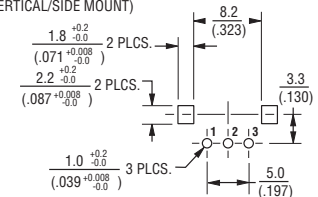
Schematic



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

*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

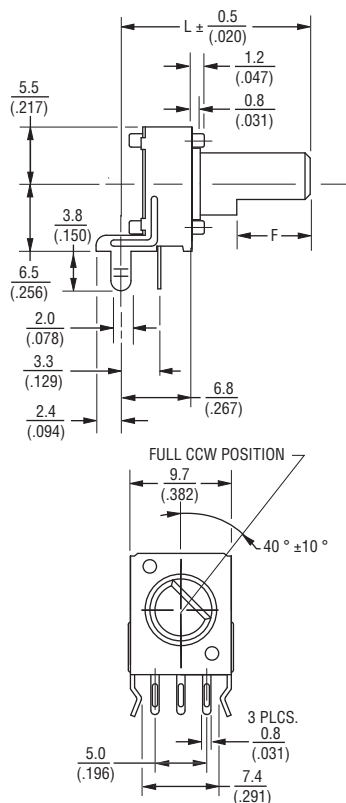
- Commercial communications equipment
- Portable electronics
- Amplifiers/mixers/drum machines/synthesizers
- Consumer goods
- Commercial appliances

PTV09 Series - 9 mm Potentiometer

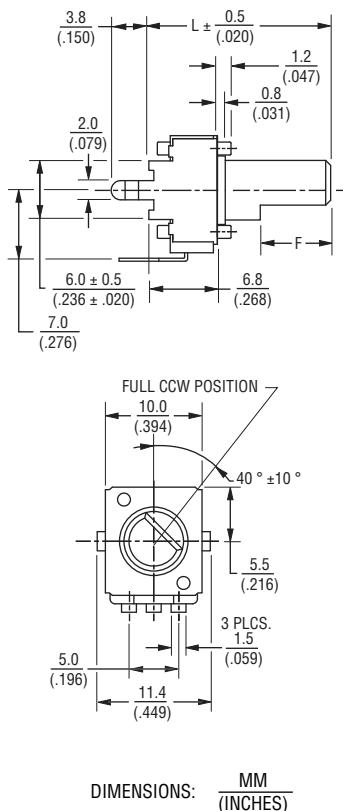
BOURNS®

Product Dimensions (Continued)

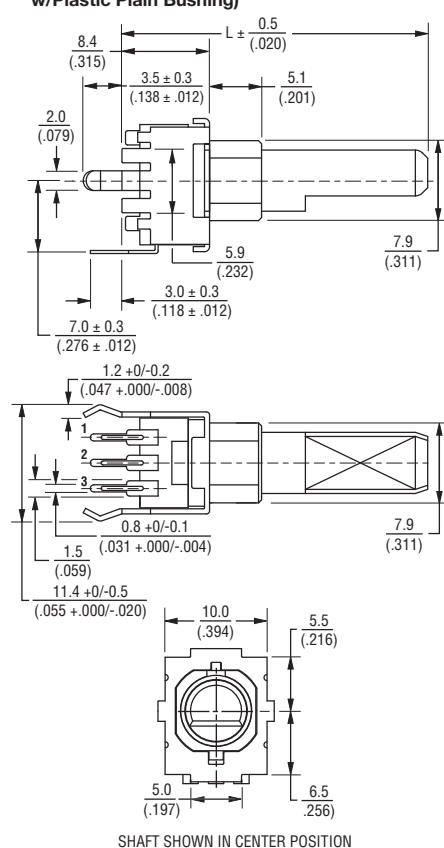
PTV09A-3
(Vertical/Side Mount,
Bushings, 6.5 mm Height)



PTV09A-4
(Horizontal/Rear Mount, Bushingless)

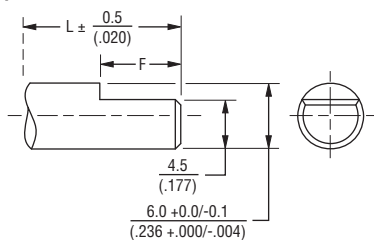


PTV09A-5
(Horizontal/Rear Mount
w/Plastic Plain Bushing)



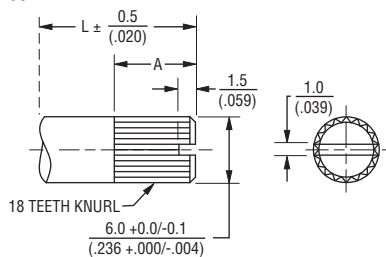
Shaft Styles

F-Type



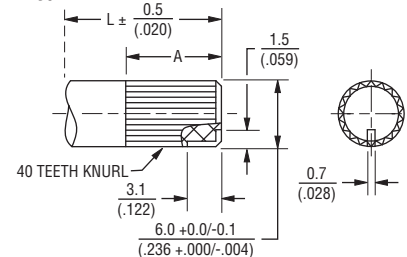
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	6 (.236)	7 (.275)	12 (.472)	12 (.472)

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)

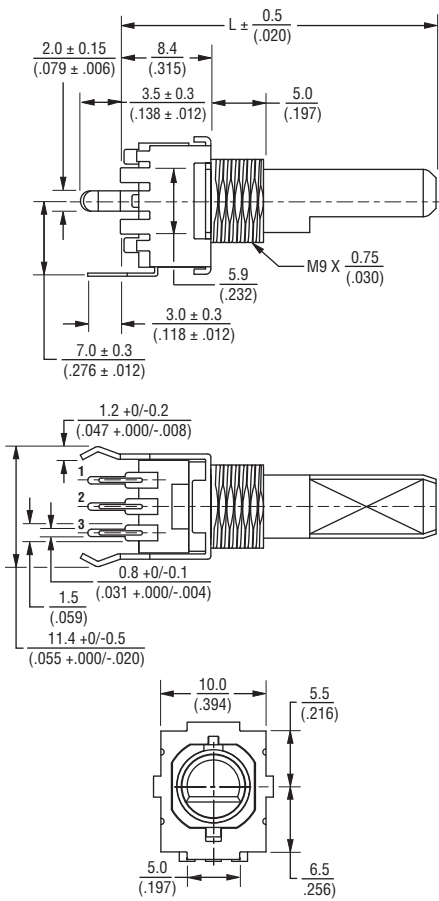
Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.

PTV09 Series - 9 mm Potentiometer

BOURNS®

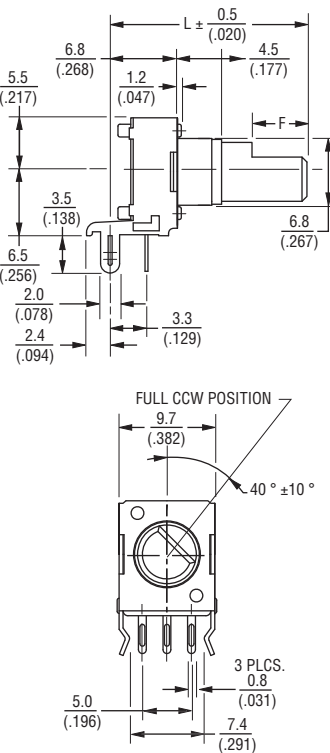
Product Dimensions (Continued)

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



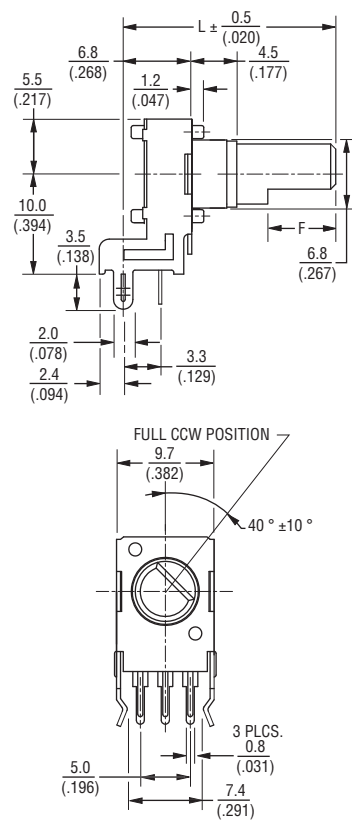
SHAFT SHOWN IN CENTER POSITION

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

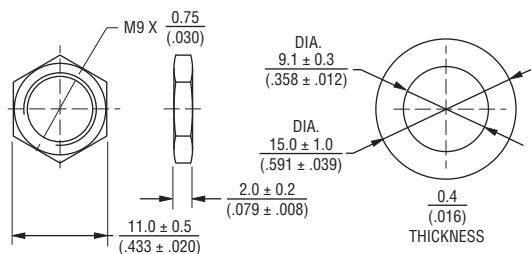


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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



Mounting Hardware



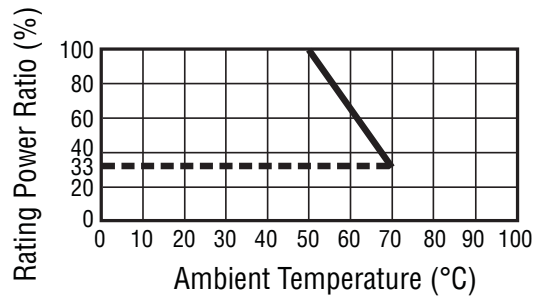
Specifications are subject to change without notice.

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.

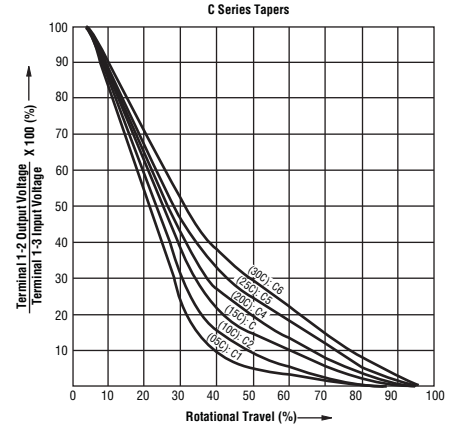
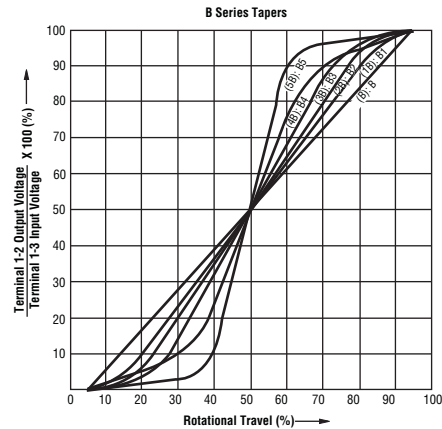
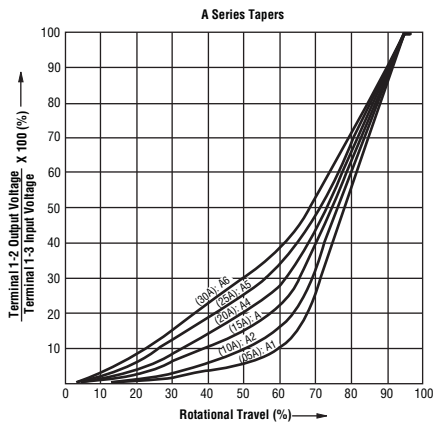
PTV09 Series - 9 mm Potentiometer

BOURNS®

Derating Curve



Tapers



BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

Europe: Tel: +41-41 768 5555 • Fax: +41-41 768 5510

The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700

www.bourns.com

REV. 08/13

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.

Mouser Electronics

Authorized Distributor

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

Bourns:

<u>PTV09A-4020F-B203</u>	<u>PTV09A-4025F-B103</u>	<u>PTV09A-4025F-B503</u>	<u>PTV09A-4020U-B104</u>	<u>PTV09A-2025F-B103</u>
<u>PTV09A-2020U-A102</u>	<u>PTV09A-4015U-B103</u>	<u>PTV09A-4020U-B103</u>	<u>PTV09A-4025U-B103</u>	<u>PTV09A-4220U-B103</u>
<u>PTV09A-2015F-B103</u>	<u>PTV09A-2015F-B502</u>	<u>PTV09A-2015F-B503</u>	<u>PTV09A-2015F-B504</u>	<u>PTV09A-2020F-A102</u>
<u>PTV09A-2020F-A103</u>	<u>PTV09A-2020F-A104</u>	<u>PTV09A-2020F-A203</u>	<u>PTV09A-2020F-A502</u>	<u>PTV09A-2020F-A503</u>
<u>PTV09A-2020F-B102</u>	<u>PTV09A-2020F-B103</u>	<u>PTV09A-2020F-B104</u>	<u>PTV09A-2020F-B502</u>	<u>PTV09A-2020F-B503</u>
<u>PTV09A-2025U-A104</u>	<u>PTV09A-4015F-A103</u>	<u>PTV09A-4015F-B102</u>	<u>PTV09A-4015F-B103</u>	<u>PTV09A-4015F-B104</u>
<u>PTV09A-4015F-B502</u>	<u>PTV09A-4015U-A204</u>	<u>PTV09A-4020F-A103</u>	<u>PTV09A-4020F-A203</u>	<u>PTV09A-4020F-A502</u>
<u>PTV09A-4020F-A504</u>	<u>PTV09A-4020F-B102</u>	<u>PTV09A-4020F-B103</u>	<u>PTV09A-4020F-B104</u>	<u>PTV09A-4020F-B202</u>
<u>PTV09A-4020F-B502</u>	<u>PTV09A-4020F-B503</u>	<u>PTV09A-4025F-A203</u>	<u>PTV09A-4025F-B102</u>	<u>PTV09A-4030U-A204</u>
<u>PTV09A-4030U-B203</u>	<u>PTV09A-4030U-B204</u>	<u>PTV09A-4030U-B502</u>	<u>PTV09A-40AAF-B503</u>	<u>PTV09A-40AAG-B503</u>
<u>PTV09A-40AAJ-B502</u>	<u>PTV09A-40ACF-B503</u>	<u>PTV09A-40CAA-B503</u>	<u>PTV09A-40CCB-B503</u>	<u>PTV09A-40CFF-B503</u>
<u>PTV09A-4220F-B103</u>	<u>PTV09A-4220F-B502</u>	<u>PTV09A-4225F-A503</u>	<u>PTV09A-4225F-B102</u>	<u>PTV09A-4225F-B103</u>
<u>PTV09A-4225F-B104</u>	<u>PTV09A-4225F-B203</u>	<u>PTV09A-4225F-B502</u>	<u>PTV09A-4225U-B103</u>	<u>PTV09A-4230U-B502</u>
<u>PTV09A-4015F-B503</u>	<u>PTV09A-4025U-A104</u>	<u>PTV09A-2015S-B253</u>	<u>PTV09A-2025U-A102</u>	<u>PTV09A-2215S-A103</u>
<u>PTV09A-4030F-A104</u>	<u>PTV09A-4030S-A102</u>	<u>PTV09A-2020S-B502</u>	<u>PTV09A-4020S-A105</u>	<u>PTV09A-4020U-B203</u>
<u>PTV09A-1020F-A203</u>	<u>PTV09A-4030F-B103</u>	<u>PTV09A-4020S-B504</u>	<u>PTV09A-2015S-B102</u>	<u>PTV09A-3020F-B104</u>
<u>PTV09A-4020S-B503</u>	<u>PTV09A-4020F-B105</u>	<u>PTV09A-4020S-A104</u>	<u>PTV09A-2015F-A503</u>	<u>PTV09A-3020S-B103</u>
<u>PTV09A-4015F-B203</u>	<u>PTV09A-4015F-B204</u>	<u>PTV09A-2015S-A105</u>	<u>PTV09A-4025F-A105</u>	<u>PTV09A-2030U-A102</u>
<u>PTV09A-8020F-B203</u>	<u>PTV09A-2015S-B254</u>	<u>PTV09A-4030F-B503</u>	<u>PTV09A-7020F-B203</u>	<u>PTV09A-4020S-B104</u>
<u>PTV09A-2030F-A103</u>	<u>PTV09A-2015U-A102</u>	<u>PTV09A-4020S-B105</u>	<u>PTV09A-2020S-A103</u>	<u>PTV09A-4225S-B104</u>