



Features

- Carbon element
- Ganging up to 8 sections available
- Knurled, flatted and plain shaft styles
- Audio taper option
- Tracking error within 3 dB
- RoHS compliant*

PTD90 Series - 9 mm Multi-Ganged Potentiometer

Additional Information

Click these links for more information:



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TECHNICAL
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INVENTORY



SAMPLES



CONTACT

Electrical Characteristics

Standard Resistance Range

..... 1 K ohms to 1 M ohms

Total Resistance Tolerance

..... $\pm 10\%$ or $\pm 20\%$

Standard Tapers Linear & audio

Maximum Operating Voltage

..... 150 VAC, 20 VDC

Rated Power

Linear Taper 0.05 watts

Audio Taper 0.025 watts

Noise 100 mV max.

Insulation Resistance @ 250 VDC

..... 100 M ohms

Dielectric Withstanding Voltage

..... 300 VAC

End Resistance 20 ohms max.

Tracking Error (-40 dB to 0 dB) ± 3 dB

Environmental Characteristics

Operating Temperature

..... -10°C to $+50^{\circ}\text{C}$

Rotational Life 15,000 cycles

IP Rating IP 40

Moisture Sensitivity Level 1

ESD Classification (HBM) N/A

Mechanical Characteristics

Mechanical Angle $300^{\circ} \pm 10^{\circ}$

Running Torque 10 to 250 g-cm

Stop Strength 4.0 kg-cm

Shaft Push/Pull Strength 5.0 kgf min.

Shaft Wobble $0.6 \times L/20$ mm p-p max.

Mounting Torque 7.0 kg-cm min.

Soldering Condition

Manual Soldering

..... 96.5 Sn/3.0 Ag/0.5 Cu solid wire

or no-clean rosin cored wire

270 $^{\circ}\text{C}$ max. for 3 seconds

Wave Soldering

..... 96.5 Sn/3.0 Ag/0.5 Cu solder

with no-clean flux

260 $^{\circ}\text{C}$ max. for 5 seconds

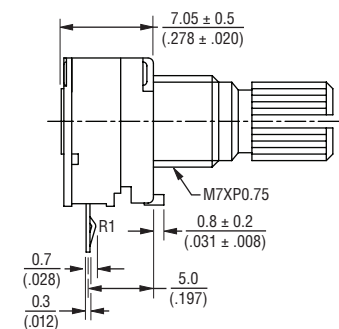
Wash Process Not recommended

Mounting Hardware One flat washer

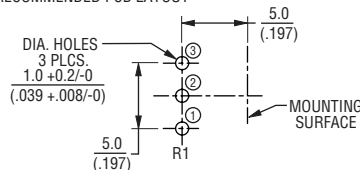
and one mounting nut supplied
per potentiometer

Product Dimensions

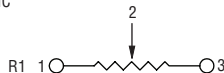
PTD901



RECOMMENDED PCB LAYOUT

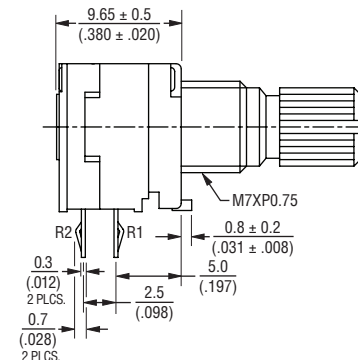


SCHEMATIC

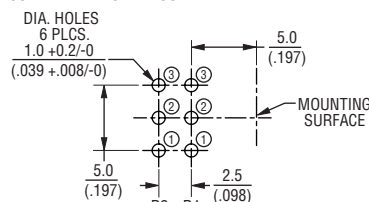


DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

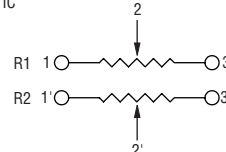
PTD902



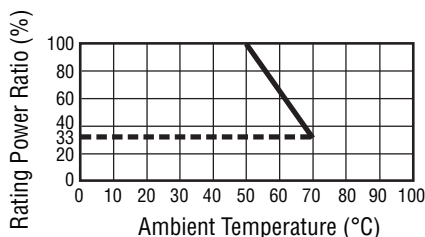
RECOMMENDED PCB LAYOUT



SCHEMATIC



Derating Curve



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



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

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

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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Applications

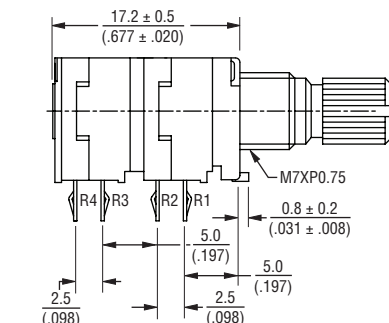
- Audio/TV sets
- Amplifiers/mixers/drum machines/synthesizers/DJ equipment
- Multimedia sound systems
- Portable electronics

PTD90 Series - 9 mm Multi-Ganged Potentiometer

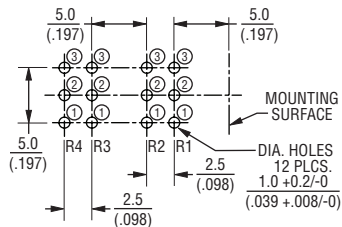
BOURNS®

Product Dimensions

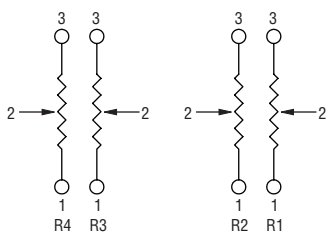
PTD904



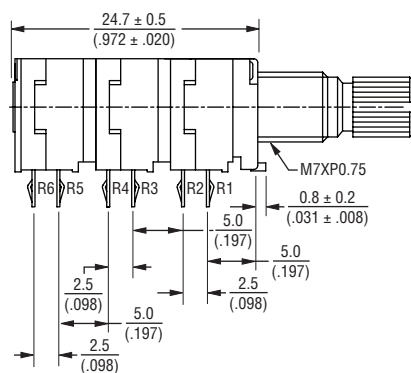
RECOMMENDED PCB LAYOUT



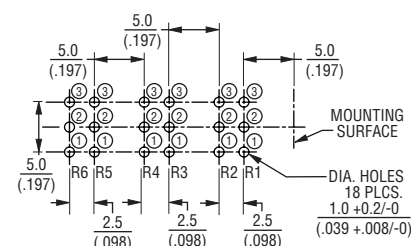
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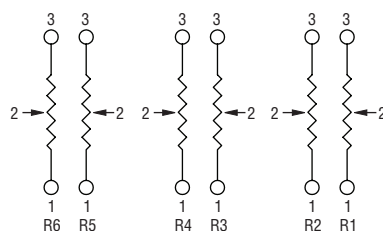
PTD906



RECOMMENDED PCB LAYOUT

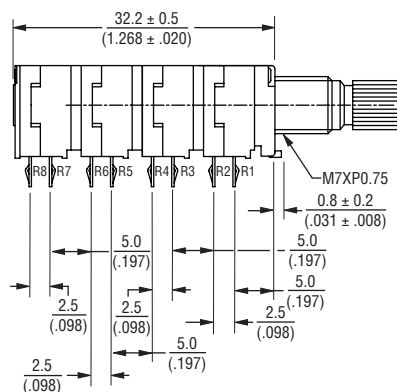


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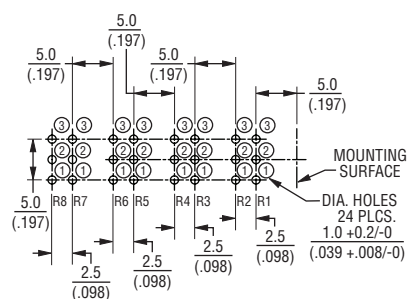


DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

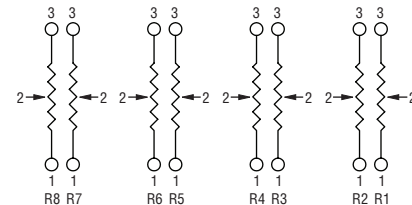
PTD908



RECOMMENDED PCB LAYOUT



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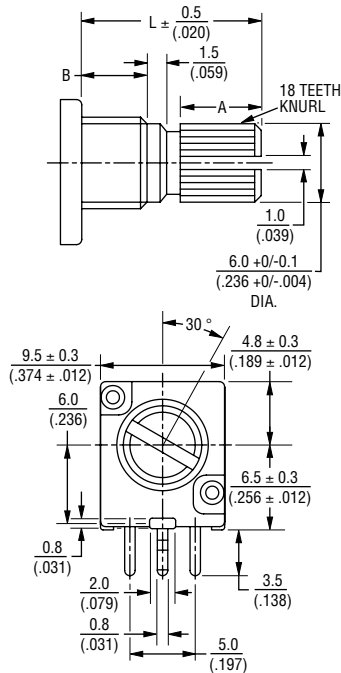
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PTD90 Series - 9 mm Multi-Ganged Potentiometer

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Product Dimensions

SHAFT STYLE "K"

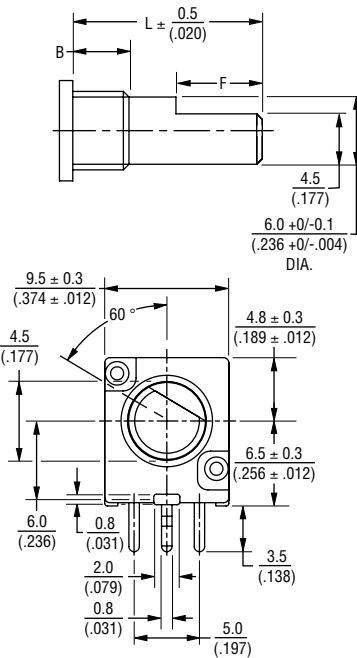


SHAFT SHOWN IN CCW POSITION

L	15 (.591)	20 (.787)	25 (.984)
B	5 (.197)	7 (.276)	10 (.394)
A	6 (.236)	10 (.394)	12 (.472)

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

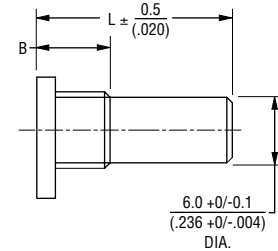
SHAFT STYLE "F"



SHAFT SHOWN IN CCW POSITION

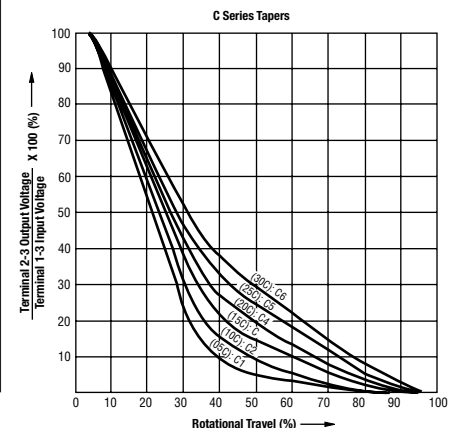
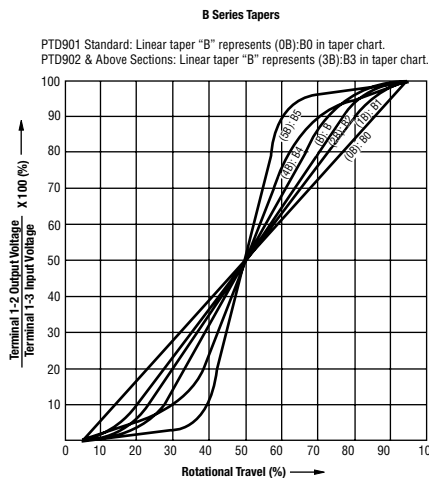
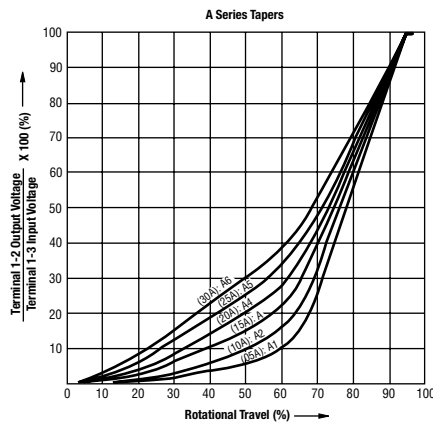
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
B	5 (.197)	7 (.276)	10 (.394)	10 (.394)
F	7 (.276)	12 (.472)	12 (.472)	12 (.472)

SHAFT STYLE "P"



L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
B	5 (.197)	7 (.276)	10 (.394)	10 (.394)

Tapers



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PTD90 Series - 9 mm Multi-Ganged Potentiometer

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Product Dimensions

How To Order

PTD90 1 - 2 0 20 K - B 203

Model _____

- PTD90 =
No Switch

No. of Sections _____

- 1 = 1 Section
- 2 = 2 Sections
- 3 = 3 Sections
- 4 = 4 Sections
- 5 = 5 Sections
- 6 = 6 Sections
- 8 = 8 Sections

Pin Style _____

- 1 = PC Pins vertical/
down facing
and $\pm 10\%$
Total Resistance
Tolerance
- 2 = PC Pins vertical/
down facing
and $\pm 20\%$
Total Resistance
Tolerance

Center Detent Option _____

- 0 = No Detent
- 2 = Center Detent

Standard Shaft Length _____

- 15 = 15 mm
- 20 = 20 mm
- 25 = 25 mm
- 30 = 30 mm

Shaft Styles _____

- K = Knurled Type Shaft (Metal)
18 Toothed Serration Type
- F = Flatted Metal Shaft
- P = Plain Metal Shaft

Resistance Taper (See Taper Charts) _____
Taper Series followed by Curve Number

Resistance Code (See Table) _____

Other shaft styles available.

BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

Europe: Tel: +36 88 885 877 • Email: euocus@bourns.com

Mexico: Tel: +52 614 478 0400 • Email: mexicus@bourns.com

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