

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:



Electrical Characteristics

Standard Resistance Range 1 K ohms to 1 M ohms
 Total Resistance Tolerance ±10 % or ±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

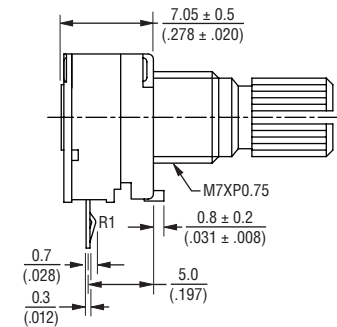
Operating Temperature -10 °C to +50 °C
 Rotational Life 15,000 cycles
 IP Rating IP 40
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Mechanical Characteristics

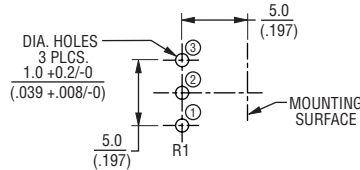
Mechanical Angle 300 ° ±10 °
 Running Torque 10 to 250 g-cm
 Stop Strength 4.0 kg-cm
 Shaft Push/Pull Strength 5.0 kgf min.
 Shaft Wobble 0.6 x L/20 mm p-p max.
 Mounting Torque 7.0 kg-cm min.
 Soldering Condition
 Manual Soldering
 96.5 Sn/3.0 Ag/0.5 Cu solid wire
 or no-clean rosin cored wire
 270 °C max. for 3 seconds
 Wave Soldering
 96.5 Sn/3.0 Ag/0.5 Cu solder
 with no-clean flux
 260 °C max. for 5 seconds
 Wash Process Not recommended
 Mounting Hardware One flat washer
 and one mounting nut supplied
 per potentiometer

Product Dimensions

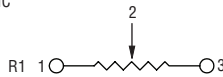
PTD901



RECOMMENDED PCB LAYOUT

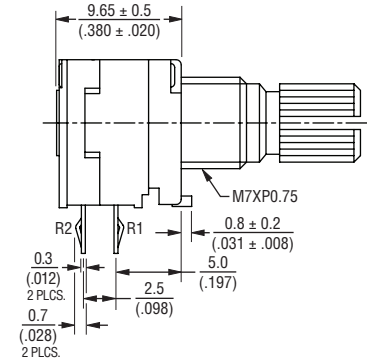


SCHEMATIC

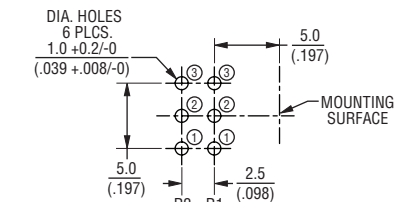


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

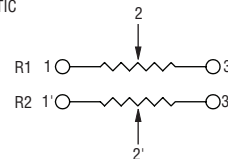
PTD902



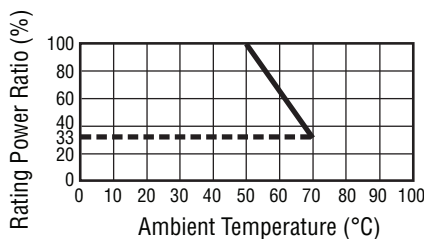
RECOMMENDED PCB LAYOUT



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

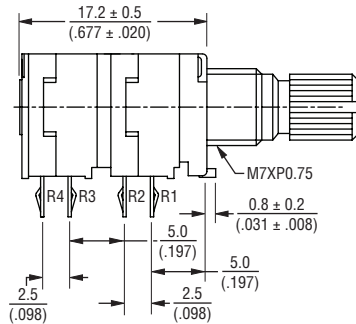
- Audio/TV sets
- Amplifiers/mixers/drum machines/synthesizers/DJ equipment
- Multimedia sound systems
- Portable electronics

PTD90 Series - 9 mm Multi-Ganged Potentiometer

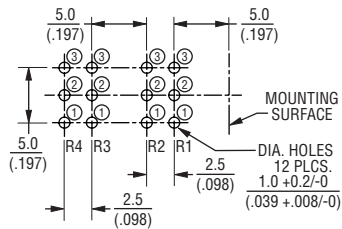
BOURNS®

Product Dimensions

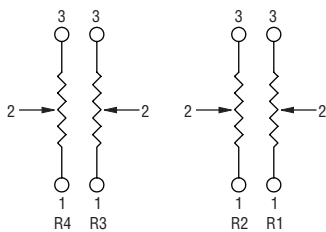
PTD904



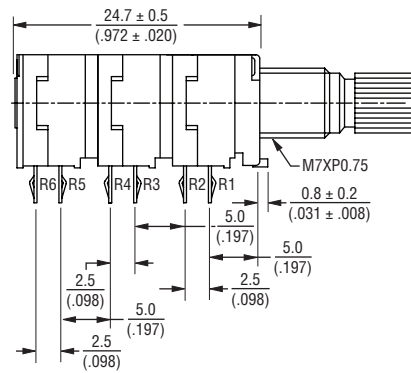
RECOMMENDED PCB LAYOUT



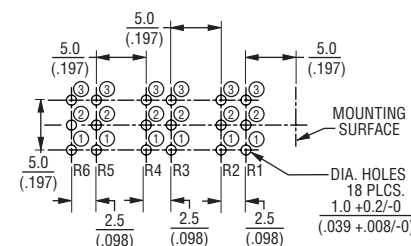
SCHEMATIC



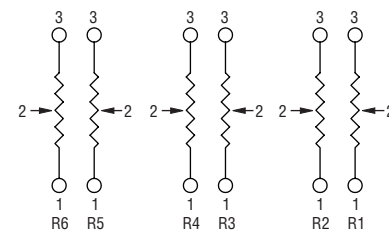
PTD906



RECOMMENDED PCB LAYOUT

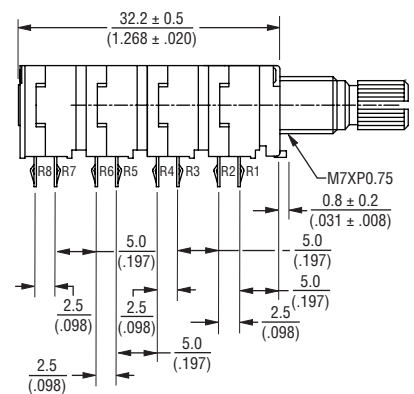


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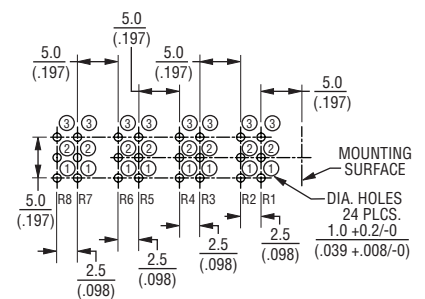


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

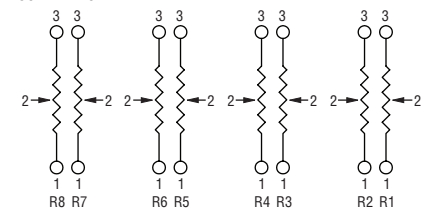
PTD908



RECOMMENDED PCB LAYOUT



SCHEMATIC



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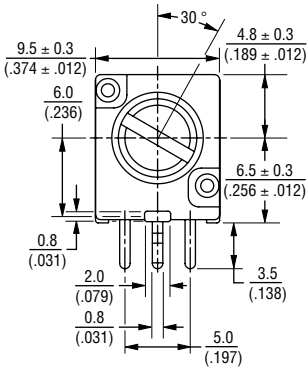
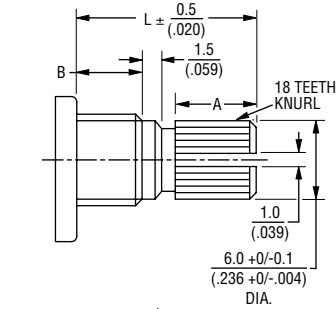
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PTD90 Series - 9 mm Multi-Ganged Potentiometer

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Product Dimensions

SHAFT STYLE "K"

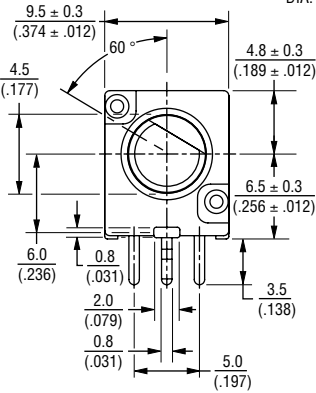
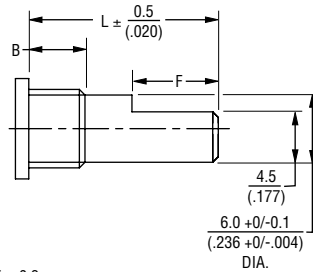


SHAFT SHOWN IN CCW POSITION

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

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

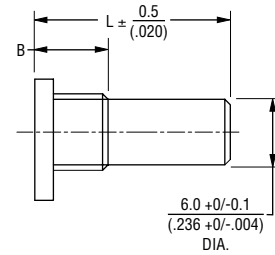
SHAFT STYLE "F"



SHAFT SHOWN IN CCW POSITION

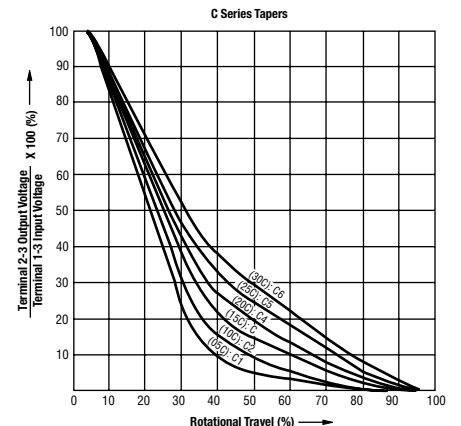
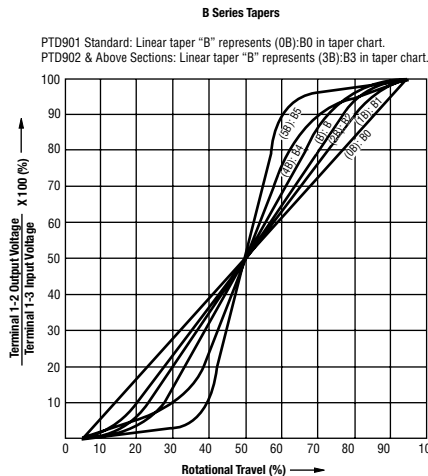
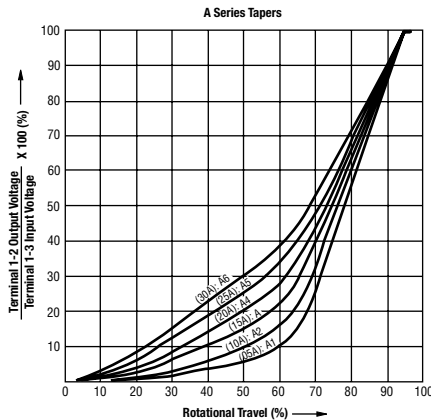
L	$\frac{15}{(.591)}$	$\frac{20}{(.787)}$	$\frac{25}{(.984)}$	$\frac{30}{(1.181)}$
B	$\frac{5}{(.197)}$	$\frac{7}{(.276)}$	$\frac{10}{(.394)}$	$\frac{10}{(.394)}$
F	$\frac{7}{(.276)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$	$\frac{12}{(.472)}$

SHAFT STYLE "P"



L	$\frac{15}{(.591)}$	$\frac{20}{(.787)}$	$\frac{25}{(.984)}$	$\frac{30}{(1.181)}$
B	$\frac{5}{(.197)}$	$\frac{7}{(.276)}$	$\frac{10}{(.394)}$	$\frac{10}{(.394)}$

Tapers



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PTD90 Series - 9 mm Multi-Ganged Potentiometer

BOURNS®

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: eurocus@bourns.com

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

The Americas: Tel: +1-951 781-5500 • Email: americus@bourns.com

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REV. 04/24

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