

Features

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



PTD90 Series - 9 mm Multi-Ganged Potentiometer

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

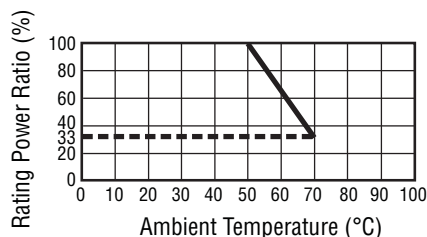
Environmental Characteristics

Operating Temperature	..... -10 °C to +50 °C
Rotational Life	..... 15,000 cycles
IP Rating	..... IP 40

Mechanical Characteristics

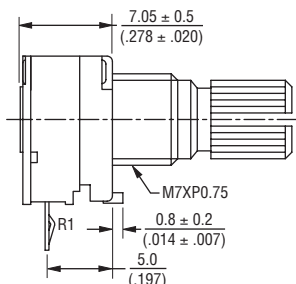
Mechanical Angle	..... 300 ° ±10 °
Running Torque	..... 10 to 250 g-cm
Stop Strength	..... 4.0 kg-cm
Shaft Push/Pull Strength	..... 5.0 kgf min.
Shaft Wobble	..... 0.6 x L/20 mm p-p max.
Mounting Torque	..... 7.0 kg-cm min.
Soldering Condition	
Manual Soldering	
..... 96.5 Sn/3.0 Ag/0.5 Cu solid wire	
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

Derating Curve

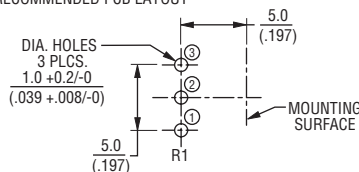


Product Dimensions

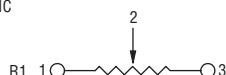
PTD901



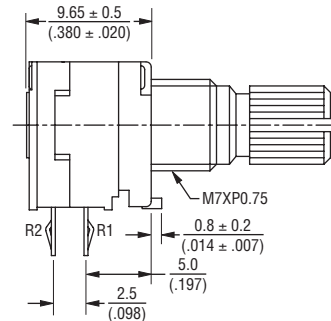
RECOMMENDED PCB LAYOUT



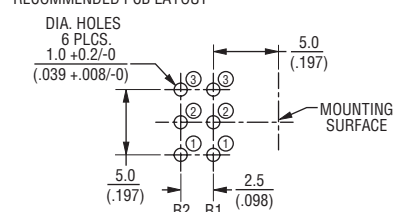
SCHEMATIC



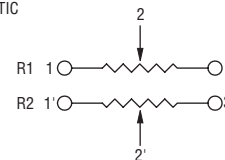
PTD902



RECOMMENDED PCB LAYOUT



SCHEMATIC



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

*RoHS Directive 2002/95/EC Jan 27 2003 including Annex Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

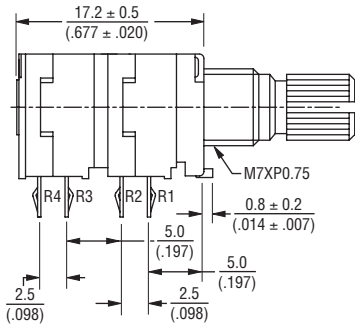
Applications

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

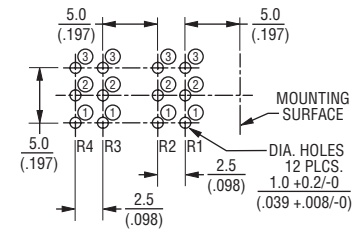
PTD90 Series - 9 mm Multi-Ganged Potentiometer BOURNS®

Product Dimensions

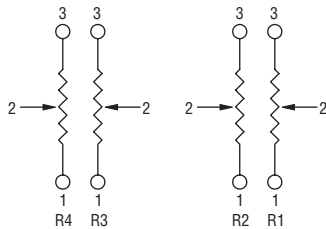
PTD904



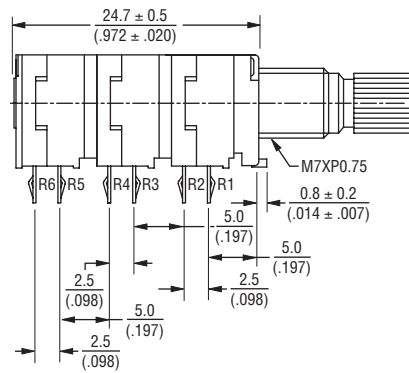
RECOMMENDED PCB LAYOUT



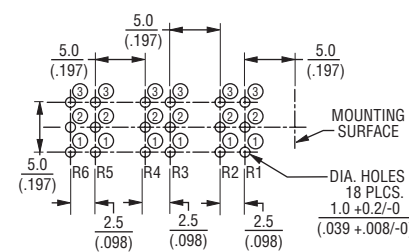
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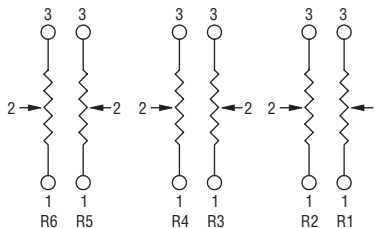
PTD906



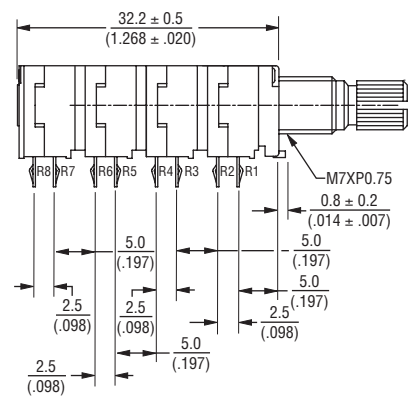
RECOMMENDED PCB LAYOUT



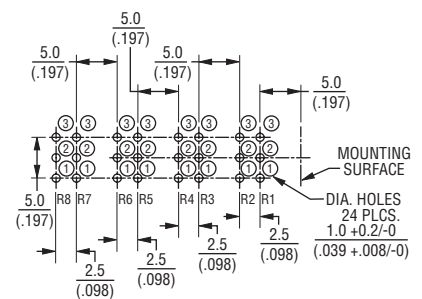
SCHEMATIC



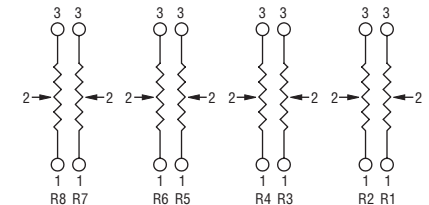
PTD908



RECOMMENDED PCB LAYOUT



SCHEMATIC



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

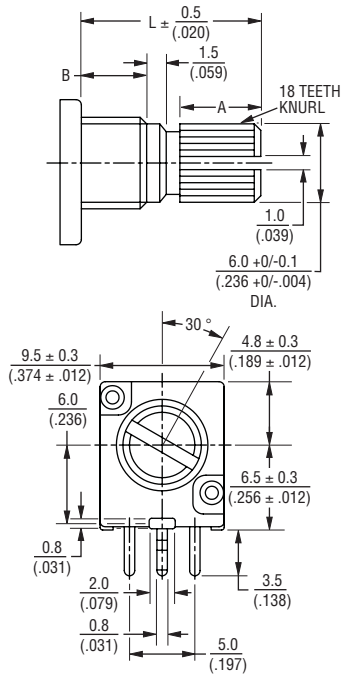
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PTD90 Series - 9 mm Multi-Ganged Potentiometer

BOURNS®

Product Dimensions

SHAFT STYLE "K"

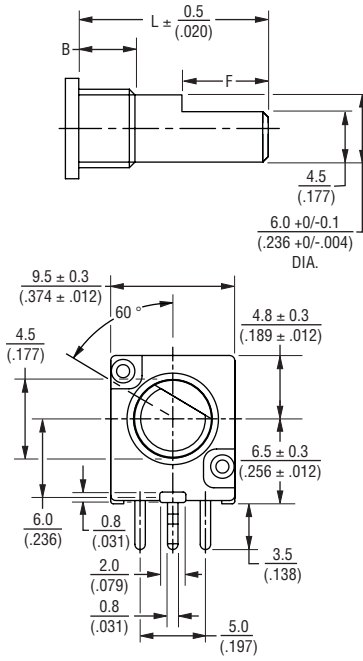


SHAFT SHOWN IN CCW POSITION

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)
B	5 (.197)	7 (.276)	10 (.394)
F	7 (.276)	12 (.472)	12 (.472)

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
- Shaft Styles _____
- K = Knurled Type Shaft (Metal) 18 Toothed Serration Type
 - F = Flatted Metal Shaft
- Resistance Taper _____
- A = Audio Taper
 - B = Linear Taper
- Resistance Code (See Table) _____
- Other taper and shaft styles available.

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

REV. 05/10

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