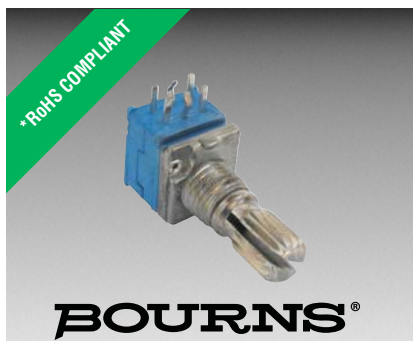




Features

- 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
..... $\pm 10\%$ 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

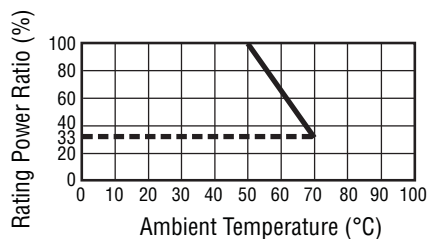
Environmental Characteristics

Operating Temperature
..... -10°C to $+50^\circ\text{C}$
Rotational Life 15,000 cycles
IP Rating IP 40

Mechanical Characteristics

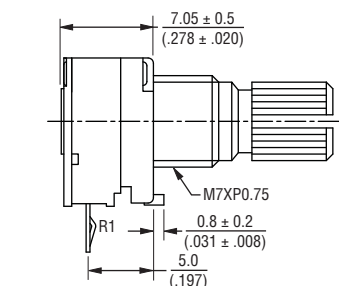
Mechanical Angle $300^\circ \pm 10^\circ$
Running Torque 10 to 250 g-cm
Stop Strength 4.0 kg-cm
Shaft Push/Pull Strength 5.0 kgf min.
Shaft Wobble $0.6 \times L/20$ mm p-p max.
Mounting Torque 7.0 kg-cm min.
Soldering Condition
Manual Soldering
..... 96.5 Sn/3.0 Ag/0.5 Cu solid wire
or no-clean rosin 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

Derating Curve

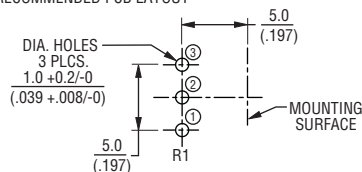


Product Dimensions

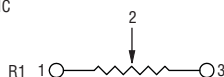
PTD901



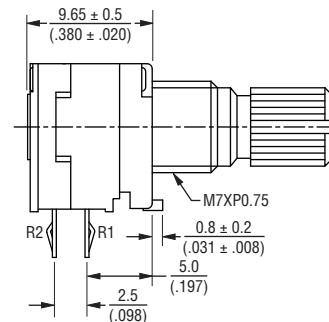
RECOMMENDED PCB LAYOUT



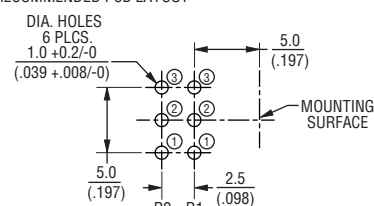
SCHEMATIC



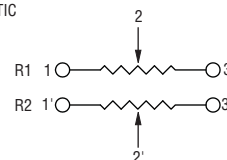
PTD902



RECOMMENDED PCB LAYOUT



SCHEMATIC



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

Applications

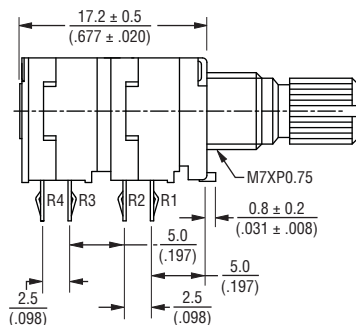
- Audio/TV sets
- Automotive sound systems
- Amplifiers/mixers/drum machines/synthesizers/DJ equipment
- Multimedia sound systems
- Portable electronics

PTD90 Series - 9 mm Multi-Ganged Potentiometer

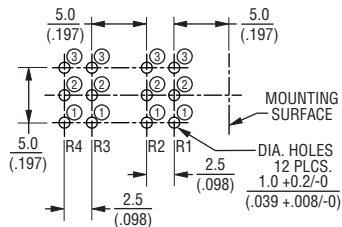
BOURNS®

Product Dimensions

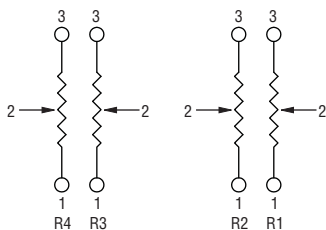
PTD904



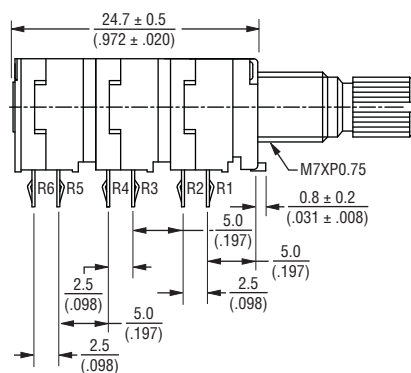
RECOMMENDED PCB LAYOUT



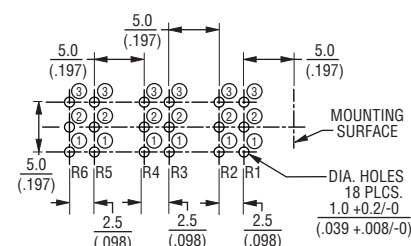
SCHEMATIC



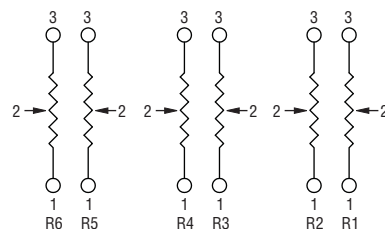
PTD906



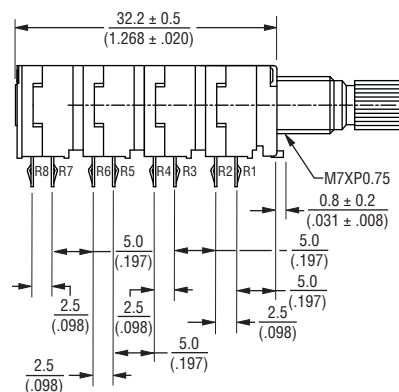
RECOMMENDED PCB LAYOUT



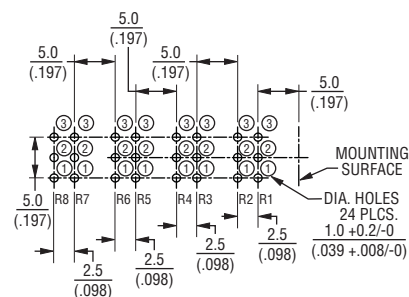
SCHEMATIC



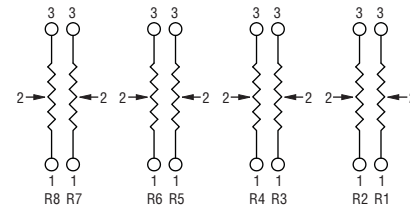
PTD908



RECOMMENDED PCB LAYOUT



SCHEMATIC



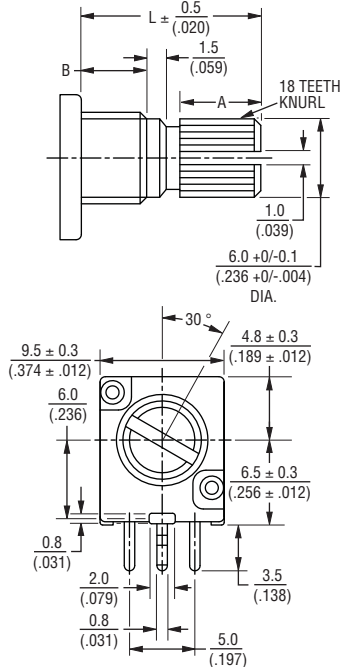
DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

PTD90 Series - 9 mm Multi-Ganged Potentiometer

BOURNS®

Product Dimensions

SHAFT STYLE "K"

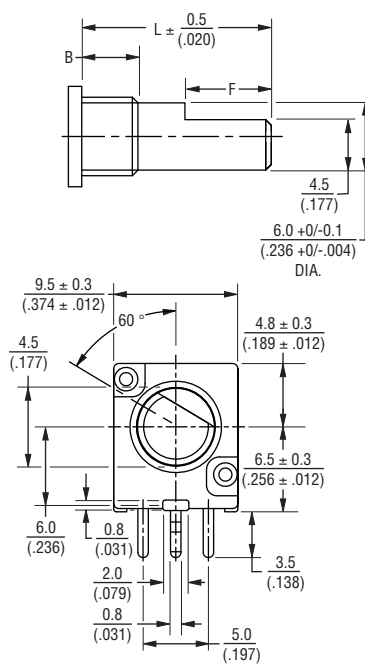


SHAFT SHOWN IN CCW POSITION

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. 01/13

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.