

PTH90 Series Dual Concentric Shaft Panel Control w/Rotary Switch

Standard Resistance Range	1K ohms to 1 megohm
Standard Resistance Tolerance	
R < 250K ohms	±20 %
R ≥ 250K ohms	±30 %
End Resistance	
R < 50K ohms	30 ohms max.
R ≥ 50K ohms	0.1 % of TR max.
Insulation Resistance @ 250 VDC	
	100 megohms min.
Dielectric Withstanding Voltage	300 VAC
Standard Taper	Linear, Audio
Power Rating	
Linear	0.05 watt
Audio	0.05 watt
Slider Noise	100 mV max.
Operating Voltage	50 VAC / 10 VDC

Operational Life 15,000 cycles
TR Shift $\pm 15\%$
Operating Temperature Range
..... -10°C to $+55^{\circ}\text{C}$
Resistance to Solder Heat $\pm 5\%$
IP Rating IP 40

Mechanical Angle 300 ° ±3 °
Operating Torque 20~250 gf·cm
Stop Strength..... 5 kgf·cm max.
Mounting Torque..... 10 kgf·cm max.
Shaft Push/Pull Strength 10 kgf max.

Soldering Condition

Manual 300 °C ±5 °C for 3 sec.
Wave 260 °C ±5 °C for 5 sec.
Wash Not recommended

Hardware One flat washer and
one mounting nut supplied with
each potentiometer

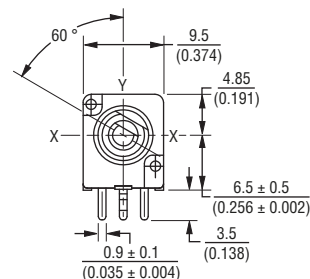
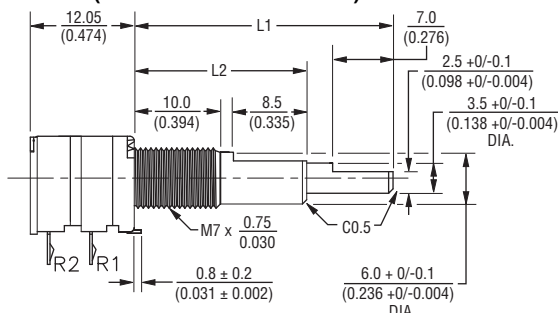
Power Rating	3 A @ 16 VDC
Contact Resistance	100 milliohms
Dielectric Strength	
Bushing to Terminals	300 VAC
Switch Terminals	50 VAC
Insulation Resistance	
Bushing to Terminals @ 250 VAC	100 megohms
Switch Terminals @ 50 VAC	10 megohms
Switch Type	Rotary
Contact Arrangement	SPST
Switching Angle	50 ° max.
Detent Torque	500 kgf-cm
Operating Life	10,000 cycles



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

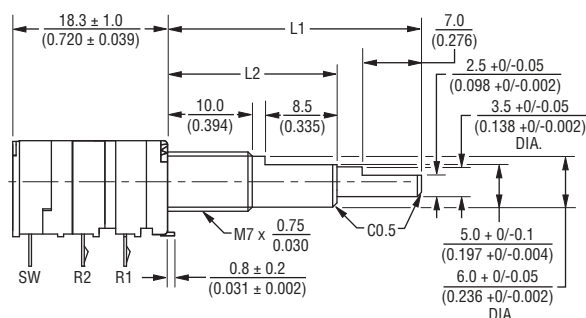
* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf

PTH901 (Shown with Flatted Shaft)



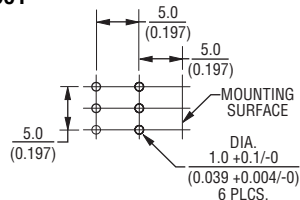
L1	L2
$\frac{30.0}{(1.181)}$	$\frac{20.0}{(.787)}$
$\frac{35.0}{(1.378)}$	$\frac{25.0}{(.984)}$

PTH902 (Shown with Flatted Shaft)

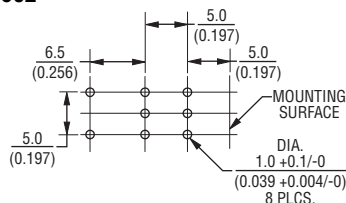


L1	L2
30.0 (1.181)	20.0 (.787)
35.0 (1.378)	25.0 (.984)

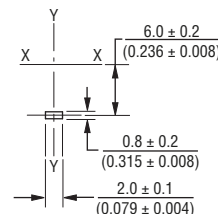
PTH901



PTH902

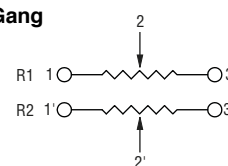


Locating Lug Detail



Schematic

Dual Gang



Switch Circuit



Applications

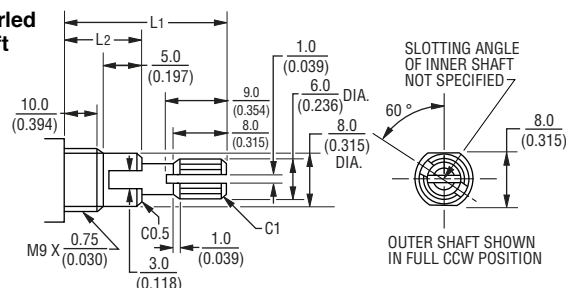
- Multimedia sound systems
- Mixers / drums / DJ equipment
- Portable electronics
- Portable appliances

PTH90 Series Dual Concentric Shaft Panel Control w/Rotary Switch

BOURNS®

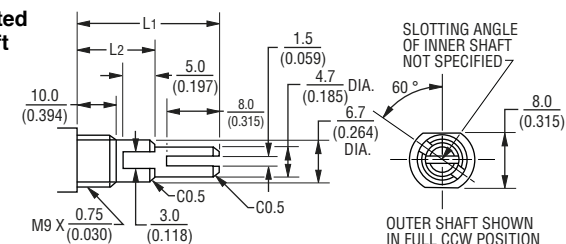
Additional Shaft Styles

Knurled Shaft



L1	L2
30.0 (1.181)	20.0 (.787)
35.0 (1.378)	25.0 (.984)

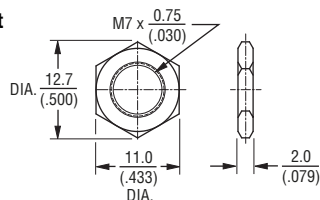
Slotted Shaft



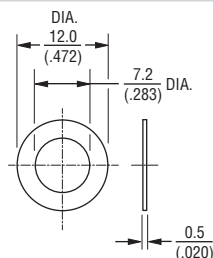
L1	L2
30.0 (1.181)	20.0 (.787)
35.0 (1.378)	25.0 (.984)
40.0 (1.575)	25.0 (.984)

Hardware

Nut



Washer



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

How To Order

PTH90 2 - 0 30 F - 103 B2

Model Number Designator
PTH90 = Dual Concentric Shaft Panel Control

Number of Sections
1 = Dual Gang, No Switch
2 = Dual Gang w/Rotary Switch

Center Detent
0 = No Detent
1 = Center Detent

Shaft Length (FMS)
30 = 30 mm
35 = 35 mm
40 = 40 mm

Shaft Style
F = Flatted Metal
S = Slotted Metal
K = Knurled (18 tooth serrated)

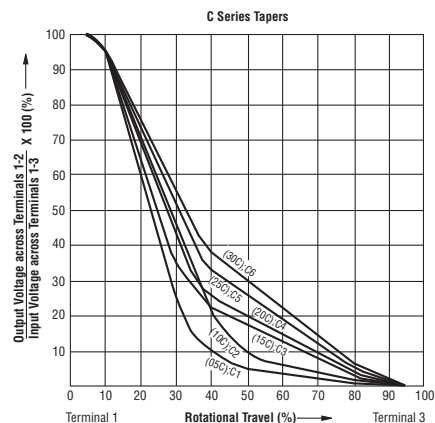
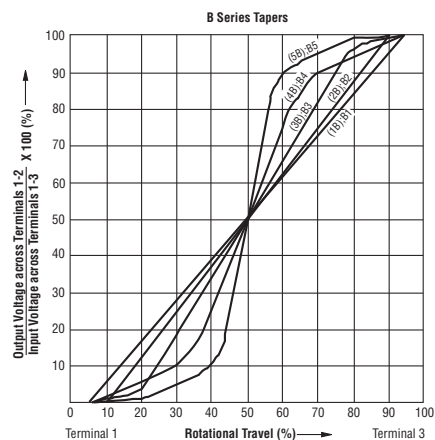
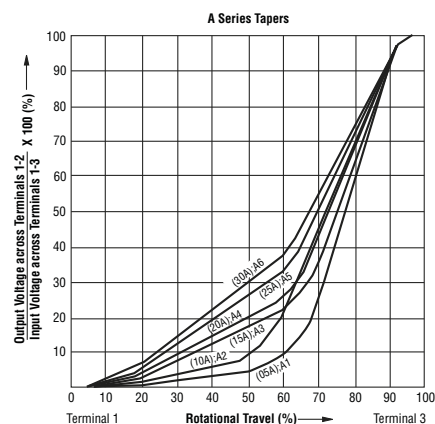
Resistance Code
(See Standard Resistance Table)

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

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

Tapers



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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REV. 11/18

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<u>PTH902-130K-504B2</u>	<u>PTH902-135K-502B2</u>	<u>PTH902-140K-105B2</u>	<u>PTH902-040S-102B2</u>	<u>PTH902-135S-104B2</u>
<u>PTH902-135K-503B2</u>	<u>PTH902-035S-502B2</u>	<u>PTH902-130S-202B2</u>	<u>PTH902-030S-104B2</u>	<u>PTH902-130F-502B1</u>
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<u>PTH902-135F-202B2</u>	<u>PTH902-035S-503B2</u>	<u>PTH902-040K-204B2</u>	<u>PTH902-035K-104B2</u>	<u>PTH902-035F-504B2</u>