



Features

- Carbon element
- Assortment of resistance tapers
- Variety of shaft lengths
- Dual gang element
- Flatted, slotted and knurled shaft styles
- Center detent option



PTH90 Series Dual Concentric Shaft Panel Control w/Rotary Switch

Electrical Characteristics

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

Environmental Characteristics

Operational Life 15,000 cycles
 TR Shift ±15 %
 Operating Temperature Range
 -10 °C to +55 °C
 Resistance to Solder Heat ±5 %
 IP Rating IP 40

Mechanical Characteristics

Mechanical Angle 300 ° ±3 °
 Operating Torque 20~250 gf-cm
 Stop Strength 10 kgf-cm min.
 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

Switch Characteristics

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

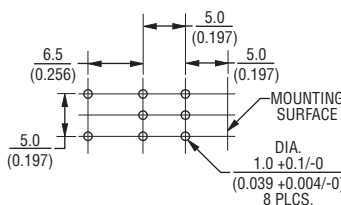
Product Dimensions

(Shown with Flatted Shaft)

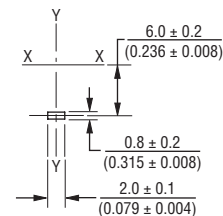


L1	L2
30.0 (1.181)	20.0 (.787)
35.0 (1.378)	25.0 (.984)

Mounting Hole Detail



Locating Lug Detail



Additional Shaft Styles

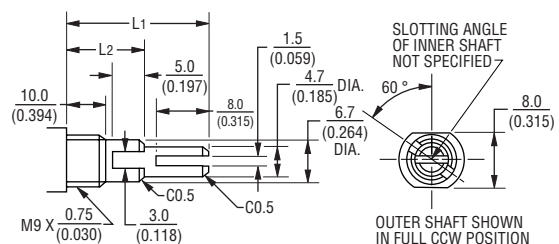
Knurled Shaft



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

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

Slotted Shaft



L1	L2
35.0 (1.378)	21.0 (.827)
40.0 (1.575)	26.0 (1.024)

*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

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

PTH90 Series Dual Concentric Shaft Panel Control w/Rotary Switch



Hardware



Tapers



How To Order

PTH90 2 - 0 30 F - 103 B2

- Model Number
 - Designator
 - PTH90 = Dual Concentric Shaft Panel Control w/Rotary Switch
 - Number of Sections
 - 2 = Dual Gang
 - 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
- *Flatted and knurled shafts only.

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

Schematic

Dual Gang



Switch Circuit

