



BOURNS®

Features

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



PTM90 Series Panel Control w/Push-Push Switch

Electrical Characteristics

Standard Resistance Range	..... 1K ohms to 1 megohm
Standard Resistance Tolerance	..... $R < 250\text{K}$ ohms $\pm 20\%$
	$R \geq 250\text{K}$ ohms $\pm 30\%$
End Resistance	..... $R < 50\text{K}$ ohms 30 ohms max.
	$R \geq 50\text{K}$ ohms 0.1 % of TR max.
Insulation Resistance @ 250 VDC	..... 100 megohms min.
Dielectric Withstanding Voltage	....300 VAC
Tracking Error (-40 dB to 0 dB) ± 3 dB
Standard Taper	..... Linear, Audio
Power Rating	.....
Linear	..... 0.05 watt
Audio	..... 0.025 watt
Slider Noise	..... 100 mV max.
Operating Voltage	..... 50 VAC / 10 VDC

Environmental Characteristics

Operational Life	..... 15,000 cycles
TR Shift ± 15 %
Operating Temp. Range	...-10 °C to +55 °C
Resistance to Solder Heat ± 5 %

IP Rating.....IP 40

Mechanical Characteristics

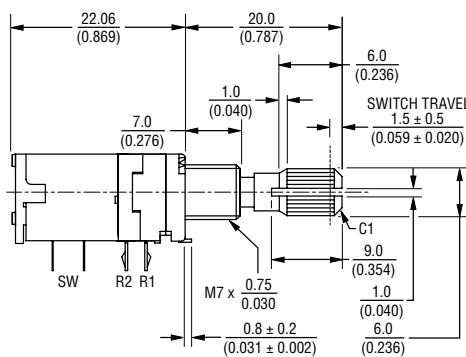
Mechanical Angle	..... 300 ° ± 3 °
Operating Torque	..... 20-250 gf-cm
Stop Strength	..... 5 kgf-cm max.
Mounting Torque	..... 10 kgf-cm max.
Shaft Push/Pull Strength	..... 10 kgf max.
Soldering Condition	
Manual	..... 300 °C ± 5 °C for 3 sec.
Wave	..... 260 °C ± 5 °C for 5 sec.
Wash	..... Not recommended
Hardware	..... One flat washer and one mounting nut supplied with each potentiometer

Switch Characteristics

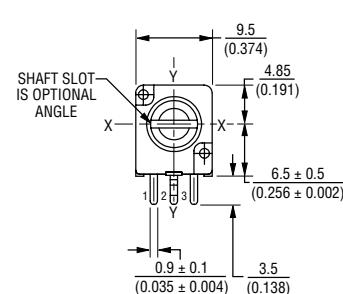
Power Rating	..... 3 A @ 16 VDC
Contact Resistance	..... 100 milliohms
Dielectric Strength	
Bushing to Terminals	..... 300 VAC
Switch Terminals	..... 50 VAC
Insulation Resistance	
Bushing to Terminals @ 250 VAC	..... 100 megohms
Switch Terminals @ 50 VAC	..... 10 megohms
Switch Type	..... Push on - Push off
Contact Arrangement	..... DTSP
Switch Stroke	..... 1.5 ± 0.1 mm
Operating Force	..... 2 kgf max.
Operating Life	..... 10,000 cycles

Product Dimensions

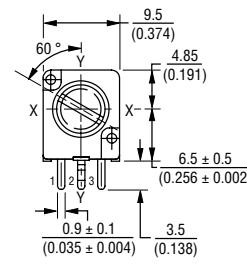
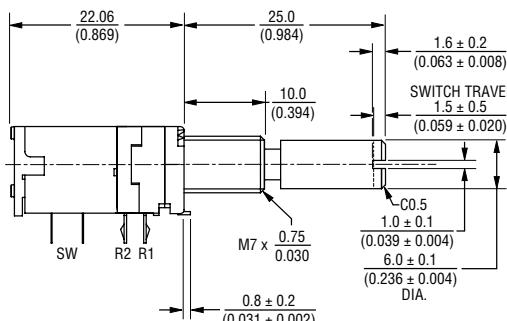
Knurled Shaft



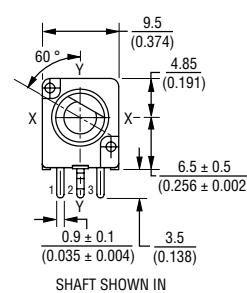
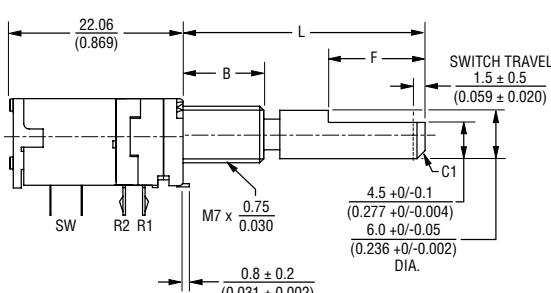
DIMENSIONS: MM
(INCHES)



Slotted Shaft



Flatted Shaft



Dimensions

L	20 (0.787)	30 (1.181)
B	7 (0.276)	10 (0.394)
F	10 (0.694)	12 (0.472)

*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.

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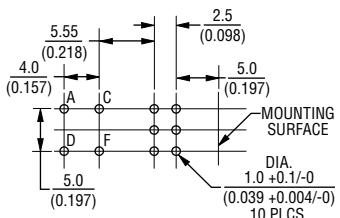


WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

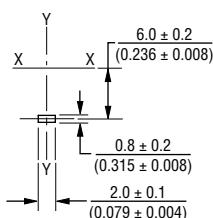
PTM90 Series Panel Control w/Push-Push Switch

BOURNS®

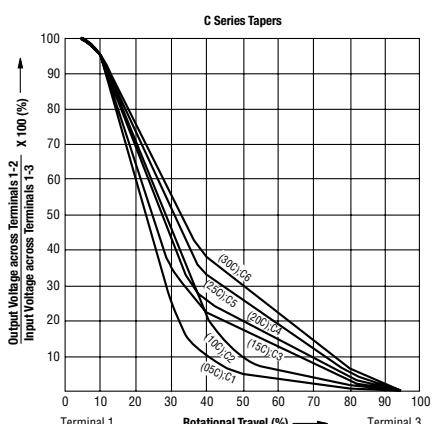
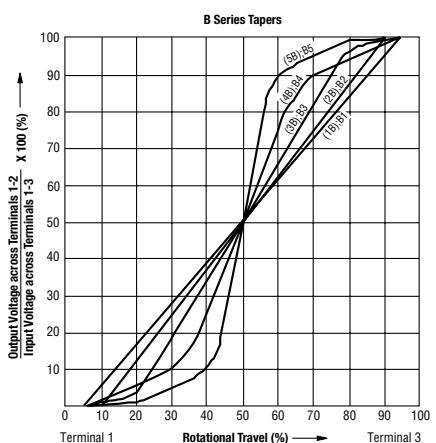
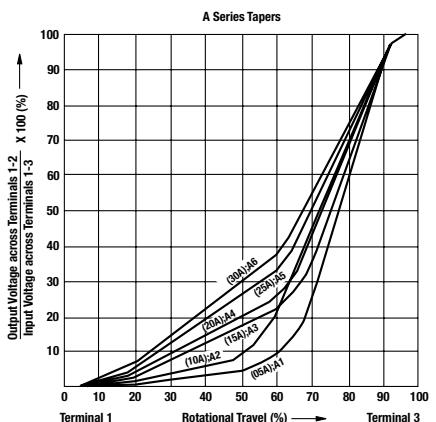
Mounting Hole Detail



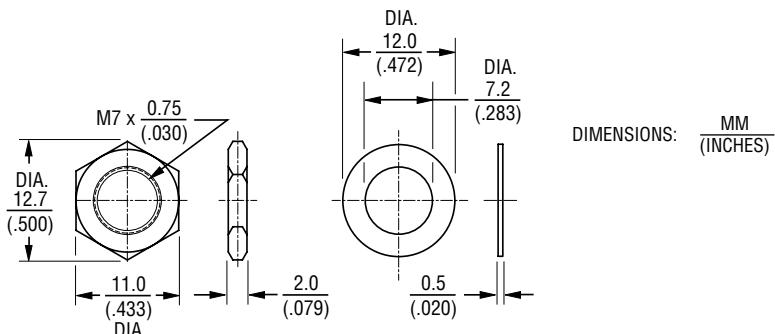
Locating Lug Detail



Tapers



Hardware



How To Order

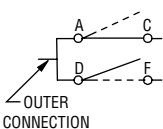
PTM90 2 - 0 25 S - 103 B2

Model Number _____
 Designator
 PTM90 = Panel Control
 w/Push-Push Switch
 Number of Sections
 2 = Dual Gang
 Center Detent
 0 = No Detent
 1 = Center Detent
 Shaft Length (FMS)
 20 = 20 mm (Knurled and Flatted
 shaft)
 25 = 25 mm (Slotted shaft only)
 30 = 30 mm (Flatted shaft only)
 Shaft Style
 F = Flatted Metal
 K = Knurled (18 tooth serrated)
 S = Slotted Metal
 Resistance Code _____
 (See Standard Resistance Table)
 Resistance Taper (See Taper Charts)
 Taper Series followed by Curve Number

Standard Resistance Table

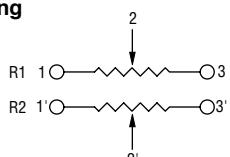
Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105

Switch Circuit



Schematic

Dual Gang



REV. 03/19

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Mouser Electronics

Authorized Distributor

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Bourns:

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PTM902-125S-502B2	PTM902-120F-202B2	PTM902-125S-105B2	PTM902-020S-105B2	PTM902-025K-202B2
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