

## 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 < 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
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 Temperature Range	..... -10 °C to +55 °C
Resistance to Solder Heat	..... ±5 %
IP Rating	..... IP 40

### Mechanical Characteristics

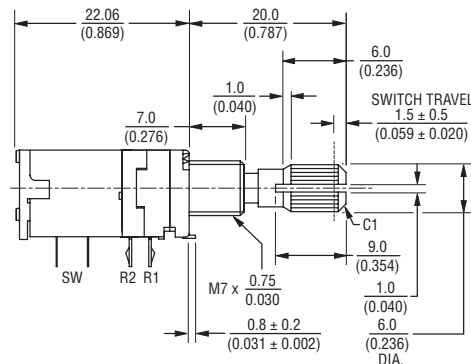
Mechanical Angle	..... 300 ° ±3 °
Operating Torque	..... 20~250 gf-cm
Stop Strength	..... 5 kgf-cm min.
Mounting Torque	..... 10 kgf-cm max.
Shaft Push/Pull Strength	..... 10 kgf max.
Soldering Condition	
Manual	..... 300 °C ±5 °C for 3 sec.
Wave	..... 260 °C ±5 °C for 5 sec.
Wash	..... Not recommended

### Switch Characteristics

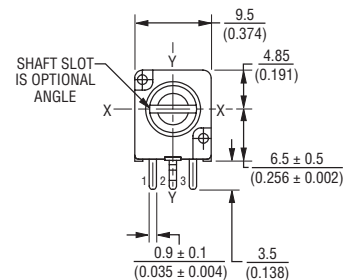
Power Rating	..... 3 A @ 16 VDC
Contact Resistance	..... 100 milliohms
Dielectric Strength	
Bushing to Terminals	..... 300 VAC
Switch Terminals	..... 50 VAC
Insulation Resistance	
Bushing to Terminals @ 250 VAC	..... 100 megohms
Switch Terminals @ 50 VAC	..... 10 megohms
Switch Type	..... Push on - Push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

### Product Dimensions

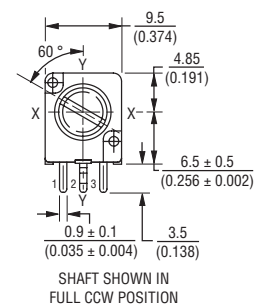
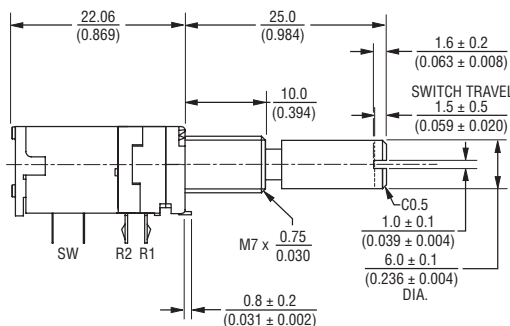
#### 20 mm Length of Travel, Knurled Shaft



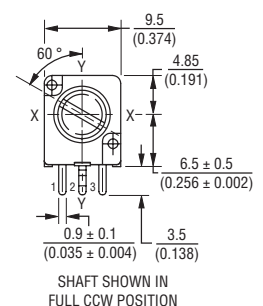
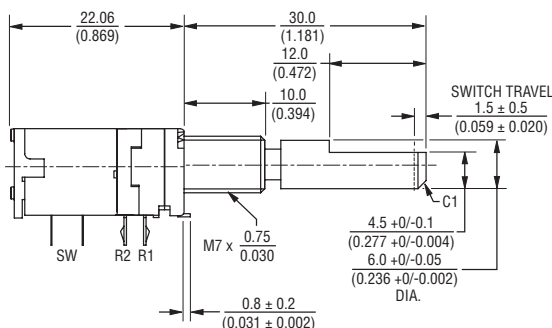
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$



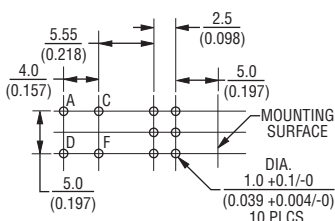
#### 25 mm Length of Travel, Slotted Shaft



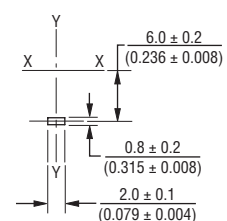
#### 30 mm Length of Travel, Flatted Shaft



### Mounting Hole Detail



### Locating Lug Detail



\*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.

# PTM90 Series Panel Control w/Push-Push Switch

**BOURNS®**

## How To Order

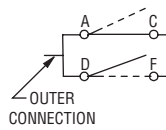
**PTM90 2 - 0 25 S - 103 B2**

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 shaft only)  
 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

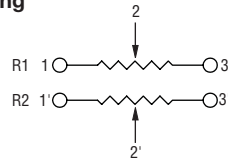
Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105

## Switch Circuit

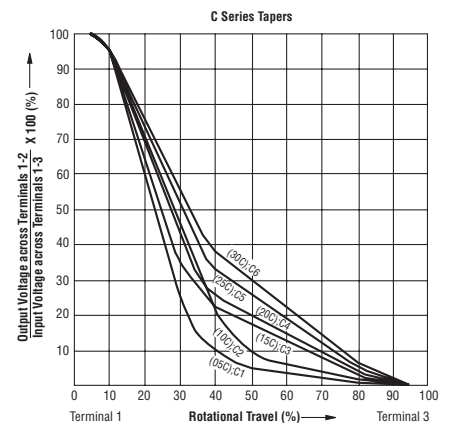
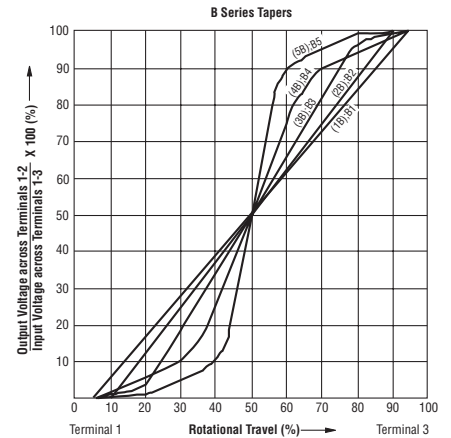
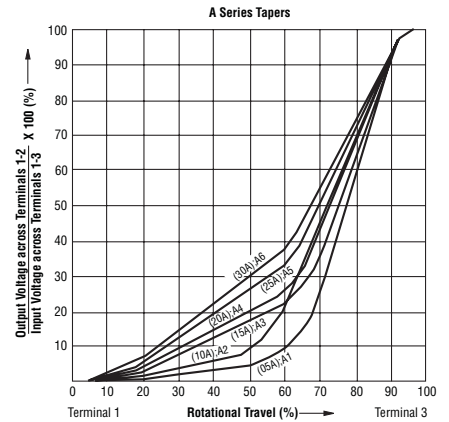


## Schematic

### Dual Gang



## Tapers



REV. 02/10

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