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

---

**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 Temp. Range**
- -10 °C to +55 °C

**Resistance to Solder Heat**
- ±5%

**IP Rating**
- IP 40

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**Mechanical Characteristics**

**Mechanical Angle**
- 300° ±3°

**Operating Torque**
- 20–250 gf-cm

**Mounting Torque**
- 10 kgf-cm max.

**Stop Strength**
- 5 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 washer flat and one mounting nut supplied with each potentiometer

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**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

---

**WARNING** Cancer and Reproductive Harm

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

---

**PTM90 Series Panel Control w/Push-Push Switch**

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**Product Dimensions**

**Knurled Shaft**

**Dimensions:** **MM (INCHES)**

<table>
<thead>
<tr>
<th>L</th>
<th>20 (0.787)</th>
<th>30 (1.181)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>7 (0.276)</td>
<td>10 (0.394)</td>
</tr>
<tr>
<td>F</td>
<td>10 (0.694)</td>
<td>12 (0.472)</td>
</tr>
</tbody>
</table>

---

**Slotted Shaft**

**Dimensions:** **MM (INCHES)**

<table>
<thead>
<tr>
<th>L</th>
<th>20 (0.787)</th>
<th>30 (1.181)</th>
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<tr>
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<td>10 (0.694)</td>
<td>12 (0.472)</td>
</tr>
</tbody>
</table>

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**Flatted Shaft**

**Dimensions:** **MM (INCHES)**

<table>
<thead>
<tr>
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<th>30 (1.181)</th>
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Users should verify actual device performance in their specific applications.
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PTM90 Series Panel Control w/Push-Push Switch

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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

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Resistance Code</th>
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</thead>
<tbody>
<tr>
<td>1,000</td>
<td>102</td>
</tr>
<tr>
<td>2,000</td>
<td>202</td>
</tr>
<tr>
<td>5,000</td>
<td>502</td>
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<tr>
<td>10,000</td>
<td>103</td>
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<tr>
<td>500,000</td>
<td>504</td>
</tr>
<tr>
<td>1,000,000</td>
<td>105</td>
</tr>
</tbody>
</table>

Switch Circuit

Schematic

Dual Gang

REV. 10/19
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