**Features**

- Conductive plastic
- PC board and bushing mount
- Plastic bushing and plastic shaft
- Withstands typical industrial washing processes
- Compact package saves board and panel space
- Audio taper versions available as special order
- RoHS compliant versions available

---

**Electrical Characteristics**

**Standard Resistance Range - Linear**

- 1 K ohms to 1 megohm

**Total Resistance Tolerance - Linear Tapers**

- ±20 %

**Independent Linearity**

- ±5 %

**Absolute Minimum Resistance**

- 2 ohms maximum

**Effective Electrical Angle**

- 270° ±15°

**Contact Resistance Variation**

- 1 % or 1 ohm (whichever is greater)

**Dielectric Withstanding Voltage (MIL-STD-202 – Method 301)**

- 900 VAC minimum

**Sea Level**

- 70,000 Feet

**Insulation Resistance**

- 1,000 megohms minimum

**Power Rating @ 70 °C (Derate to 0 at 125 °C - Voltage Limited By Power Dissipation or 200 VAC, Whichever is Less)**

- 0.25 watts

**Theoretical Resolution**

- Essentially infinite

---

**Environmental Characteristics**

**Operating Temperature Range**

- -40 °C to +125 °C (-40 °F to +257 °F)

**Storage Temperature Range**

- -55 °C to +125 °C (-67 °F to +257 °F)

**Vibration**

- ±1 % maximum

**Temperature Coefficient Over Storage Temperature Range**

- ±1,000 ppm/°C

**Shock**

- ±100 G

**Total Resistance Shift**

- ±1 % maximum

**Voltage Ratio Shift**

- ±1 % maximum

**Load Life**

- 1,000 hours

**Rotational Life (No Load)**

- 50,000 cycles

**Total Resistance Shift**

- ±5 % TRS maximum

**Contact Resistance Variation**

- ±3 % or 3 ohms, whichever is greater

**Moisture Resistance**

- MIL-STD-202, Method 103, Condition B

**Total Resistance Shift**

- ±10 % TRS maximum

**IP Rating**

- IP67

---

**Mechanical Characteristics**

**Stop Strength**

- 5.65 N-cm (0.8 oz.-in.)

**Mechanical Angle**

- 300° nominal

**Torque**

- 3.53 N-cm (0.5 oz.-in.) maximum

**Running**

- 3.53 N-cm (0.5 oz.-in.) maximum

**Manual Soldering**

- 96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire; 370 °C (700 °F) max. for 3 seconds

**Wave Soldering**

- 96.5Sn/3.0Ag/0.5Cu solder with no-clean flux; 260 °C (500 °F) max. for 5 seconds

**Mounting (Torque on Bushing)**

- 45 N-cm (4.0 lb.-in.) max [plastic bushing]; 79 N-cm (7.0 lb.-in.) max [metal bushing]

**Weight (Single Section)**

- 4.5 grams

**Weight (Each Additional Section)**

- 2.5 grams

**Terminals**

- Solderable pins

---

**Switch Characteristics**

**Contact Resistance**

- 2 ohms max.

**Dielectric Strength**

- 350 VDC

**Detent Torque**

- 0.5 oz.-in. min.

**Power Rating (Resistive Load)**

- 100 mA @ 16VDC
### Standard Resistance Table

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Resistance Code</th>
</tr>
</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>
</tr>
<tr>
<td>10,000</td>
<td>103</td>
</tr>
<tr>
<td>20,000</td>
<td>203</td>
</tr>
<tr>
<td>50,000</td>
<td>503</td>
</tr>
<tr>
<td>100,000</td>
<td>104</td>
</tr>
<tr>
<td>200,000</td>
<td>204</td>
</tr>
<tr>
<td>500,000</td>
<td>504</td>
</tr>
<tr>
<td>1,000,000</td>
<td>105</td>
</tr>
</tbody>
</table>

Popular values listed in boldface. Consult factory for special resistances.

### Part Numbering System

#### Model Number Designator

3310 = 9 mm Panel Control

#### Terminal Style Designator

- **Single Cup:**
  - C = In-line Straight Terminals Side Exit 2.54 mm centers
  - P = 5.08 mm x 2.54 mm Triangular Pattern Rear Exit
  - Y = 5.08 mm x 5.08 mm Triangular Pattern Rear Exit
- **Dual Cup (Pot/Pot or Pot/Switch):**
  - H = Dual In-line Straight Terminals Rear Exit 2.54 mm centers

#### Shaft End Designator

- 0 = Shaft End Slotted
- 1 = Shaft End Flatted

#### Shaft Length Designator

- 0 = 12.7 mm FMS Long Plastic Shaft (Available w/bushing only)
- 1 = 19.05 mm FMS Long Plastic Shaft (Available w/bushing only)
- 2 = 5.59 mm FMS Long Plastic Shaft (Bushingless version only)

#### Bushing Designator

- **Pot (or Pot/Pot):**
  - 1 = 6.35 mm x 6.35 mm Plastic
  - 2 = 6.35 mm x 6.35 mm Ni Plated Brass
  - 5 = Bushingless (Board Level Control)
- **Pot/Switch Bushing Designator (use with “H” terminal style only.):**
  - 3 = 6.35 mm x 6.35 mm Plastic
  - 4 = 6.35 mm x 6.35 mm Ni Plated Brass
  - 6 = Bushingless (Board Level)

#### Resistance Code

(1st 2 digits are significant, 3rd digit is number of 0s to follow)

#### RoHS Identifier

- L = Compliant
- Blank = Non-Compliant

---

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.
### Common Dimensions

**3310C-001**
- Plastic Bushing
- Slotted Shaft

**3310P-001**
- 1/4-32 UNF-2A Threaded Plastic Bushing

**3310Y-001**
- Plastic Flatted Shaft

**3310R-001**
- Anti-Rotation Boss

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOUNTING SURFACE</td>
<td>4.83 ± 0.25 (0.187)</td>
<td>MM</td>
</tr>
<tr>
<td>MOUNTING DIA.</td>
<td>6.35 ± 0.25 (0.250)</td>
<td>MM</td>
</tr>
<tr>
<td>MIN. FULL THREAD</td>
<td>4.75 ± 0.18 (0.187)</td>
<td>MM</td>
</tr>
<tr>
<td>MIN. STANDOFF</td>
<td>12.70 ± 0.64 (0.500)</td>
<td>MM</td>
</tr>
<tr>
<td>ADJUSTMENT SLOT</td>
<td>6.35 ± 0.25 (0.250)</td>
<td>MM</td>
</tr>
<tr>
<td>MIN. STANDOFF</td>
<td>12.70 ± 0.64 (0.500)</td>
<td>MM</td>
</tr>
<tr>
<td>MOUNTING DIA.</td>
<td>6.35 ± 0.25 (0.250)</td>
<td>MM</td>
</tr>
<tr>
<td>MIN. STANDOFF</td>
<td>12.70 ± 0.64 (0.500)</td>
<td>MM</td>
</tr>
</tbody>
</table>

Dimensions are: MM (INCHES)

**3310 - 9 mm Square Sealed Panel Control**

The shaft flat position as shown above is at 50% of the mechanical travel.

Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

3310 - 9 mm Square Sealed Panel Control

Product Dimensions

COMMON DIMENSIONS
3310-002
Metal Bushing

3310P-025
Bushingless

NOTE: * Only recommended shaft length for bushingless version

DIMENSIONS ARE: MM
(INCHES)
3310 - 9 mm Square Sealed Panel Control

Product Dimensions

**COMMON DIMENSIONS**
3310H-003
Pot/Switch Dual Cup
Plastic Bushing

3310H-025*
Pot/Pot Dual Cup
Bushingless

3310H-002
Pot/Pot Dual Cup
Metal Bushing

**Dimensions are:**
MM
(INCHES)

**Pot/Pot Dual Cup**

**Pot/Single Cup**

**Pot/switch Dual Cup**

**NOTE:** * Only recommended shaft length for bushingless version

Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.