

Features

- Conductive plastic
- PC board and bushing mount
- Plastic or metal bushing and plastic shaft
- Withstands typical industrial washing processes
- Compact package saves board and panel space

3310 – 9 mm Square Sealed Panel Control

Electrical Characteristics¹

| | |
|---|--|
| Standard Resistance Range - Linear | 1 K ohms to 1 megohm |
| Total Resistance Tolerance - Linear Tapers | ±20 % |
| Independent Linearity | ±5 % |
| End Resistance | 2 % or 2 ohms maximum (whichever is greater) |
| Effective Electrical Angle | 270 ° ±15 ° |
| Contact Resistance Variation | 1 % or 1 ohm (whichever is greater) |
| Dielectric Withstanding Voltage (MIL-STD-202 – Method 301) | |
| Sea Level | 900 VAC minimum |
| 70,000 Feet | 350 VAC minimum |
| 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) |
| Temperature Coefficient Over Storage Temperature Range | ±1,000 ppm/°C |
| Vibration | 30 G |
| Total Resistance Shift | ±1 % maximum |
| Voltage Ratio Shift | ±1 % maximum |
| Shock | 100 G |
| Total Resistance Shift | ±1 % maximum |
| Voltage Ratio Shift | ±1 % maximum |
| Load Life | 1,000 hours |
| Total Resistance Shift | ±10 % TRS maximum |
| 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 |
| Moisture Sensitivity Level | 1 |
| ESD Classification (HBM) | N/A |

Mechanical Characteristics

| | |
|------------------------------------|---|
| Stop Strength | 5.65 N-cm (8 oz.-in.) |
| Mechanical Angle | 300 ° nominal |
| Torque | |
| Starting | 3.53 N-cm (5.0 oz.-in.) maximum |
| Running | 3.53 N-cm (5.0 oz.-in.) maximum |
| 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 |
| (Each Additional Section) | 2.5 grams |
| Terminals | Solderable pins |
| Soldering Condition | |
| 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 |
| Wash Processes | For recommended wash processes, please refer to http://www.bourns.com/pdfs/sldclen.pdf |
| Marking | Manufacturer's trademark, model number, product code, terminal style, resistance code and date code |
| Ganging | 2 cups maximum |
| Hardware | One lockwasher (H-37-5) and one mounting nut (H-38-1) is shipped with each potentiometer, except bushingless versions |
| Flammability | Conforms to UL94V-0 |
| Epoxy | Conforms to UL 94V-1 |
| IP Rating | IP67 |

Switch Characteristics

| | |
|-------------------------------------|-----------------|
| Switch Life | 10K cycles |
| Contact Resistance | 2 ohms max. |
| Dielectric Strength | 350 VDC |
| Detent Torque | 0.5 oz-in min. |
| Power Rating (Resistive Load) | 100 mA @ 16 VDC |

¹Electrical specifications tested at 60 RPM, at room ambient: +25 °C nominal.



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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Additional Features

- Audio taper versions available as special order
- RoHS compliant*

3310 – 9 mm Square Sealed Panel Control

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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 |

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

Date Code Description

YY WW M

- M = COUNTRY OF MANUFACTURE (MEXICO)
- WW = WEEK NUMBER
- YY = LAST TWO DIGITS OF YEAR MANUFACTURED

How To Order

3310 Y - 0 0 1 - 103 L

Model Number Designator _____
 3310 = 9 mm Panel Control

Terminal Style Designator _____
 Single Cup:
 C = In-line Straight Terminals Side Exit 2.54 mm centers
 R = In-line Terminals Rear 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

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3310 – 9 mm Square Sealed Panel Control

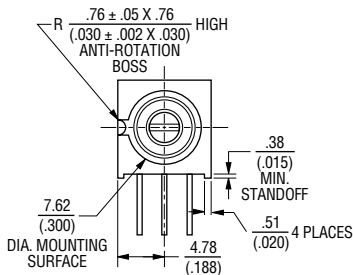
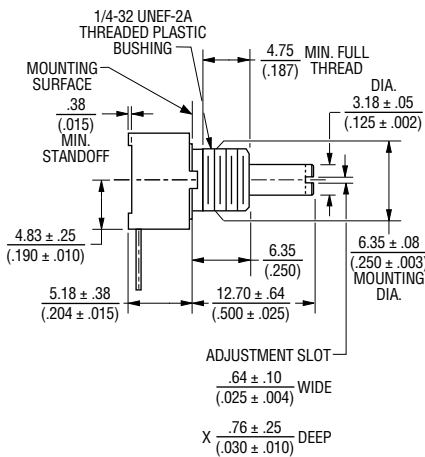
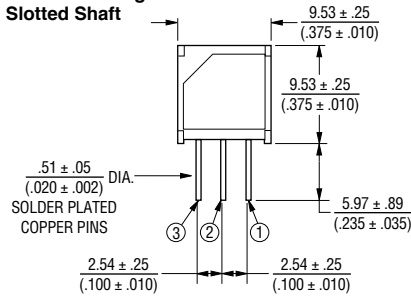
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Product Dimensions

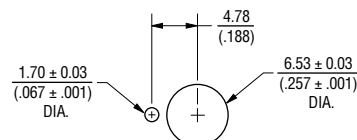
COMMON DIMENSIONS

3310-001

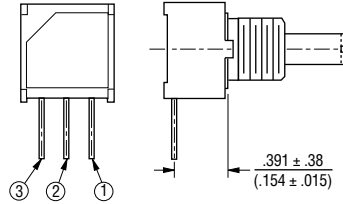
Plastic Bushing
Slotted Shaft



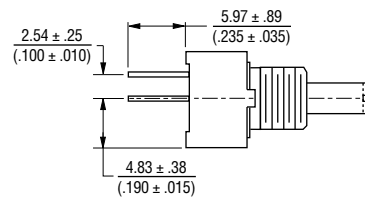
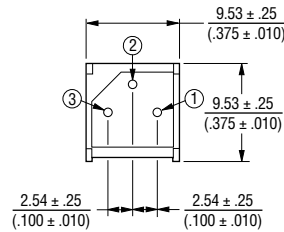
MOUNTING HOLE PATTERN



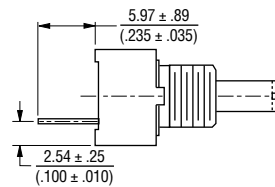
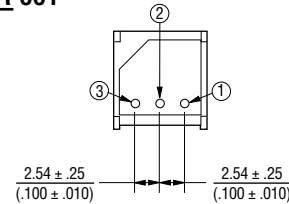
3310C-001



3310P-001

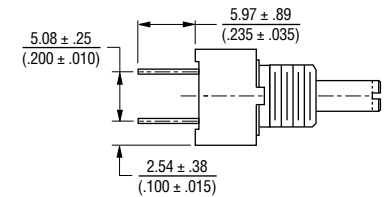
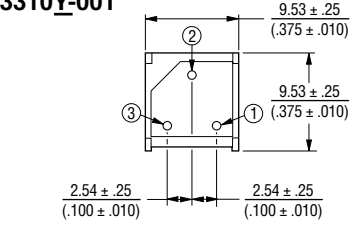


3310R-001



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

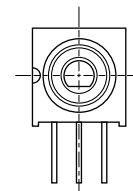
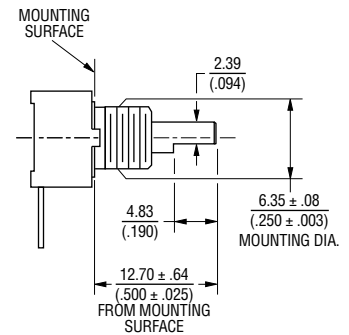
3310Y-001



COMMON DIMENSIONS

3310C-101

Plastic Flatted Shaft



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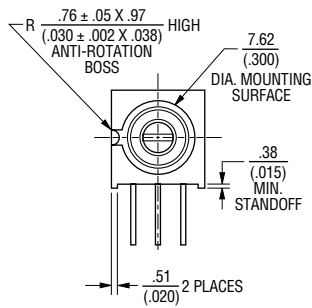
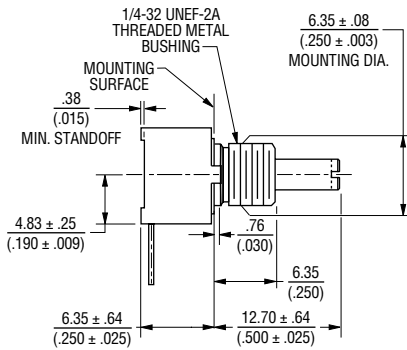
3310 – 9 mm Square Sealed Panel Control



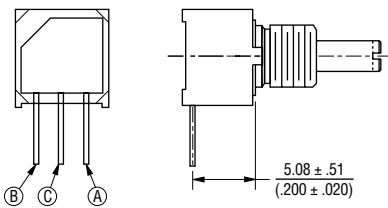
Product Dimensions

COMMON DIMENSIONS 3310-002

Metal Bushing

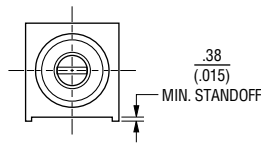
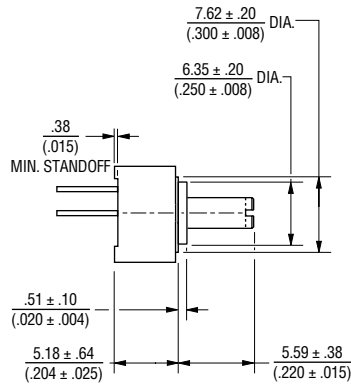


3310C-002



NOTE: * Only recommended shaft length for bushingless version

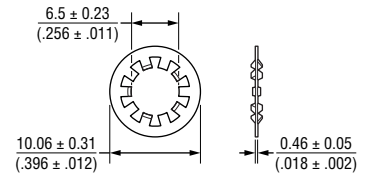
3310P-025 * Bushingless



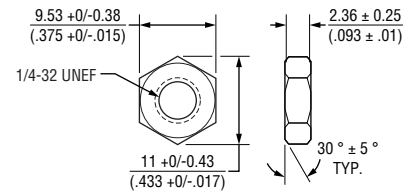
DIMENSIONS: $\frac{MM}{(INCHES)}$

Hardware

LOCKWASHER H-37-5



NUT H-38-1



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

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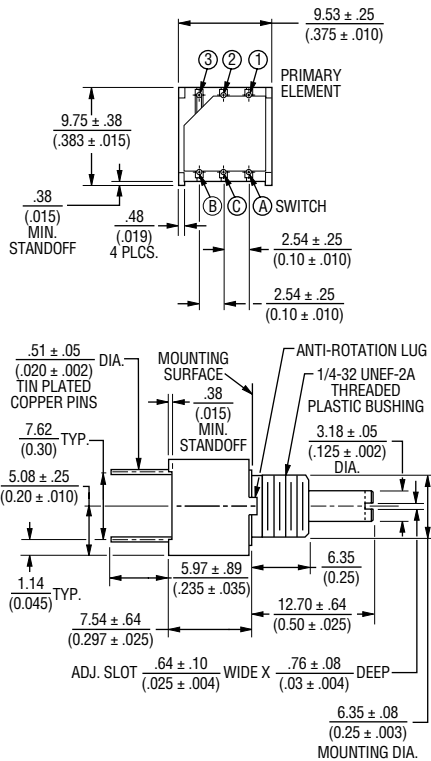
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3310 – 9 mm Square Sealed Panel Control

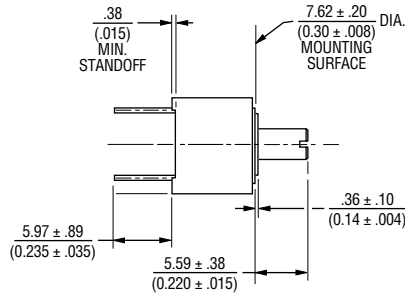
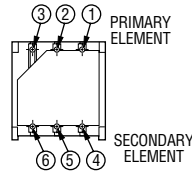
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Product Dimensions

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

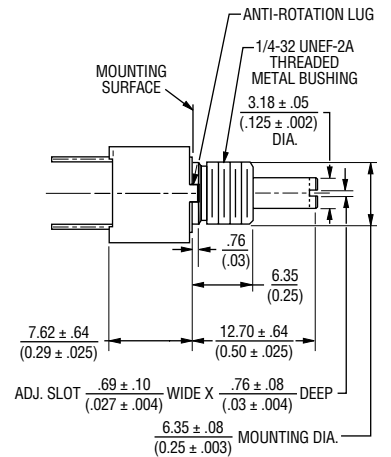
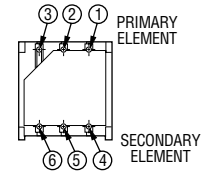


3310H-025* Pot/Pot Dual Cup Bushingless

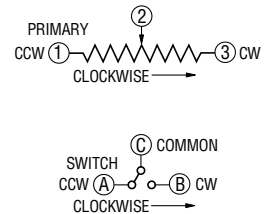
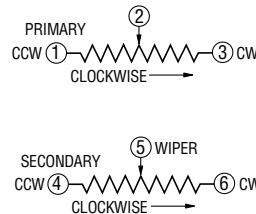


Pot/Pot Dual Cup

3310H-002 Pot/Pot Dual Cup Metal Bushing

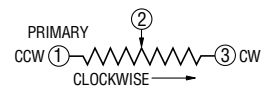


Pot/Switch Dual Cup



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

Pot Single Cup



NOTE: * Only recommended shaft length for bushingless version

REV. 10/20

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