

## 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 Characteristics<sup>1</sup>

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 <a href="http://www.bourns.com/pdfs/sldclen.pdf">http://www.bourns.com/pdfs/sldclen.pdf</a>
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

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



**WARNING**  
**Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://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](http://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

# BOURNS®

### Standard Resistance Table

Resistance (Ohms)	Resistance Code
<b>1,000</b>	<b>102</b>
<b>2,000</b>	<b>202</b>
<b>5,000</b>	<b>502</b>
<b>10,000</b>	<b>103</b>
<b>20,000</b>	<b>203</b>
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

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](http://www.bourns.com/docs/legal/disclaimer.pdf).

# 3310 – 9 mm Square Sealed Panel Control

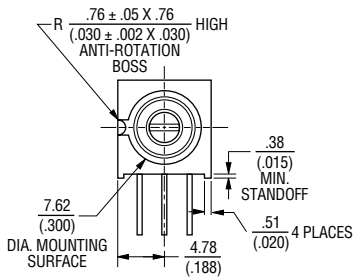
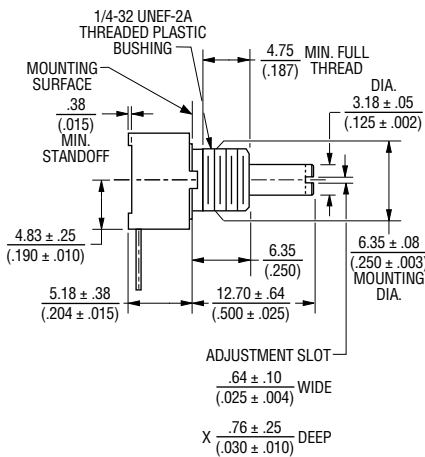
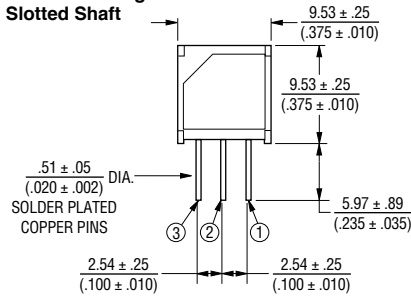
**BOURNS®**

## Product Dimensions

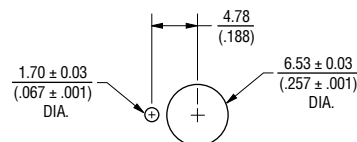
### COMMON DIMENSIONS

#### 3310-001

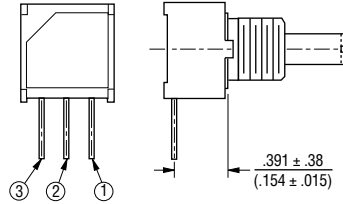
Plastic Bushing  
Slotted Shaft



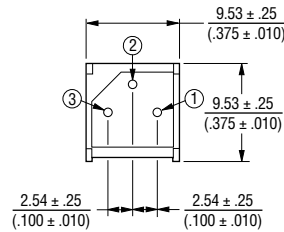
### MOUNTING HOLE PATTERN



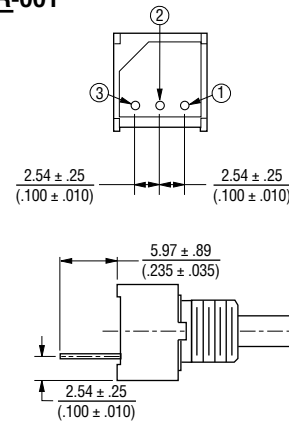
#### 3310C-001



#### 3310P-001

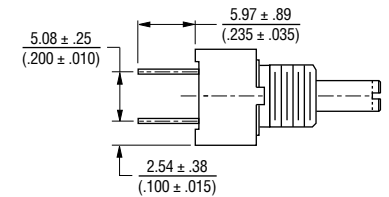
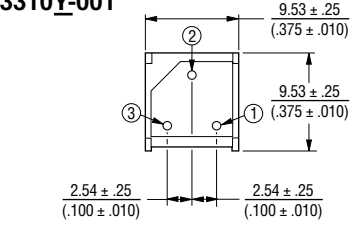


#### 3310R-001



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

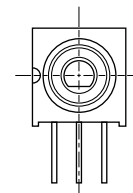
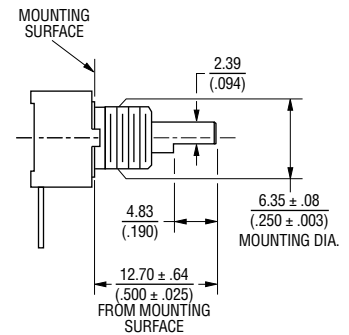
#### 3310Y-001



### COMMON DIMENSIONS

#### 3310C-101

Plastic Flatted Shaft



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](http://www.bourns.com/docs/legal/disclaimer.pdf).

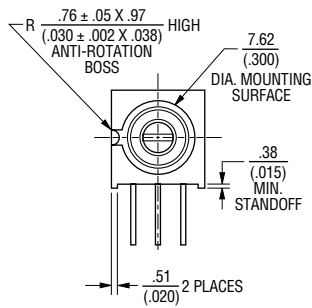
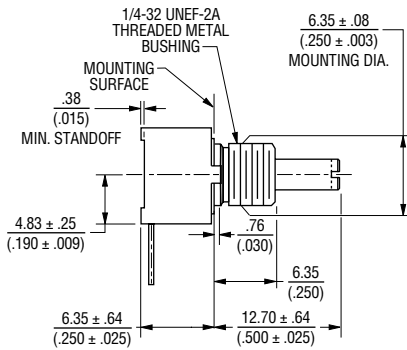
# 3310 – 9 mm Square Sealed Panel Control



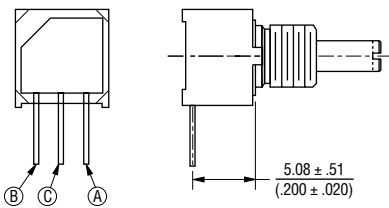
## Product Dimensions

### COMMON DIMENSIONS 3310-002

#### Metal Bushing

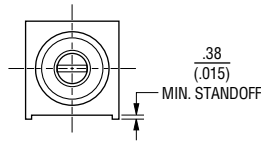
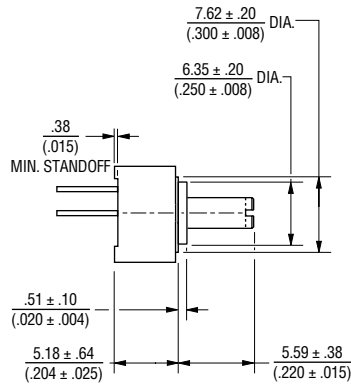


### 3310C-002



NOTE: \* Only recommended shaft length for bushingless version

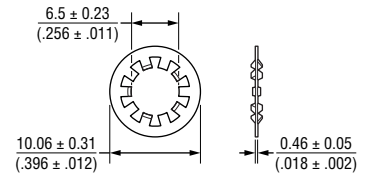
### 3310P-025 \* Bushingless



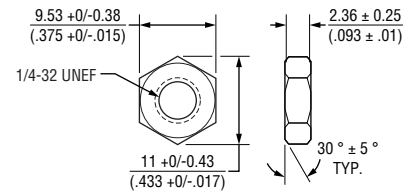
DIMENSIONS:  $\frac{MM}{(INCHES)}$

## Hardware

### LOCKWASHER H-37-5



### NUT H-38-1



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

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

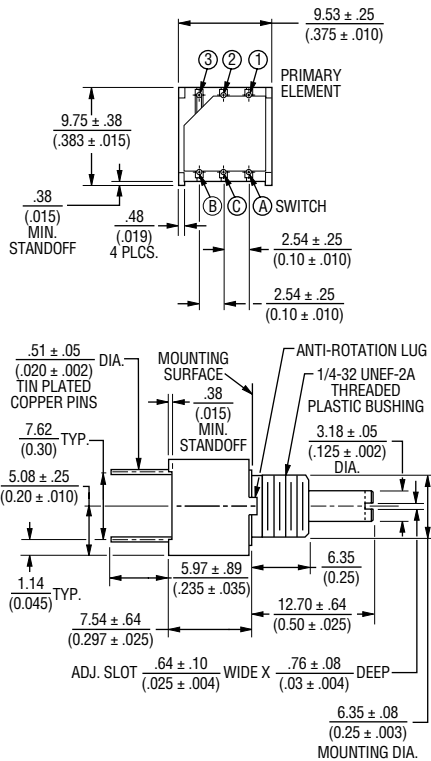
The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# 3310 – 9 mm Square Sealed Panel Control

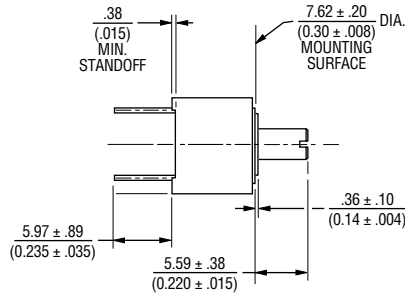
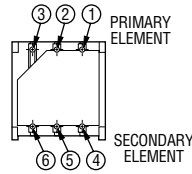
**BOURNS®**

## Product Dimensions

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

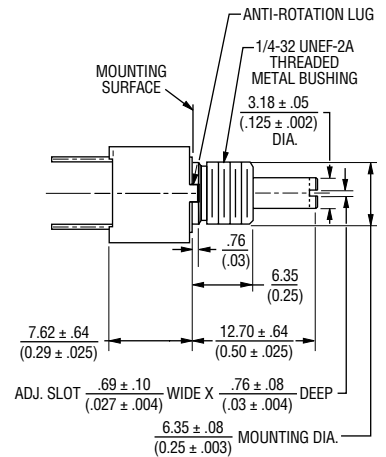
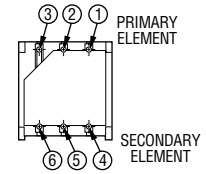


### 3310H-025\* Pot/Pot Dual Cup Bushingless

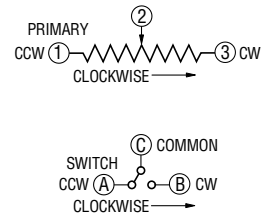
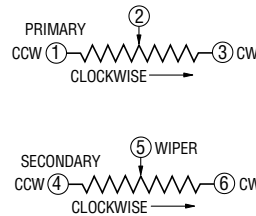


Pot/Pot Dual Cup

### 3310H-002 Pot/Pot Dual Cup Metal Bushing

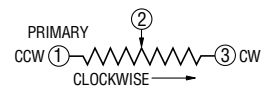


Pot/Switch Dual Cup



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

Pot Single Cup



NOTE: \* Only recommended shaft length for bushingless version

REV. 10/20

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](http://www.bourns.com/docs/legal/disclaimer.pdf).