

Features

- Miniature package for design flexibility
- Long operating life
- Conductive plastic element
- Bushing or PC board mount
- Quadrature output
- RoHS compliant*

3315 - 9 mm Square Sealed Incremental Encoder

Electrical Characteristics

Output.....	2-bit quadrature code, Channel A leads Channel B electrically turning clockwise (CW)
Closed Circuit Resistance.....	5 ohms maximum
Contact Rating.....	TTL compatible loads
Insulation Resistance (500 VDC).....	1,000 megohms minimum
Dielectric Withstanding Voltage	
Sea Level.....	900 VAC minimum
Electrical Travel.....	Continuous
Contact Bounce.....	5 milliseconds maximum
RPM (Operating).....	120 maximum

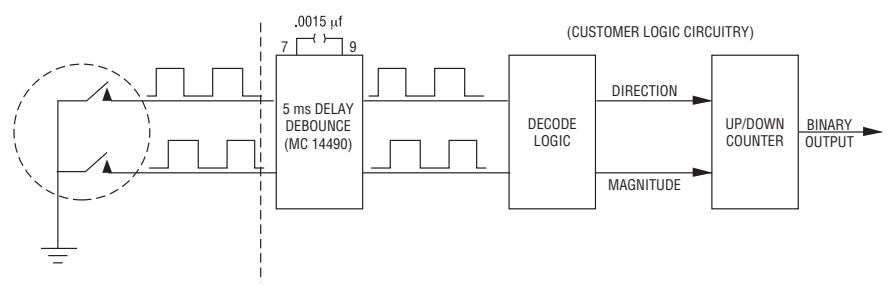
Environmental Characteristics

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)
Humidity.....	MIL-STD-202, Method 103B, Condition B
Vibration.....	30 G
Contact Bounce.....	5.0 millisecond maximum
Shock.....	100 G
Contact Bounce.....	5.0 millisecond maximum
Rotational Life.....	100,000 cycles @ 6 PPR 25,000 cycles @ 16 PPR
IP Rating.....	IP 67

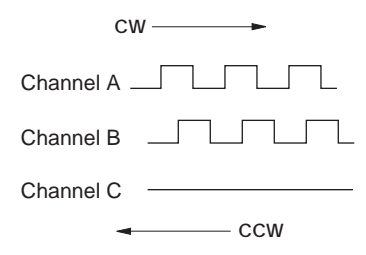
Mechanical Characteristics

Mechanical Angle.....	360 ° Continuous
Running Torque.....	3.53 N-cm (5 oz.-in.) maximum
Mounting Torque	
Plastic Bushing.....	45.19 N-cm (4.0 lb.-in.) maximum
Metal Bushing.....	79 N-cm (7.0 lb.-in.) maximum
Weight.....	4.5 gm (0.15 oz.)
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, part number, and date code
Hardware.....	One lockwasher and one mounting nut are shipped with each encoder, except where noted in the part number.

Suggested Incremental Control Diagram



Quadrature Output Table



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

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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 Users should verify actual device performance in their specific applications.
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How to Order

3315 Y - 0 0 1 - 006 L

Model Number Designator _____	_____	_____	_____	_____	_____	_____
3315 = 9 mm Encoder						
Terminal Style Designator _____	_____	_____	_____	_____	_____	_____
C = In-line Straight Terminals Side Exit						
R = In-line Terminals Rear Exit						
P = 5.08 mm x 2.54 mm Triangular Pattern Rear Exit						
Y = 5.08 mm x 5.08 mm Triangular Pattern Rear Exit						
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 (Bushingless version only)						
Bushing Designator _____	_____	_____	_____	_____	_____	_____
1 = 6.35 mm x 6.35 mm Plastic						
2 = 6.35 mm x 6.35 mm Ni Plated Brass						
5 = Bushingless (Board Level)						
Pulses per Revolution Code _____	_____	_____	_____	_____	_____	_____
006 = 6 PPR						
016 = 16 PPR						
RoHS Identifier _____	_____	_____	_____	_____	_____	_____
L = Compliant						

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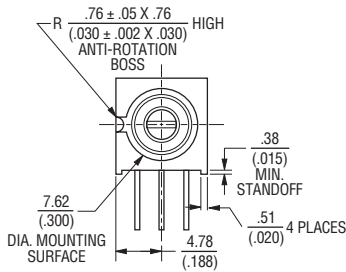
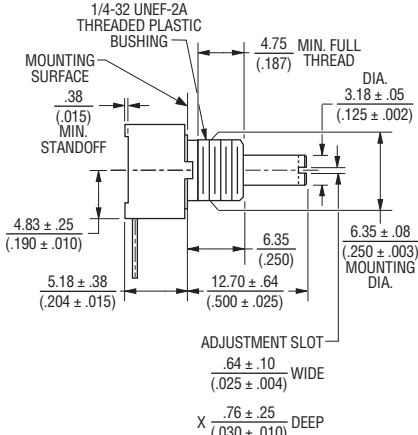
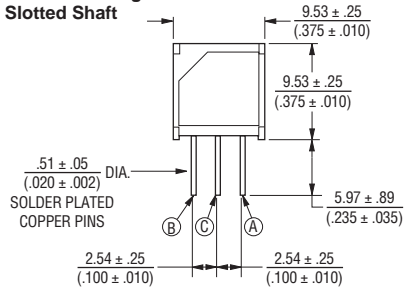
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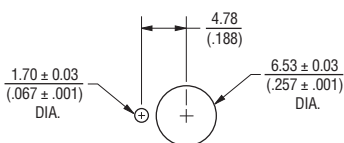
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Product Dimensions

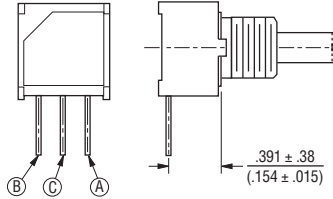
COMMON DIMENSIONS 3315-001 Plastic Bushing Slotted Shaft



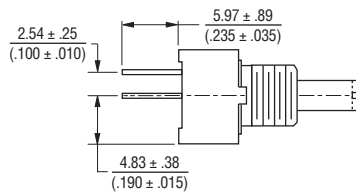
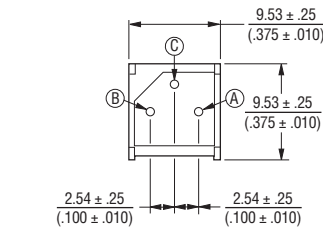
MOUNTING HOLE PATTERN



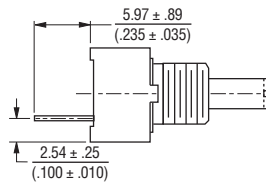
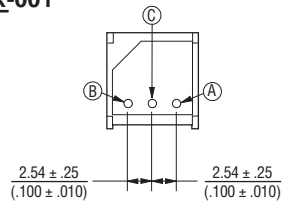
3315C-001



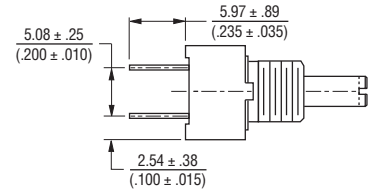
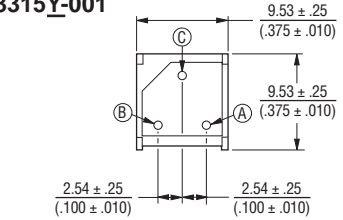
3315P-001



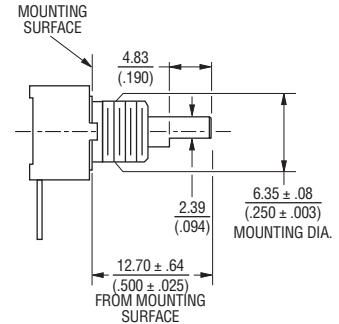
3315R-001



3315Y-001



COMMON DIMENSIONS 3315C-101 Plastic Flatted Shaft



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

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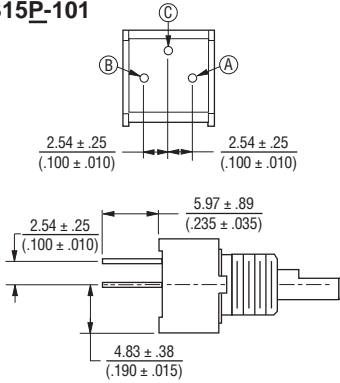
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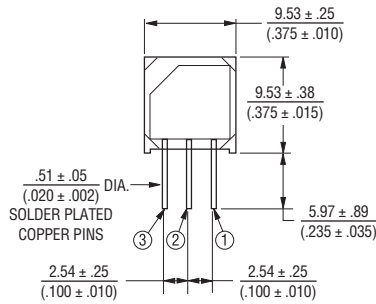
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Product Dimensions

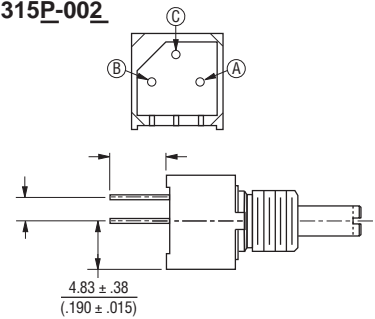
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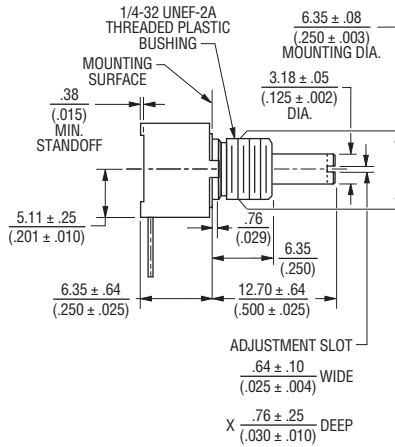
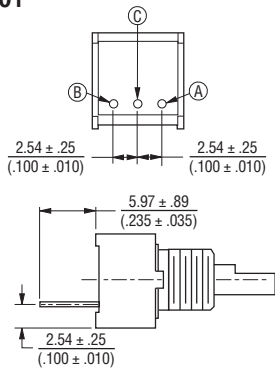
COMMON DIMENSIONS 3315-002 Metal Bushing



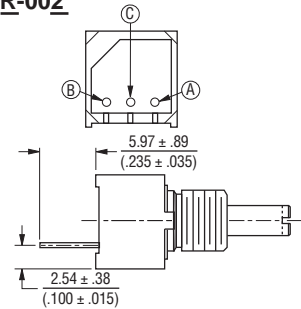
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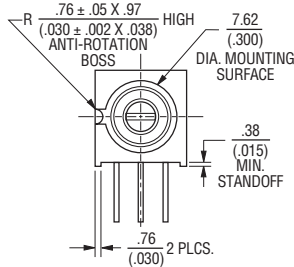
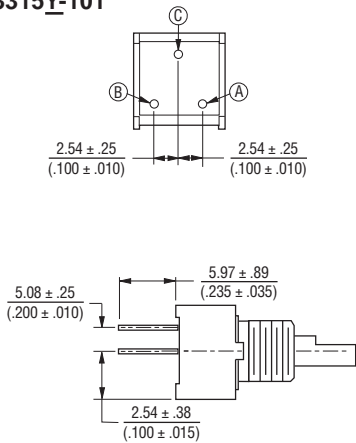
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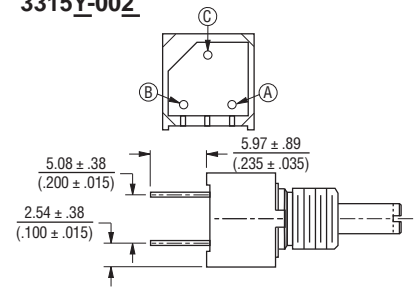
3315R-002



3315Y-101

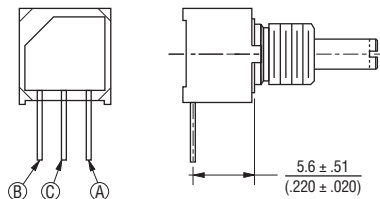


3315Y-002



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

3315C-002



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