

+RoHS COMPLIANT



**BOURNS®**

## Features

- 25K and 50K ohm resistance options for active electronics
- Knurled or plain shaft
- Metal shaft
- Conductive polymer element
- Very low noise



## Model 95 Premium Guitar Potentiometer

### Initial Electrical Characteristics<sup>1</sup>

Standard Resistance Value .....	25K, 50K, 250K and 500K ohms
Total Resistance Tolerance .....	20 %
Independent Linearity .....	±5 %
Absolute Minimum Resistance .....	2 ohms maximum
Effective Electrical Angle .....	225 ° ± 5 °
Contact Resistance Variation .....	±1 %
Dielectric Withstanding Voltage (MIL-STD-202, Method 301)	
Sea Level .....	1,500 VAC minimum
70,000 Feet .....	500 VAC minimum
Insulation Resistance (500 VDC) .....	1,000 megohms minimum
Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever Is Less)	
+70 °C .....	0.25 watt
+125 °C .....	0 watt
Theoretical Resolution .....	Essentially infinite

### Environmental Characteristics<sup>1</sup>

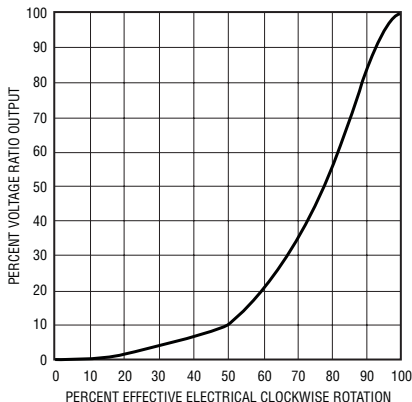
Operating Temperature Range .....	-40 °C to +125 °C
Storage Temperature Range .....	-55 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range .....	±1,000 ppm/°C
Vibration .....	15 G
Total Resistance Shift .....	±2 % maximum
Voltage Ratio Shift .....	±5 % maximum
Shock .....	30 G
Total Resistance Shift .....	±2 % maximum
Voltage Ratio Shift .....	±5 % maximum
Load Life .....	1,000 hours
Total Resistance Shift .....	±10 % maximum
Rotational Life (No Load) .....	100,000 cycles
Total Resistance Shift .....	±20 % maximum
Contact Resistance Variation @ 50,000 cycles .....	±3 %
Moisture Resistance (MIL-STD-202, Method 103, Condition B)	
Total Resistance Shift .....	±20 % TRS maximum
Insulation Resistance (500 VDC) .....	100 megohms minimum
IP Rating .....	IP 40

### Mechanical Characteristics<sup>1</sup>

Mechanical Angle .....	300 ° ±5 °
Rotational Torque .....	0.7 oz-in (50 g-cm) typical
Weight	
Standard Bushing .....	14.25 grams
Long Bushing .....	18.15 grams
Terminals .....	Solder lugs
Soldering Condition .....	Recommended hand soldering using Sn95/Ag5 no clean solder, 0.025 " wire diameter. Maximum temperature 399 °C (750 °F) for 3 seconds. No wash process to be used with no clean flux.
Marking .....	Manufacturer's trademark, date code, resistance, manufacturer's part number
Hardware .....	One lockwasher, one flat washer, two mounting nuts and one solder lug washer are shipped with each potentiometer.

<sup>1</sup> AT ROOM AMBIENT: +25 °C NOMINAL AND 50 % RELATIVE HUMIDITY NOMINAL, EXCEPT AS NOTED.

### Audio Taper Plot

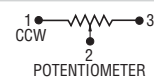


### Selection Guide

Part Number	Taper/Shaft	Resistance Value (Ω)
95A1D-Z28-EA0/300L	Audio/Knurled	250K
95A1D-Z28-EA0/301L	Audio/Plain	250K
95A1D-Z28-EA0/302L	Audio/Knurled	500K
95A1D-Z28-EA0/303L	Audio/Plain	500K
95Z1D-Z33-EA0/304L	Audio/Knurled (Long Bushing Version)	250K
95Z1D-Z33-EA0/305L	Audio/Knurled (Long Bushing Version)	500K

Part Number	Taper/Shaft	Resistance Value (Ω)
95A1D-Z28-EA0/317L	Audio/Knurled	25K
95A1D-Z28-EA0/318L	Audio/Knurled	50K
95Z1D-Z33-EA0/319L	Audio/Knurled (Long Bushing Version)	25K
95Z1D-Z33-EA0/320L	Audio/Knurled (Long Bushing Version)	50K

### Schematic



\*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

## Additional Features

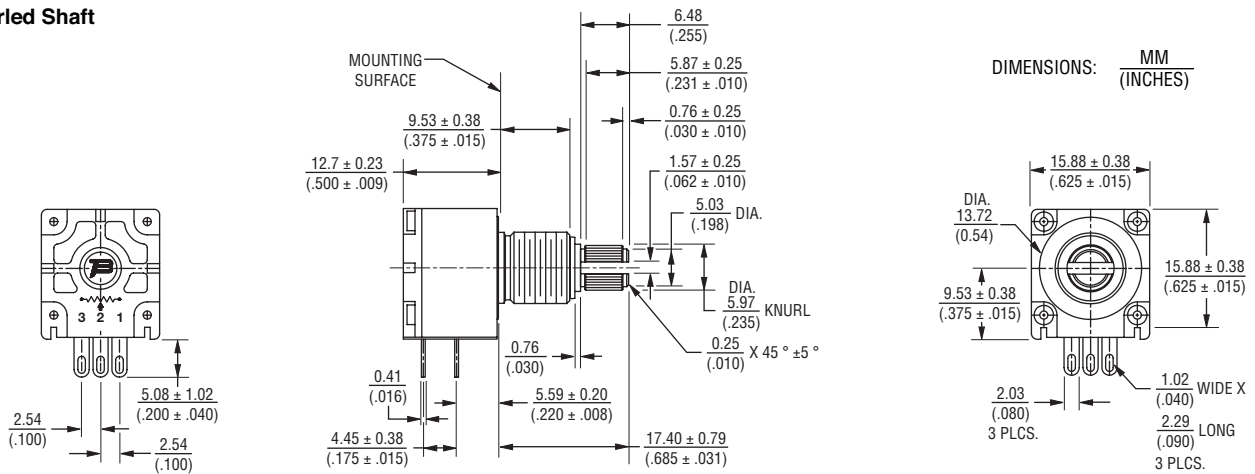
- Single-turn
- 250K and 500K resistance options
- Audio taper
- Long rotational life
- Long bushing option
- RoHS compliant\*

# Model 95 Premium Guitar Potentiometer

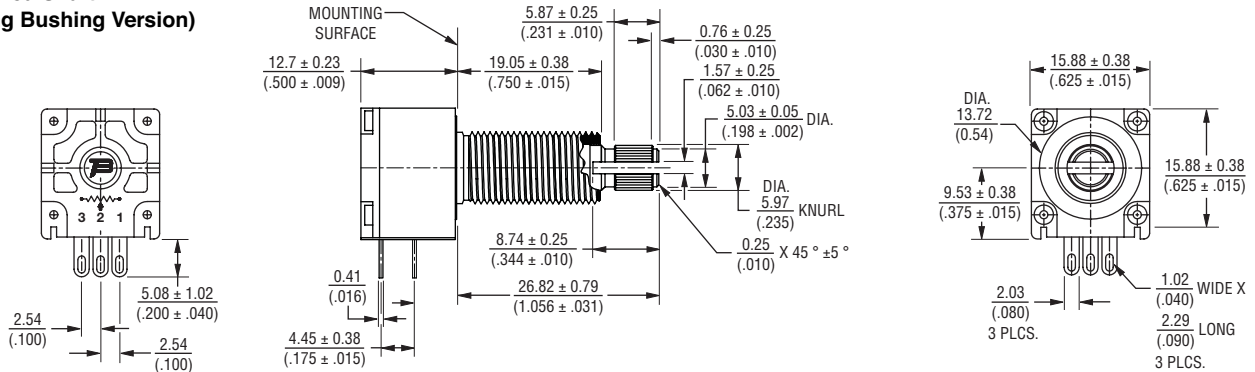
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## Product Dimensions

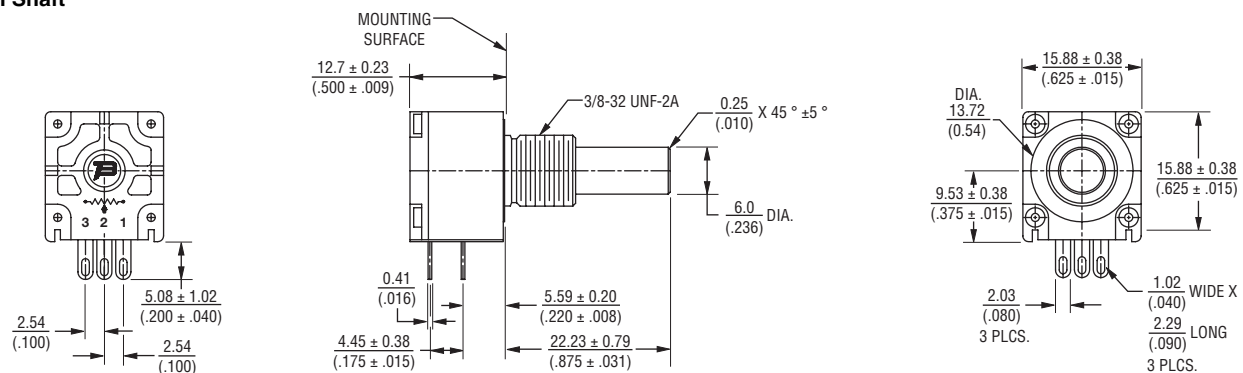
### Knurled Shaft



### Knurled Shaft (Long Bushing Version)



### Plain Shaft



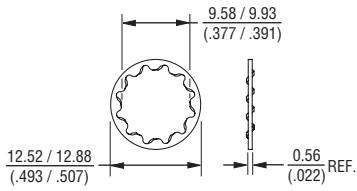
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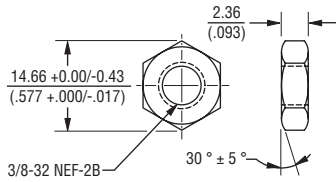
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## Product Dimensions

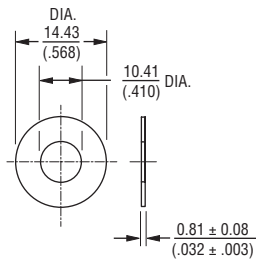
### Hardware



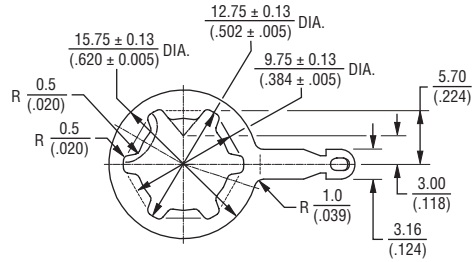
LOCKWASHER



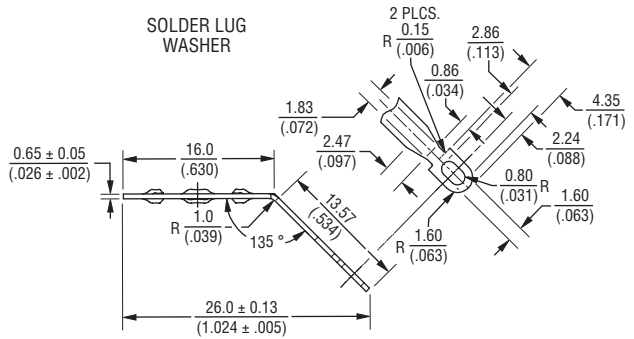
HEX NUT



FLAT WASHER



SOLDER LUG  
WASHER



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