

Features

- 25K and 50K ohm resistance options for active electronics
- Knurled or plain shaft
- Metal shaft
- Conductive polymer element
- Very low noise
- Single-turn
- 250K and 500K resistance option
- Audio taper
- Long rotational life
- Long bushing option
- RoHS compliant*

Model 95 Premium Guitar Potentiometer

Initial Electrical Characteristics¹

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 Characteristics¹

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	
Total Resistance Shift	.....±2 % maximum
Voltage Ratio Shift	.....±5 % maximum
Shock	
Total Resistance Shift	.....±2 % maximum
Voltage Ratio Shift	.....±5 % maximum
Load Life	
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-303, Method 103, Condition B)	
Total Resistance Shift	.....±20 % TRS maximum
Insulation Resistance (500 VDC)	.....100 megohms minimum
IP Rating	.....IP 40

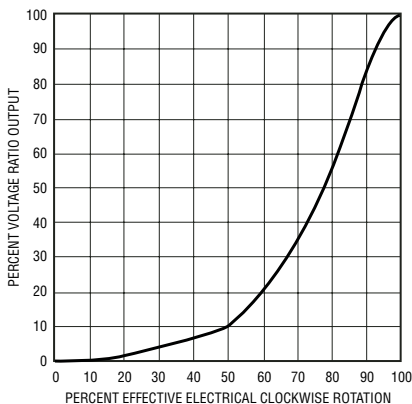
Mechanical Characteristics¹

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	
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
 HardwareOne lockwasher, one mounting nut, and one solder lug washer is shipped with each potentiometer, except where noted in the part number.

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

Audio Taper Plot

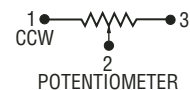


Selection Guide

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



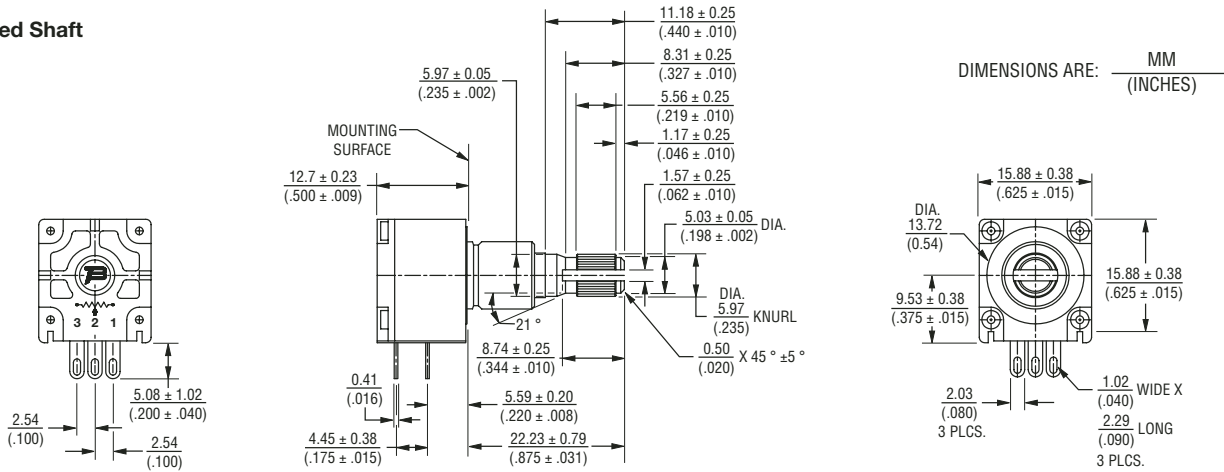
*RoHS Directive 2002/95/EC Jan 27 2003 including Annex
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

Model 95 Premium Guitar Potentiometer

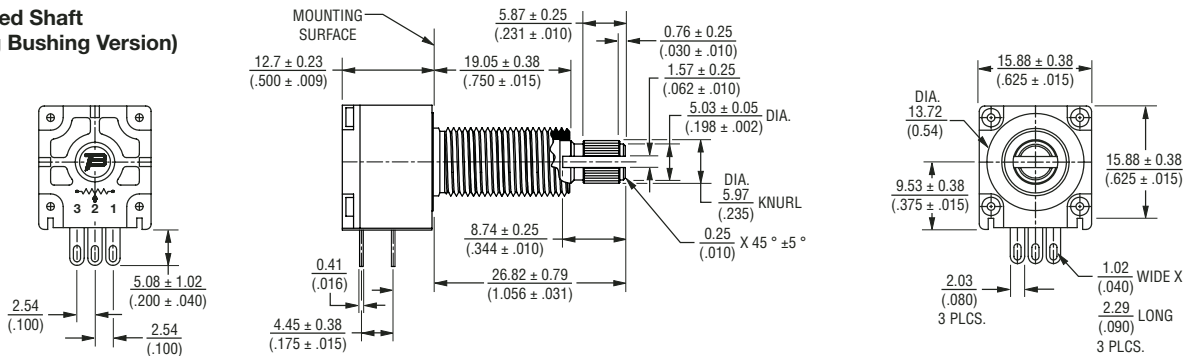
BOURNS®

Product Dimensions

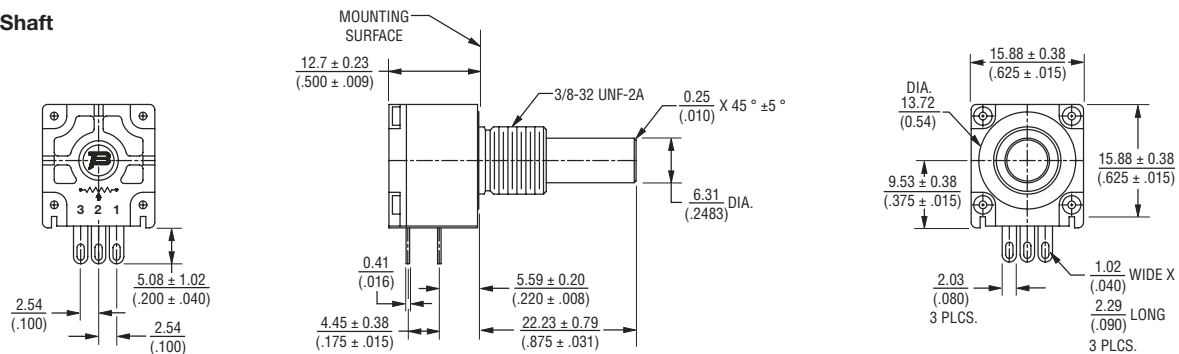
Knurled Shaft



Knurled Shaft (Long Bushing Version)



Plain Shaft



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Featured Products Bulletin

PANEL CONTROLS

Bourns® Model 95 Premium Guitar Potentiometer New Low Resistance Values for Use with Active Electronics



Riverside, California - June 4, 2008 - In further support of our focus on the Professional Audio Market, Bourns® Sensors and Controls Product Group is pleased to announce the release of two new low resistance options for our **Model 95** Premium Guitar Potentiometer. These low resistance options are specifically suited for use with electric guitars utilizing active electronics. The typical resistance values used for active electronics are 25K and 50K ohms.

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

Samples are available now. For your convenience, the data sheet is available on the Bourns Pro Audio website at <http://www.bourns.com/proaudio>.

Production quantities are now available.

Please feel free to contact any of our Field Application Engineers or Bourns Sales Representatives with any technical questions you may have regarding these new products.

Model 95 Features

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Model 95 Applications

- Electric guitars
- Bass guitars

*RoHS Directive 2002/95/EC Jan 27 2003 including Annex