

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 |

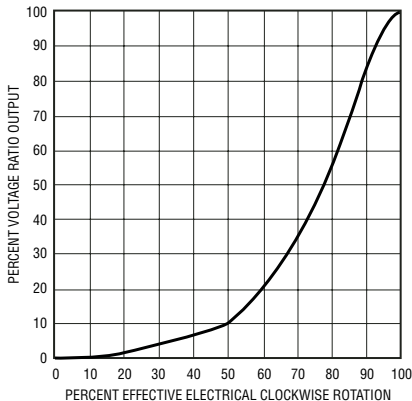
Mechanical Characteristics¹

| | |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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

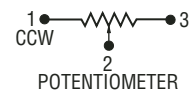


Selection Guide

| 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.

