



### Features

- Servo mount
- Shaft support by front and rear precision ball bearings
- Non-standard features and specifications available
- Gangable up to 10 cups

Model 6534 is currently available, although not recommended for new designs. **Model 6538** is preferred.

## 6534 - 7/8" (22 mm) Precision Potentiometer

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

Standard Resistance Range.....	1 K to 100 K ohms
Total Resistance Tolerance .....	±10 %
Independent Linearity .....	±0.5 %
Effective Electrical Angle .....	320° ±3°
End Voltage.....	0.1 % maximum (0.25 at 2 K ohms, 0.4 % at 1 K ohm)
Output Smoothness .....	0.1 %
Dielectric Withstanding Voltage (MIL-STD-202, Method 301)	
Sea Level.....	750 VAC minimum
Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever is Less)	
+70 °C.....	1 watt
+125 °C.....	0 watt
Insulation Resistance (500 VDC).....	1,000 megohms minimum
Resolution .....	Essentially infinite

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

Operating Temperature Range.....	+1 °C to +125 °C
Storage Temperature Range.....	-65 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range.....	±500 ppm/°C maximum
Vibration .....	15 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift .....	±2 % maximum
Shock .....	50 G
Wiper Bounce.....	0.1 millisecond maximum
Rotational Life (No Load) .....	25,000,000 shaft revolutions
Total Resistance Shift .....	±10 % maximum
Moisture Resistance (MIL-STD-202, Method 103, Condition B)	
Total Resistance Shift .....	±10 % maximum
IP Rating .....	IP 40

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

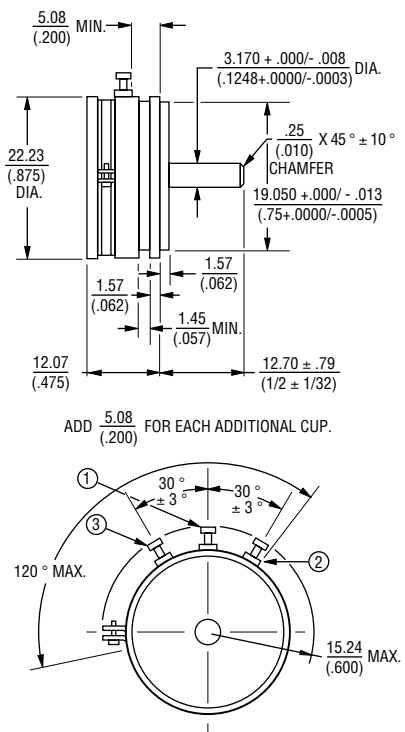
Mechanical Angle .....	Continuous
Torque (Starting & Running).....	0.18 N-cm (0.25 oz.-in.) maximum
Shaft Runout.....	0.025 mm (0.001 in.) T.I.R.
Lateral Runout .....	0.05 mm (0.002 in.) T.I.R.
Shaft End Play .....	0.08 mm (0.003 in.) T.I.R.
Shaft Radial Play .....	0.08 mm (0.003 in.) T.I.R.
Pilot Diameter Runout .....	0.025 mm (0.001 in.) T.I.R.
Backlash .....	0.1° maximum
Weight.....	18 grams
Terminals.....	Side exit turret style
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 name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.
Ganging.....	10 cups maximum

<sup>1</sup>At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.

### Recommended Part Numbers

Part Number*	Resistance (Ω)
6534S-1-102	1,000
6534S-1-202	2,000
6534S-1-502	5,000
6534S-1-103	10,000
6534S-1-203	20,000
6534S-1-503	50,000
6534S-1-104	100,000

### Product Dimensions



ADD 5.08 (.200) FOR EACH ADDITIONAL CUP.

TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: .XX ± .51 (.02), .XXX ± .13 (.005)  
 FRACTIONS: ±1/64  
 DIMENSIONS: MM (IN.)

