




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 Characteristics¹

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 Characteristics¹

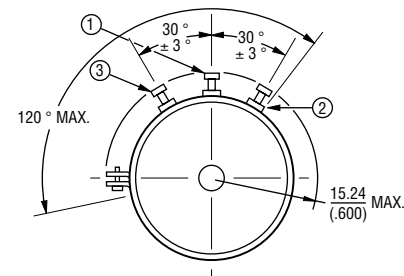
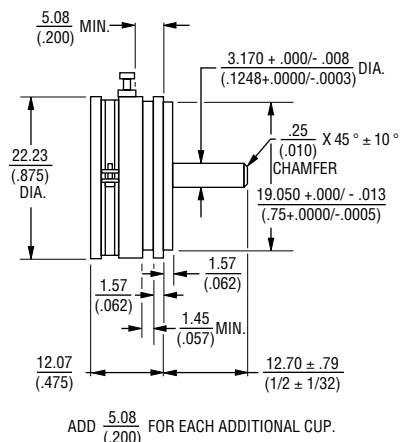
Operating Temperature Range.....	+1 °C to +125 °C
Storage Temperature Range.....	-65 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range.....	±500 ppm/°C maximum
Vibration	15 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift	±2 % maximum
Shock	50 G
Wiper Bounce.....	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 Characteristics¹

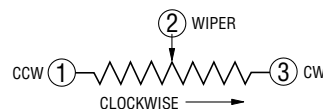
Mechanical Angle	Continuous
Torque (Starting & Running).....	0.18 N-cm (0.25 oz.-in.) maximum
Shaft Runout.....	0.025 mm (0.001 in.) T.I.R.
Lateral Runout	0.05 mm (0.002 in.) T.I.R.
Shaft End Play	0.08 mm (0.003 in.) T.I.R.
Shaft Radial Play	0.08 mm (0.003 in.) T.I.R.
Pilot Diameter Runout	0.025 mm (0.001 in.) T.I.R.
Backlash	0.1 ° maximum
Weight	18 grams
Terminals.....	Side exit turret style
Soldering Condition	
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	Not recommended
Marking	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.
Ganging.....	10 cups maximum

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

Product Dimensions



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



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

REV. 05/07

*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.