



Features

- Bushing mount
- Sealable
- Non-standard features and specifications available
- Optional high torque feature
- Optional center tap feature

- Gangable

3500 - Precision Potentiometer

Electrical Characteristics¹

Standard Resistance Range50 to 200K ohms
 Resistance Tolerance±3%
 Independent Linearity±0.20% Resolution
See recommended part numbers
 Effective Electrical Angle3600° +10°, -0°
 Absolute Minimum Resistance/Minimum Voltage1 ohm or 0.1% maximum (whichever is greater)
 Noise100 ohms ENR maximum
 Power Rating (Voltage Limited By Power Dissipation or 325 VAC, Whichever Is Less)
 +70°C2 watts
 +125°C0 watt
 Dielectric Withstanding Voltage MIL-STD-202, Method 301
 Sea Level.....1,500 VAC minimum
 70,000 Feet400 VAC minimum
 Insulation Resistance (500 VDC)1,000 megohms minimum

Environmental Characteristics¹

Operating Temperature
 Static Operation Temp Range-65°C to +125°C
 Dynamic Temp Range+1°C to +125°C
 Temperature Coefficient²±50ppm/°C maximum/unit
 Vibration20G
 Wiper Bounce0.1 millisecond maximum
 Total Resistance Shift ...±2% maximum
 Voltage Ratio Shift±0.1% maximum
 Shock100G
 Wiper Bounce0.1 millisecond maximum
 Total Resistance Shift ...±2% maximum
 Voltage Ratio Shift±0.1% maximum
 Load Life1,000 hours, 2 watts
 Total Resistance Shift ...±2% maximum
 Rotational Life (No Load)2,000,000 shaft revolutions²
 Total Resistance Shift ...±5% maximum
 Moisture ResistanceMIL-STD-202, Method 103, Condition B
 Total Resistance Shift ...±2% maximum

Mechanical Characteristics¹

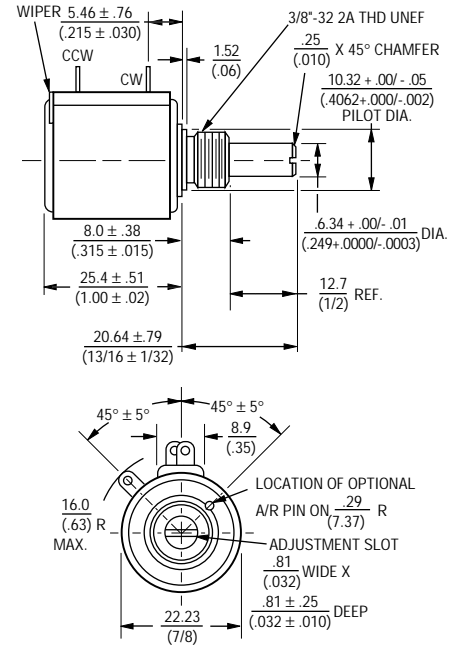
Mechanical Angle3600° +10°, -0°
 Shaft Runout0.002 in. (0.05mm) T.I.R.
 Lateral Runout0.005 in. (0.13mm) T.I.R.
 Pilot Diameter Runout0.002 in. (0.05mm) T.I.R.
 Shaft End Play0.005 in. (0.13mm) T.I.R.
 Shaft Radial Play0.003 in. (0.08mm) T.I.R.
 Stop Strength96 oz.-in. (67.8 Ncm) min.
 Torque (Starting & Running)0.6 oz.-in. (0.42 Ncm) max.
 Backlash1.0° maximum
 WeightApproximately 28G
 TerminalsGold-plated solder lugs
 Ganging2 cups maximum

Recommended Part Numbers

Part Number	Resistance	Resolution
3500S-2-102	1,000	.030
3500S-2-502	5,000	.018
3500S-2-103	10,000	.019

BOLD-FACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.
 FOR OTHER OPTIONS CONSULT FACTORY.

3500S-2/3501H-1

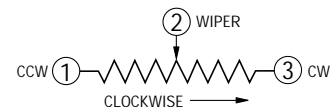


NOTE: LOCKWASHER AND HEX NUT TO BE SUPPLIED WITH EACH UNIT.

NOTE: SHAFT LENGTH VARIATIONS

3500S-1-RC	11/16 (17.46)
3500S-2-RC	13/16 (20.64)
3501H-1-RC	13/16 (20.64)

TOLERANCES: EXCEPT WHERE NOTED
 DECIMALS: .XX ± .25
 (.010), .XXX ± .13
 (.005)
 FRACTIONS: ±1/64
 DIMENSIONS: MM
 (IN.)



¹At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted.
²Consult manufacturer for complete specification details for resistances below 500 ohms.