

BOURNS

1-1/16" DIAMETER/SINGLE-TURN CONDUCTIVE PLASTIC

- Extended rotational life
- Ball bearings front and rear
- Servo Mount
- Ganging up to 10 cups
- Non-standard features and specifications available

FOR ORDERING INFORMATION SEE PAGE 44 .

Model 6544

Bourns® Precision Potentiometer

Electrical Characteristics¹

Standard Resistance Range	1K to 100K Ω
Resistance Tolerance	$\pm 10\%$
Independent Linearity	$\pm 0.25\%$
Effective Electrical Angle	$350^\circ \pm 2^\circ$
Minimum Voltage	0.1% maximum (0.2% at 2K Ω , 0.4% at 1K Ω)
Resolution	Essentially infinite
Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever is Less)	
+ 70°C	2 watts
+ 125°C	0 watt
Output Smoothness	0.1%
Dielectric Withstanding Voltage	MIL-STD-202, Method 301
Sea Level	1,000 VAC minimum
70,000 Feet	350 VAC minimum
Insulation Resistance (500 VDC)	1,000 megohms minimum

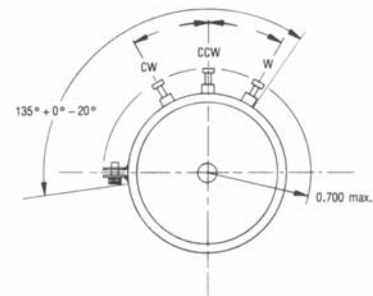
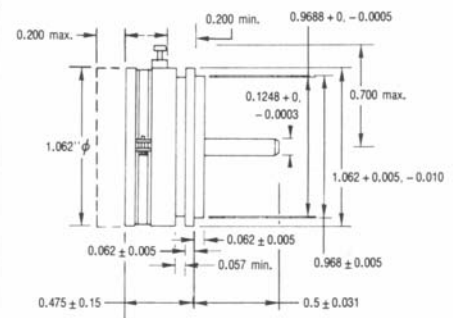
Environmental Characteristics¹

Operating Temperature	
Static Operation Temperature Range	-65°C to +125°C
Dynamic Operation Temperature Range	+1°C to +125°C
Temperature Coefficient ²	± 500 ppm/°C maximum
Moisture Resistance	MIL-STD-202, Method 103, Condition B
Total Resistance Shift	$\pm 10\%$ maximum
Vibration	15G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	$\pm 2\%$ maximum
Shock	60G
Wiper Bounce	0.1 millisecond maximum
Rotational Life (No Load)	25,000,000 shaft revolutions
Total Resistance Shift	$\pm 10\%$ maximum
Load Life	1,000 hours, 1.5 watts
Total Resistance Shift	$\pm 10\%$ maximum

Mechanical Characteristics¹

Shaft Runout	0.001 in. T.I.R.
Shaft End Play	0.003 in. T.I.R.
Shaft Radial Play	0.003 in. T.I.R.
Pilot Diameter Runout	0.001 in. T.I.R.
Lateral Runout	0.003 in. T.I.R.
Backlash	0.1° maximum
Mechanical Angle	Continuous
Torque (Starting & Running)	0.25 oz-in. maximum

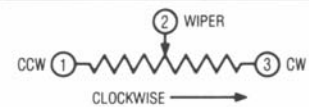
¹At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted.



TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX ± .010, .XXX ± .005

DIMENSIONS: IN.



Specifications are subject to change without notice.