



22MM, 30MM, 51MM DIAMETER / SINGLE-TURN WIREWOUND

- Bushing mount
- Outstanding vibration and shock performance
- Shaft supported front and rear by precision sleeve bearings
- High temperature, moisture resistant, thermosetting plastic housing
- Non-standard features and specifications available

FOR ORDERING INFORMATION SEE PAGE 283.

Model 3535/3435/3415

Bourns® Precision Potentiometers

	3535 22mm Diameter	3435 30mm Diameter	3415 51mm Diameter
Electrical Characteristics¹			
Standard Resistance Range	50 to 20K ohms	50 to 50K ohms	50 to 100K ohms
Resistance Tolerance	±3%	±3%	±3%
Independent Linearity	±0.5%	±0.5%	±0.3%
Resolution	See ordering information	See ordering information	See ordering information
Effective Electrical Angle	350° ±2°	350° ±2°	350° ±2°
Absolute Minimum Resistance	1 ohm or 0.1% (whichever is greater)	1 ohm or 0.1% (whichever is greater)	1 ohm or 0.1% (whichever is greater)
Noise	100 ohms ENR maximum	100 ohms ENR maximum	100 ohms ENR maximum
Power Rating			
+70°C	1 watt	1.5 watts	4 watts
+125°C	0 watt	0 watt	0 watt
Dielectric Strength			
Sea Level	1,000 VAC min.	1,000 VAC min.	1,000 VAC min.
70,000 Feet	300 VAC min.	300 VAC min.	250 VAC min.
Insulation Resistance (500 VDC)	1,000 megohms minimum	1,000 megohms minimum	1,000 megohms minimum

Environmental Characteristics¹

Operating Temperature Range	-65°C to +125°C	-65°C to +125°C	-65°C to +125°C
Temperature Coefficient ²	±20ppm/°C max.	±20ppm/°C max.	±20ppm/°C max.
Humidity	MIL-R-12934	MIL-R-12934	MIL-R-12934
	Humidity cycling	Humidity cycling	Humidity cycling
Vibration	MIL-R-12934, 15G	MIL-R-12934, 15G	MIL-R-12934, 15G
Wiper Bounce	0.1 millisecond maximum	0.1 millisecond maximum	0.1 millisecond maximum
Wiper Shift	1.0% maximum	1.0% maximum	1.0% maximum
Shock	MIL-R-12934, 50G	MIL-R-12934, 50G	MIL-R-12934, 50G
Wiper Bounce	Same as Vibration	Same as Vibration	Same as Vibration
Load Life	1,000 hours	1,000 hours	1,000 hours
Resistance Shift	2.0% maximum	2.0% maximum	2.0% maximum

Mechanical Characteristics¹

Mechanical Angle	Continuous	Continuous	Continuous
Shaft Runout	0.025mm T.I.R.	0.025mm T.I.R.	0.025mm T.I.R.
Shaft End Play	0.08mm T.I.R.	0.08mm T.I.R.	0.08mm T.I.R.
Shaft Radial Play	0.08mm T.I.R.	0.08mm T.I.R.	0.10mm T.I.R.
Rotational Life	2,000,000 shaft revolutions	2,000,000 shaft revolutions	1,000,000 shaft revolutions
Torque (Starting)	0.11 Ncm max.	0.14 Ncm max.	1.1 Ncm max.
Torque (Running)	0.11 Ncm max.	0.14 Ncm max.	0.71 Ncm max.
Torque (Additional Cups)	Add 75% each	Add 75% each	Add 75% each
Ganging	8 cups maximum	8 cups maximum	8 cups maximum
Weight	Approx. 20G	Approx. 23G	Approx. 85G
Terminals	Gold-plated turrets	Gold-plated turrets	Gold-plated turrets
Markings	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, date code		

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

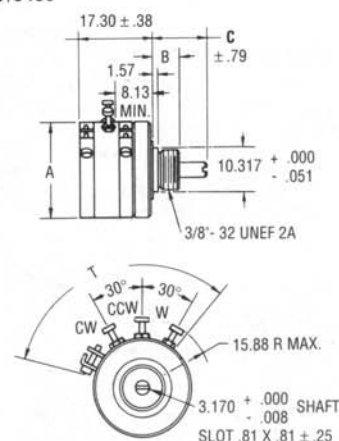
²Consult factory for complete specification details.

DIMENSIONS (mm)

Model	ØA	B	C	T	Add for each additional cup
3535	22.22	6.35	12.7	145°+0-20°	10.28
3435	26.92	9.52	22.22	130°+0-15°	10.28
3415	50.80	9.52	22.22	90°+0-20°	12.7

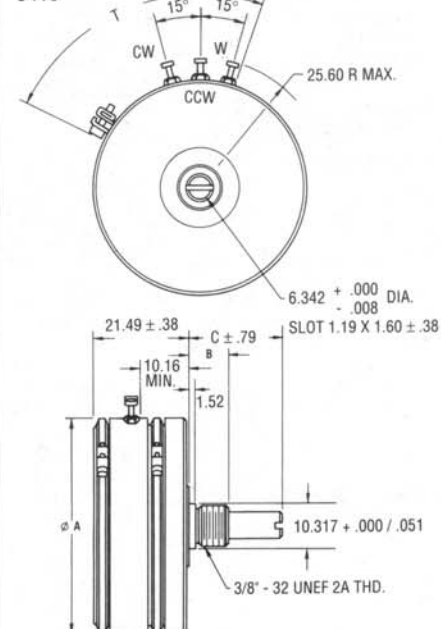
Specifications are subject to change without notice.

3535/3435



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

3415



TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX ± .25, .XXX ± .13

DIMENSIONS: MM

