



BOURNS

7/8", 1-1/16", 2" 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 41

Models 3535/3435/3415

Bourns® Precision Potentiometers

	Model 3535 7/8" Diameter	Model 3435 1-1/16" Diameter	Model 3415 2" Diameter
Electrical Characteristics¹			
Standard Resistance Range	50 to 20KΩ	50 to 50KΩ	50 to 100KΩ
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	1Ω or 0.1% (whichever is greater)	1Ω or 0.1% (whichever is greater)	1Ω or 0.1% (whichever is greater)
Noise	100Ω ENR max.	100Ω ENR max.	100Ω ENR max.
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	0.001 in. T.I.R.	0.001 in. T.I.R.	0.001 in. T.I.R.
Shaft End Play	0.003 in. T.I.R.	0.003 in. T.I.R.	0.003 in. T.I.R.
Shaft Radial Play	0.003 in. T.I.R.	0.003 in. T.I.R.	0.004 in. T.I.R.
Rotational Life	2,000,000 shaft revolutions	2,000,000 shaft revolutions	1,000,000 shaft revolutions
Torque (Starting)	0.15 oz-in. max.	0.2 oz-in. max.	1.5 oz-in. max.
Torque (Running)	0.15 oz-in. max.	0.2 oz-in. max.	1.0 oz-in. 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.

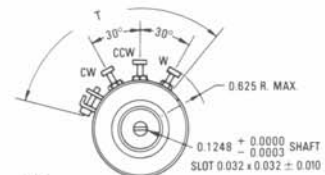
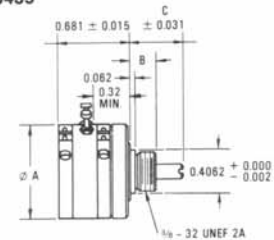
²Consult factory for complete specification details.

DIMENSIONS (INCH)

Model	φ A	B	C	T	Add for each additional cup
3535	0.875	0.250	0.500	145° ± 0-20°	0.405
3435	1.060	0.375	0.875	130° ± 0-15°	0.405
3415	2.000	0.375	0.875	90° ± 0-20°	0.500

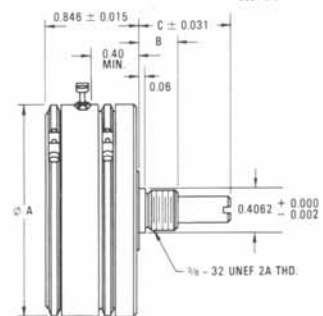
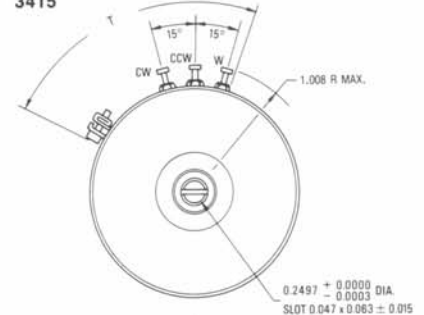
Specifications are subject to change without notice.

3535/3435



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

3415



TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX ± .010, .XXX ± .005

FRACTIONS: ± 1/64 DIMENSIONS: IN.

