



7/8", 1 1/16", 2" Ø SINGLE TURN BUSHING MOUNT POTENTIOMETERS WIREWOUND ELEMENT

- Extended Temperature Range:
-65 to +125°C.
- Outstanding resistance to humidity
- Dual collector pick-off assures outstanding vibration and shock performances
- Shaft supported front and rear by precision sleeve bearings
- Housing: high temperature, moisture resistant, thermosetting plastic
- Performance guaranteed by the Bourns Reliability Program
- Custom design capability is available to satisfy your most demanding and difficult special requirements

STANDARD SPECIFICATIONS	MODEL 3535 7/8" Ø	MODEL 3435 1 1/16" Ø	MODEL 3415 2" Ø
Electrical Characteristics			
Resistance Range	50 Ω – 20 KΩ	50 Ω – 50 KΩ	50 Ω – 100 KΩ
Resistance Tolerance	± 3%		
Linearity (Independent)	± 0.5%	± 0.5%	± 0.3%
Resolution	See ordering information		
Effective Electrical Angle	350° ± 2°		
Absolute Minimum Resistance	1 Ω or 0.1%, whichever is greater		
Noise	100 Ω ENR max.		
Power Rating	70°C 125°C	1.0 W 1.5 W 0 W	4.0 W
Dielectric Strength MIL-R-12934			
Sea Level	1000 V ~ min.		
70,000 feet	300 V ~ min.	300 V ~ min.	250 V ~ min.
Insulation Resistance 500 V =	1000 Meg. Ω min.		
Environmental Characteristics			
Operating Temperature Range	-65°C to +125°C		
Temperature Coefficient of Wire①	20 ppm/°C max.		
Humidity	MIL-R-12934 Humidity Cycling		
Vibration	MIL-R-12934, 15G		
Wiper Bounce	0.1 millisecond max.		
Wiper Shift	1.0% max.		
Shock	MIL-R-12934, 50G		
Wiper Bounce and Wiper Shift	Same as Vibration		
Load Life MIL-R-12934	1000 hours		
Resistance Shift	2.0% max.		
Sand, Dust, Fungus	MIL-E-5272		
Salt Spray	MIL-R-12934		
Mechanical and Physical Characteristics			
Mechanical Angle	Continuous		
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.	0.003 in. T. I. R.	0.004 in. T. I. R.
Rotational Life, shaft revolutions	2,000,000	2,000,000	1,000,000
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% for each additional cup		
Ganging	8 cups max.		
Weight	approx. 20 g	approx. 23 g	approx. 85 g
Terminals	Gold-plated turrets		

Specifications are subject to change without notice.

STANDARD SPECIFICATIONS	(All MODELS)
Markings	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code.

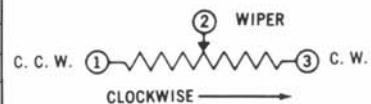
NOTES: ① Consult Bourns representative for specification details for resistances below 100 Ω .

ORDERING INFORMATION						
Resistance Ω	Part Number*	Resolution %	Part Number*	Resolution %	Part Number*	Resolution %
50	3535S-1-500	0.308	3435S-1-500	0.323	3415S-1-500	0.233
100	3535S-1-101	0.292	3435S-1-101	0.246	3415S-1-101	0.186
200	3535S-1-201	0.234	3435S-1-201	0.200	3415S-1-201	0.154
500	3535S-1-501	0.194	3435S-1-501	0.154	3415S-1-501	0.128
1,000	3535S-1-102	0.189	3435S-1-102	0.120	3415S-1-102	0.095
2,000	3535S-1-202	0.146	3435S-1-202	0.106	3415S-1-202	0.076
5,000	3535S-1-502	0.118	3435S-1-502	0.115	3415S-1-502	0.076
10,000	● 3535S-1-103	0.095	● 3435S-1-103	0.085	● 3415S-1-103	0.062
20,000	3535S-1-203	0.090	3435S-1-203	0.072	3415S-1-203	0.047
50,000	—	—	3435S-1-503	0.058	3415S-1-503	0.039
100,000	—	—	—	—	3415S-1-104	0.030

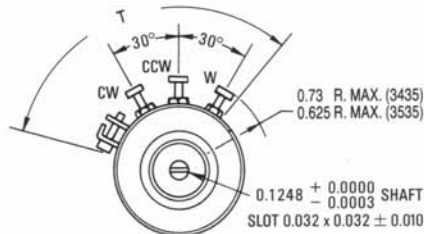
*The last three digits of the part number represent the resistance in standard code. ● Preferred resistance values

DIMENSIONS (INCH)

Model	ϕA	B	C	T	Add for each additional cup
3535	0.875	0.250	0.500	$145^\circ + 0 - 20^\circ$	0.405
3435	1.060	0.375	0.875	$130^\circ + 0 - 15^\circ$	0.405
3415	2.000	0.375	0.875	$90^\circ + 0 - 20^\circ$	0.500

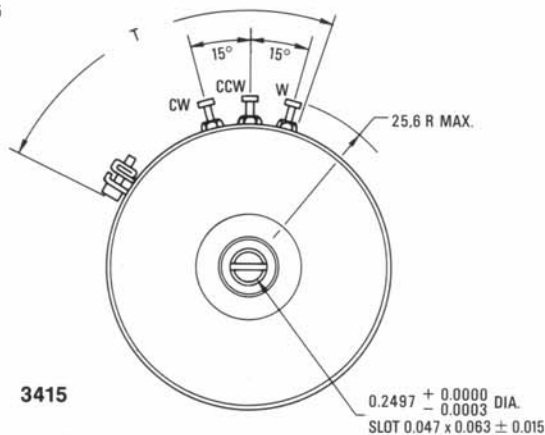


NOTES
LOCKWASHER AND HEX NUT TO BE SUPPLIED
WITH EACH UNIT.

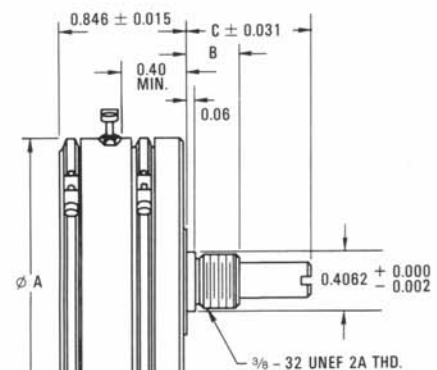
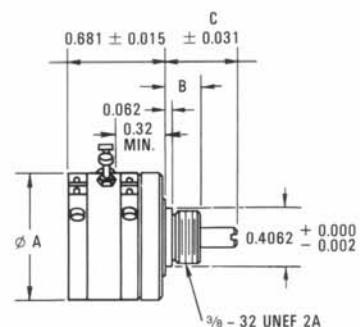


3435/3535

TOLERANCES:
EXCEPT WHERE NOTED
DECIMALS: XX ± 0.010, .XXX ± 0.005



3415



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