



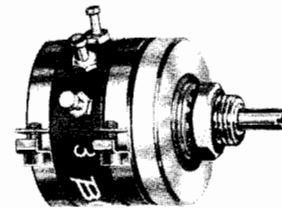
Model 3535  
**BOURNS® Potentiometer**  
 7/8" Diameter Single-Turn, Bushing Mount  
 Wirewound Element

**OBSOLETE** 1995

## FEATURES

- Extended temperature range:  $-65^{\circ}$  to  $+125^{\circ}\text{C}$
- Outstanding resistance to humidity  
Exceeds humidity cycling requirements of MIL-R-12934
- Dual collector pick-off assures outstanding vibration and shock performance
- Shaft supported front and rear by precision sleeve bearings
- Housing: high temperature, moisture resistant, thermosetting plastic
- Performance of the Model 3535 is guaranteed by the Bourns Reliability Program, which includes individual inspection to published electrical and physical characteristics.
- Custom design capability is available to satisfy your most demanding and difficult special requirements.

Actual Size



## STANDARD RESISTANCES

Resistance (Ohms)	Part Number*	Resolution (Percent)
25	3535S-1-250	0.402
50	3535S-1-500	0.308
100	3535S-1-101	0.292
200	3535S-1-201	0.234
500	3535S-1-501	0.194
1,000	3535S-1-102	0.189

Resistance (Ohms)	Part Number*	Resolution (Percent)
2,000	3535S-1-202	0.146
5,000	3535S-1-502	0.118
10,000	3535S-1-103	0.095
20,000	3535S-1-203	0.090
50,000	3535S-1-503	0.063

\* The last three digits of the part number represent the resistance value in standard code.

# BOURNS® Potentiometer Model 3535

## STANDARD SPECIFICATIONS

THE SPECIFICATIONS LISTED BELOW ARE FOR THE STANDARD MODEL. MODIFICATIONS OF ALL TYPES (MECHANICAL, ELECTRICAL AND ENVIRONMENTAL) CAN BE CUSTOM ENGINEERED TO YOUR SPECIFIC REQUIREMENTS.

### ELECTRICAL CHARACTERISTICS

Resistance Range .....	25 ohms to 50K ohms
Resistance Tolerance* .....	±3%
Linearity (Independent)* .....	±0.5%
Resolution .....	See Standard Resistance Table
Effective Electrical Angle* .....	350° ±2°
Absolute Minimum Resistance* .....	1 ohm or 0.1%, whichever is greater
Noise During Adjustment* .....	100 ohms maximum
Power Rating	
70°C .....	1.0 watt
125°C .....	0 watt
Dielectric Strength .....	MIL-R-12934
Sea Level .....	1000 volts AC minimum
70,000 feet .....	300 volts AC minimum
Insulation Resistance, 500 volts DC* .....	1000 megohms minimum

### ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range .....	- 65 to +125°C
Temperature Coefficient Resistance of Wire① .....	20 ppm/°C maximum
Humidity .....	MIL-R-12934, Humidity Cycling
Vibration .....	MIL-R-12934, 15G
Wiper Bounce .....	0.1 millisecond maximum
Wiper Shift .....	1.0% maximum
Shock .....	MIL-R-12934, 50G
Wiper Bounce and Wiper Shift .....	Same as Vibration

Load Life .....	MIL-R-12934, 1000 hours
Resistance Shift .....	2.0% maximum
Sand and Dust .....	MIL-E-5272
Fungus .....	MIL-E-5272
Salt Spray .....	MIL-R-12934

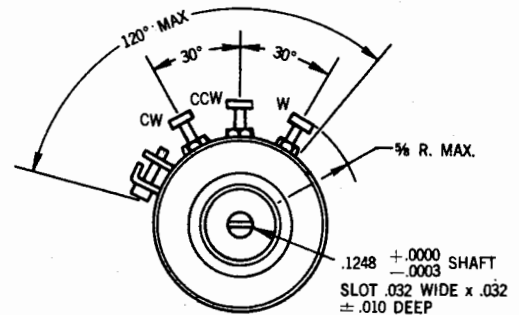
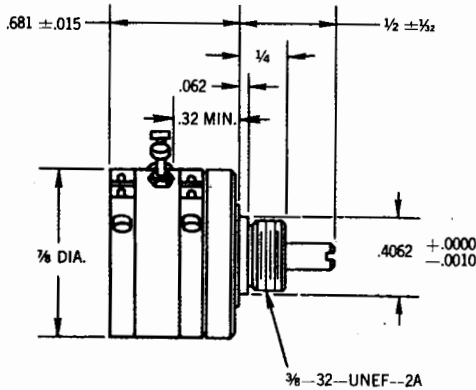
### MECHANICAL AND PHYSICAL CHARACTERISTICS

Mechanical Angle .....	Continuous
Shaft Runout* .....	.001 in. T.I.R.
Shaft End Play* .....	.003 in. T.I.R.
Shaft Radial Play* .....	.003 in. T.I.R.
Rotational Life .....	2,000,000 shaft revolutions
Torque*	
Starting .....	0.15 oz.-in. maximum
Running .....	0.15 oz.-in. maximum
	(Add 75% for each additional cup)
Ganging .....	8 cups maximum
Weight .....	Approximately 0.7 oz.
Terminals .....	Gold-plated turrets
Markings* .....	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code.

### NOTES

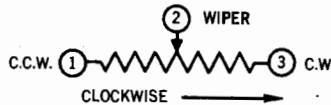
- \* 100% or standard sampling inspection performed to insure highest quality.
  - ① Consult manufacturer for complete specification details for resistances below 100 ohms.
- Specifications are subject to change without notice.

3535



### NOTES:

1. ADD .405 TO .681 DIM. FOR EACH ADDITIONAL CUP
2. LOCKWASHER AND HEX NUT TO BE SUPPLIED WITH EACH UNIT.



TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: XX ± .010, XXX ± .005  
 FRACTIONS: ± 1/4

