



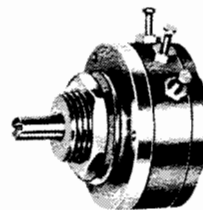
Model 3530
BOURNS® Potentiometer
Single-Turn, 7/8" Diameter
Bushing Mount

OBSOLETE 1980

FEATURES

- Performance guaranteed by Bourns Reliability Assurance Program.
- SILVERWELD® termination eliminates vulnerable single wire termination.
- Space saving housing depth — 1/2 inch.
- Extended temperature performance —65°C to +125°C.
- Shaft supported front and rear by precision sleeve bearings.
- Gangable up to 24 cups within 6 inches.
- Outstanding resistance to humidity. Exceeds humidity cycling requirements of MIL-R-12934C.
- Housing: high temperature, moisture resistant, thermo setting plastic.
- Dual wiper pick-off assures outstanding vibration and shock performance.
- Individual inspection of each potentiometer to guaranteed electrical and physical characteristics.

Actual Size



STANDARD RESISTANCES

Resistance (Ohms)	Part Number*	Max. Resolution (Percent)
25	3530S-1-250	.465
50	3530S-1-500	.370
100	3530S-1-101	.307
200	3530S-1-201	.260
500	3530S-1-501	.233
1,000	3530S-1-102	.189

Resistance (Ohms)	Part Number*	Max. Resolution (Percent)
2,000	3530S-1-202	.162
5,000	3530S-1-502	.119
10,000	3530S-1-103	.097
20,000	3530S-1-203	.080

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

BOURNS® Wirewound Precision Potentiometer Model 3530

Specifications

ELECTRICAL CHARACTERISTICS

Resistance Range	25Ω to 20K ohms
Resistance Tolerance*	±3%
Linearity (Independent)*	±0.50% max.
Resolution	See Standard Resistance Table
Effective Electrical Angle*	350° (±2°)
Absolute Minimum Resistance	1Ω or 0.1%, whichever is greater
Noise During Adjustment*	100Ω ENR max.
Power Rating	
70°C	1.0 watt
125°C	0 watt
Dielectric Strength	MIL-R-12934
Sea Level	750 VAC min.
70,000 feet	250 VAC min.
Insulation Resistance, 500 VDC*	1000 megohms min.

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range	-65°C to +125°C
Temperature Coefficient Resistance of Wire ¹	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, 1,000 hours
Resistance Shift	2.0% max.
Sand and Dust	MIL-E-5272

Fungus	MIL-E-5272
Salt Spray	MIL-STD-202, Method 101A

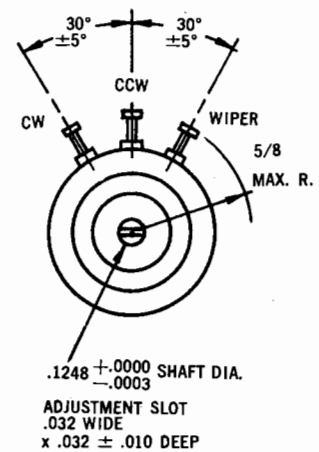
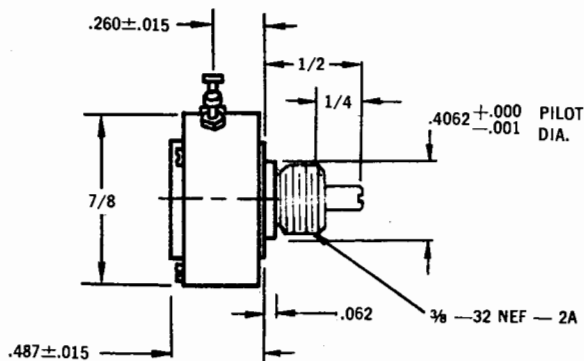
MECHANICAL AND PHYSICAL CHARACTERISTICS

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	1,000,000 shaft revolutions
Torque*	
Starting	0.15 oz.-in. max (Starting)
Running	0.15 oz.-in. max (Running)
Ganging24 cups max.
Tap Location Tolerance	±2° max.
Weight	Approximately 0.4 oz.
Terminals	Gold plated turrets
Marking*	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code.

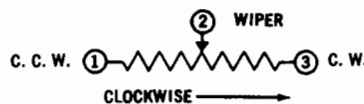
NOTES

- *100% and statistical sampling performed to insure foremost quality.
- ¹ Consult manufacture for complete specification details for resistances below 100Ω.
- Specifications are subject to change without notice.

3530



NOTES: (1) Add .230 to dim. .487 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: ± 1/64

