



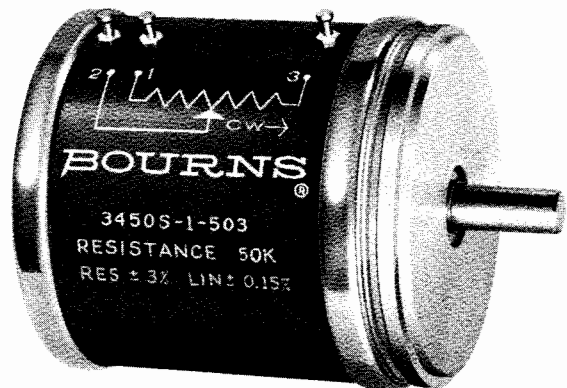
BOURNS® Potentiometer
 Model 3450
 2" Diameter 10-Turn Servo Mount
 Wirewound Element

OBSOLETE 1995

Actual Size

FEATURES

- Extended temperature range -65° to $+125^{\circ}\text{C}$.
- Outstanding resistance to humidity. Exceeds humidity cycling requirements of MIL-R-12934.
- Housing: high temperature, moisture resistant, thermo-setting plastic.
- SILVERWELD® termination eliminates vulnerable single wire termination.
- Shaft supported front and rear by precision ball bearings.*
- Special rotor and slider block design assures excellent slider stability.
- Performance guaranteed by BOURNS Reliability Assurance Program.
- Custom design capability is available to satisfy your most demanding and difficult special requirements.



STANDARD RESISTANCES

Resistance (Ohms)	Part Number**	Resolution (Percent)
1,000	3450S-1-102	0.015
2,000	3450S-1-202	0.012
5,000	3450S-1-502	0.009
10,000	3450S-1-103	0.007
20,000	3450S-1-203	0.008

*Sleeve type available at reduced cost (Model 3450S-92-RC.)

Resistance (Ohms)	Part Number**	Resolution (Percent)
50,000	3450S-1-503	0.006
100,000	3450S-1-104	0.005
200,000	3450S-1-204	0.004
500,000	3450S-1-504	0.003
1,000,000	3450S-1-105	0.003

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

BOURNS® Potentiometer Model 3450

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	1,000 ohms to 1 megohm
Resistance Tolerance*	±3%
Linearity (Independent)*	±0.15% maximum
Resolution	See standard resistance table
Effective Electrical Angle*	3600° (+3° -0°)
Absolute Minimum Resistance*	1Ω or 0.1%, whichever is greater
Noise*	100Ω maximum
Power Ratings	
70°C	5.0 watts
125°C	0 watt
Dielectric Strength	MIL-R-12934
Room Conditions	1,000 volts AC minimum
80,000 Feet	300 volts AC minimum
Insulation Resistance, 500 volts DC*	1,000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range	-65° to +125°C
Temperature Coefficient	
Of Resistance Wire	20 ppm/°C maximum
Humidity	MIL-R-12934 humidity cycling
Vibration	MIL-R-12934, 10Gs
Wiper Bounce	0.1 millisecond maximum
Wiper Shift, Maximum	0.2%
Shock	MIL-R-12934, 50Gs
Wiper Bounce and Wiper Shift	Same as vibration
Load Life	MIL-R-12934, 1,000 hours
Resistance Shift, Maximum	2.0% maximum
Sand and Dust	MIL-E-5272

Fungus	MIL-E-5272
Salt Spray	MIL-R-12934

MECHANICAL AND PHYSICAL CHARACTERISTICS

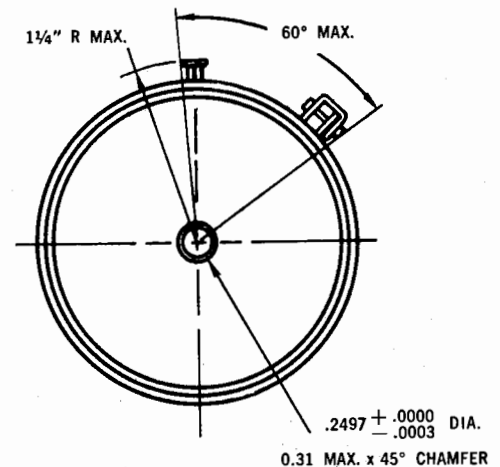
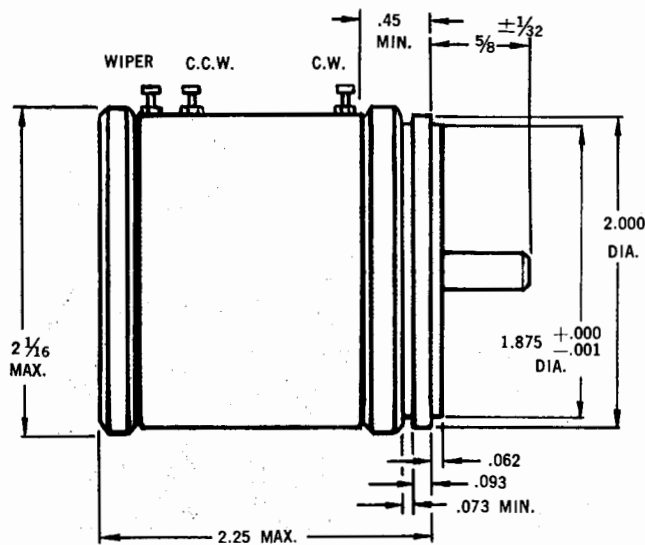
Mechanical Angle*	3600° (+10°, -0°)
Shaft Runout*001 in. T.I.R.
Shaft End Play*005 in. T.I.R.
Shaft Radial Play*001 in. T.I.R.
Pilot Diameter Runout*002 in. T.I.R.
Lateral Runout*002 in. T.I.R.
Rotational Life	2,000,000 shaft revolutions
Stop Strength	800 oz.-in. static
Torque*	
Starting	1.2 oz.-in. maximum
Running8 oz.-in. maximum
	add 75% for additional cup
Ganging	3 cups maximum
Moment of Inertia	26.0 gm cm ²
Weight	Approximately 8 oz.
Terminals	Gold-plated turrets
Markings*	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.

NOTES:

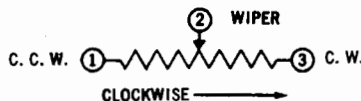
* 100% or statistical sample inspection performed to insure highest quality.

Specifications are subject to change without notice.

3450



NOTE:
ADD 1.75 MAX. TO DIM. 2.25 FOR EACH ADDITIONAL CUP.



TOLERANCES EXCEPT AS SHOWN:
DECIMAL .XX ± .010 .XXX ± .005
FRACTION ± 1/64

