BOURNS®

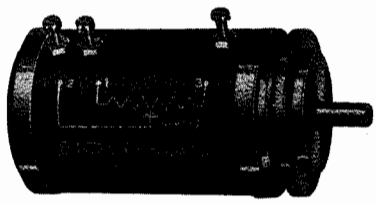
Model 3550
⅞" Diameter 10-Turn Servo Mount Wirewound Element

OBSOLETE 2002

FEATURES

- Shaft supported front and rear by precision ball bearings.
- Outstanding resistance to humidity. Exceeds humidity cycling requirements of MIL-R-12934.
- Housing: high temperature, moisture resistant, thermosetting plastic
- Extended temperature performance — 65 to + 125°C.
- Special rotor and slider design assures excellent wiper stability.
- SILVERWELD® termination eliminates vulnerable single wire termination.
- Performance of the Model 3550 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)
50	3550S-1-500	0.057
100	3550S-1-101	0.049
200	3550S-1-201	0.037
500	3550S-1-501	0.029
1,000	3550S-1-102	0.024
2,000	3550S-1-202	0.020
5,000	3550S-1-502	0.015
10,000	3550S-1-103	0.014
20,000	3550S-1-203	0.015
50,000	3550S-1-503	0.010
100,000	3550S-1-104	0.009
200,000	3550S-1-204	0.007
500,000	3550S-1-504	0.006

*Sleeve type bearing inserts available at reduced cost (Model 3550S-92-RC).

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

BOURNS® Potentiometer Model 3550

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	50 ohms to 200K ohms
Resistance Tolerance*	±3%
Linearity (Independent)	±0.2% maximum
Resolution	See standard resistance table
Effective Electrical Angle	3600° (+10°/—0°)
Absolute Minimum Resistance	1Ω or 0.1%, whichever is greater
Noise*	100Ω ENR maximum
Power Rating	
70°C	2.5 watts
125°C	0 watt
Dielectric Strength	MIL-R-12934
Room Conditions	1,000 volts AC minimum
80,000 feet (0.8" Hg.)	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 Wire①	20 ppm/°C maximum
Humidity	MIL-R-12934, humidity cycling
Vibration	MIL-R-12934, 20Gs
Wiper Bounce	0.1 millisecond maximum
Wiper Shift	0.2% maximum
Shock	MIL-R-12934, 100Gs
Wiper Bounce and Wiper Shift	Same as vibration
Load Life	MIL-R-12934 4.6.20.2, 1,000 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	3600° (+10°/—0°)
Shaft Runout	.001 in. T.I.R.
Shaft End Play	.003 in. T.I.R.
Shaft Radial Play	.002 in. T.I.R.
Pilot Diameter Runout	.0015 in. T.I.R.
Lateral Runout	.003 in. T.I.R.
Torque*	0.4 oz.-in. maximum (starting) 0.3 oz.-in. maximum (running) (Add 75% for each additional cup)
Rotational Life	2,000,000 shaft revolutions
Moment of Inertia	0.37 gm cm²
Stop Strength	96 oz.-in. minimum
Ganging	3 cups maximum
Weight	Approximately 1.1 oz.
Terminals	Gold plated turret type
Markings*	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.

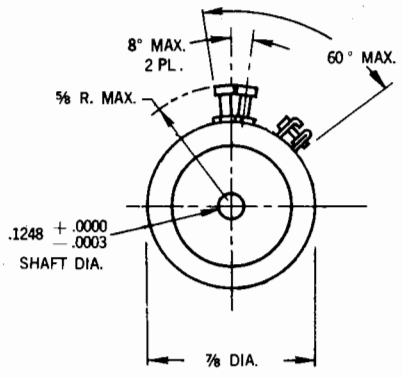
*INSPECTION NOTE: 100% or statistical sampling inspection performed to insure highest quality.

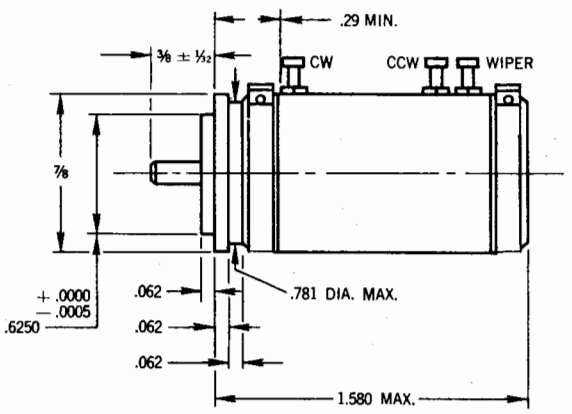
①Consult manufacturer for complete specification details for resistances below 500Ω.

Specifications are subject to change without notice.

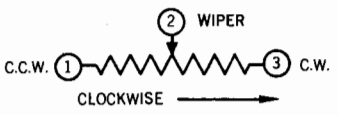
3550

SERVO SIZE 9





TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX ± .010, XXX ± .005
FRACTIONS: ± 1/64



NOTE:
1. ADD 1.23 MAX. TO 1.580 DIM. FOR EACH ADDITIONAL CUP

BOURNS

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LITHO IN U.S.A.