



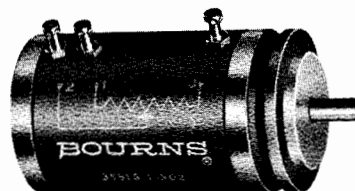
Model 3551
7/8" Diameter 10-Turn Servo Mount
Conductive Plastic Element

OBSOLETE 2002

FEATURES

- Unique INFINITRON® conductive plastic element provides essentially infinite resolution.
- Rotational life: 10,000,000 shaft revolutions.
- Standard Linearity 0.5%. Special linearities available.
- Exclusive termination technique insures low end resistance.
- Definite effective electrical angle.
- Output smoothness. 0.10%.
- Performance of the Model 3551 is guaranteed by the Bourns Reliability Assurance Program, which includes individual inspection to published electrical and physical characteristics.
- Custom design capability is available to satisfy your most demanding and difficult requirements.

Actual Size



STANDARD RESISTANCES

Resistance (Ohms)	Part Number*
1,000	3551S-1-102
2,000	3551S-1-202
5,000	3551S-1-502
10,000	3551S-1-103
20,000	3551S-1-203
50,000	3551S-1-503

Resistance (Ohms)	Part Number*
100,000	3551S-1-104
200,000	3551S-1-204
500,000	3551S-1-504
1,000,000	3551S-1-105
2,000,000	3551S-1-205
4,000,000	3551S-1-405

Front and rear precision ball bearings standard.

Sleeve bearing inserts available at reduced cost, Model 3551S-92-RC.

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

†Pat. Pending

Model 3551 Conductive Plastic Element Potentiometer

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	1K to 4 megohm
Resistance Tolerance*	±10%
Linearity (Independent)	±0.5%
Resolution	Essentially infinite
Effective Electrical Angle*	360° (+10° / -0°)
Minimum Voltage	0.1% maximum
Output Smoothness ^①	0.10%
Power Ratings: 325 volts maximum	
70°C	2.0 watts
125°C	0 watt
Dielectric Strength	MIL-R-39023
Room Conditions	1000 volts AC
80,000 feet (0.8" Hg.)	300 volts AC
Insulation Resistance 500 volts DC	1000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range -55°C to +125°C

Temperature Coefficient:

Specific temperature coefficient limits vary depending on the resistance value of the potentiometer and the temperature range in which it will be used. In general, the temperature coefficient value of Bourns' INFINITRON conductive plastic potentiometers is within ±200 PPM/°C.

When requesting exact values, please specify the resistance value of the potentiometer to be used and the temperature range required for your application.

(When potentiometers are used as voltage dividers, the resistance change due to temperature coefficient does not affect the wiper output as a ratio of the total applied voltage. Therefore, temperature coefficient should not be considered a major or significant specification in this type application.)

Humidity MIL-R-39023 moisture resistance

Vibration MIL-R-39023 20G

 Contact Bounce 0.1 millisecond maximum

 Wiper Shift 0.2% maximum

Shock	MIL-R-39023 100G
Contact Bounce and Wiper Shift	Same as vibration
Sand and Dust	MIL-E-5272
Fungus	MIL-E-5272
Load Life	1000 hours
Resistance Shift	5.0% maximum

PHYSICAL CHARACTERISTICS

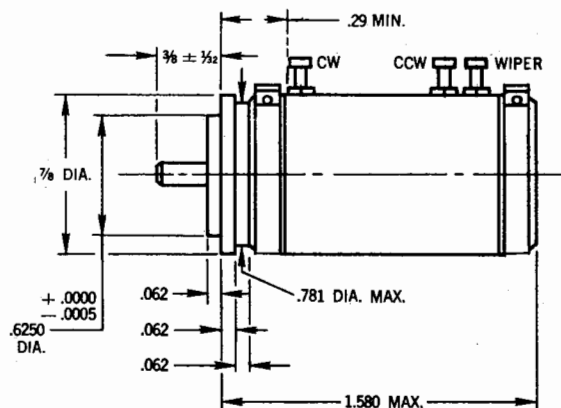
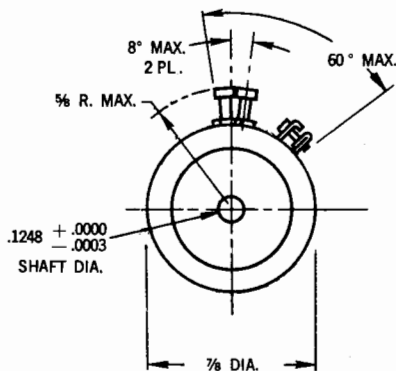
Mechanical Angle	360° (+10/-0°)
Shaft Runout*	0.001 in. T.I.R.
Shaft End Play*	0.003 in. T.I.R.
Shaft Radial Play*	0.002 in. T.I.R.
Pilot Diameter Runout*	0.0015 in. T.I.R.
Lateral Runout*	0.003 in. T.I.R.
Shaft Torque	0.4 oz.-in. maximum (starting) 0.3 oz.-in. maximum (running)
Rotational Life	500,000 cycles (10,000,000 shaft revolutions)
Moment of Inertia	0.37 GM/CM ²
Stop Strength	96 oz.-in.
Ganging	3 cups maximum
Weight	Approx. 1.1 oz.
Terminals	Gold plated turrets
Markings*	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and date code.

NOTES^① Noise 100Ω or 1% ENR maximum available as 3551S-14-(RC).

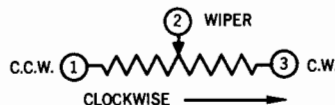
*Inspection: 100% or statistical sampling performed to insure highest quality.

Specifications are subject to change without notice.

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



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



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