Model 3551
3/8" Diameter 10-Turn Servo Mount
Conductive Plastic Element

FEATURES
- Unique INFINITRON® conductive plastic element provides essentially infinite resolution.
- Rotational life, 10,000,000 shaft revolutions.
- Standard Linear-ity 0.5%. Special linearity is 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.

STANDARD RESISTANCES

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Part Number*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000</td>
<td>35615-1-001</td>
</tr>
<tr>
<td>2,000</td>
<td>35615-1-002</td>
</tr>
<tr>
<td>5,000</td>
<td>35615-1-003</td>
</tr>
<tr>
<td>10,000</td>
<td>35615-1-004</td>
</tr>
<tr>
<td>20,000</td>
<td>35615-1-005</td>
</tr>
<tr>
<td>50,000</td>
<td>35615-1-006</td>
</tr>
<tr>
<td>100,000</td>
<td>35615-1-007</td>
</tr>
</tbody>
</table>

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

TRIMPOT PRODUCTS DIVISION

SEPTMBER 1975
301-9-372/14
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 megohms
Resistance Tolerance*: ±1%
Linearity (independent): ±5%
Resolution: Essentially infinite
Effective Electrical Angle*: 360° (+10°/-0°)
Minimum Voltage: 0.1% maximum
Output Smoothness: 0.1 Ohm
Power Ratings: 250 volts maximum
Operating Temperature: 75°C to 125°C
Dielectric Strength: MIL-R-83523
Room Conditions: 1000 volts AC
Insulation Resistance: 500 volts DC

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range: -55°C to 85°C
Temperature Coefficient: Specific temperature coefficient limits vary depending on the resistance value. The temperature range is 5kΩ to 4MΩ as used. In general, the temperature coefficient value of Bourns INFINITRON conductive plastic potentiometers is ±0.2% PMU/°C.
When selecting reactance values, please specify the resistance value of the potentiometer to be used and the temperature range expected for your application.
Note: All potentiometers are used as voltage dividers, the resistance change due to temperature coefficients does not affect the voltage 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-83523 moisture resistance
Vibration: MIL-R-83523 25G
Contact Resistance: 0.1 mW maximum
Wiper Shift: 0.2% maximum

PHYSICAL CHARACTERISTICS

Mechanical Angle: 360° (±10°/-0°)
Shift Ratio*: 0.75 Ohm/°
Shift End Torque*: 0.005 in.-lb. M.T.R.
Shaft Hub Torque*: 0.002 in.-lb. M.T.R.
Pilot Diameter Round*: 0.0015 in. M.T.R.
Lateral Runout*: 0.009 in. M.T.R.
Shaft Torque*: 0.1 in-lbs. maximum (starting)
Gapping: 0.1 in-lbs. maximum (running)
Bushing Life: 500,000 cycles (10,000,000 shaft revolutions)
Moisture of Humidity: 0.97 Ohm/°C
Stop Strength: 36 oz.-ls.
Gapping: 3 cups maximum
Weight: Approx. 1.1 oz.
Terminals: Gold plated terminals
Markings*: Manufacturer's name and part number, resistance value and tolerance, fineness tolerance, wiring diagram and data code.
NOTE: @ 85°C ±10% for 1% values.
*Inspection: 100% or statistical sampling performed to insure highest quality.
Specifications are subject to change without notice.

BOURNS, INC., TRANSPORT PRODUCTS DIVISION
1300 COLUMBIA AVENUE, RIVERSIDE, CALIFORNIA 92507

TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .01 to .001, .001 to .0001
FRACTIONS: 1/16