FEATURES

- 0.25% linearity (standard).
- SILVERWELD® termination eliminates vulnerable single-wire termination.
- shaft supported front and rear by precision ball bearings.*
- Outstanding resistance to humidity. Exceeds Humidity Cycling requirements of MIL-R-12934.
- Performance of Model 3570 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 special requirements.

STANDARD RESISTANCES

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Part Number**</th>
<th>Max. Variation (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>35705-1-050</td>
<td>0.132</td>
</tr>
<tr>
<td>50</td>
<td>35705-1-050</td>
<td>0.230</td>
</tr>
<tr>
<td>100</td>
<td>35705-1-051</td>
<td>0.450</td>
</tr>
<tr>
<td>250</td>
<td>35705-1-301</td>
<td>0.590</td>
</tr>
<tr>
<td>500</td>
<td>35705-1-501</td>
<td>0.930</td>
</tr>
<tr>
<td>1,000</td>
<td>35705-1-101</td>
<td>1.500</td>
</tr>
<tr>
<td>2,000</td>
<td>35705-1-201</td>
<td>2.000</td>
</tr>
</tbody>
</table>

**Screw type insert bearings available at reduced cost (Model 35705-02-4C)

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Part Number**</th>
<th>Max. Variation (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,350</td>
<td>20709-1-002</td>
<td>0.032</td>
</tr>
<tr>
<td>15,900</td>
<td>20709-1-010</td>
<td>0.020</td>
</tr>
<tr>
<td>35,800</td>
<td>20709-1-020</td>
<td>0.015</td>
</tr>
<tr>
<td>150,000</td>
<td>20709-1-040</td>
<td>0.005</td>
</tr>
<tr>
<td>250,000</td>
<td>20709-1-050</td>
<td>0.004</td>
</tr>
</tbody>
</table>

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

**ELECTRICAL CHARACTERISTICS**
- Resistance Range: 25 ohms - 3500 ohms
- Resistance Tolerance*: ±0.5% standard
- Linearity (Independently)*: ±0.2% standard
- Resolution: See Standard Resistance Table
- Effective Electrical Angle*: 180° (+10° - 0°)
- Absolute Minimum Resistance*: 1 ohm or 0.1%, whichever is greater
- Neck*: 100 ohms CN minimum
- Power Ratings:
  - 70°C: 1.5 watts
  - 125°C Ambient: 1.0 watt
- Di Static Strength: MIL-I-12544
- Room Conditions: 1000 volts AC
- 60,000 feet (0.6°) DC
- Insulation Resistance: 500 volts DC*: 1000 megohms minimum

**ENVIRONMENTAL CHARACTERISTICS**
- Operating Temperature Range: -65 to +125°C
- Temperature Coefficient of Mfr*: 20 ppm/°C maximum
- Humidity: MIL-I-12544, humidity cycling
- Vibration: MIL-R-20264, 30G
- Wiper Drage: 0.1 milliamper maximum
- Wiper Shift, Maximum: 0.2% 
- Wiper Drage and Wiper Shift: Same as Vibration
- Load Life: MIL-R-12544, 1000 hours
- Resistance Shift, Maximum: MIL-R-12544, 0.5% 
- Sand and Dust: MIL-E-18228
- Fog: MIL-E-18228
- Salt Spray: MIL-STD-202, Method 1014A

**MECHANICAL AND PHYSICAL CHARACTERISTICS**
- Mechanical Rotation*: 180° (+10° - 0°)
- Shaft Runout*: .001 in. T.I.R.
- Shaft End Flap*: .002 in. T.I.R.
- Shaft Radial Flap*: .002 in. T.I.R.
- Shaft Parallel Flap*: .001 in. T.I.R.
- Load Runout*: .003 in. T.I.R.
- Rotational Life (D): 1,000,000 shaft revolutions
- Moment of Inertia: 0.28 gm cm²
- Stop Strength: 90 oz. in.
- Shaft Torque*: 0.4 oz. in. maximum (starting), 0.3 oz. in. maximum (running)
- Weight: Approximately 0.6 oz.
- Termed: Gold plated terminal type
- Markings*: Manufacturer's name and part number, resistance and tolerance, linearity tolerance, wiring diagram and date code.

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

(1) Consult manufacturer for complete specification details for resistances below 200 ohms and above 100K ohms.

Specifications are subject to change without notice.

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3570

![Diagram](image-url)