The BEI Sensors 5320 Series offers a highly reliable rotary potentiometer sensor that can be easily integrated or re-packaged into a wide variety of existing and new applications. The new 5320 Series is ideally suited for tight packaging constraints while providing superior durability, long service life and repeatable accuracy. The sensor is fully sealed and impervious to contamination and moisture. A wide variety of standard and non-standard options are available including detent functions, electrical/mechanical angles, shaft/bushing sizes, lengths and configurations, resistance values, etc.

The 5320 Series standard termination offers gold plated through holes for direct soldering. Options are also available for custom termination methods by contacting BEI Sensors Sales. The 5320 series sensors offer all of the advantages of a cost effective, traditional potentiometer while providing a rugged, compact, low-profile design to survive the harshest conditions.

5320 Series Features:

**Extended Operating Life**
1 million plus operational cycles

**Fully Sealed Construction**
Meets or exceeds IP66/IP67 standards

**Extended Temperature Range**
Operating: -40º to +125ºC
Storage: -55º to +150ºC

**High Quality, Rugged Construction**
Stainless Steel Shaft, Nickel Plated Brass Bushing
See Reverse for Additional Environmental Specifications

**Wide Range of Configurations (see ordering info)**
Shaft and Bushing Lengths
Linearity (accuracy) Tolerance Limits
With or Without Detent Function
Total Resistance

**Custom Options Available (contact Duncan Sales)**

Ordering Information:

<table>
<thead>
<tr>
<th>Basic Configurations: Shaft &amp; Bushing Lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>5321</td>
</tr>
<tr>
<td><img src="image" alt="Image" /></td>
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</tbody>
</table>

Dimensions are shown in millimeters [in]

<table>
<thead>
<tr>
<th>Detent:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank = None, D = Included</td>
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<table>
<thead>
<tr>
<th>Independent Linearity:</th>
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</thead>
<tbody>
<tr>
<td>Standard = +/-2.0%</td>
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</table>

<table>
<thead>
<tr>
<th>Total Resistance:</th>
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</thead>
<tbody>
<tr>
<td>Standard = 1K, 5K or 10K</td>
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</table>

<table>
<thead>
<tr>
<th>Basic Configuration Model (identified above)</th>
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</thead>
<tbody>
<tr>
<td>STANDARD PART: 5321 R5K L2.0</td>
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<table>
<thead>
<tr>
<th>532X RXK LXX X</th>
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<table>
<thead>
<tr>
<th>No Detent Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard +/-2.0% Linearity</td>
</tr>
<tr>
<td>Total Resistance</td>
</tr>
</tbody>
</table>

ISO 9001 : 2000 Registered
Rotary Precision Position Sensor
5320 Series Panel Pot

Standard Sensor as Example
Dimensions are shown in millimeters [inches reference]

Mechanical Specifications
- **Total Travel (stop to stop):** 250 degrees
- **Stop Strength:** 1350 Nmm (190 in-oz)
- **Shaft Pull Out Strength:** 200N (45lbs)
- **Shaft Operating Torque:** 5-25 Nmm (0.7-3.5 in-oz)
- **Shaft Starting Torque:** 35 Nmm (5 in-oz) Max.
- **Cycle Life:** 1 Million cycles
- **Detent Life:** 10,000 cycles
- **Detent Torque:** 35-120 Nmm (5-17 in-oz)
- **Detent Release Position:** 20 degrees Max.

Environmental Specifications
- **Moisture & Dust Resistant:** Sealed, IP66/IP67
- **Vibration:** 15g, 10 to 2000 Hz
- **Shock:** 30g
- **Temperature:** -40°C to +125°C operating
  -55°C to +150°C storage
- **Salt Spray:** 96 hours
- **Resistance to Solder Heat:** 350°C (660°F) for 5 sec.
  (at termination points)

Electrical Specifications
- **Electrical Travel:** 240 degrees
- **Active Electrical Travel:** 216 degrees (5%-95%)
- **Power Rating at 70°C:** 0.25W (derating to 0 at 125°C)
- **Resistance Tolerance:** ±20%
- **Linearity, Independent:** ±2% (Active)
- **RGV:** 100% Max.
  (Output Smoothness): 0.2% (Active)

Materials
- **Shaft:** Stainless Steel
- **Bushing:** Nickel Plated Brass
- **Housing (Package):** Nylon 6 (Akulon)
- **PCB:** 4101/21 (FR-4)

Specifications subject to change without notice. BE2023