3400 - Precision Potentiometer

### Electrical Characteristics

- **Standard Resistance Range**: 100 to 500 K ohms
- **Total Resistance Tolerance**: ±3 %
- **Absolute Minimum Resistance**: 1 ohm or 0.15 % maximum (whichever is greater)
- **Effective Electrical Angle**: 360° +4° -0°
- **Dielectric Withstanding Voltage**: MIL-STD-202, Method 301
- **Power Rating**: (Voltage Limited By Power Dissipation, or 1.000 VAC, Whichever Is Less) (40 °C) 5 watts
- **Voltage Ratio Shift**: ±0.1 % maximum
- **Rotational Life (No Load)**: 2,000,000 shaft revolutions
- **Interface**: See recommended part number

### Environmental Characteristics

- **Operating Temperature Range**: +1 °C to +125 °C
- **Storage Temperature Range**: -65 °C to +125 °C
- **Temperature Coefficient Over Storage Temperature Range**: ±20 ppm/°C maximum/unit
- **Dielectric Withstanding Voltage**: MIL-STD-202, Method 301
- **Noise**: 100 ohms ENR maximum
- **Vibration**: 10 G
- **Resolution**: See recommended part number

### Mechanical Characteristics

- **Stop Strength**: 53 N-cm (75 oz.-in.) min.
- **Torque (Starting & Running)**: 0.35 N-cm (0.5 oz.-in.) max.
- **Shaft Runout**: 0.08 mm (0.003 in.) T.I.R.
- **Shaft End Play**: 0.25 mm (0.010 in.) T.I.R.
- **Pilot Diameter Runout**: 0.08 mm (0.003 in.) T.I.R.
- **Backlash**: ±1 ° maximum
- **Weight**: Approximately 21 gm
- **Terminal Tolerances**: Gold-plated solder lugs

### Product Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaft DIA.</td>
<td>0.093 (2.36)</td>
</tr>
<tr>
<td>Pilot DIA</td>
<td>0.08 (2.03)</td>
</tr>
<tr>
<td>ADD. 3/8 FOR ADDITIONAL CUP</td>
<td>1.02 (25.4)</td>
</tr>
<tr>
<td>ADD. 39.4 FOR (1.55)</td>
<td>14.3 (365)</td>
</tr>
<tr>
<td>SHAFT DIA.</td>
<td>0.563 ± .002</td>
</tr>
<tr>
<td>TYP.</td>
<td>1.02 (25.4)</td>
</tr>
<tr>
<td>TYP.</td>
<td>(1/36)</td>
</tr>
</tbody>
</table>

### Recommended Part Numbers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Resistance (Ω)</th>
<th>Resolution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3400S-1-102L</td>
<td>1,000</td>
<td>0.020</td>
</tr>
<tr>
<td>3400S-1-502L</td>
<td>5,000</td>
<td>0.013</td>
</tr>
<tr>
<td>3400S-1-103L</td>
<td>10,000</td>
<td>0.010</td>
</tr>
</tbody>
</table>

### Features

- Bushing mount
- Optional ±0.05 linearity option
- Excellent wiper stability
- High stop strength
- Sealed
- RoHS compliant*

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Panel Thickness Dimensions
(For Bushing Mount Only)

Anti-rotation pin hole is shown at six o'clock position for reference only. The actual location is determined by the customer's application. Refer to the front view of the potentiometer to see the location of the optional A/R pin.

Panel thickness and hole diameters are recommended for best fit. However, customers may adjust the dimensions to suit their specific application.

Specifications are subject to change without notice. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.