FEATURES

- High performance at low cost.
- Nonmetallic shaft and bushing.
- SILVERWELD® termination eliminates vulnerable single-wire termination and provides low end resistance.
- Shaft with screwdriver slot standard.
- Extended temperature range —55 to +105°C.
- Individual inspection of each potentiometer to guaranteed electrical and physical specifications.

STANDARD RESISTANCES

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Part Number*</th>
<th>Resolution (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>35095-1-001</td>
<td>0.653</td>
</tr>
<tr>
<td>200</td>
<td>35095-1-002</td>
<td>0.262</td>
</tr>
<tr>
<td>500</td>
<td>35095-1-003</td>
<td>0.122</td>
</tr>
<tr>
<td>1,000</td>
<td>35095-1-004</td>
<td>0.076</td>
</tr>
<tr>
<td>2,000</td>
<td>35095-1-006</td>
<td>0.022</td>
</tr>
</tbody>
</table>

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

COMMON MODIFICATIONS AND PART NUMBERS TO ORDER BY

- Linearity 0.1% independent (500 ohms min.) P/N 35085-00-RC
- Stainless Steel Shaft with Metal Bushing P/N 35085-00-RC
- Metal Bushing w/o Standard Plastic Knob P/N 35085-00-RC
- Shaft Flat 500 ohms min. P/N 35085-00-RC
- High Torque 2 to 8.5 oz-in. P/N 35085-00-RC
BOURNS Potentiometer Model 3509

STANDARD SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Resistance Range

Standard 100 to 190,000 ohms
Special 50 to 250,000 ohms

Resistance Tolerance

±2% maximum

Linearity (Independently)

±2.5% maximum

Resolution

See standard tolerance table

Effective Electrical Angle

360° (-180°, -90°)

Absolute Minimum Resistance

1 ohm or 20%, whichever is greater

Noise

500 ohms FIM minimum

Power Rating

2.0 watts

10°C

0 watt

Dielectric Strength

MIL-R-12524

Sea Level

1,000 volts AC maximum

75,000 feet

250 volts AC maximum

Environmental Resistance, 500 volts DC

1,000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range

-55 to +125°C

Temperature Coefficient of Wire

20 ppm/°C maximum

Humidity

MIL-R-12524

Vibration

MIL-R-12524, 10G

Shock

MIL-R-12524, 900G

Load Life

MIL-R-12524, 4.6, 20.2, 1,000 hours

Resistance drift

±0.3% maximum

Sand and Dust

MIL-R-12527

Fog

MIL-R-6727

Salt Spray

MIL-R-12934

MECHANICAL AND PHYSICAL CHARACTERISTICS

Mechanical Angle

360° (-180°, -90°)

Notional Life Normal Conditions

1,000,000 shaft revolutions/minimum

Step Strength

48 oz. minimum

Torque

Starting and Running

2.0 oz-in. maximum

Weight

Approximately 1.0 oz.

Terminals

Gold plated solder tags

Housing and bushing

Glass filled resin

Shaft

Polyamide

Mounting Nut Torque

15 lbs-in. maximum

Markings*

Manufacturer's name and part number, resistance value, tolerance, frequency tolerance, wiring diagram, and test data.

NOTES

* 100% or statistical sample inspection performed to insure highest quality. Specifications are subject to change without notice.