PEC11L Series - 11 mm Low Profile Encoder

### Electrical Characteristics
- **Output**: 2-bit quadrature code
- **Contact Rating**: 100 milliohms maximum
- **Contact Rating (Resistive Load)**: 10 mA @ 5 VDC
- **Dielectric Withstanding Voltage**: 100 megohms @ 250 VDC
- **Open Circuit Voltage**: 300 VAC minimum
- **Contact Resistance**: 10 ms maximum**
- **Power Rating**: 60 ma maximum**

### Mechanical Characteristics
- **Mechanical Angle**: 360° continuous
- **Torque**
  - Detent: 20-200 gf-cm (0.27 to 2.8 oz-in)
  - Running: 10 to 150 gf-cm (0.14 to 2.1 oz-in)
  - Mounting: 70 N-cm (6.2 lb-in) maximum
- **Shaft Strength (Push-Pull)**: 2.04 kgf (4.5 lbs) minimum
- **Shaft Strength (Draw)**: 100 N (22.5 lbs)
- **Weight**: 5 gm (0.17 oz) maximum
- **Terminals**: Printed circuit board terminals
- **Wave Soldering**: Sn95.5/Au2.0/Cu0.7 solder without no-clean flux. 260 °C ±5 °C max. for 3-5 seconds
- **Hand Soldering**: Not recommended

### Switch Characteristics
- **Switch Type**: Contact Push ON Momentary SPST
- **Power Rating (Resistive Load)**: 10 mA at 5 V DC
- **Switch Travel**: 0.5 ± 0.3 mm
- **Switch Actionation Force**: 610 ± 306 gf (8.47 ± 4.24 oz-in.)

### How To Order
```
PEC11L - 4 0 20 F - S 0015
```

For more information about this product, visit our website at: www.potentiometers.com

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**Features**
- Push switch option
- Compact, low profile
- High rotational life and switch life
- Metal bushing/shaft
- RoHS compliant*

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**Devices are tested using standard noise reduction filters. For optimum performance, designers should use noise reduction filters in their circuits. 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.
### Applications
Level control, tuning and timer settings in:
- Audio-visual equipment
- Consumer electric appliances
- Environmental controls
- Musical instrumentation
- Communications equipment

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### PEC11L Series - 11 mm Low Profile Encoder

#### Product Dimensions

**PEC11L-4xxxF-Nxxxx**

- **L**
- **B**
- **F**
- **P**
- **A**
- **C**

<table>
<thead>
<tr>
<th>L</th>
<th>B</th>
<th>F</th>
<th>P</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>5.0</td>
<td>7.0</td>
<td>7.0</td>
<td>6.0</td>
<td>7.0</td>
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<td>7.0</td>
<td>12.0</td>
<td>12.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>

**Switch Travel**

- 0.5 +0/-0.1

**Dim. Tol.**

- <10.0
- ±0.3

- 10.0 ~ 100
- (±0.012)

**TERMINAL A**
- **TERMINAL B**
- **TERMINAL C**

**Suggested Filter Circuit**

- **TERMINAL A**
- **TERMINAL B**

**Switch Circuit**

1. **TERMINAL A**
2. **TERMINAL B**

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**Quadrature Output Table**

<table>
<thead>
<tr>
<th>CW Signal</th>
<th>CCW Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Signal</td>
<td>OFF</td>
</tr>
<tr>
<td>B Signal</td>
<td>ON</td>
</tr>
</tbody>
</table>

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