PER56 - 56 mm Low Profile Incremental Ring Encoder

**Features**

- Low profile incremental encoder
- High-class rotational feel
- Haptic detent feedback
- RoHS compliant*

**Electrical Characteristics**

- Output: 2-bit quadrature code
- Contact Rating: 10 mA @ 5 V DC
- Insulation Resistance: 100 MΩ @ 250 V DC
- Dielectric Withstanding Voltage: 300 V AC
- Electrical Travel: Continuous
- Contact Bounce (15 RPM): 2 ms max.**

**Environmental Characteristics**

- Operating Temperature: -20 °C to +70 °C
- Storage Temperature: -40 °C to +85 °C
- IP Rating: IP 40
- Soldering Condition:
  - Wave Soldering: 260 °C for 5 s
  - Manual Soldering: 300 °C for 3 s
- Mechanical Characteristics:
  - RPM (operating): 60 max.
  - Mechanical Angle: 360 ° continuous
  - Detent Torque: 50 to 200 gf-cm
  - Rotational Life: 50,000 cycles

**Product Dimensions**

**Quadrature Output Table**

<table>
<thead>
<tr>
<th>D</th>
<th>CW</th>
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<tbody>
<tr>
<td>OFF</td>
<td>ON</td>
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<tr>
<td>OFF</td>
<td>ON</td>
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**Suggested Filter Circuit**

| TERMINAL A | 10K OHMS | 0.01 µF |
| TERMINAL B | 10K OHMS | 0.01 µF |
| ENCODER | 5V DC |

**Recommended PCB Layout**

**WARNING**

Cancer and Reproductive Harm
www.P65Warnings.ca.gov

** Devices are tested using standard noise reduction filters. For optimum performance, designers should use noise reduction filters in their circuits.

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How To Order

PER56  1  -  P1  15  -  N  0015

Model
Number of Units  
  1 = Single
Orientation
  P = PC Pins Down Facing
Detent Option
  1 = 30 Detents (15 Pulses)
Ring Height
  15 = 15 mm
Switch Configuration
  N = No Switch
Resolution
  0015 = 15 Pulses per 360 ° Rotation

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