



## Features

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

# PER56 - 56 mm Low Profile Incremental Ring Encoder

### Additional Information

Click these links for more information:



### Electrical Characteristics

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

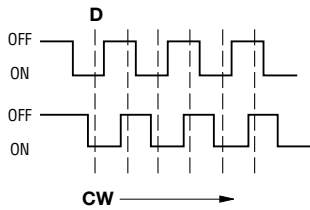
### Environmental Characteristics

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

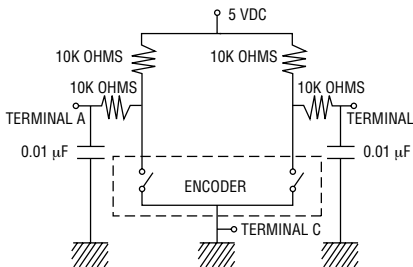
### Mechanical Characteristics

RPM (operating)..... 60 max.  
 Mechanical Angle..... 360° continuous  
 Detent Torque..... 50 to 200 gf-cm  
 Rotational Life..... 50,000 cycles

### Quadrature Output Table

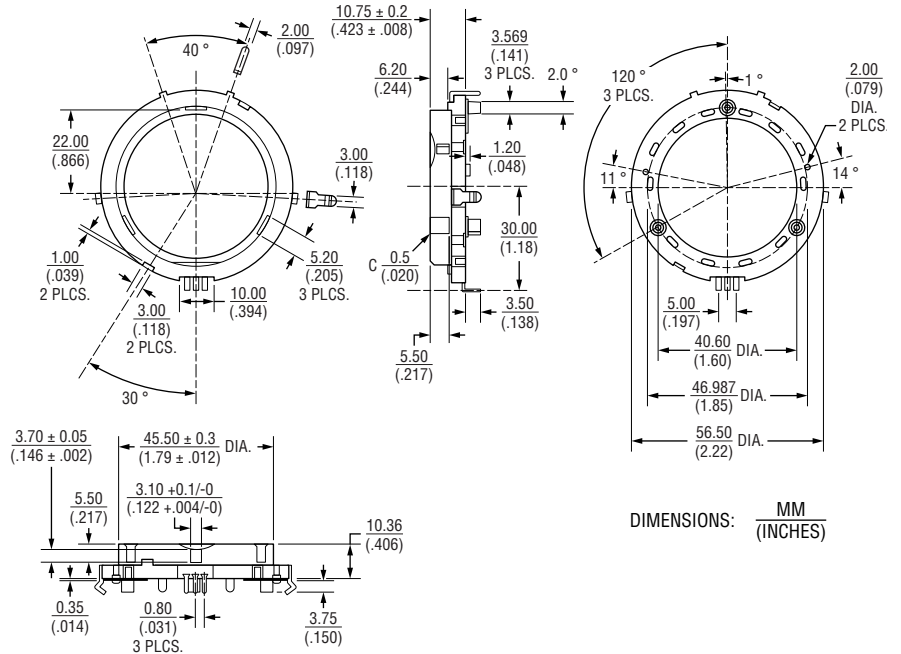


### Suggested Filter Circuit



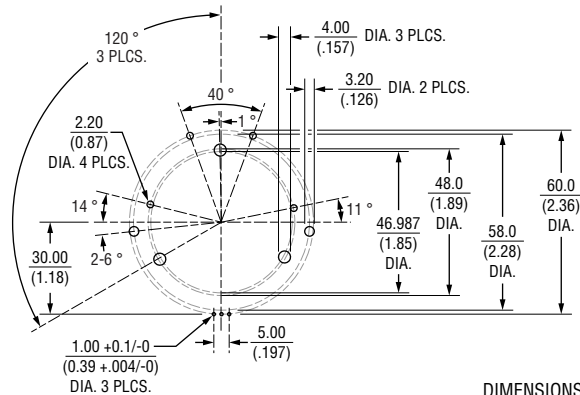
**CAUTION**  
 Do not store product in high temperature and humidity, direct sunlight and/or places where corrosive gases may be generated. Please use product within 6 months from the date of delivery and promptly after unpacking.

### Product Dimensions



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

### Recommended PCB Layout



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

**WARNING**  
 Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\* Devices are tested using standard noise reduction filters. For optimum performance, designers should use noise reduction filters in their circuits.  
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# PER56 - 56 mm Low Profile Incremental Ring Encoder

**BOURNS®**

## 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

**BOURNS®**

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REV. 07/21

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Users should verify actual device performance in their specific applications.

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