



### Features

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



## PER60 - 60 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 @ 100 V DC  
 Dielectric Withstanding Voltage..... 100 V AC  
 Sea Level.....  
 Electrical Travel..... Continuous  
 Contact Bounce (60 RPM)..... 5 ms max.\*\*

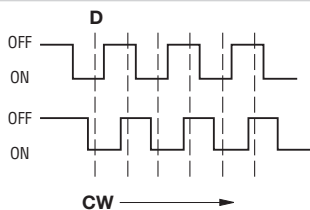
### Environmental Characteristics

Operating Temperature..... -10 °C to +60 °C  
 Storage Temperature..... -40 °C to +85 °C  
 Soldering Condition  
 Wave Soldering..... 260 °C for 5 s  
 Manual Soldering..... 300 °C for 3 s

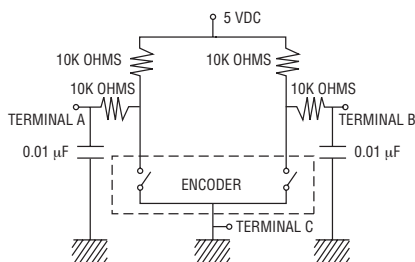
### Mechanical Characteristics

RPM (operating)..... 60 max.  
 Mechanical Angle..... 360° continuous  
 Detent Torque..... 100 to 300 gf-cm  
 Rotational Life..... 40,000 cycles

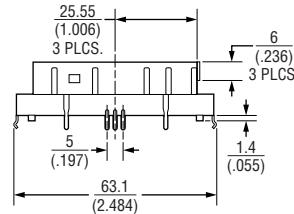
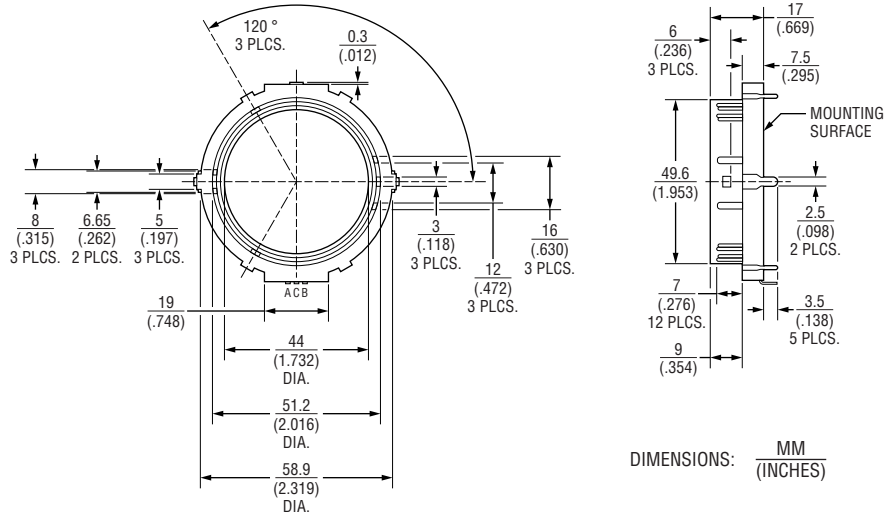
### Quadrature Output Table



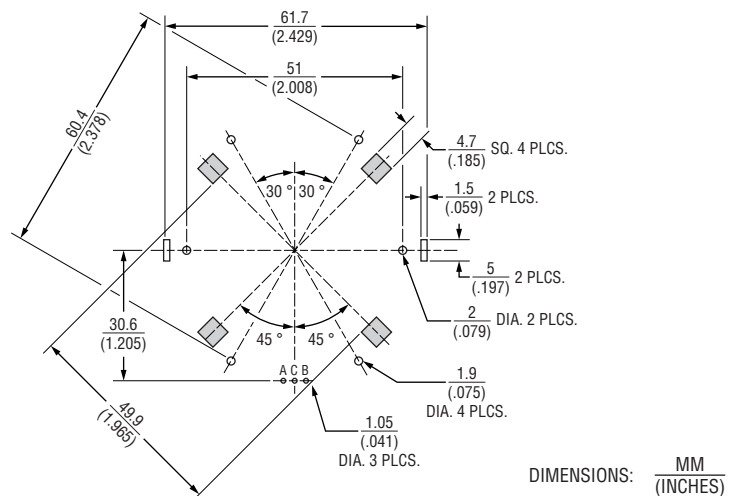
### Suggested Filter Circuit



### Product Dimensions



### Recommended PCB Layout



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



**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.

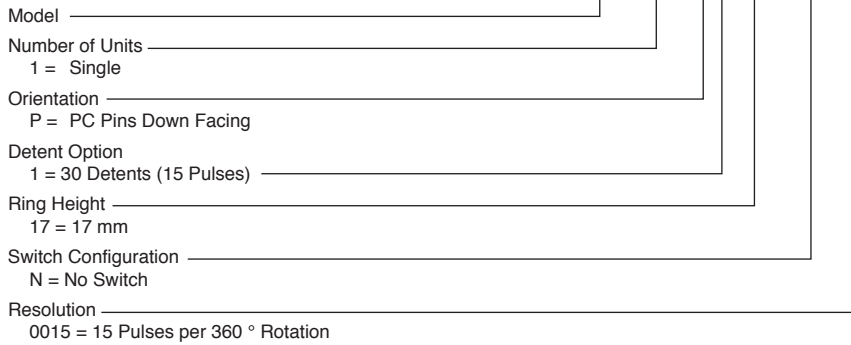
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\* Devices are tested using standard noise reduction filters. For optimum performance, designers should use noise reduction filters in their circuits.  
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## PER60 - 60 mm Low Profile Incremental Ring Encoder

**BOURNS®**

### How To Order

**PER60 1 - P1 17 - N 0015**



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