



## 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.\*\*

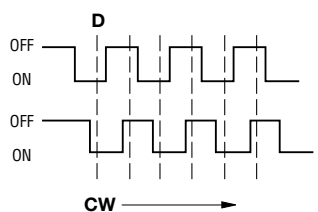
## Environmental Characteristics

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

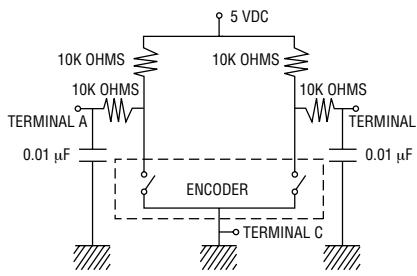
## Mechanical Characteristics

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

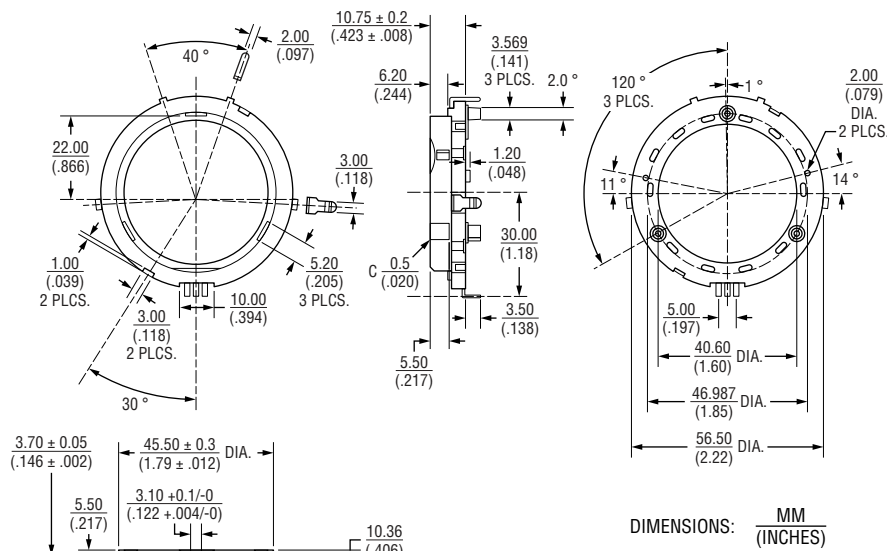
## Quadrature Output Table



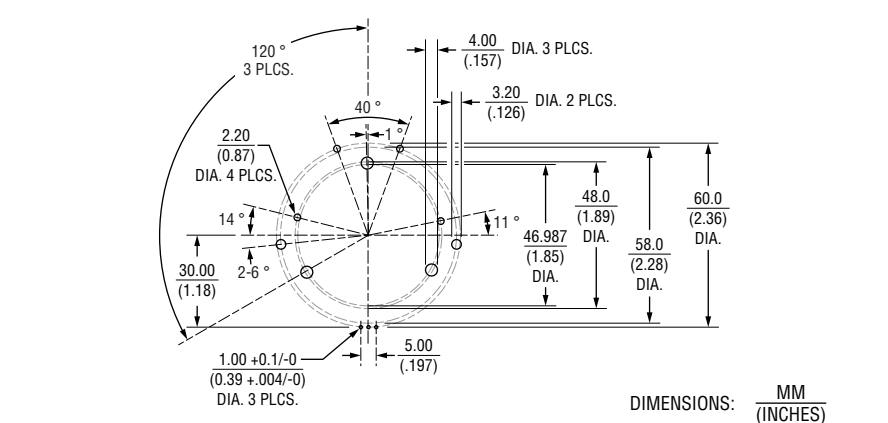
## Suggested Filter Circuit



## Product Dimensions



## Recommended PCB Layout



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

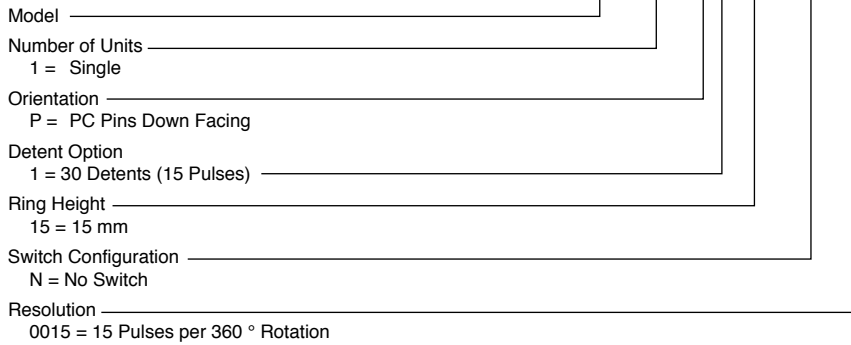
\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.  
 \*\* Devices are tested using standard noise reduction filters. For optimum performance, designers should use noise reduction filters in their circuits.  
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## PER56 - 56 mm Low Profile Incremental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

**BOURNS®**

### How To Order

**PER56 1 - P1 15 - N 0015**



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