



## Features

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

## EC28 - 28 mm Low Profile Incremental Ring Encoder

### Electrical Characteristics

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

### Environmental Characteristics

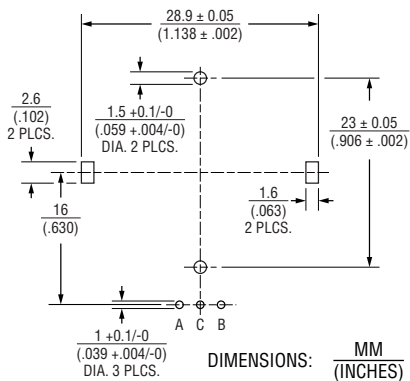
Operating Temperature..... -30 °C to +80 °C  
 Storage Temperature..... -40 °C to +85 °C  
 IP Rating..... IP 40

### Mechanical Characteristics

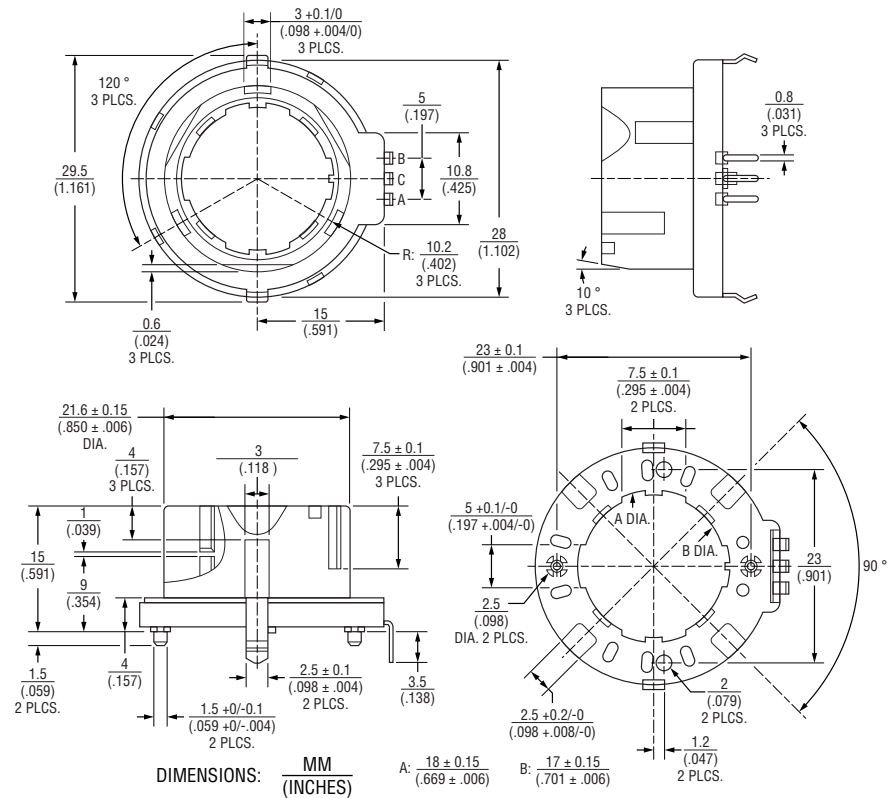
RPM (Operating) ..... 60 max.  
 Mechanical Angle .....360 ° continuous  
 Detent Torque .....50 to 250 gf-cm  
 Rotational Life.....30,000 cycles  
 Soldering Condition

Wave Soldering..... 260 °C for 3 seconds  
 Manual Soldering... 300 °C for 3 seconds

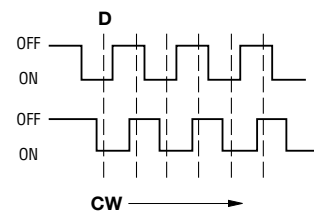
### Recommended PCB Layout



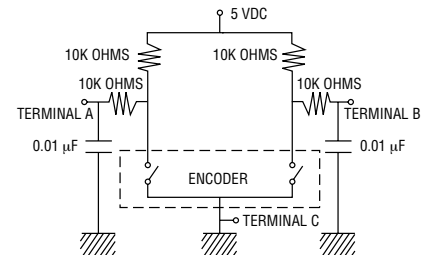
### Product Dimensions



### Quadrature Output Table



### Suggested Filter Circuit



### How To Order

**EC28A10V01-0003 XAO15P2H150**

Model

Resolution

15P = 15 Pulses 30 Detents

18P = 18 Pulses 18 Detents