



Features

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

PER21 - 21 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 megohms @ 250 V DC
 Dielectric Withstanding Voltage
 Sea Level.....300 V AC
 Electrical Travel.....Continuous
 Contact Bounce (15 RPM)..... 3 ms max.**

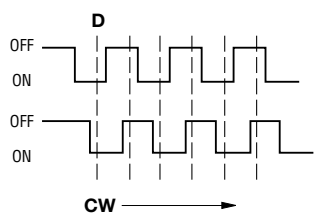
Environmental Characteristics

Operating Temperature..... -10 °C to +60 °C
 Storage Temperature..... -40 °C to +85 °C

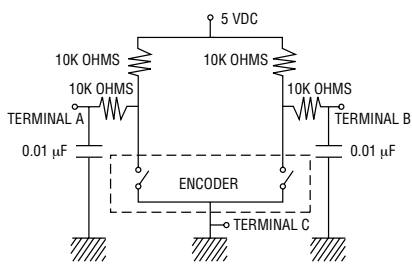
Mechanical Characteristics

RPM (Operating) 60 max.
 Mechanical Angle 360 ° continuous
 Detent Torque 70 to 170 gf-cm
 Rotational Life..... 50,000 cycles
 Soldering Condition
 Wave Soldering..... 260 °C for 3 seconds
 Manual Soldering... 300 °C for 3 seconds

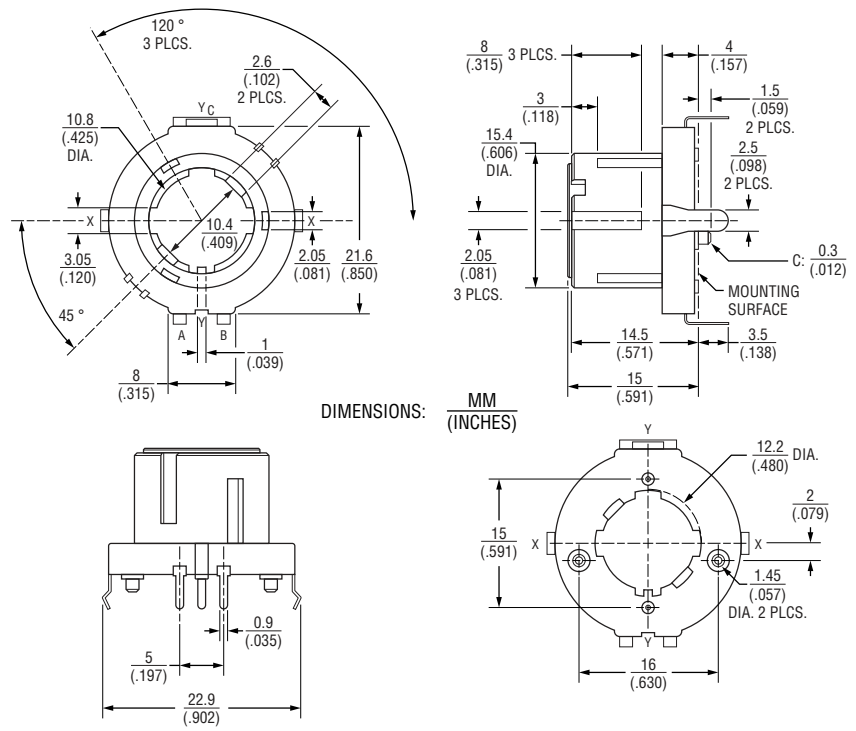
Quadrature Output Table



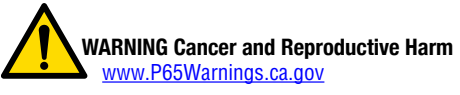
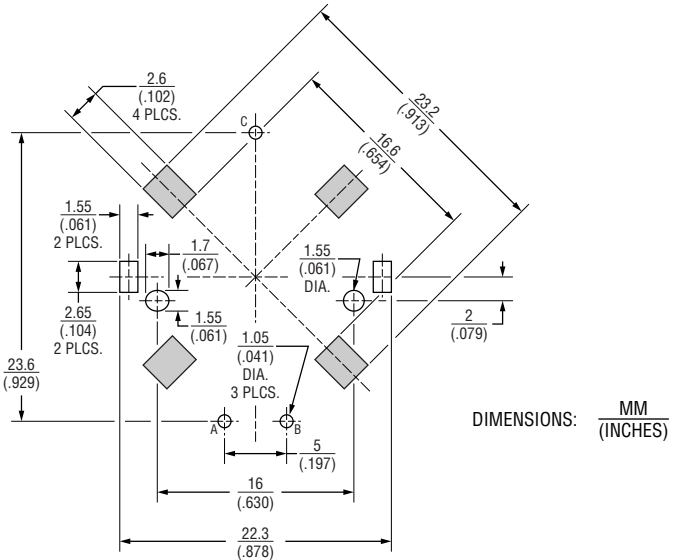
Suggested Filter Circuit



Product Dimensions



Recommended PCB Layout



* 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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PER21 - 21 mm Low Profile Incremental Ring Encoder

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How To Order

PER21 1 - P1 15 - N 0009

Model	PER21
Number of Units	1
Orientation	P1
Detent Option	15
Ring Height	N
Resolution	0009

1 = Single
P = PC Pins Down Facing
1 = 18 Detents (9 Pulses)
15 = 15 mm
N = No Switch
0009 = 9 Pulses per 360 ° Rotation

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Users should verify actual device performance in their specific applications.

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