### Electrical Characteristics

- **Output**: 2-bit quadrature code
- **Contact Rating**: 10 mA @ 5 VDC
- **Dielectric Withstanding Voltage**: 10 megohms @ 250 VDC
- **Insulation Resistance**: 10 megohms @ 250 VDC
- **Sea Level**: 50 VAC minimum
- **Shock**: 100 G
- **Vibration**: 10~55~10 Hz / 1 min. / Amplitude 1.5 mm
- **Humidity**: MIL-STD-202, Method 103B, Condition B
- **Storage Temperature Range**: -40 °C to +85 °C (-40 °F to +185 °F)
- **RPM (Operating)**: 100 maximum**
- **Electrical Travel**: Continuous
- **Dielectric Withstanding Voltage**: 360 ° continuous
- **Insulation Resistance**: 10 megohms @ 250 VDC
- **Contact Rating**: 10 mA @ 5 VDC
- **Operating Temperature Range**: -30 °C to +70 °C (-22 °F to +158 °F)
- **Shaft Side Load (Static)**: 2.04 kgf (4.5 lbs.) minimum
- **Weight**: 3 gm (0.1 oz.) maximum
- **Terminals**: Printed circuit board terminals
- **Hand Soldering**: Not recommended
- **Wave Soldering**: Sn95.5/Ag2.8/Cu0.7 solder with no-clean flux: 260 °C max. for 3 ± 1 sec.
- **Contact Push ON Momentary SPST**: One flat washer and one mounting nut supplied with each encoder with bushing
- **Operating Temperature Range**: -30 °C to +70 °C (-22 °F to +158 °F)
- **Switch Type**: Contact Push ON Momentary SPST
- **Power Rating (Resistive Load)**: 10 mA at 5 V DC
- **Switch Travel**: 0.5 ± 0.3 mm
- **Switch Actuation Force**: 610 ± 306 gf (8.47 ± 4.24 oz.-in.)
- **Contact Resistance**: 100 milliohms @ 5 VDC


**Devices are tested using standard noise reduction filters. For optimum performance, designers should use noise reduction filters in their circuits. Specifications are subject to change without notice. The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.
Applications
Level control, tuning and timer settings in:
- Audio-visual equipment
- Consumer electric appliances
- Musical instrumentation
- Communications equipment

PEC12R - 12 mm Incremental Encoder

Product Dimensions

PEC12R-2xxxF-Nxxxx (Vertical Mount - Radial PC Pin/No Bushing, No Switch)

PEC12R-2xxxF-Sxxxx (Vertical Mount - Radial PC Pin/No Bushing, Push Momentary Switch)

Switch Circuit

Suggested Filter Circuit

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Users should verify actual device performance in their specific applications.
PEC12R - 12 mm Incremental Encoder

Product Dimensions

PEC12R-3xxxF-Nxxxx (Horizontal Mount - Axial PC Pin/with Bushing, No Switch)

PEC12R-3xxxF-Sxxxx (Horizontal Mount - Axial PC Pin/with Bushing, Push Momentary Switch)

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PEC12R - 12 mm Incremental Encoder

Product Dimensions

PEC12R-4xxxxF-Nxxxx (Horizontal Mount - Axial PC Pin/No Bushing, No Switch)

PEC12R-4xxxxF-Sxxxx (Horizontal Mount - Axial PC Pin/No Bushing, Push Momentary Switch)

How To Order

Quadrature Output Table

For more information about this product, visit our website at:

www.potentiometers.com