PEC11J Series – 12 mm SMD Long Life Encoder

Features
- Push switch option standard
- Compact, rugged design
- High reliability
- Metal bushing/shaft
- Surface mount version
- Long rotational life

Electrical Characteristics
- Output: 2-bit quadrature code
- Closed Circuit Resistance: 3 ohms maximum
- Contact Rating: 10 mA @ 5 VDC
- Insulation Resistance: 100 megohms @ 250 VDC
- Dielectric Withstanding Voltage - Sea Level: 300 VAC minimum
- Electrical Travel: Continuous
- Contact Bounce (15 RPM): 2.0 ms maximum
- RPM (Operating): 80 maximum

Environmental Characteristics
- Operating Temperature Range: -10 °C to +70 °C
- Storage Temperature Range: -35 °C to +85 °C
- Operating Humidity: 25 % to 85 % R.H.
- Rotational Life: 100,000 cycles minimum
- Switch Life: 20,000 cycles minimum
- IP Rating: IP 40
- Moisture Sensitivity Level: 1
- ESD Classification (HBM): N/A

Mechanical Characteristics
- Mechanical Angle: 360 ° continuous
- Detent Torque: 100 ± 20 gf-cm
- Shaft Push-Pull Strength: 8 kg max.
- Weight: 5 gm maximum
- Terminals: Printed circuit board surface mount terminals
  Reflow Soldering: Sn95.5Ag2.8Cu0.7 solder with no-clean flux (see Solder Profiles for recommended time and temperature)
  Hand Soldering: Not recommended
- Hardware: No hardware supplied with this encoder

Switch Characteristics
- Switch Type: Contact Push ON Momentary SPST
- Power Rating (Resistive Load): 10 mA at 5 V DC
- Switch Travel
  S (Standard) 0.5 ± 0.3 mm
  H (High) 1.5 ± 0.5 mm
- Switch Actuation Force: See How to Order
- Contact Resistance: 100 mΩ max.

Packaging Characteristics
-Pieces per Tray: 75

How To Order
PEC11J - 9 2 20 F - S 0015

Model
Terminal Configuration
9 = Surface Mount Gull-wing Style
Detent Option
1 = 18 Detents (Exclusively for 9 Pulses)
2 = 30 Detents (Exclusively for 15 Pulses)
Shaft Length
15 = 15.0 mm  20 = 20.0 mm  25 = 25.0 mm
Shaft Style
F = Flatted, Metal
Switch Configuration (SPST)
S = 350 ± 100 gf  H = 400 ± 200 gf  N = No Switch
Resolution
0009 = 9 Pulses per 360 ° Rotation  0015 = 15 Pulses per 360 ° Rotation

Additional Information
Click these links for more information:

PRODUCT  TECHNICAL  INVENTORY  SAMPLES  CONTACT

WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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Applications
Level control, tuning and timer settings in:
- Professional audio equipment
- Professional lighting consoles
- Consumer white goods
- Test and measurement equipment
- Communications equipment
- Laboratory equipment

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Quadrature Output Table

Switch Circuit

Suggested Filter Circuit

Solder Profile

Notes:
1. No-clean solder paste is recommended.
2. Aqueous wash is not recommended.
3. Use of water soluble soldering flux should be avoided due to possible corrosion.
4. Multiple passes through the soldering process is not recommended.

Product Dimensions

Common Dimensions

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Recommended PCB Layout

DIMENSIONS: MM

Product Dimensions - Shaft Styles

PEC11J without Switch

PEC11J with 0.5 mm Switch Travel

PEC11J with 1.5 mm Switch Travel

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