Panasonic

7mm Square Encoders

Type: EVQVU

Features

- Smaller and lower product height type (Product height H=7mm)
- Good rotation feel
- Supports vertical self-standing mounting onto printed circuit boards

Recommended Applications

- Information & communications equipment
- For input devices of measuring instruments and various electronic equipment
- Portable electronic equipment

Explanation of Part Numbers

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>11</th>
<th>12</th>
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<tbody>
<tr>
<td>E</td>
<td>V</td>
<td>Q</td>
<td>V</td>
<td>U</td>
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Product Code | Product type | Product specification | Encoder output characteristics

Specifications

<table>
<thead>
<tr>
<th>Mechanical</th>
<th>Electrical</th>
<th>Endurance</th>
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</thead>
<tbody>
<tr>
<td>Rotation angle</td>
<td>360° (Endless)</td>
<td>Rotation life</td>
</tr>
<tr>
<td>Rotation Torque</td>
<td>5mN·m</td>
<td>Minimum Quantity/Packing Unit</td>
</tr>
<tr>
<td>Detents</td>
<td>24 points</td>
<td>Quantity/Carton</td>
</tr>
<tr>
<td>Output signals</td>
<td>Phase A and B</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>12 pulses/360°</td>
<td></td>
</tr>
<tr>
<td>Rating</td>
<td>1mA 10V DC (at each bit)</td>
<td></td>
</tr>
<tr>
<td>Contact resistance</td>
<td>10Ω max.</td>
<td></td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>50MΩ min. (at 50V DC)</td>
<td></td>
</tr>
<tr>
<td>Dielectric Withstanding Voltage</td>
<td>50V AC for 1 minute</td>
<td></td>
</tr>
<tr>
<td>Bouncing</td>
<td>15ms max. (at rotational speed 30 r/min.)</td>
<td></td>
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Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use. Should a safety concern arise regarding this product, please be sure to contact us immediately.
Dimensions in mm (not to scale)

General dimension tolerance: ±0.3
( ) dimensions are reference dimensions.

Shaft hole shape and dimension

PWB mounting hole for reference

(View from mounting side)
(Tolerance: ±0.1)
(PWB thickness t=1.6)

Phase Difference

Stable position of detent

C.W. direction

Phase difference T1, T2, T3, T4
(A rotational speed 30 r/min.)
Initial—4m sec. min.
After 16r—2.5m sec. min.

Test Circuit Diagram

5 V DC

Signal A OFF
ON

Signal B OFF
ON

Encoder

Term.A

Term.B

Term.C

0.01 μF

10 kΩ

10 kΩ

10 kΩ

0.01 μF

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