

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

1	2	3	4	5	6	7	8	9	10	11	12
E	V	Q	V	U					1	2	B
Product Code			Product type		Product specification				Encoder output characteristics		

■ Specifications

Mechanical	Rotation angle	360° (Endless)
	Rotation Torque	5mN·m
	Detents	24 points
Electrical	Output signals	Phase A and B
	Resolution	12 pulses/360°
	Rating	1mA 10V DC (at each bit)
	Contact resistance	10Ω max.
	Insulation resistance	50MΩ min. (at 50V DC)
	Dielectric Withstanding Voltage	50V AC for 1 minute
	Bouncing	15ms max. (at rotational speed 30 r/min.)
Endurance	Rotation life	100,000 cycles min.
Minimum Quantity/Packing Unit		500 pcs. (Tray Pack)
Quantity/Carton		5,000 pcs.

[illegible]

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

A schematic diagram of a double-throw switch. On the left, a terminal labeled "COM" is connected to a black dot, which represents the common contact. From this dot, two lines branch out to the right, each leading to a white circle representing a switch contact. The top branch leads to a contact that is currently open (indicated by a diagonal line), and the bottom branch leads to a contact that is currently closed. These two contacts are connected to terminals labeled "A" and "B" respectively. Terminal "A" is connected to the top contact, and terminal "B" is connected to the bottom contact.

Stable position of detent

Signal A OFF

ON

T1 T2 T3 T4

Signal B OFF

ON

C.W. direction

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

The diagram shows a 5V DC source connected to a voltage divider. The divider has two parallel branches. Each branch consists of a 10kΩ resistor in series with a switch. The switches are controlled by 'Signal A' and 'Signal B' through 10kΩ resistors and 0.01μF capacitors. The output terminals are 'Term.A', 'Term.B', and 'Term.C' (common). A dashed box labeled 'Encoder' encloses the switches and the common terminal.

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