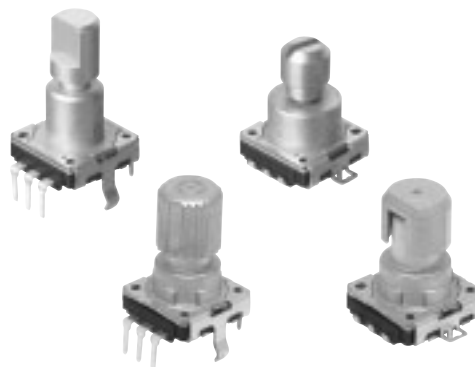


11 mm Square GS Encoders

Type: **EVER/EVEU/EVEV/EVEY**

■ Features

- Low Profile : Reflow Type 3.5 mm,
Wave Soldering Type 4 mm
- Minimized shaft wobble type is also available
- The reflow type allows the product to be automatically mounted and reflow-soldered



■ Recommended Applications

- Car audio, car navigation, car air conditioners

■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12	
E	V	E										
Product Code				Specifications		Shaft Trims & Dimensions			Output(Pulses)			
			4 th	Type								
				R	Reflow Type							
				U	Minimized Shaft Wobble Reflow Type							
				V	Wave Soldering Type							
				Y	Minimized Shaft Wobble Wave Soldering Type							

■ Specifications

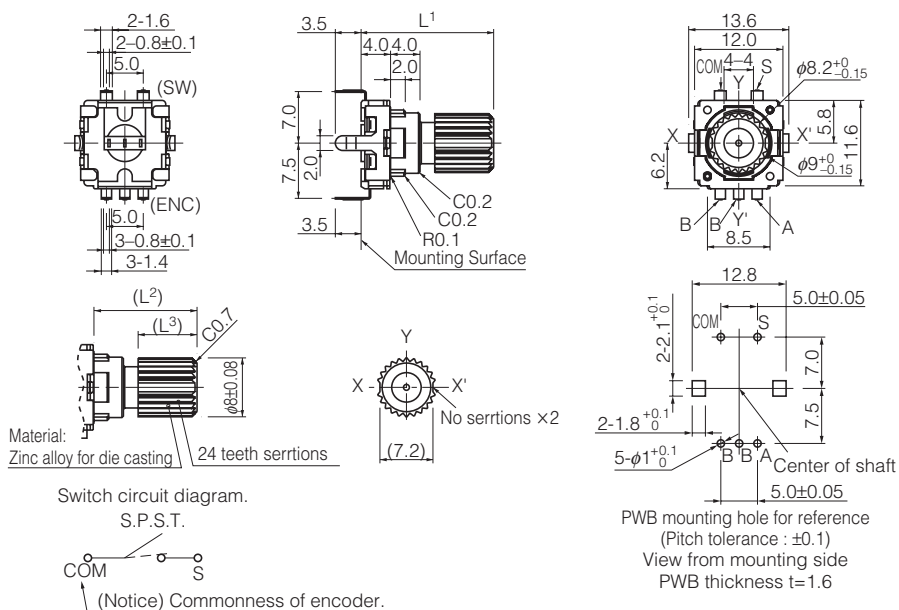
		EVER (Reflow Type)	EVEV (Wave Soldering Type)	EVEU (Minimized Shaft Wobble Reflow Type)	EVEY (Minimized Shaft Wobble Wave Soldering Type)
Mechanical	Rotation Angle	360 ° (Endless)			
	Shaft Pull/Push Strength	100 N min.			
	Shaft Wobble	0.6×L/30 (mm) max.		0.35×L/30 (mm) max.	
	Rotation Torque	3 mN·m to 20 mN·m			
	Detents	16 points, 24 points, 30 points, 32 points			
	Shaft Length Range	L ₁ =15 to 20 mm	L ₁ =15 to 30 mm	L ₁ =16 to 20 mm	
Electrical	Output Signals	Phase A and B			
	Resolution	8, 12, 15, 16 pulses/360 °			
	Rating	1 mA 10 Vdc (at each bit)			
	Contact Resistance	1 Ω max.			
	Chattering	3 ms max.			
	Insulation Resistance	50 MΩ min. (at 250 Vdc)			
	Dielectric Withstanding Voltage	300 Vac for 1 minute			
	Bouncing	5 ms max.			
Switch Part	Type	SPST Push-on			
	Rating	20 mA 16 Vdc			
	Contact Resistance	100 mΩ max.			
	Operating Force	0.4 mm travel type : 3 N, 4 N , 6 N 1.5 mm travel type : 2.5 N, 4 N , 5 N			
	Travel	0.4 mm, 1.5 mm			
Endurance	Rotation Life (Encoder)	30000 cycles min.			
	Operating Life (Switch)	30000 cycles min.			
Minimum Quantity/Packing Unit		50 pcs. (Tray Pack)	100 pcs. (Tray Pack)	50 pcs. (Tray Pack)	100 pcs. (Tray Pack)
Quantity/Carton		250 pcs. or 300 pcs.	500 pcs.	250 pcs. or 300 pcs.	500 pcs.

■ Dimensions in mm (not to scale)

No. 1			
EVER (Reflow Type)			
Bushing length L ¹ (L ²)			
B	5.0 mm	15.0 mm to 17.0 mm	11.5 mm to 13.5 mm
	7.0 mm	17.0 mm to 20.0 mm	13.5 mm to 16.5 mm
Switch circuit diagram. S.P.S.T. COM — S (Notice) Commonness of encoder.			
No. 2			
EVEU (Minimized Shaft Wobble Reflow Type)			
Material: Zinc alloy for die casting Shaft shape and dimension			
Switch circuit diagram. S.P.S.T. COM — S (Notice) Commonness of encoder.			
L ¹ (L ²) (L ³)			
16.0 mm to 20.0 mm 12.5 mm to 16.5 mm 6.5 mm to 10.5 mm			
No. 3			
EVEV (Wave Soldering Type)			
Shaft shape and dimension			
Switch circuit diagram. S.P.S.T. COM — S (Notice) Commonness of encoder.			
Bushing length L ¹ (L ²)			
B	5.0 mm	15.0 mm to 17.0 mm	11.0 mm to 13.0 mm
	7.0 mm	17.0 mm to 30.0 mm	13.0 mm to 26.0 mm

No. 4

(Minimized Shaft Wobble
Wave Soldering Type)



L ¹	(L ²)	(L ³)
16.0 mm to 20.0 mm	12.0 mm to 16.0 mm	6.0 mm to 10.0 mm

Timing diagram for the 240V AC input of the 240V AC input relay. The diagram shows two square wave signals, Signal A and Signal B, over time. Signal A is OFF initially, then turns ON at T1, and turns OFF at T2. Signal B is OFF initially, then turns ON at T2, and turns OFF at T3. The signals are shown for a period of 4 minutes initially, and 2.5 minutes after life. The diagram is labeled "Detent steady point" at the top right, with lines pointing to the rising and falling edges of the signals. A horizontal arrow labeled "CW" indicates the direction of rotation.

Phase difference T1, T2, T3, T4
 (At rotational speed 60 r/min.)
 Initial..... 4 m sec. min.
 After life..... 2.5 m sec. min.

The diagram shows a 5Vdc source connected to a voltage divider consisting of two 10 kΩ resistors in series. The output of the divider is connected to an encoder through three terminals: Term.A, Term.B, and Term.C. Term.A and Term.B are connected to the encoder's input pins, which are also connected to a 0.01 μF capacitor to ground. Term.C is connected to the encoder's ground pin, which is also connected to a 0.01 μF capacitor to ground. The encoder is represented by a dashed box labeled 'Encoder'.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Panasonic:

[EVE-UPCAH516B](#) [EVE-YBCAJ016B](#) [EVE-YPCAJ016B](#) [EVE-UBCAH516B](#) [EVE-UPCAH508B](#) [EVE-UBCAH508B](#)
[EVE-YBCAJ008B](#) [EVE-YPCAJ008B](#) [EVE-YPCAJ008B](#) [EVE-YPCAJ016B](#)