## 12 mm Square GS Encoders

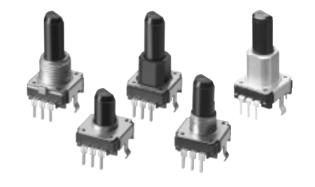
# Type: **EVEG/EVEH/EVEK/EVEL**

#### ■ Features

- Lineup of high rotation-torque-type (50 mN·m)
- A wide range of standard products

#### ■ Recommended Applications

- Volume for audio/visual equipment
- Tuner for communication units
- Mode selection for measurement instruments



#### ■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	V	E									
Product Code			Sp	ecificatio	ons	Comb	ination of	Shaft	0	utput (Pul	ses)

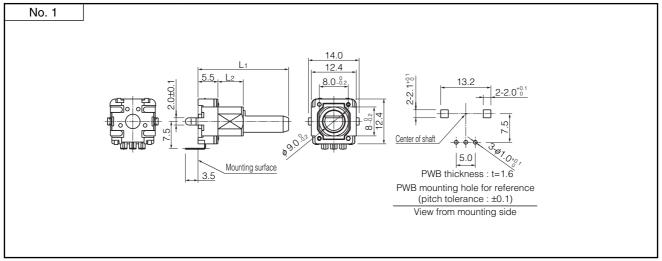
#### ■ Product Chart

	Combination of Bushing			Height						Detents (Resolution/Pulses)			
Torque type			Thickness	15.0 mm	17.5 mm	20.0 mm	22.5 mm	25.0 mm	30.0 mm	12 points (12 pulses)	24 points (24 pulses)	Without detents (12 pulses, 24 pulses)	
Heavy-rotation torque (10 mN·m to 50 mN·m)		(7.0,12.0 mm)	5.5 mm					0	0			0	
	Sleeve	(7.0,12.0 mm)	5.5 mm					0	0			0	
Standard type (3 mN·m to 20 mN·m)	Barling	(5.0 mm)	5.0 mm		0	0	0	0		0	0	0	
	Barling	(1.6 mm)	5.0 mm	0						0	0	0	
	Die-cast	(7.0 mm)	5.5 mm			0	0	0		0	0	0	
	Sleeve	(7.0 mm)	5.5 mm			0	0	0		0	0	0	

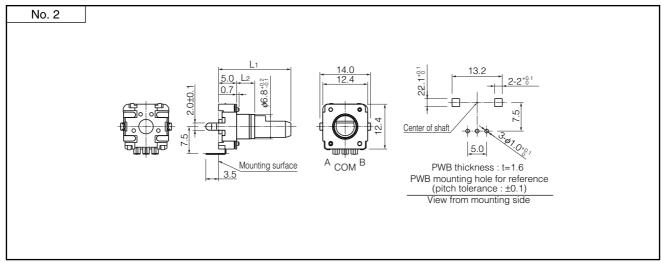
### ■ Specifications

Rotation Angle		360 ° (Endless)							
Shaft Pull/Push S	Strength	80 N min.							
Shaft Wobble		0.7×L/30 mm max.							
Detetion Town	Standard Type	3 mN·m to 20 mN·m							
Hotation Torque	Heavy Rotation Torque	10 mN·m to 50 mN·m							
Detents		12 points, 20 points, 24 points, without detents (Heavy rotation-torque without detents)							
Output Signals		Phase A and B							
Resolution		12, 20, 24 pulses/360 °							
Rating		1 mA 5 Vdc, 1 mA 10 Vdc							
Contact Resistar	nce	1 $\Omega$ max.							
Chattering		2 ms max.							
Insulation Resista	ance	10 M $\Omega$ min. (at 50 Vdc)							
Dielectric Withsta	anding Voltage	50 Vac for 1 minute							
Bouncing		5 ms max.							
Operating Life	Standard Type	30000 cycles min.							
Operating Life	Heavy Rotation Torque	15000 cycles min.							
Operating Temper	erature	−10 °C to +60 °C							
Storage Temperature -40 °C to +85				o +85 °C					
ntity/Packing Unit	L≦25.0 mm	100 pcs. Polyethylene Bag(Bulk)	L>26.0 mm	200 pcs. Polyethylene Bag(Bulk)					
n	L≦25.0 mm	1000 pcs.	L>26.0 mm	2000 pcs.					
	Shaft Pull/Push Shaft Wobble Rotation Torque Detents Output Signals Resolution Rating Contact Resistar Chattering Insulation Resista Dielectric Withsta Bouncing Operating Life Operating Temperantity/Packing Unit	Shaft Pull/Push Strength Shaft Wobble Rotation Torque  Beavy Rotation Torque  Detents  Output Signals Resolution Rating Contact Resistance Chattering Insulation Resistance Dielectric Withstanding Voltage Bouncing Operating Life Standard Type Heavy Rotation Torque Operating Temperature Storage Temperature  Storage Temperature	Shaft Pull/Push Strength Shaft Wobble  Rotation Torque	Shaft Pull/Push Strength       80 N         Shaft Wobble       0.7×L/30         Rotation Torque       Standard Type       3 mN·m to the standard Type theavy Rotation Torque       10 mN·m to theavy Rotation Torque         Detents       12 points, 20 points, 24 (Heavy rotation-torder)         Output Signals       Phase A         Resolution       12, 20, 24 p         Rating       1 mA 5 Vdc,         Contact Resistance       1 Ω MΩ min.         Insulation Resistance       10 MΩ min.         Dielectric Withstanding Voltage       50 Vac forms         Bouncing       5 ms         Operating Life       Standard Type       30000 cy         Heavy Rotation Torque       15000 cy         Operating Temperature       -10 °C to         Storage Temperature       -40 °C to         Intity/Packing Unit       L≤25.0 mm       100 pcs. Polyethylene Bag(Bulk)	Shaft Pull/Push Strength         80 N min.           Shaft Wobble         0.7xL/30 mm max.           Rotation Torque         Standard Type         3 mN·m to 20 mN·m           Heavy Rotation Torque         10 mN·m to 50 mN·m           Detents         12 points, 20 points, 24 points, w (Heavy rotation-torque withou           Output Signals         Phase A and B           Resolution         12, 20, 24 pulses/360           Rating         1 mA 5 Vdc, 1 mA 10 max.           Contact Resistance         1 Ω max.           Chattering         2 ms max.           Insulation Resistance         10 MΩ min. (at 50 Vd           Dielectric Withstanding Voltage         50 Vac for 1 minute           Bouncing         5 ms max.           Operating Life         Heavy Rotation Torque         15000 cycles min.           Operating Temperature         -10 °C to +60 °C           Storage Temperature         -40 °C to +85 °C           ntity/Packing Unit         L≤25.0 mm 100 pcs. Polyethylene Bag(Bulk) L>26.0 mm				

- Dimensions in mm (not to scale)



With detents : EVEGA1



With detents : EVEGC1

