



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



12 mm Square GS Encoders

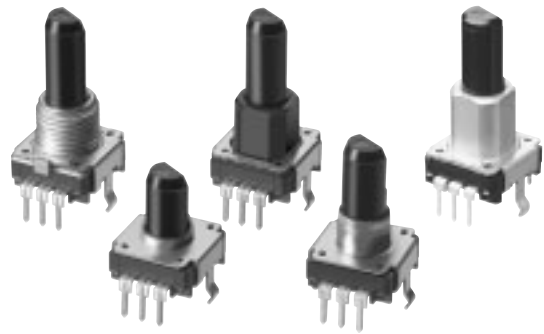
Type: **EVEG/EVEH/EVEK/EVEL**

■ Features

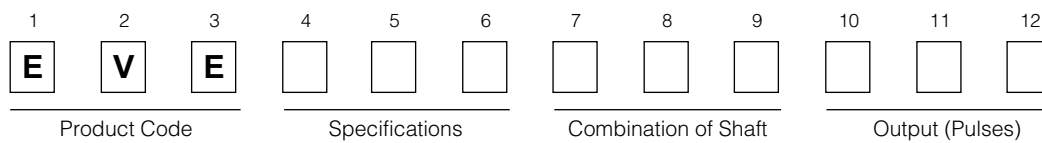
- Lineup of high rotation-torque-type (50 mN·m)
- A wide range of standard products

■ Recommended Applications

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



■ Explanation of Part Numbers



■ Product Chart

Torque type	Combination of Bushing	Thickness	Height					Detents (Resolution/Pulses)			
			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)	Die-cast (7.0,12.0 mm)	5.5 mm					○	○			○
	Sleeve (7.0,12.0 mm)	5.5 mm					○	○			○
Standard type (3 mN·m to 20 mN·m)	Barling (5.0 mm)	5.0 mm		○	○	○	○		○	○	○
	Barling (1.6 mm)	5.0 mm	○						○	○	○
	Die-cast (7.0 mm)	5.5 mm			○	○	○		○	○	○
	Sleeve (7.0 mm)	5.5 mm			○	○	○		○	○	○

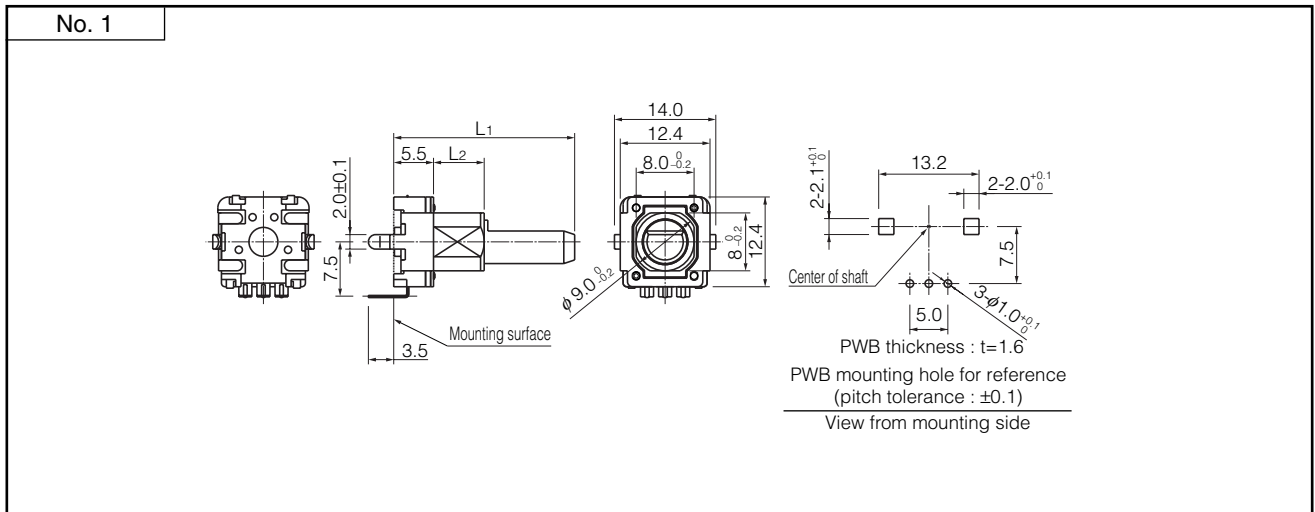
■ Specifications

Mechanical	Rotation Angle		360 ° (Endless)			
	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, without detents (Heavy rotation-torque without detents)				
Electrical	Output Signals		Phase A and B			
	Resolution		12, 20, 24 pulses/360 °			
	Rating		1 mA 5 Vdc, 1 mA 10 Vdc			
	Contact Resistance		1 Ω max.			
	Chattering		2 ms max.			
	Insulation Resistance		10 MΩ min. (at 50 Vdc)			
	Dielectric Withstanding Voltage		50 Vac for 1 minute			
	Bouncing		5 ms max.			
Endurance	Operating Life	Standard Type	30000 cycles min.			
		Heavy Rotation Torque	15000 cycles min.			
	Operating Temperature		-10 °C to +60 °C			
Storage Temperature		-40 °C to +85 °C				
Minimum Quantity/Packing Unit			L≤25.0 mm	100 pcs. Polyethylene Bag(Bulk)	L>26.0 mm	200 pcs. Polyethylene Bag(Bulk)
Quantity/Carton			L≤25.0 mm	1000 pcs.	L>26.0 mm	2000 pcs.

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.

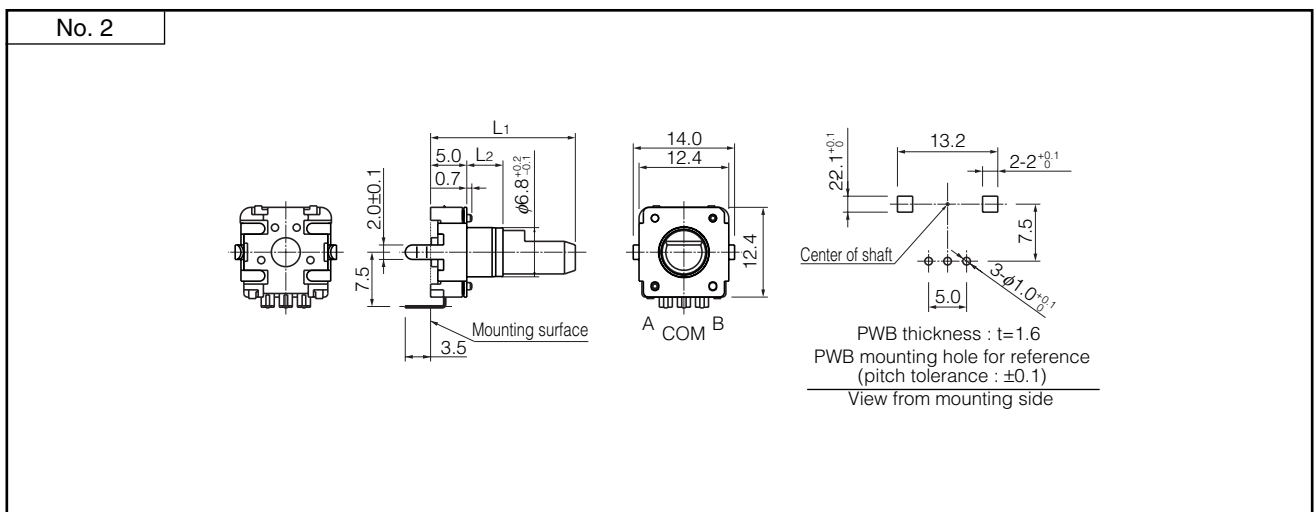
■ Dimensions in mm (not to scale)

- High rotation-torque / Bushing Type with Sleeve Without detents : EVEKE2



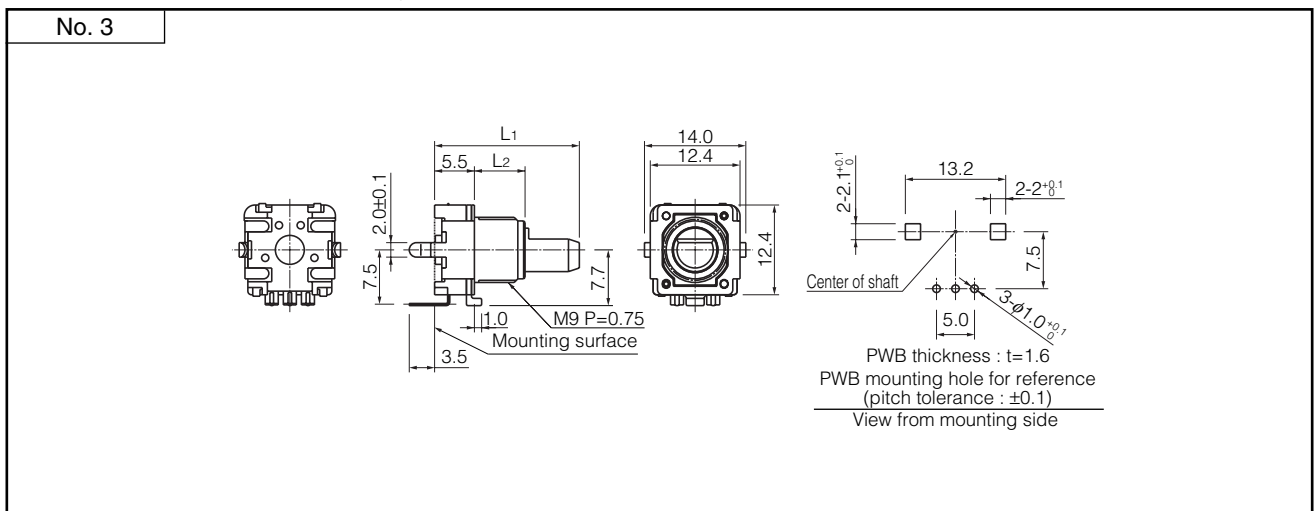
- Standard rotation-torque / Bushing Type with Barling Without detents : EVEGA2

With detents : EVEGA1



- Standard rotation-torque / Bushing Type with Die-cast Without detents : EVEGC2

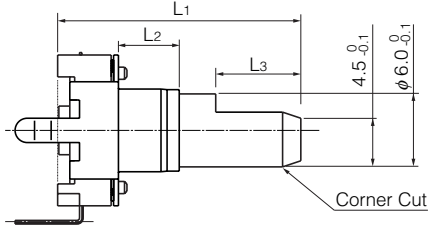
With detents : EVEGC1



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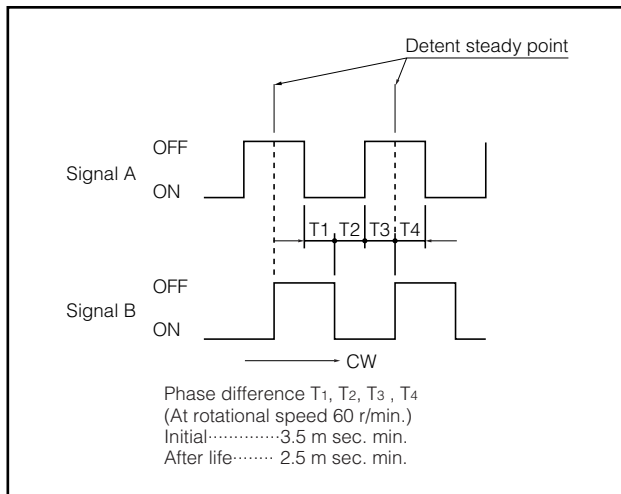
■ Shaft Trims and Dimensions in mm

Bushing Type	Dimensions			
	L ₁	L ₂	L ₃	Corner Cut
Barling	15.0 mm	1.6 mm	7.0 mm	1.5 mm
	17.5 mm	5.0 mm	5.0 mm	1.5 mm
	20.0 mm	5.0 mm	7.0 mm	1.5 mm
	22.5 mm	5.0 mm	7.0 mm	1.5 mm
	25.0 mm	5.0 mm	12.0 mm	1.5 mm
Sleeve	20.0 mm	7.0 mm	7.0 mm	1.5 mm
	22.5 mm	7.0 mm	7.0 mm	1.5 mm
	25.0 mm	7.0 mm	12.0 mm	1.5 mm
	*30.0 mm	7.0 mm	*12.0 mm	*1.5 mm
Die-cast	20.0 mm	7.0 mm	7.0 mm	1.5 mm
	22.5 mm	7.0 mm	7.0 mm	1.5 mm
	25.0 mm	7.0 mm	12.0 mm	1.5 mm
	*30.0 mm	12.0 mm	*12.0 mm	*1.5 mm



*High-rotation torque

■ Phase Difference



■ Test Circuit Diagram

