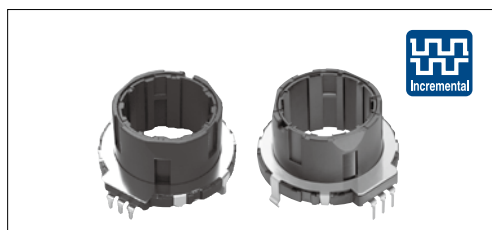


**EC28A
EC28C****28mm Size Ring Type**

A low-profile unit with 4mm height and good operation feel



■ Typical Specifications



Items	Specifications
Rating	10mA 5V DC
Operating life	50,000 cycles
Operating temperature range	-40°C to +85°C (EC28A) -40°C to +90°C (EC28C)

■ Product Line Production to be discontinued. Not recommended for new designs.

Structure	Actuator length (mm)	Detent torque (mN·m)	Number of detent	Number of pulse	Minimum order unit (pcs.)		Product No.	Drawing No.
					Japan	Export		
DIP	15	7±5	30	15	400	800	EC28A1520401	1
		12±7					EC28A1550401	
		20±10					EC28A1560401	
		12±7	EC28A1850402					
		20±10	EC28A1870401					
	25	20±10			420	840	EC28A1560501	2
Reflow	15	30 ± 15 (Initial) 20 ± 10 (After reflow)	30	15	480	480	EC28C1520401	3 
		22 ± 11 (Initial) 16 ± 7 (After reflow)					EC28C1540403	

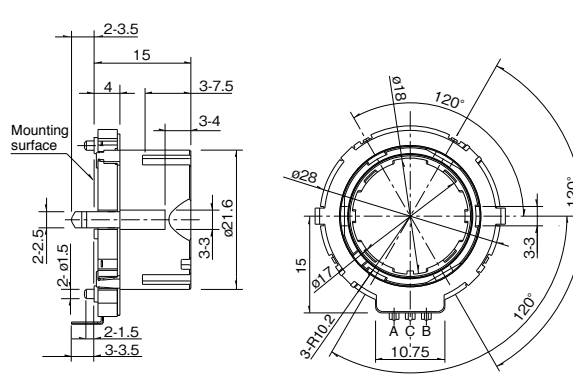
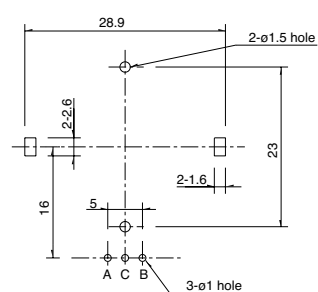
■ Packing Specifications

Tray

Product No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case / export packing	
EC28A15, EC28A18	400	800	509×366×287
EC28A1560501	420	840	540×360×380
EC28C	480	480	440×290×205

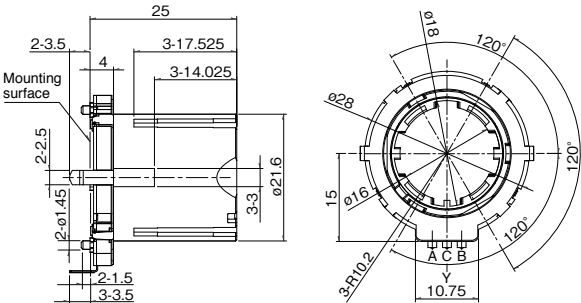
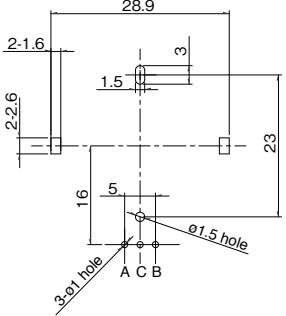
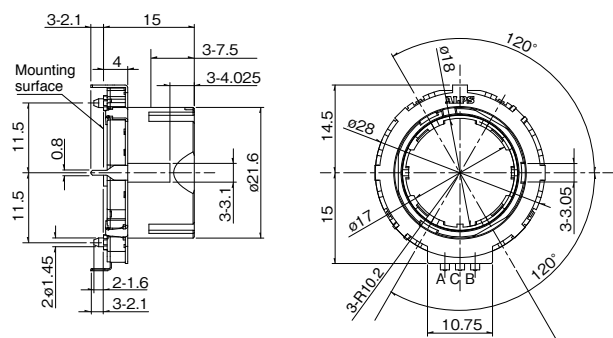
■ Dimensions

Unit:mm

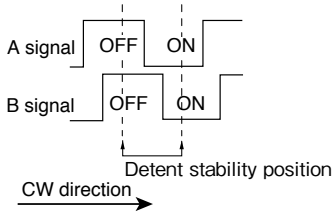
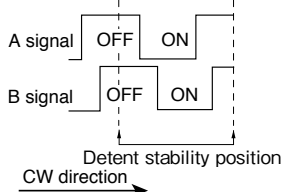
No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)
1			

Dimensions

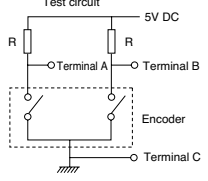
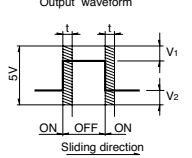
Unit:mm

No.	Photo	Style	PC board mounting hole dimensions (Viewed from mounting side)
2	EC28A Actuator length 25mm 		
3	EC28C Reflow type Actuator length 15mm 		

Output Wave

EC28A15 EC28C15 	EC28A18  *Signal A and signal B output at detent positions cannot be specified.
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Sliding Noise

Test circuit  Measurement condition : Rotation speed 360°/s t : Masking time to avoid chattering	Output waveform 
At R = 5kΩ Chattering : 5ms max. Bounce : 5ms max.	