

11mm Size Metal Shaft Type EC11 Series

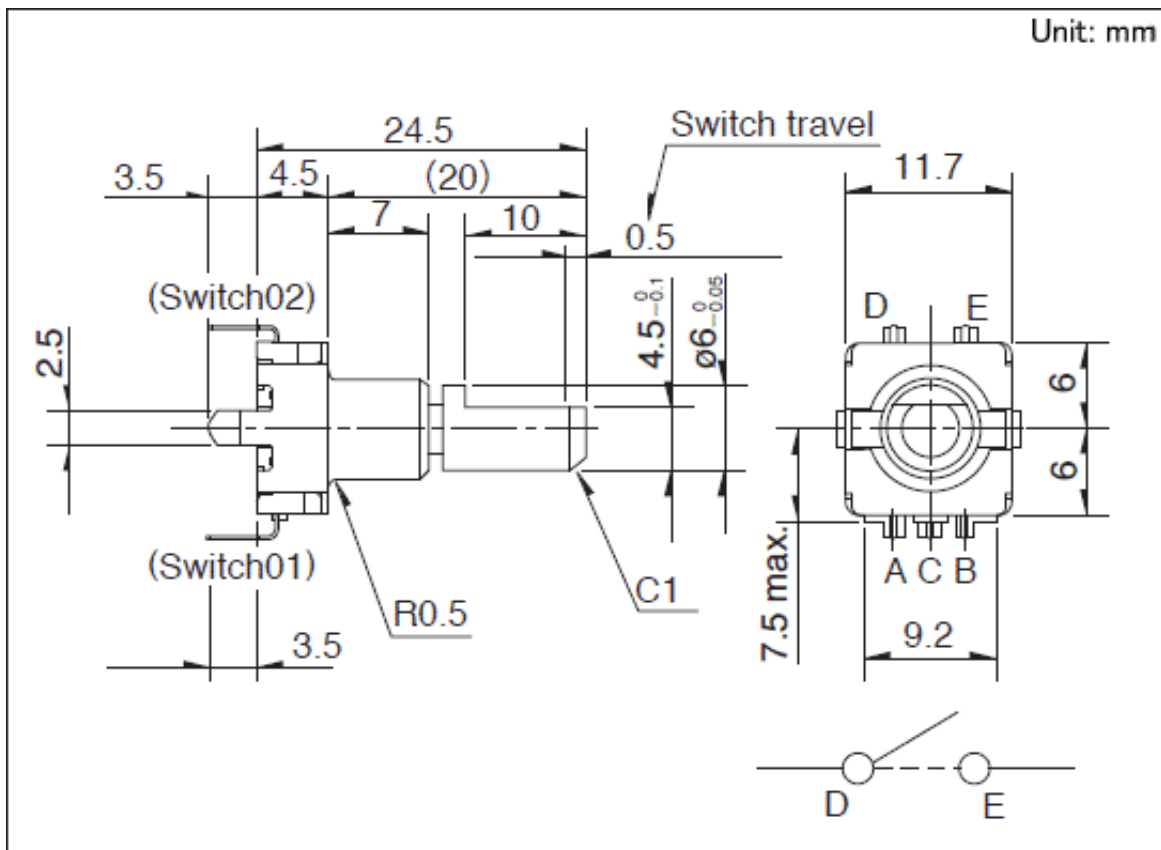
Structure		Vertical
Actuator configuration		Flat
Actuator length		20mm
Number of detent		36
Number of pulse		18
Push-on switch		With
Travel of push-on switch		0.5mm
Operating life		15,000 cycles
Operating temperature range		-40°C to +85°C
Electrical performance	Ratings	10mA 5V DC
	Output signal	Two phase A and B
	Max./min. operating current(Resistive load)	10mA/1mA
	Insulation resistance	100MΩ min. 250V DC
	Voltage proof	300V AC for 1 minute or 360V AC for 2s
Mechanical performance	Detent torque	10±7mN·m
	Push-pull strength	100N
Push-on switch specifications	Contact arrangement	Single pole single throw (Push-on)
	Travel	0.5±0.3mm
	Operating force	6(+2.5, -2)N
	Rating	0.1A 5V DC (500μA 5V DC min. ratings)

Contact resistance 100mΩ max./200mΩ max.
(Initial performance/After lifetime)

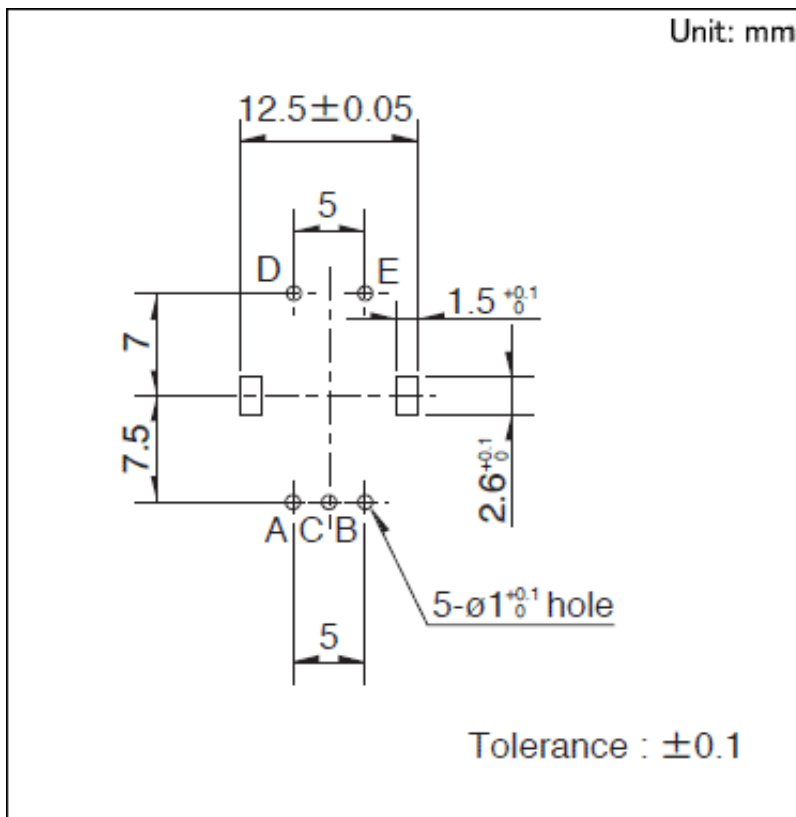
Operating life 20,000 times

Minimum order unit (pcs.)	Japan	1,200
	Export	2,400

Dimensions

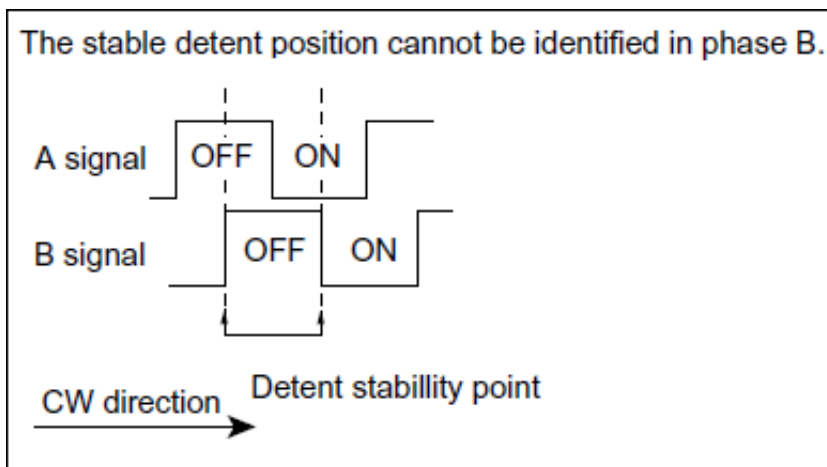


Mounting Hole Dimensions

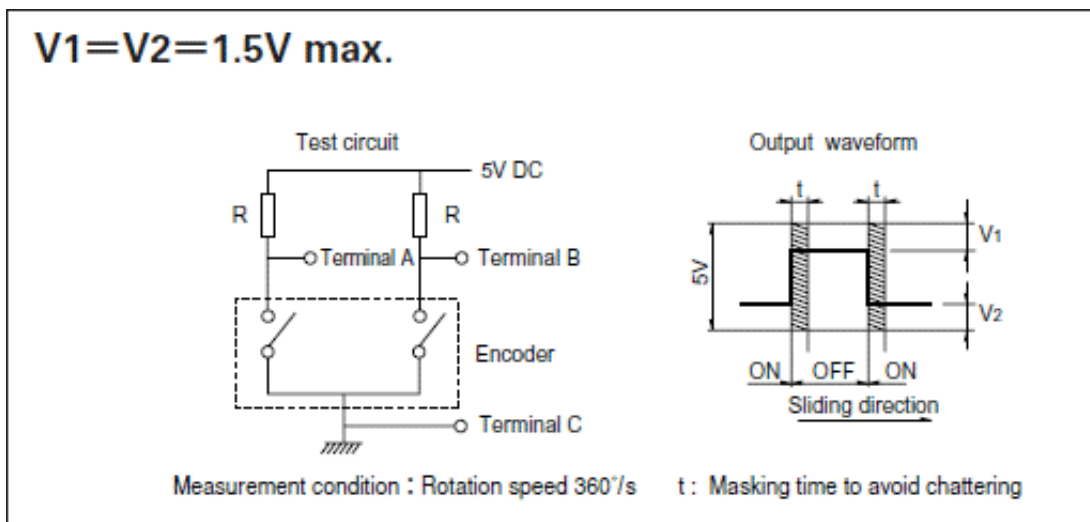


Viewed from mounting side.

Output Wave



Sliding Noise



At R=5kΩ Chattering: 3ms max. Bounce: 2ms max.

Packing Specifications

Tray

Number of packages (pcs.)	1 case / Japan	1,200
	1 case / export packing	2,400
Export package measurements (mm)		540×360×250

Soldering Conditions

Reference for Dip Soldering

Preheating	Soldering surfacetemperature	100°C max.
	Heating time	2 min. max.
Dip soldering	Soldering temperature	260±5°C
	Soldering time	5±1s
No. of solders		2 time max.

Reference for Hand Soldering

Tip temperature		350°C max.
Soldering time		3s max.
No. of solders		1 time

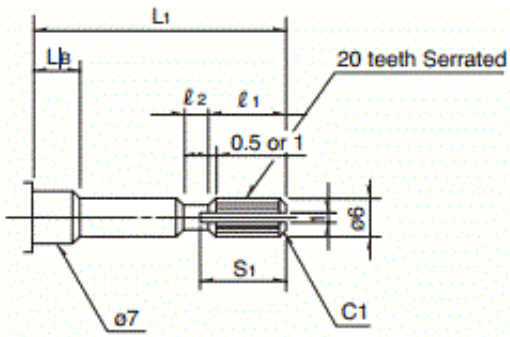
Product Varieties

Single-shaft Type

1) Knurled Type

Unit : mm

Style (Shaft diameter : φ6)



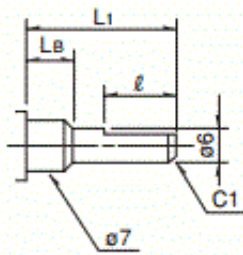
20 teeth Serrated

● **Detailed dimensions**

L ₁	L _B	l ₁	l ₂	S ₁
20	7	6	1	7
25	10	10	2	11

2) Flat Type

Unit : mm

Style (Shaft diameter : $\phi 6$)

● Detailed dimensions

	L_1	L_B	ℓ
※1	15	5	7
	15	7	5 (6)
	20	7	10 (12)
※2	25	10	12

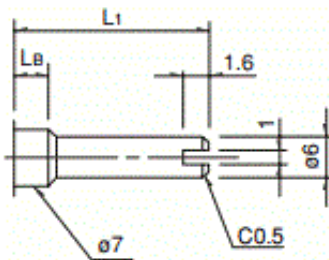
※ 1 Does not comply with EC111

※ 2 $L_B=7$ for EC11B.

Values in parentheses apply to products without push-on switch.

3) Slotted Type

Unit : mm

Style (Shaft diameter : $\phi 6$)

● Detailed dimensions

	L_1	L_B
	15	7
	20	7
※	25	10

※ $L_B=7$ for EC11B.

Notes are common to this series/models.

1. This site catalog shows only outline specifications. When using the products, please obtain formal specifications for supply.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in the above chart are also available. Please contact us for details.
4. This products can be used in vehicles.

Although these products are designed to perform over a wide operating temperature range, please ensure that you receive and read the formal delivery specifications before use.