



## 11mm Size Metal Shaft Type EC11 Series

Structure		Vertical
Actuator configuration		Flat
Actuator length		20mm
Number of detent		Without
Number of pulse		15
Push-on switch		With
Travel of push-on switch		1.5mm
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	Rotational torque	7(+3, -4)mN·m
	Push-pull strength	100N
Push-on switch specifications	Contact arrangement	Single pole single throw (Push-on)
	Travel	1.5±0.5mm
	Operating force	4±2N
	Rating	0.1A 5V DC (500μA 5V DC min. ratings)
	Contact resistance (Initial)	100mΩ max./200mΩ max.

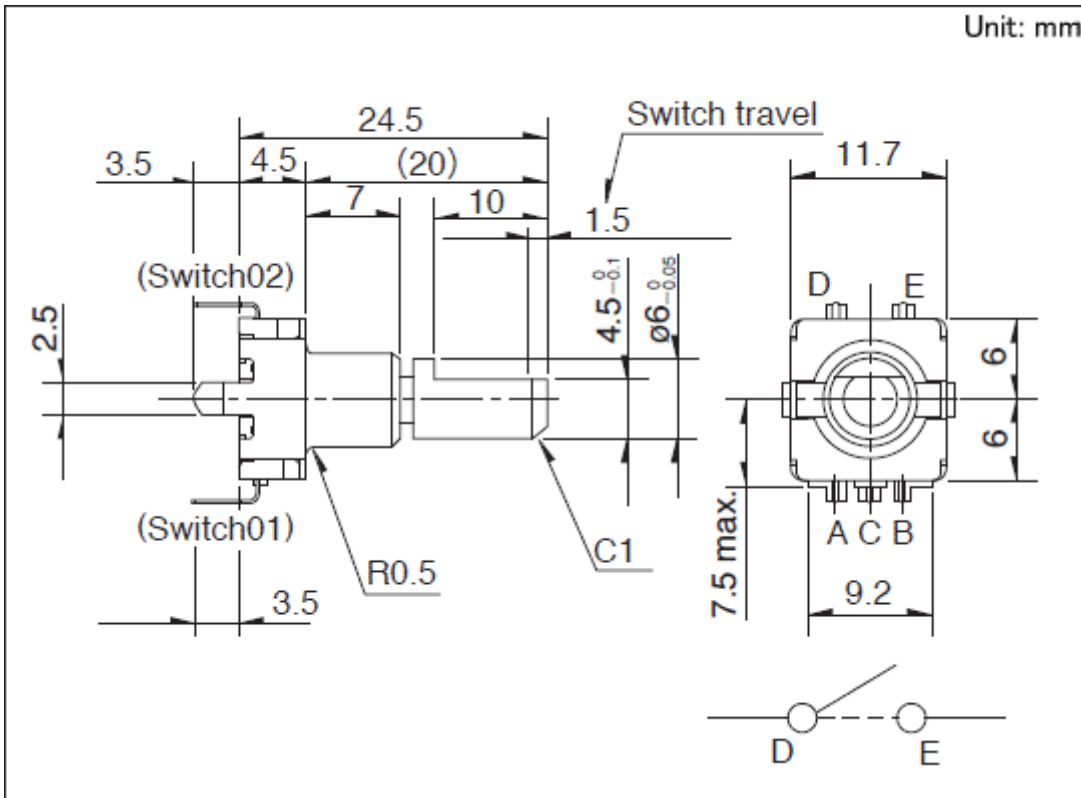
performance/After  
lifetime)

Operating life 20,000 times

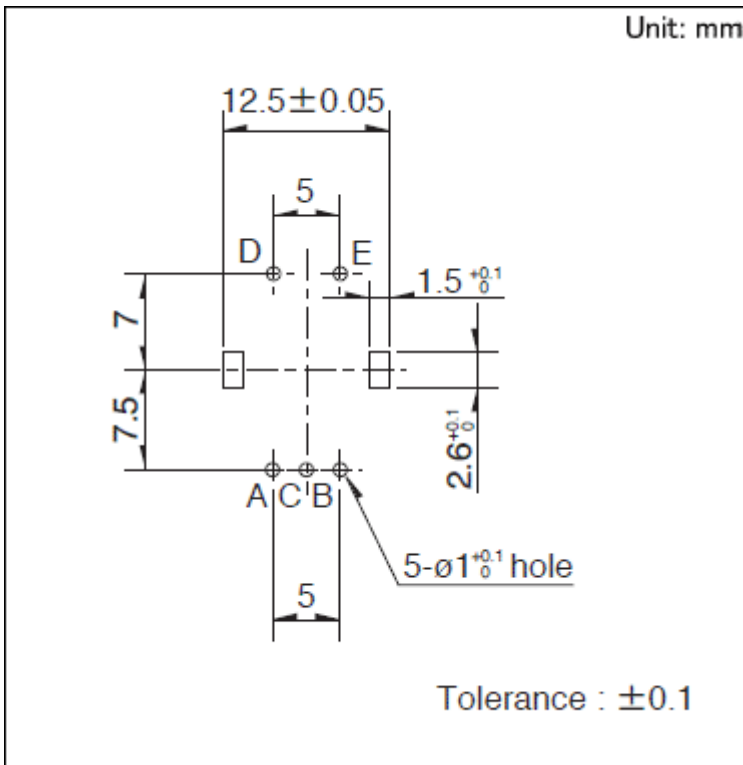
Minimum order unit Japan 1,200  
(pcs.)

Export 2,400

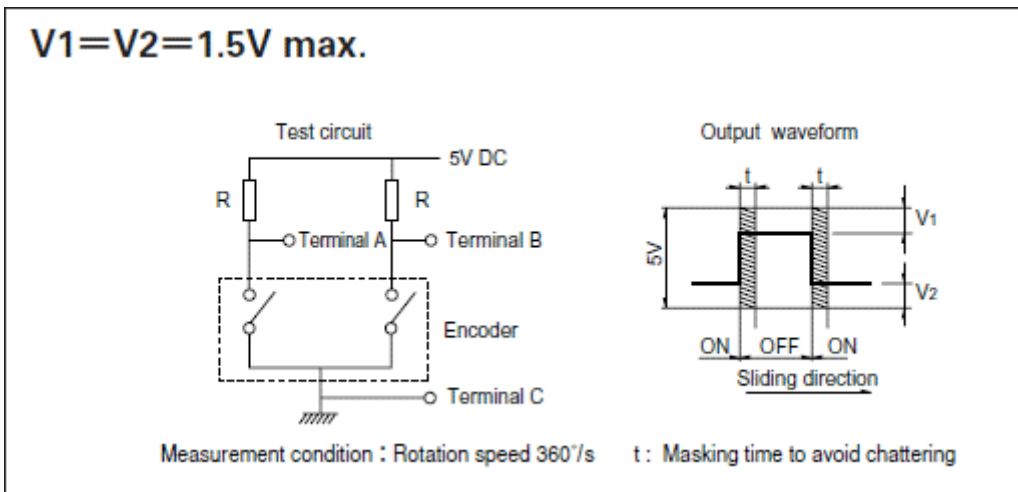
Dimensions



Mounting Hole Dimensions



### 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

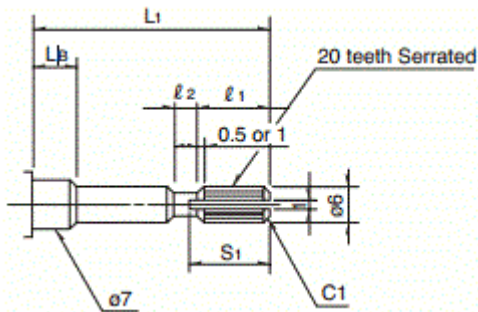
**Product Varieties**

**Single-shaft Type**

1) Knurled Type

Unit : mm

Style (Shaft diameter : φ6)



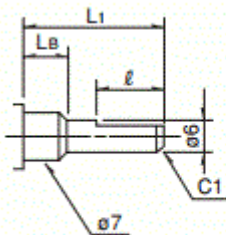
**Detailed dimensions**

L <sub>1</sub>	L <sub>B</sub>	l <sub>1</sub>	l <sub>2</sub>	S <sub>1</sub>
20	7	6	1	7
25	10	10	2	11

2) Flat Type

Unit : mm

Style (Shaft diameter : φ6)



**Detailed dimensions**

	L <sub>1</sub>	L <sub>B</sub>	l
※1	15	5	7
	15	7	5 (6)
	20	7	10 (12)
※2	25	10	12

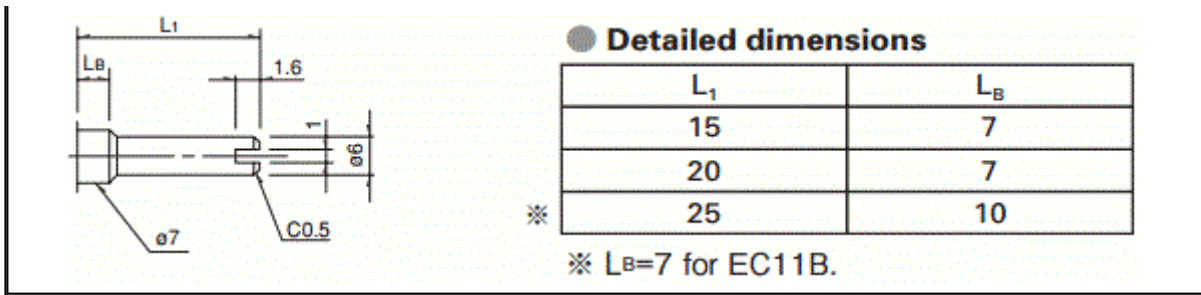
※ 1 Does not comply with EC111  
 ※ 2 L<sub>B</sub>=7 for EC11B.

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

3) Slotted Type

Unit : mm

Style (Shaft diameter : φ6)



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.