



12mm Size Insulated Shaft Type EC12 Series

Standard Type

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|-----------------|----------------------|
| Actuator length | 8.5mm (Hollow shaft) |
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|--------|-------------------------|
| Torque | Standard 3 to 20mN·m |
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|------------------|----|
| Number of detent | 12 |
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|-----------------|----|
| Number of pulse | 12 |
|-----------------|----|

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|---------------------|----------|
| Operating direction | Vertical |
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|-----------------------------|----------------|
| Operating temperature range | -10°C to +70°C |
|-----------------------------|----------------|

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|------------------------|---------|-------------|
| Electrical performance | Ratings | 0.5mA 5V DC |
|------------------------|---------|-------------|

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|---------------|-------------------|
| Output signal | Two phase A and B |
|---------------|-------------------|

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|---|-----------|
| Max./min. operating current(Resistive load) | 5mA/0.5mA |
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| Insulation resistance | 10MΩ min. 50V DC |
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| Voltage proof | 50V AC for 1 minute |
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|------------------------|---------------|-------------|
| Mechanical performance | Detent torque | 3 to 20mN·m |
|------------------------|---------------|-------------|

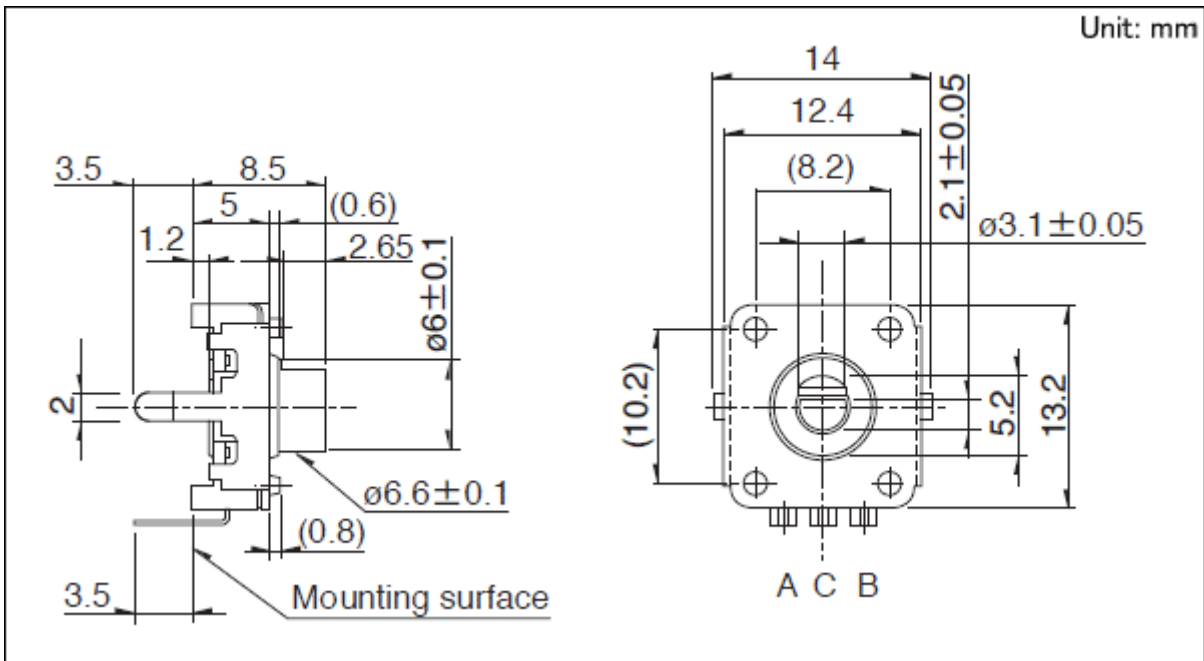
| | |
|--------------------|-----|
| Push-pull strength | 80N |
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|------------|----------------|---------------|
| Durability | Operating life | 30,000 cycles |
|------------|----------------|---------------|

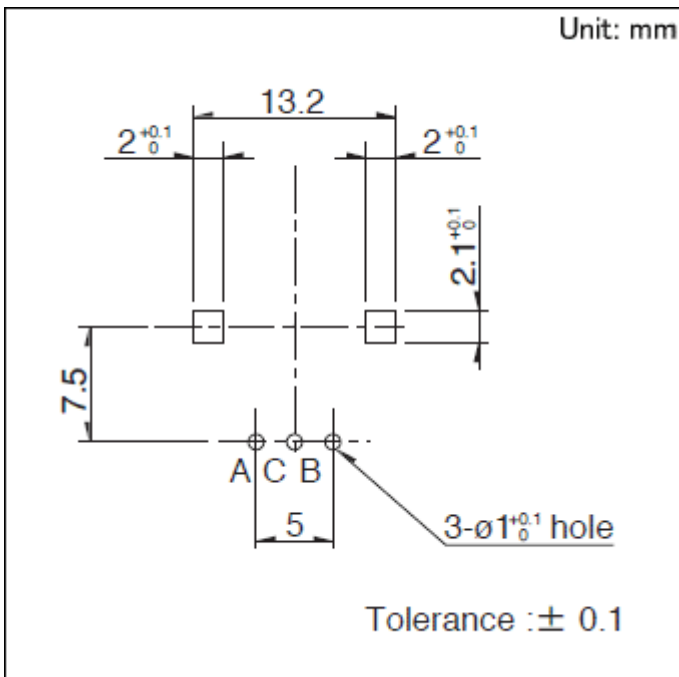
| | | |
|---------------------------|-------|-------|
| Minimum order unit (pcs.) | Japan | 3,000 |
|---------------------------|-------|-------|

| | |
|--------|-------|
| Export | 3,000 |
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Dimensions

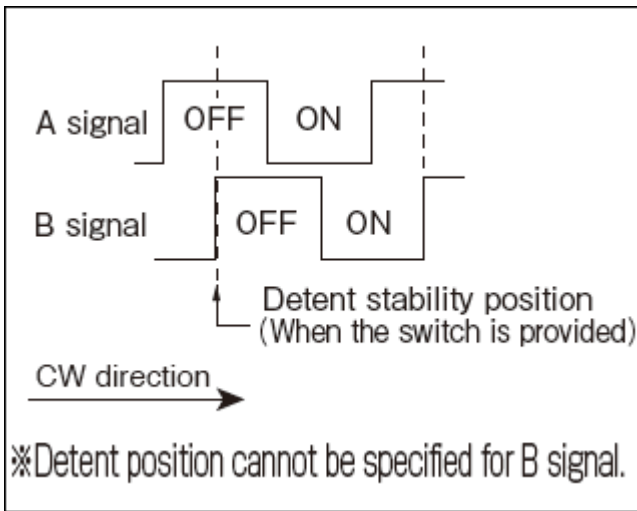


Mounting Hole Dimensions

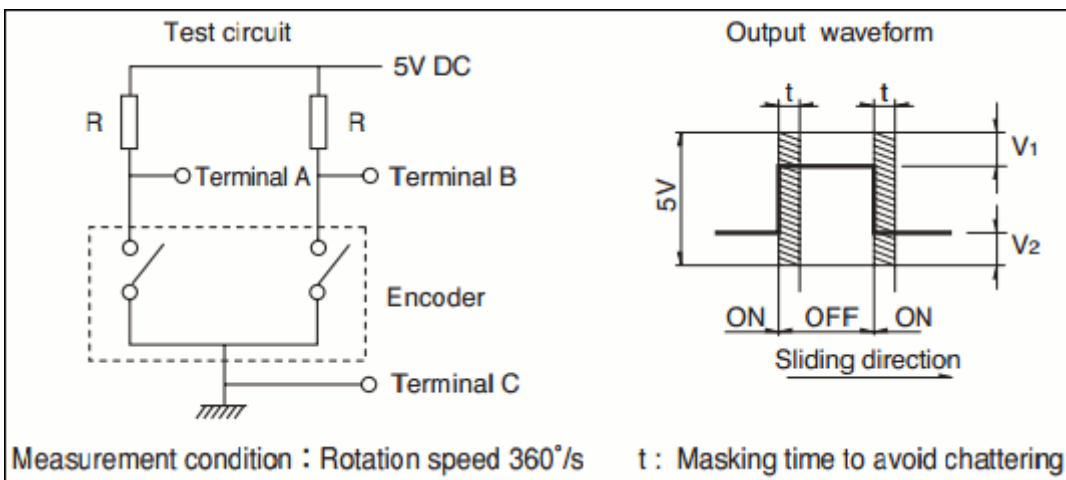


Viewed from mounting face.

Output Wave



Sliding Noise



V₁ = V₂ = 1.5V max.

At R=10kΩ Chattering: 3ms max. Bounce: 2ms max.

Packing Specifications

Tray

Number of packages 1 case / Japan 3,000
(pcs.)

1 case / export 3,000
packing

Export package measurements (mm) 369×525×204

Soldering Conditions

Reference for Dip Soldering

Preheating Soldering surfacetemperature 100°C max.

Heating time 1 min. max.

Dip soldering Soldering temperature 260±5°C

Soldering time 3±1s

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| No. of solders | 2 time max. |
|----------------|-------------|

Reference for Hand Soldering

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

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. Nuts and washers are not included. If required, please contact us.
5. This products can be used in vehicles. (EC12D only)
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.