12 mm Size Insulated Shaft Type EC12 Series

- Detail

| Part number | EC12E24204A2 |
| :--- | :--- |


| Actuator length | 15 mm |
| :--- | :--- |
| Rotational torque | Standard |
| Number of detent | 24 |
| Number of pulse | 24 |
| Operating direction | Vertical |
| Minimum order unit (pcs.) | 2,400 |


| Operating temperature range |  | $-10^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |
| :--- | :--- | :--- |
| Maximum operating current (Resistive load) | 10 mA |  |
|  | Ratings | $0.5 \mathrm{~mA} \mathrm{5V} \mathrm{DC}$ |
|  | Output signal | Output of A and B signals, proportionate to phase difference |
|  | Insulation resistance | $10 \mathrm{M} \Omega$ min. 50 V DC |
|  | Voltage proof | 50 V AC for 1 minute |
| Mechanical performance | Detent torque | 3 to $20 \mathrm{mN} \cdot \mathrm{m}$ |
|  | Push-pull strength | 80 N |
| Resistance to soldering <br> heat | Manual soldering | $350^{\circ} \mathrm{C}$ max. 3 s max. |
|  | Dip soldering | $260 \pm 5^{\circ} \mathrm{C}, 3 \pm 1 \mathrm{~s}$ |
| Durability | Operating life | 30,000 cycles |
| Environmental performance | Cold | $-40 \pm 3^{\circ} \mathrm{C}$ for 10 h |
|  | Dry heat | $85 \pm 3^{\circ} \mathrm{C}$ for 10 h |
|  | Damp heat | $60 \pm 2^{\circ} \mathrm{C}, 90$ to $95 \% \mathrm{RH}$ for 10 h |


| 3D CAD (STEP) |  |
| :--- | :--- |
| Certificate of Compliance to RoHS regulations |  |



Short shaft
Dimensions


Viewed from mounting face.
O. Output Wave $\square$

## $\mathrm{V} 1=\mathrm{V} 2=1.5 \mathrm{~V}$ max.



Measurement condition : Rotation speed $360 \% \mathrm{t}$ : Masking time to avoid chattering

At $\mathrm{R}=10 \mathrm{k} \Omega$ Chattering: 3 ms max. Bounce: 2 ms max.
Q Packing Specifications
Tray

| Number of packages (pcs.) | 1 case / Japan | 2,400 |  |
| :---: | :---: | :---: | :---: |
|  | Export package measurements (mm) | 2,400 |  |
| Ease $/$ export packing |  |  |  |

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.

