# Rotary Encoder

## Model EN12 Series

**Features:**

- 12 mm
- 2 bits gray code
- Incremental/contacting type
- Metal bushing/shaft
- Push-on switch option

RoHS 2 compliant

## Model Styles Available

| | |
|---|---|
| Top Adjust, with Switch | EN12-HS |
| Top Adjust, without Switch | EN12-HN |
| Side Adjust, with Switch | EN12-VS |
| Side Adjust, without Switch | EN12-VN |

## Electrical

| | |
|---|---|
| Pulses ( Per Revolution ) | 12 & 24 |
| Closed Circuit Resistance, Ohms | 3 Ohms, max. |
| Contact Rating | 1mA/ 5Vdc |
| Operating Current, Maximum | 1mA |
| Dielectric Strength | 300Vac/ 1mA, I minute |
| Insulation Resistance, Minimum | 100M ohms at 250Vdc/ 1mA |
| Sliding Noise ( at 60 RPM ) | 2.0ms max. |
| Contact Bounce ( at 15 RPM) | 5.0ms max. |
| Operating Speed ( RPM ) | 100 RPM max. |
| Switch Power Rating | 10mA/ 5Vdc |
| Switch Contact Resistance | 100 milliohms |
| Actual Electrical Travel, Nominal | Continuous |

## Mechanical

| | |
|---|---|
| Total Mechanical Travel | Continuous |
| Detents (per Revolution) | 0, 12, 24 |
| Rotational Torque of Detent, Maximum | 1.4 oz-in |
| Switch Operating Force | 550 gf |
| Switch Travel | 0.5mm |

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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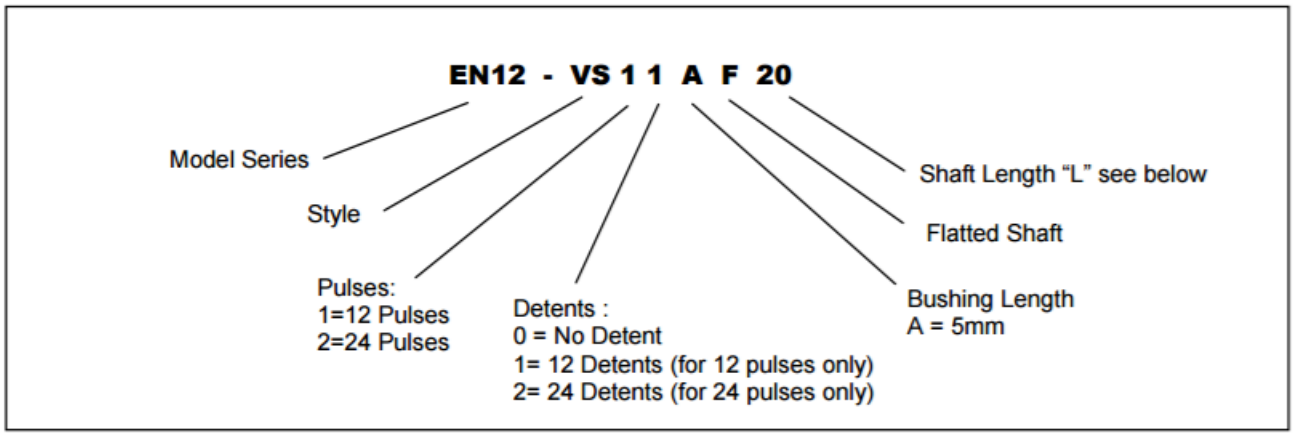
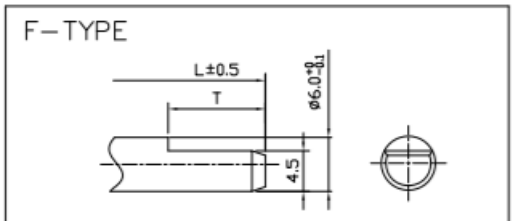
## Environmental

| | |
|---|---|
| Rotational Life | 30,000 cycles |

## Ordering



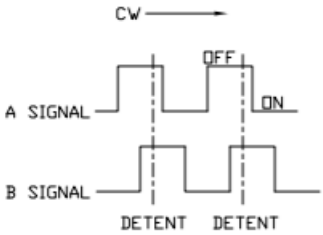

**Shaft Length Options**




| | | | | | |
|---|---|---|---|---|---|
| L | 18 | 20 | 23 | 25 | 30 |
| T | 5 | 7 | 7 | 12 | 12 |

**18 Length = 17.5mm**
**23 Length = 22.5mm**

## Circuit Diagram





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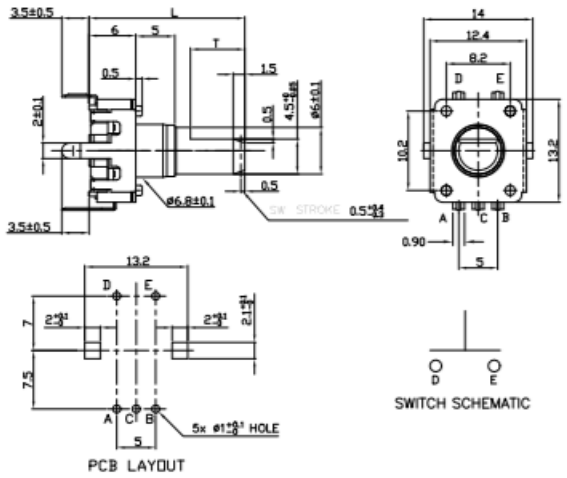
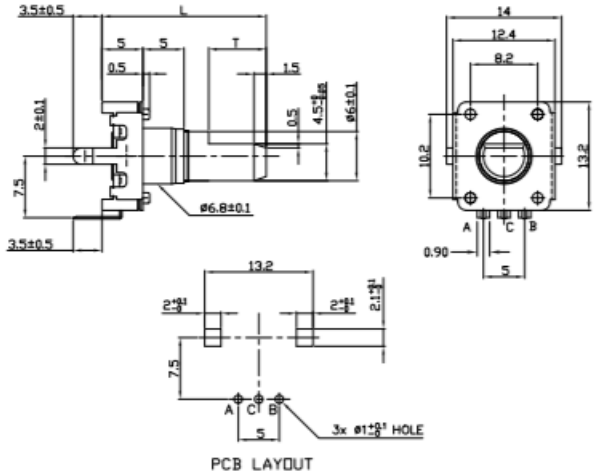
## Outline Drawings

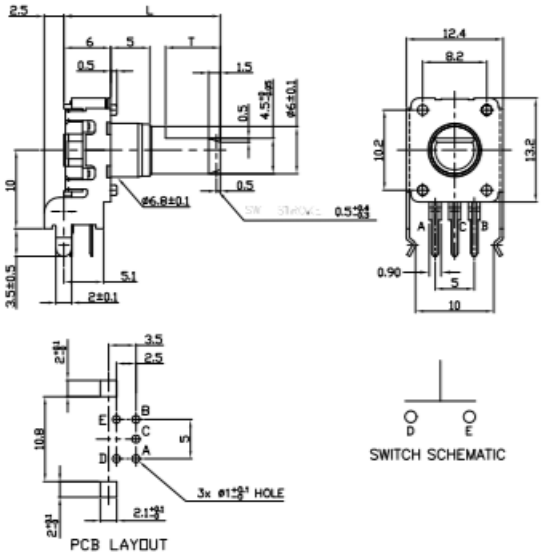
### EN12-HS (Top Adjust, with Switch)



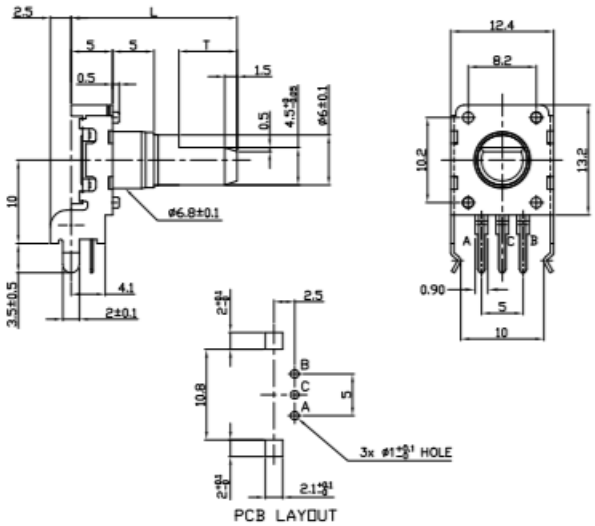

### EN12-HN (Top Adjust, without Switch)




### EN12-VS (Side Adjust, with Switch)




### EN12-VN (Side Adjust, without Switch)





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