



Feature

1. High resolution of 12-pulse/12-detent and 24-pulse/24-detent in 12mm size.
2. The adoption of a new shaft and bushing create a comfortable feel with high accuracy.
3. Incremental type.

F12E Series Rotary Encoder

Electrical characteristics

- Rated Power.....DC 5V 10mA(1mA Min)
- Fluttering.....T1,T3 $\leq$ 3ms
- Insulation Resistance.....More than 10M Ω at DC50V 1mA
- Withstand voltage.....1 minute at AC 50V 1mA
- Sliding Noise(Bounce).....T2 $\leq$ 2ms
- Phase Difference..... $\Delta T \geq 0.08T$

Mechanical characteristics

- Rotational Torque of Detent.....50gf.cm~150gf.cm(at 5~35°C)
- Rotational Torque10gf.cm~90gf.cm
- Total Rotational Angle.....360° Continuous
- Number and Position of Detent.....12Detents (Angle:30° $\pm$ 3°)
24Detents (Angle:15° $\pm$ 3°)
- Push-Pull Strength of shaft.....5.0Kg Min

Durability

- Rotational Life.....15,000 Cycles Min

Switch characteristics

- Contact resistance.....100m Ω Max
- Maximum ratings.....DC 5V ,10mA(1mA Min)
- Insulation resistance.....More than 10M Ω at DC 50V ,1mA

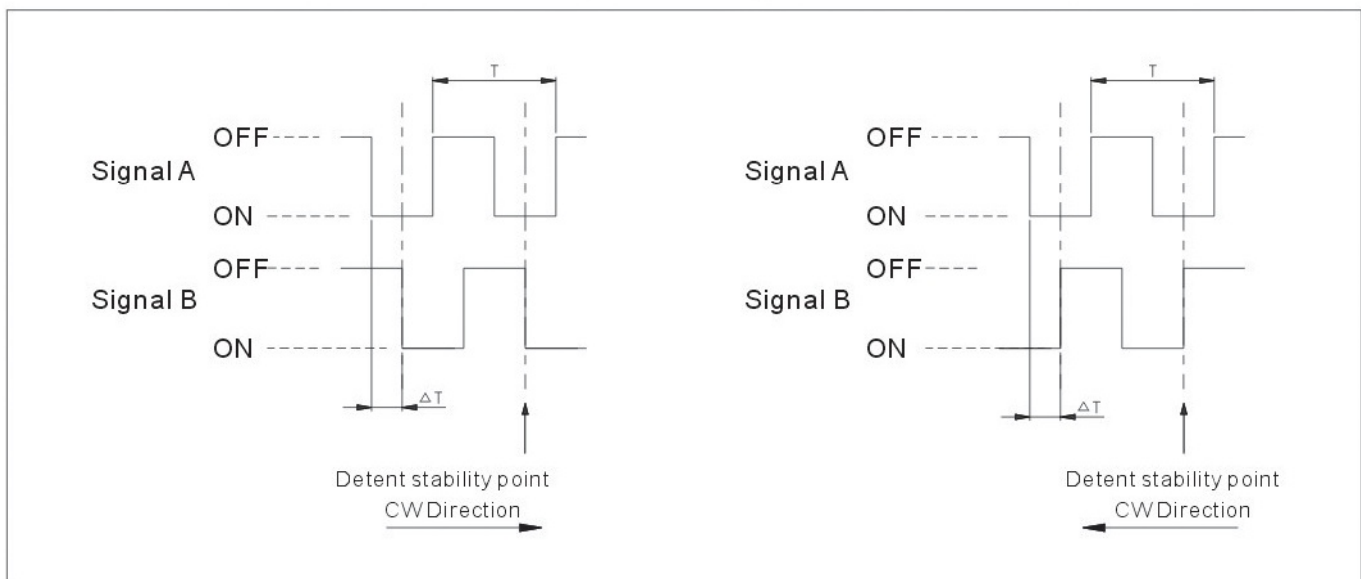
- Withstand voltage.....1 minute at AC 60V 1mA
- Travel..... $0.5^{+0.4}_{-0.3}$ mm
- Operating Force..... 550 ± 300 gf

Durability

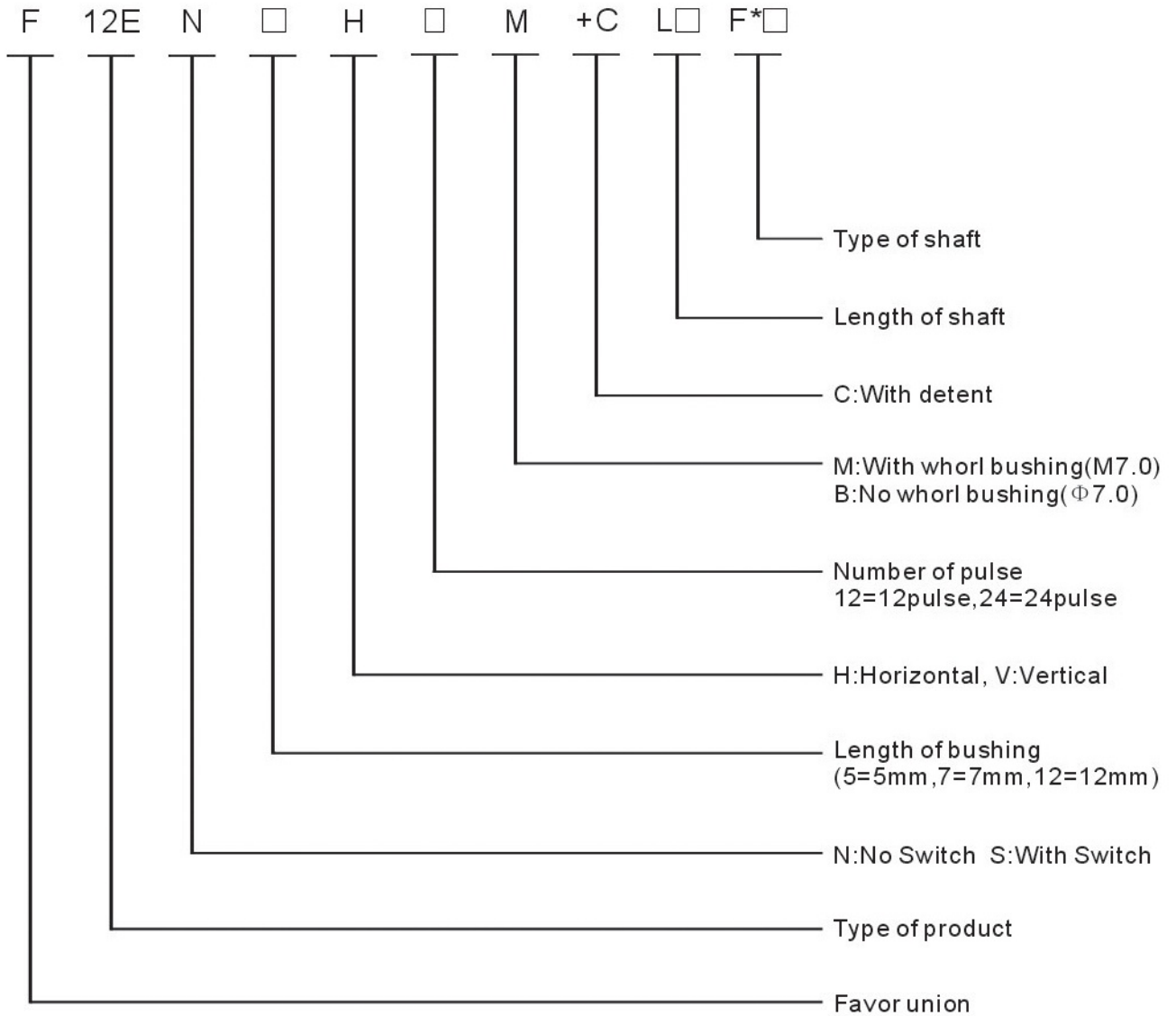
- Rotational Life.....15,000 Cycles Min

Output Signal Diagram

12mm Encoder
output wave diagram

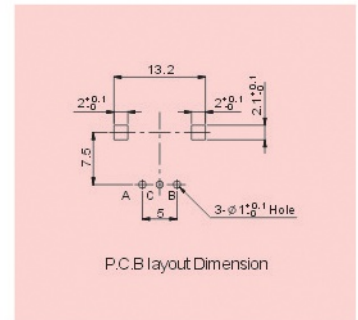
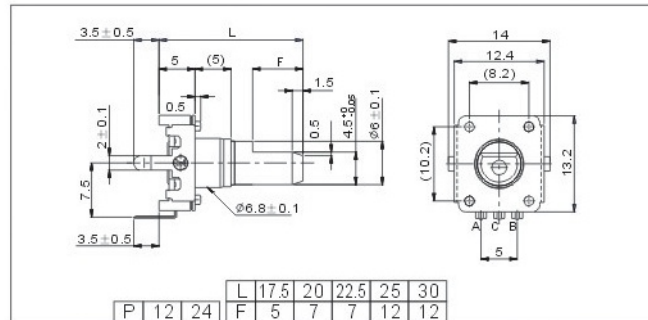


HOW TO ORDER



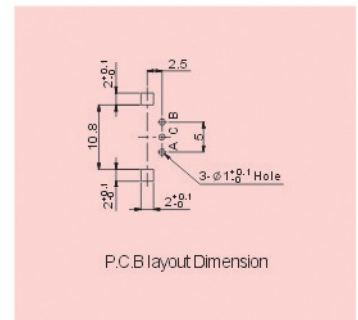
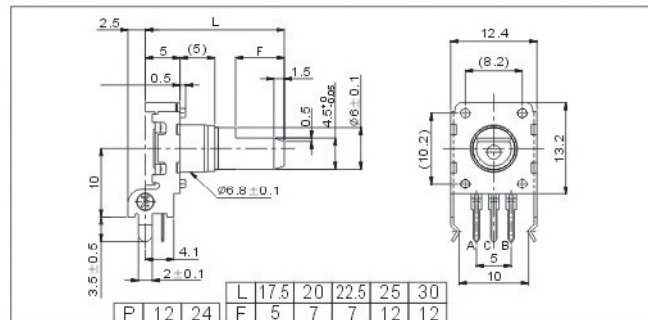
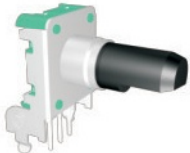
F12EN5H□B

Horizontal Type, Single Unit,
Detent Available



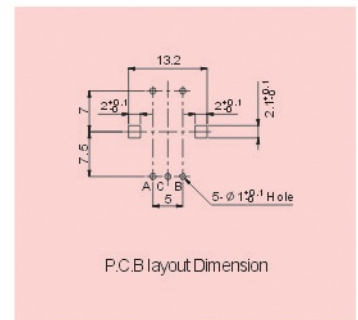
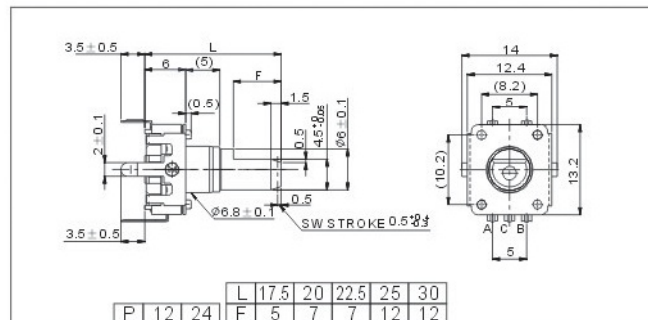
F12EN5V□B

Vertical Type, Single Unit,
Detent Available



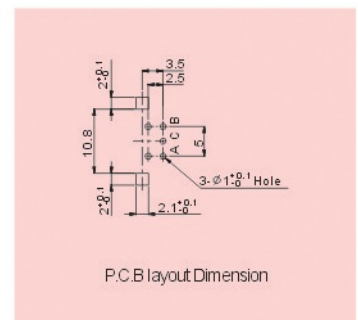
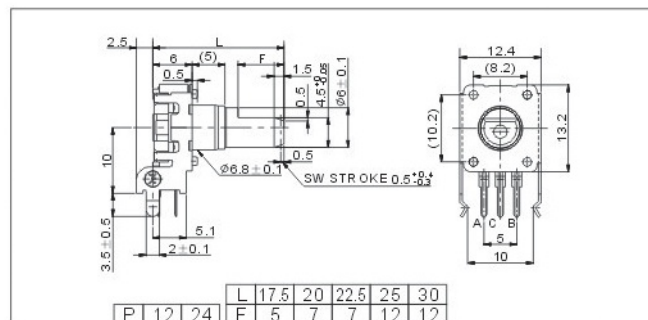
F12ES5H□B

Horizontal Type, Single Unit,
With Switch, Detent Available



F12ES5V□B

Vertical Type, Single Unit,
With Switch Detent Available



F12EN12H□M

Horizontal Type, Single Unit,
Detent Available

