



Feature

- 1.Compact and highly accurate contact type encoder.
- 2.0.5mm-travel push switch with compliance to 5.9 mm height.
- 3.Incremental type.

F11E Series Rotary Encoder

Electrical characteristics

- Rated Power..... DC 5V 10mA(1mA Min)
- Fluttering..... $T1, T3 \leq 3ms$
- Insulation Resistance.....More than $100M\Omega$ at 250V 1mA
- Withstand voltage.....1 minute at AC 300V 1mA
- Sliding Noise(Bounce)..... $T2 \leq 2ms$
- Phase Difference..... $\Delta T \geq 0.08T$

Mechanical characteristics

- Rotatioal Torque of Detent.....50gf.cm~180gf.cm (at 5~35°C)
- Total Rotational Angle.....360° Continuous
- Number and Position of Detent.....15 Detents (Angle: $24^\circ \pm 3^\circ$)
20 Detents (Angle: $18^\circ \pm 3^\circ$)
- Push-Pull Strength of shaft.....8.0Kgf Min for 10sec.
- Bushing & nut tight strength.....10.0Kgf.cm Min

Durability

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

Switch characteristics

- Contact resistance.....100m Ω Max
- Maximum ratings..... DC 5V, 10mA (1mA Min)

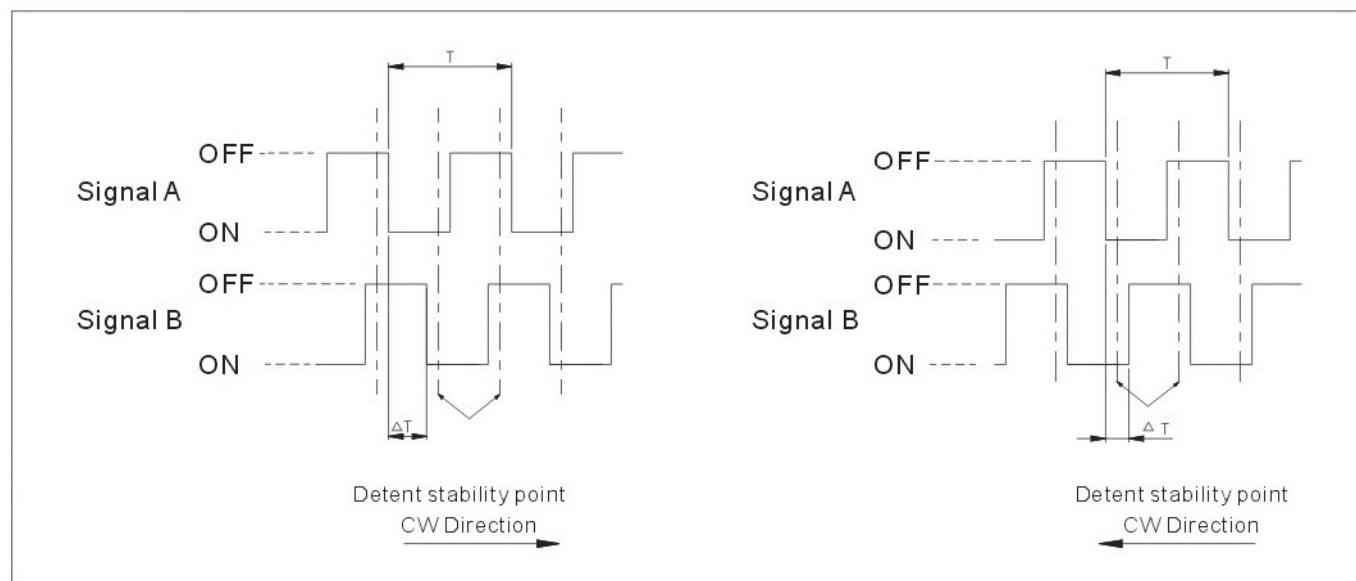
- Insulation resistance.....More than 100M Ω at DC 250V, 1mA
- Withstand voltage.....1 minute at AC 300V, 1mA
- Travel.....0.5^{+0.4}_{-0.3} mm
- Operating Force.....550 $\pm$ 300gf

Durability

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

Output Signal Diagram

11mm Encoder
output wave diagram



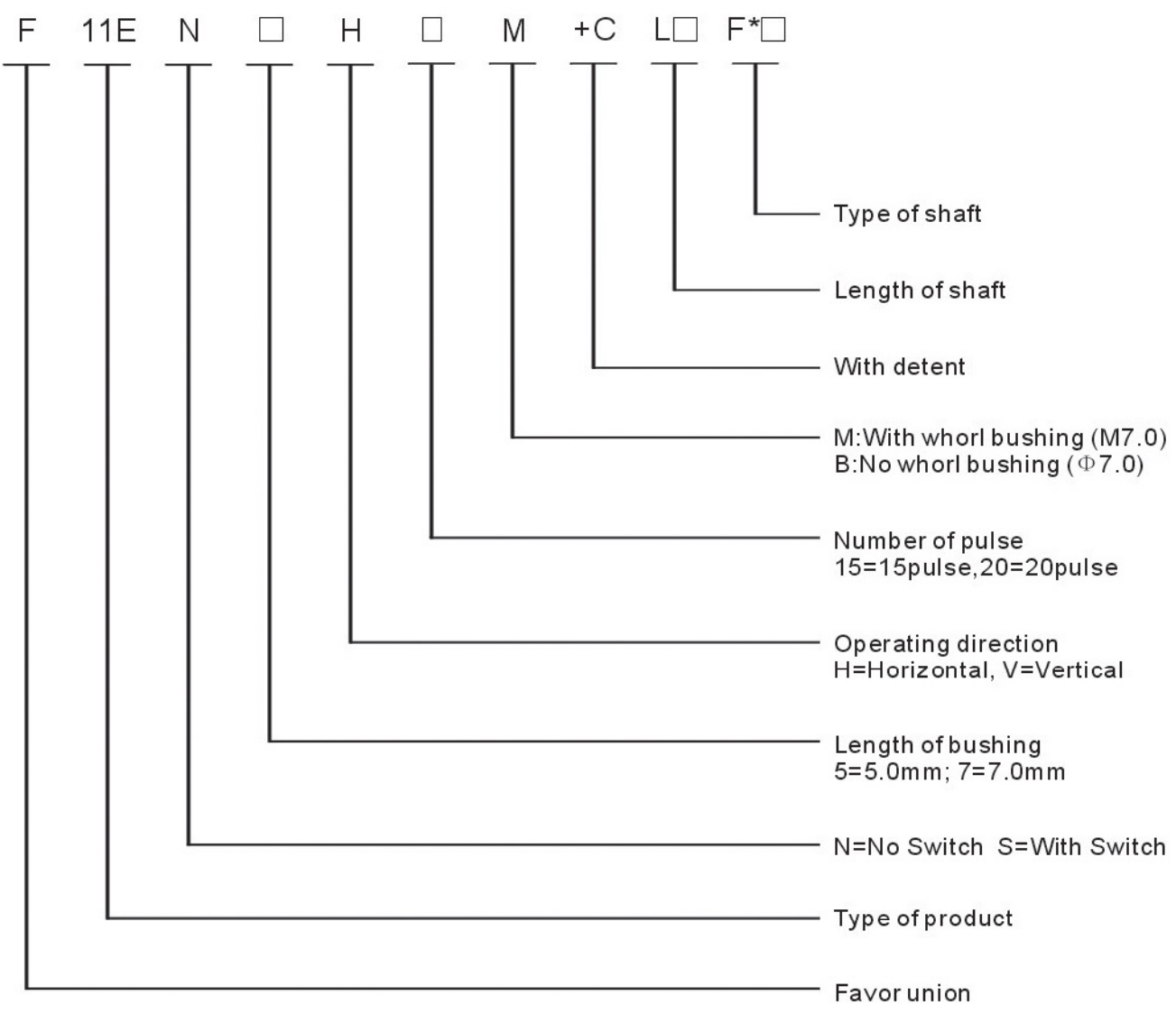


F11E Series

Rotary Encoder



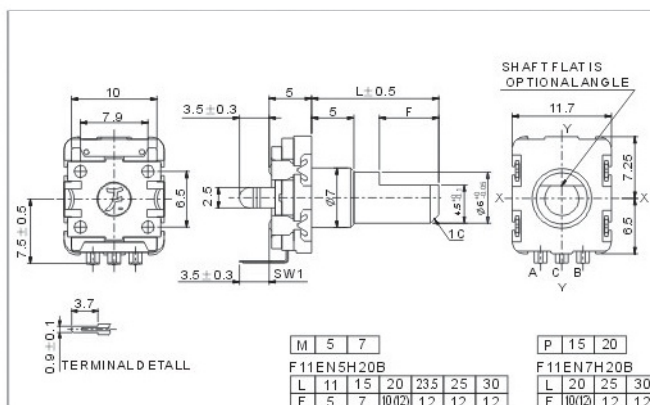
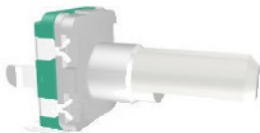
HOW TO ORDER



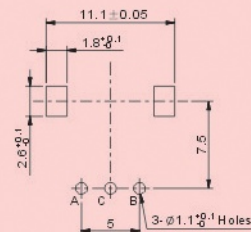
Encoder

F11EN□H□B

Horizontal Type, Single Unit,
P. C. B. Terminal

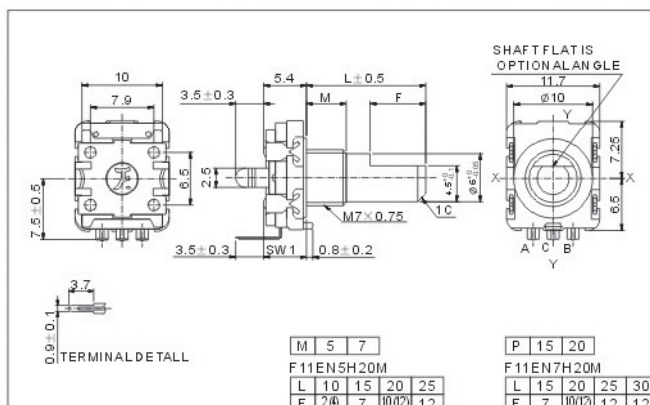


P.C.B layout Dimension

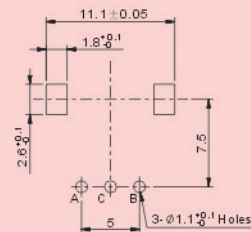


F11EN□H□M

Horizontal Type, Single Unit,
P. C. B. Terminal

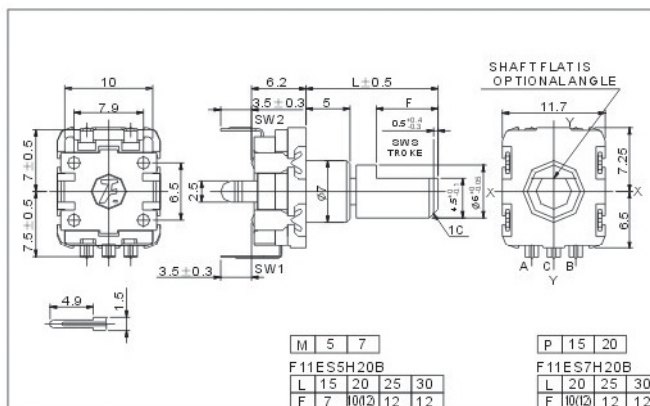
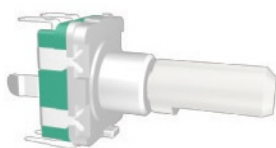


P.C.B layout Dimension

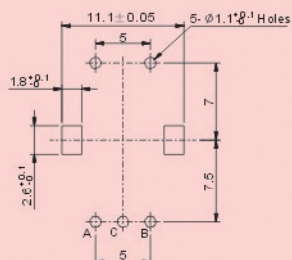


F11ES□H□B

Horizontal Type, Single Unit
with Switch, P. C. B. Terminal

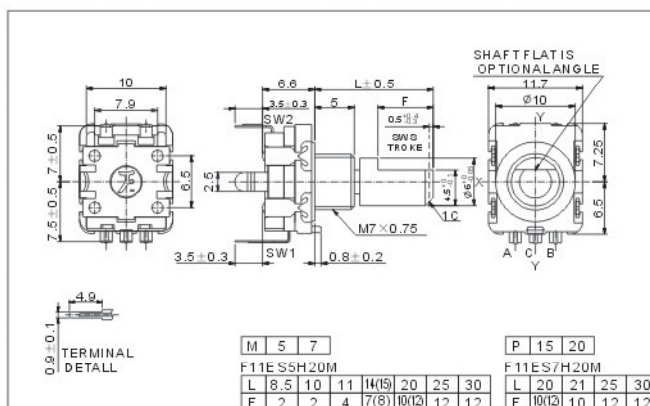


P.C.B layout Dimension

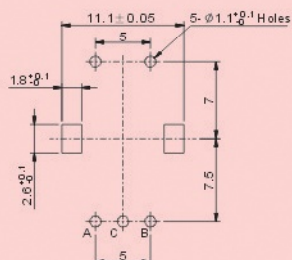


F11ES□H□M

Horizontal Type, Single Unit
with Switch, P. C. B. Terminal



P.C.B layout Dimension

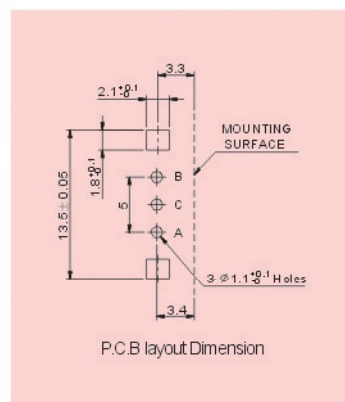
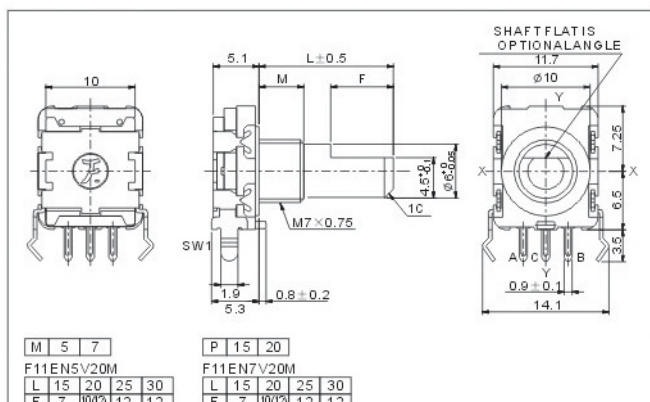


F11E Series Rotary Encoder



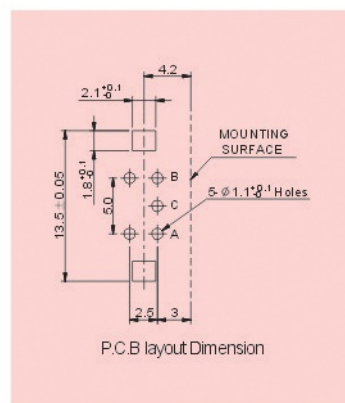
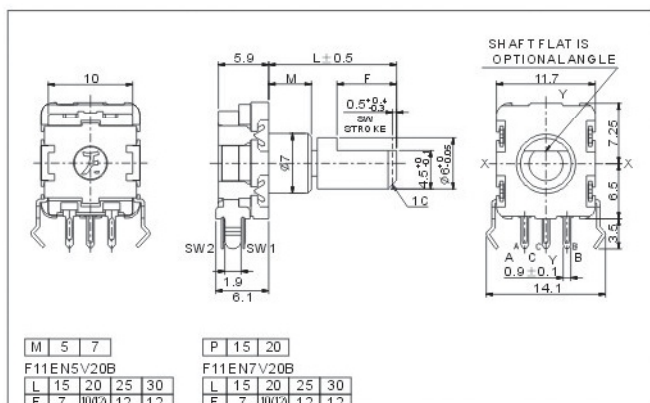
F11EN□V□M

Vertical Type, Single Unit,
P.C.B. Terminal



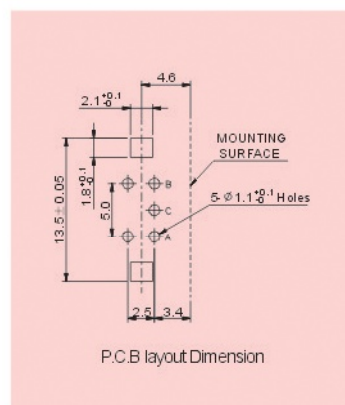
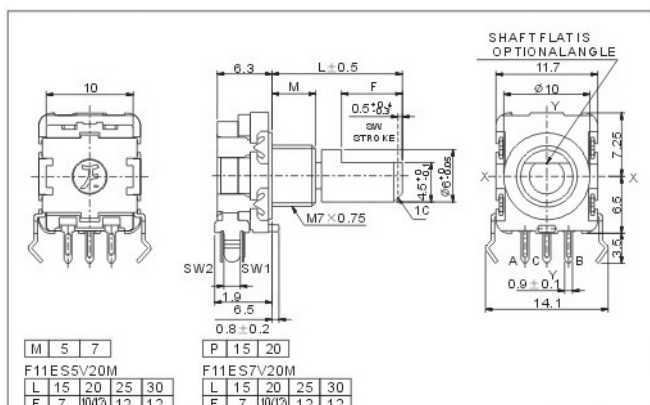
F11ES□V□B

Vertical Type, Single Unit,
with Switch P.C.B. Terminal



F11ES□V□M

Vertical Type, Single Unit,
with Switch P.C.B. Terminal



F11EN□V□B

Vertical Type, Single Unit,
P.C.B. Terminal

