

Encoders

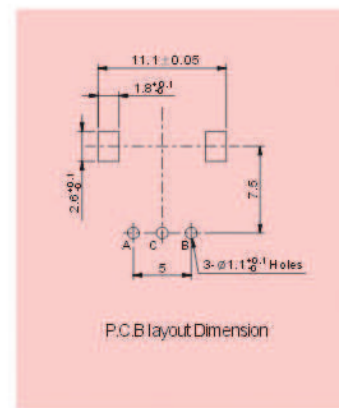
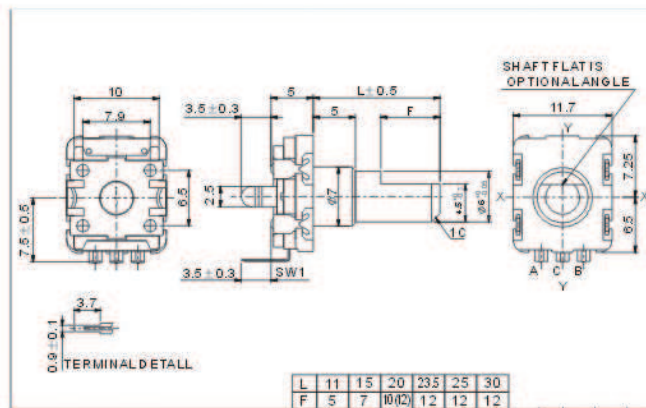
Rotary Type Encoders

EC85 Series

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



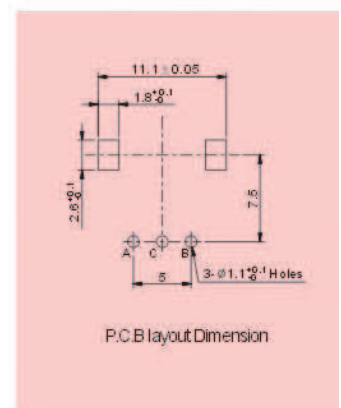
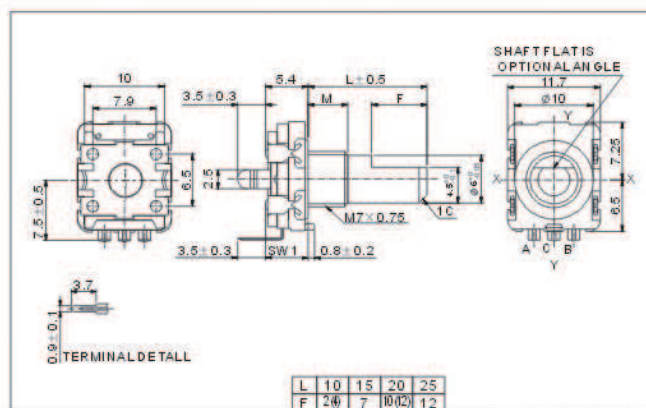
EC85N_B_C_F



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



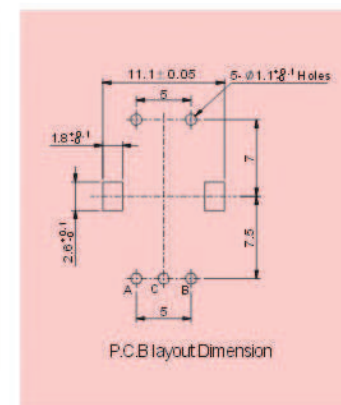
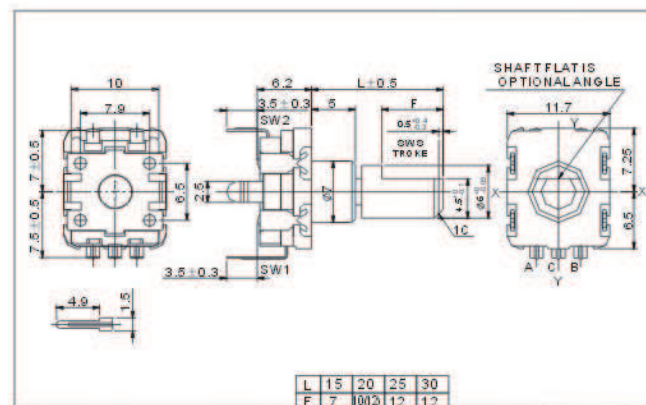
EC85N_M_C_F



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



EC85S_B_C_F



How to order:

EC85 1 2 3 4 5 6 7 8

1 SWITCH FUNCTION:

S With Switch
N Without Switch

2 OPERATION DIRECTION:

blank Horizontal
V Vertical

3 LENGTH OF BUSHING:

blank 5 mm
7 7 mm

4 WHORL BUSHING:

M With whorl bushing (M7.0)
B Without whorl bushing (Ø7.0mm)

5 LENGTH OF SHAFT (L) :

... See drawings

6 DETENT:

C With detent

7 NO. OF PULSE

15 15 pulses
20 20 pulses

8 TYPE OF SHAFT:

F See drawings

Encoders

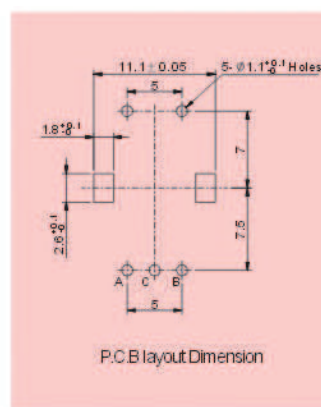
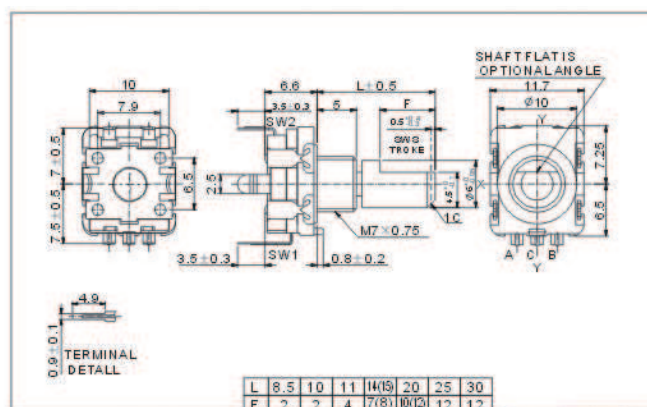
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with Switch, P. C. B. Terminal



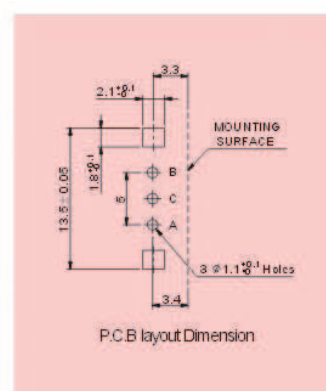
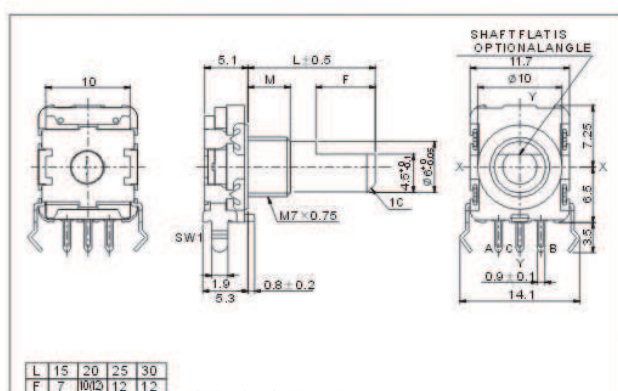
EC85S_M_C_F



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



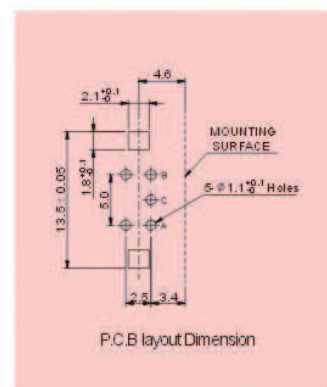
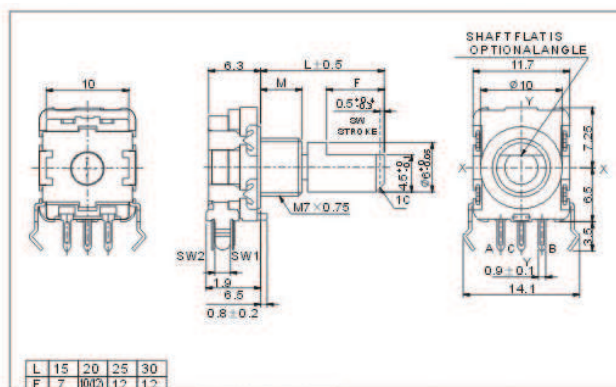
EC85NV_M_C_F



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



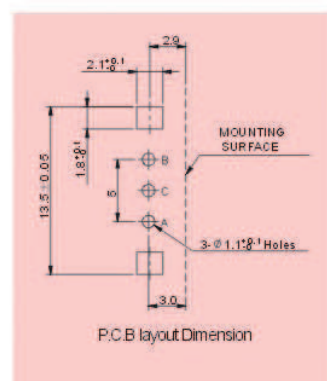
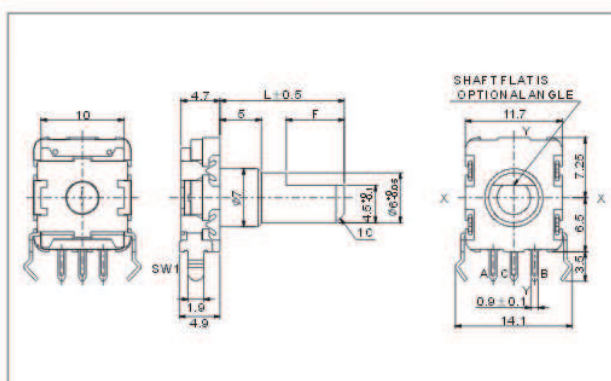
EC85SV_M_C_F



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



EC85NV_B_C_F



Electrical characteristics

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

Mechanical characteristics

- Rotational Torque of Detent..... $50\text{gf.cm} \sim 180\text{gf.cm}$ (at $5 \sim 35^\circ\text{C}$)
- Total Rotational Angle..... 360° Continuous
- Number and Position of Detent..... 15 Detents (Angle: $24^\circ \pm 3^\circ$)
- 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..... $100\text{m}\Omega$ Max
- Maximum ratings..... DC 5V, 10mA (1mA Min)
- Insulation resistance..... More than $100\text{M}\Omega$ at DC 250V. 1mA
- Withstand voltage..... 1 minute at AC 300V, 1mA
- Travel..... $0.5^{+0.4}_{-0.3}\text{mm}$
- Operating Force..... $550 \pm 300\text{gf}$

Output Signal Diagram

output wave diagram

