

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.
- 4.Long Life Type Available.

F11E Series Rotary Encoder

Electrical characteristics

- Rated Power..... DC 5V 10mA(1mA Min)
- Fluttering..... $t_1, t_3 \leq 3\text{ms}$
- Insulation Resistance.....More than $100\text{M}\Omega$ at 250V 1mA
- Withstand Voltage.....1 minute at AC 300V 1mA
- Sliding Noise(Bounce)..... $t_2 \leq 2\text{ms}$
- Phase Difference..... $\Delta T \geq 0.08T$

Mechanical characteristics

- Rotational Torque of Detent.....30~150 gf.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

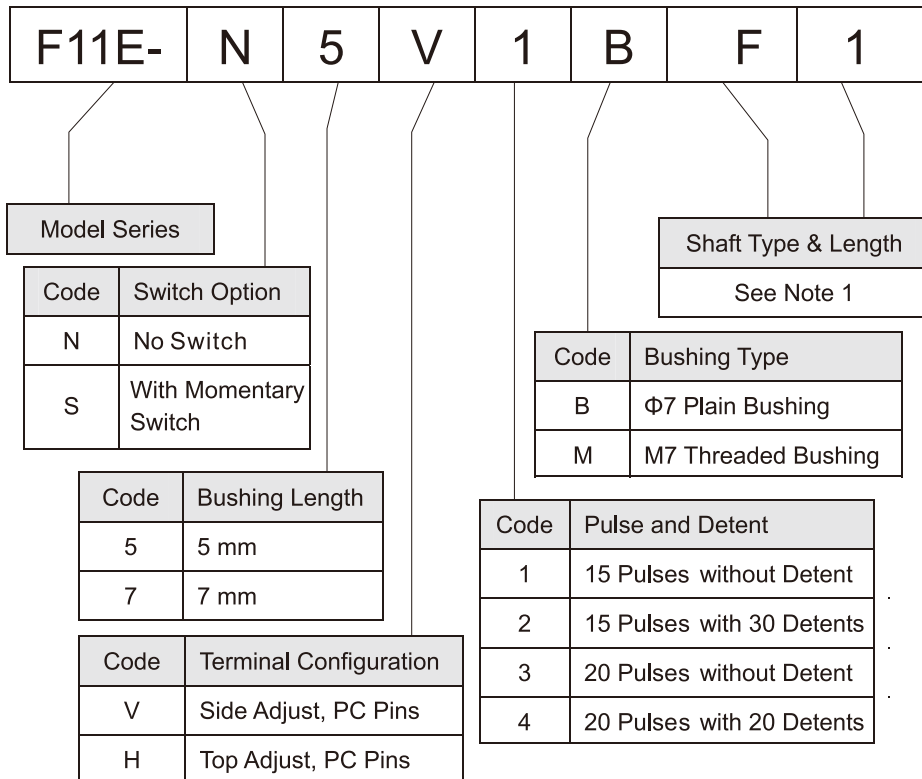
Durability

- Rotational Life..... 30,000 Cycles Min
- Operating Temperature Range.....-10°C ~ +70°C

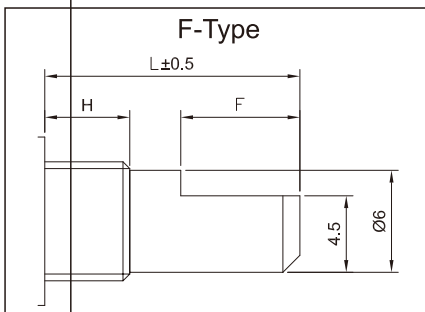
Switch characteristics

- Contact Resistance..... $100\text{m}\Omega$ Max
- Maximum Ratings..... DC 5V, 10mA(1mA Min)
- Insulation ResistanceMore than $100\text{M}\Omega$ at DC 250V, 1mA
- Withstand Voltage.....1 minute at AC 300V, 1mA
- Travel..... $0.5^{+0.4}_{-0.3}$ mm
- Operating Force..... $600 \pm 200\text{gf}$

HOW TO ORDER

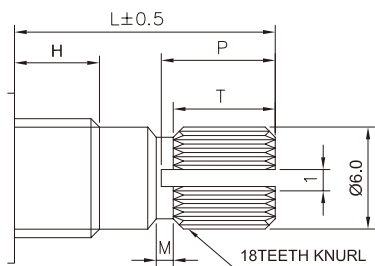


Note 1: Shaft Type & Shaft Length:



Switch Option:N											Switch Option:N										
Bushing Length H =5											Bushing Length H =7										
Code	1	2	3	4	5	6	7	8	9	0	Code	1	2	3	4	5	6	7	8	9	
L	8.5	10	11	12	13	14	15	20	25	30	L	15	15	17.5	20	20	20	20	25	30	
F	2	2	5	5	6	7	7	12	12	12	F	4	7	5	7	8	10	12	12	12	
Switch Option:S											Switch Option:S										
Bushing Length H =5											Bushing Length H =7										
Code	1	2	3	4	5	6	7	8	9	0	Code	1	2	3	4	5	6	7	8	9	0
L	8.5	10	11	12	13	14	15	20	25	30	L	15	15	15	17	19	20	20	21	25	30
F	2	2	4	5	6	7	7	12	12	12	F	5	6	7	7	7	10	12	10	12	12

Q-Type



Switch Option:S

Bushing Length H =5

Code	1	2	3	4	5	6	7			
L	12	13	15	18	20	25	30			
P	4.5	4.5	7	7	7	11	14			
T	4.5	4.5	6	6	6	10	12			
M	1	1	2	5	2	2	4			

Switch Option:N

Bushing Length H =7

Code	1	2	3	4						
L	15	20	25	30						
P	7	7	11	14						
T	6	6	10	12						
M	1	1	2	4						

Switch Option:N

Bushing Length H =5

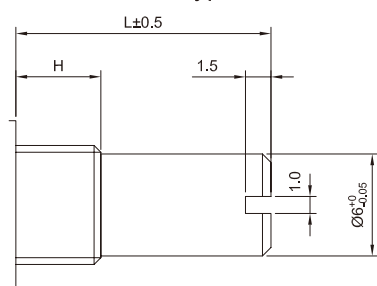
Code	1	2	3	4	5					
L	12.5	15	20	25	30					
P	7	7	7	11	14					
T	6	6	6	10	12					
M	1	1	1	2	4					

Switch Option:S

Bushing Length H =7

Code	1	2	3	4						
L	15	20	25	30						
P	6	7	11	14						
T	5	6	10	12						
M	1	1	2	4						

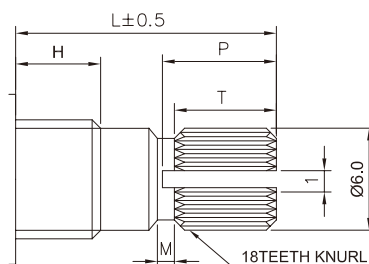
S-Type



Bushing Length H =5 or 7

Code	1	2	3	4	5
L	10	15	20	25	30

B-Type (Die-casting)

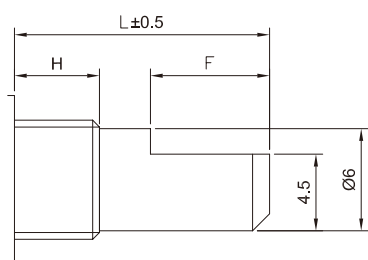


Switch Option:S

Bushing Length H =5

Code	1	2
L	12	15
P	4.5	7
T	4.5	6
M	1	2

A-Type (Die-casting)



Switch Option:N

Bushing Length H =5 or 7

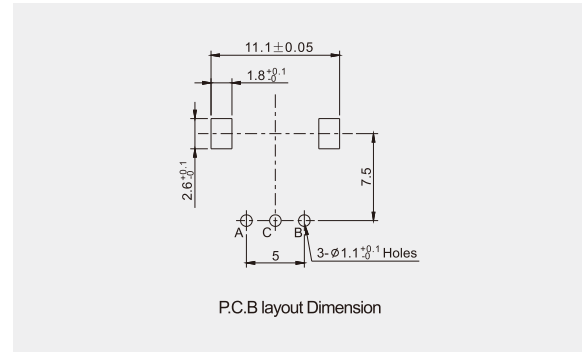
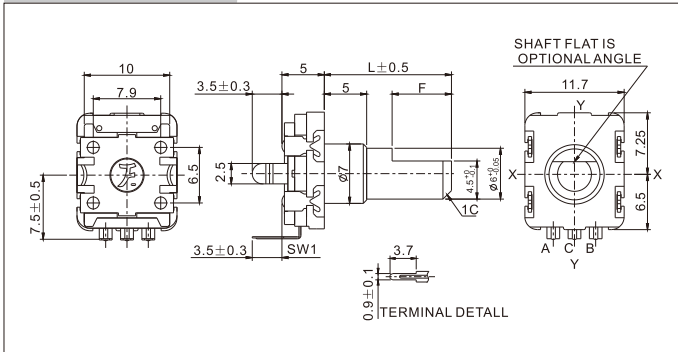
Code	1			
L	15			
F	7			

Switch Option:S

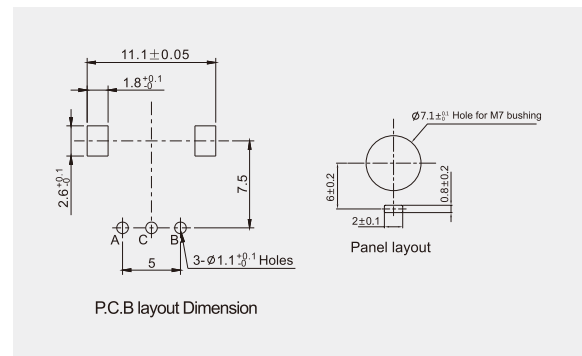
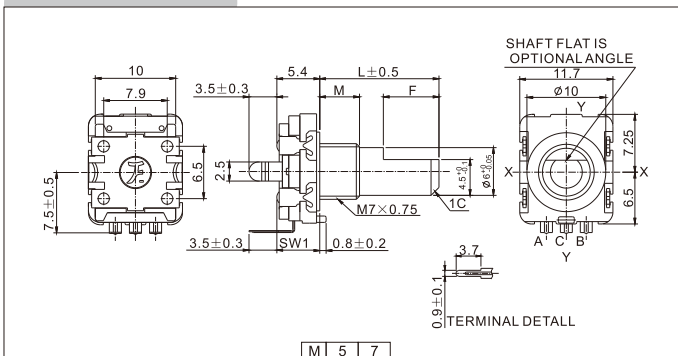
Bushing Length H =5

Code	1	2	3	4
L	15	20	20	20
F	7	7	10	12

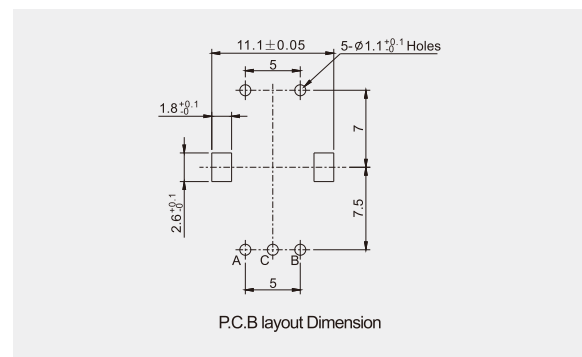
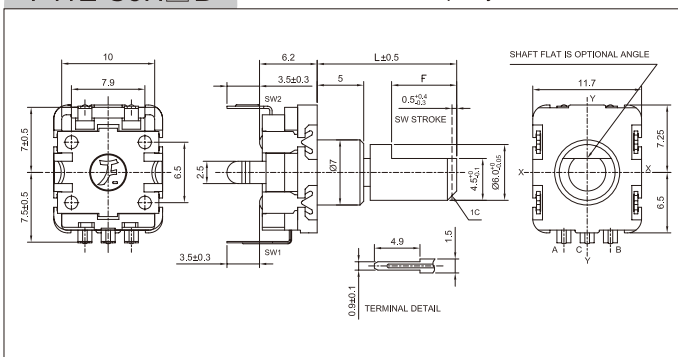
F11E-N5H□B No Switch, Top Adjust, $\Phi 7$ Plain Bushing



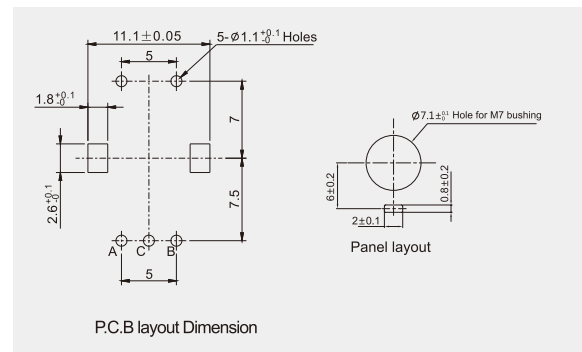
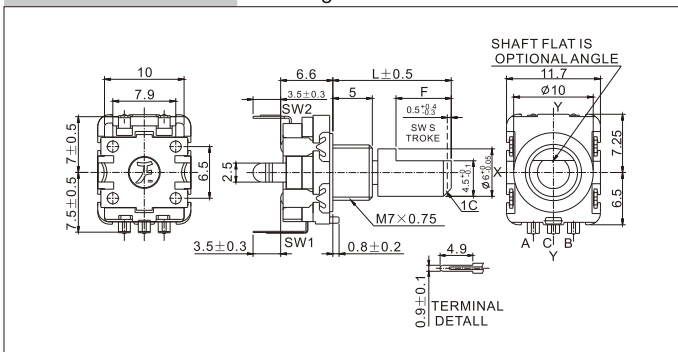
F11E-N□H□M No Switch, Top Adjust, M7 Threaded Bushing



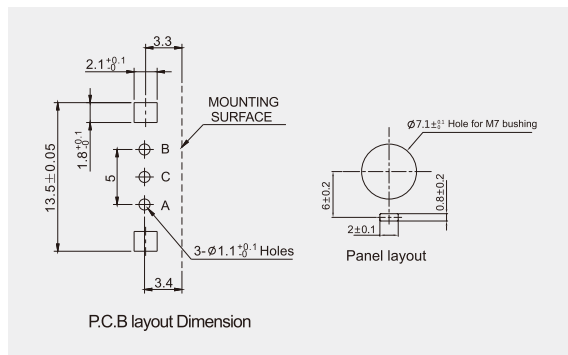
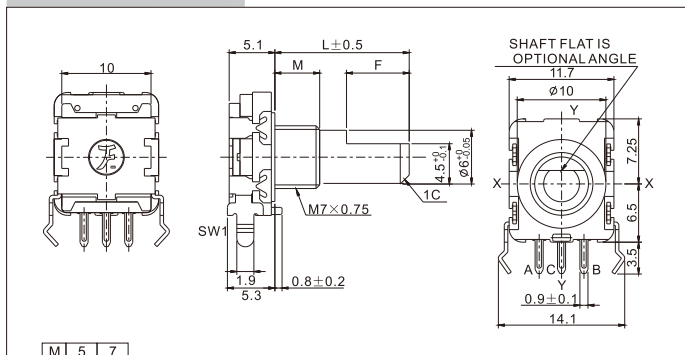
F11E-S5H□B With Push Switch, Top Adjust, $\Phi 7$ Plain Bushing



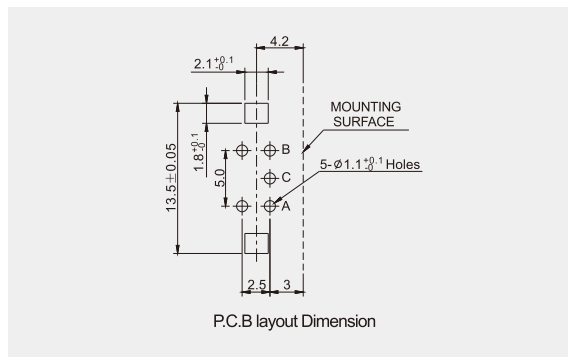
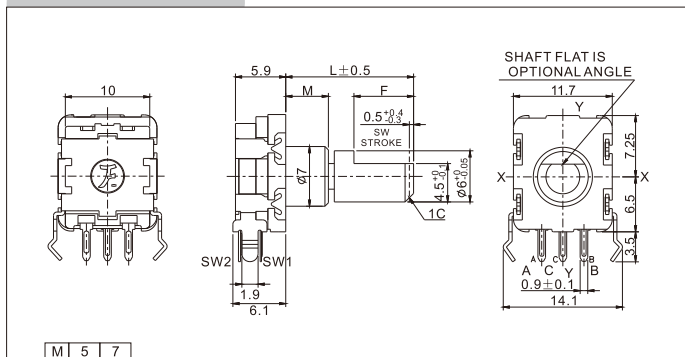
F11E-S5H□M With Push Switch, Top Adjust, M7 Threaded Bushing



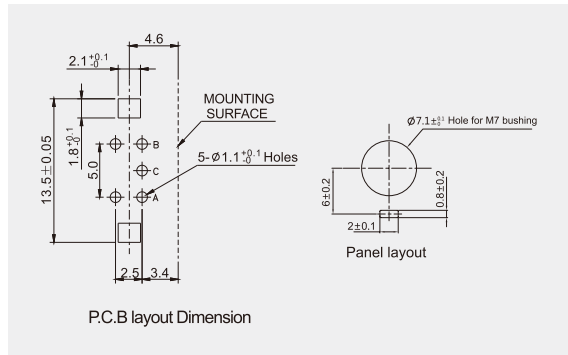
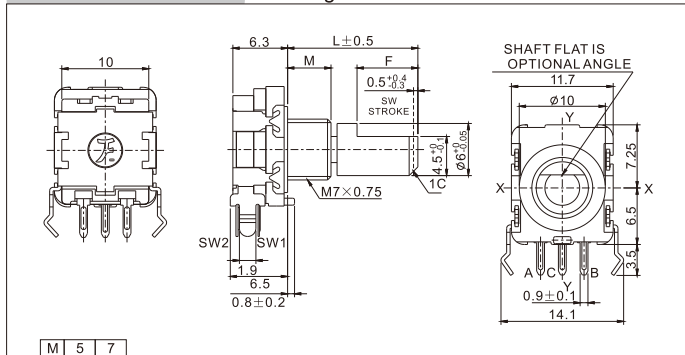
F11E-N□V□M No Switch, Side Adjust, M7 Threaded Bushing



F11E-S□V□B With Push Switch, Side Adjust, Ø7 Plain Bushing



F11E-S□V□M With Push Switch, Side Adjust, M7 Threaded Bushing



F11E-N5V□B No Switch, Side Adjust, Ø7 Plain Bushing

