

## 11mm Metal Shaft Rotary Encoder

### Application

- ✓ Audio, Home appliance, Precision apparatus, Automotive, Communication, Industrial control, etc.



### Feature

- ✓ Incremental Output Signal Encoder with optional rotational feeling

### ■ Specification

Rotation Angle	360° endless
Rating Voltage	5V DC 10mA (1 mA Min.)
Operating Temperature Range	-10 °C~70 °C
Rotational Torque	30 ~ 200 gf.cm
Rotational Life	15,000 cycles
Switch Circuit	S.P.S.T. (Push on)
Switch Stroke	0.5 mm
Switch Rating	16V DC 3A (10mA Min.)
Switch Operating Force	600±300 gf.cm
Switch Operating Life	25,000 cycles

### ■ How to order

RE111F – 20(D)N – 15F – 15P

[Model](#)

#### Terminal Type

Code	Terminal type	Switch
20	Horizontal	Without switch
21	Horizontal	With switch
40	Vertical	Without switch
41	Vertical	With switch
D1	Vertical	With switch

Code	Bushing Type (D)	
B1	∅7mm	5mm
B3	∅7mm	7mm

N means Without thread

[Resolution](#)


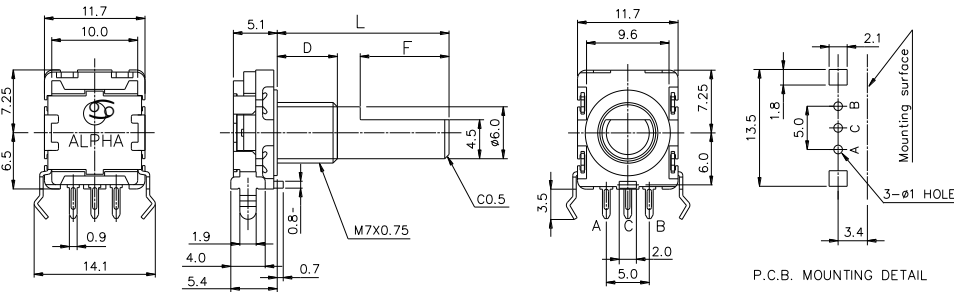
Order Code	Pulses	Detents
15P	15	30
20P	20	20

[Shaft](#)

## 11mm Metal Shaft Rotary Encoder

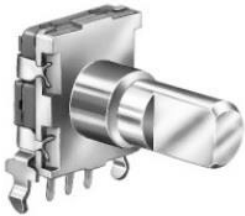
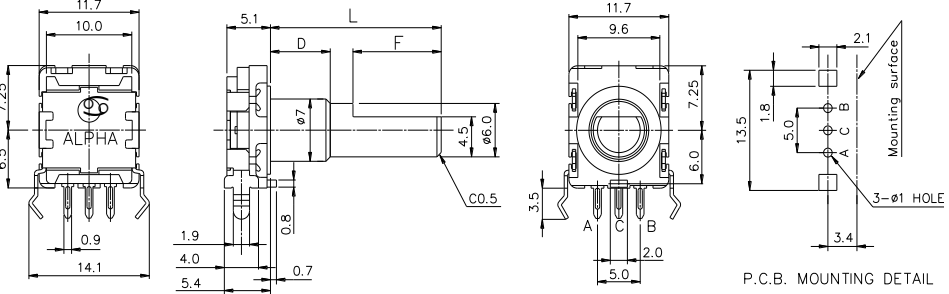

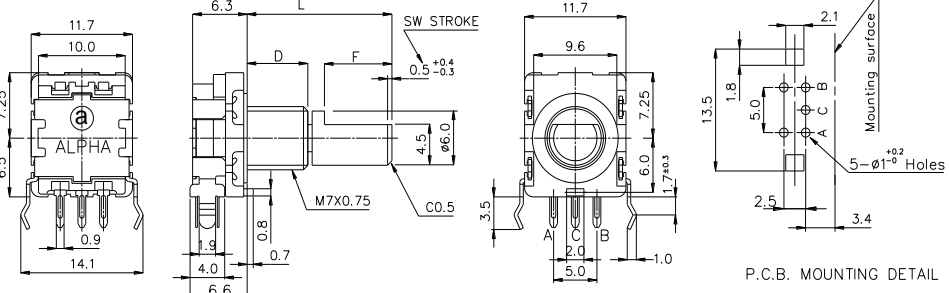

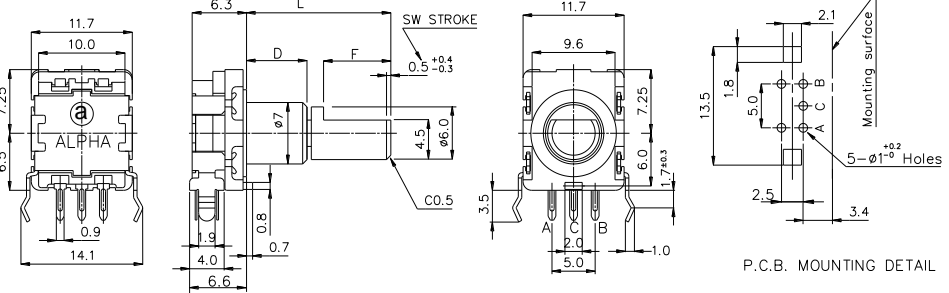

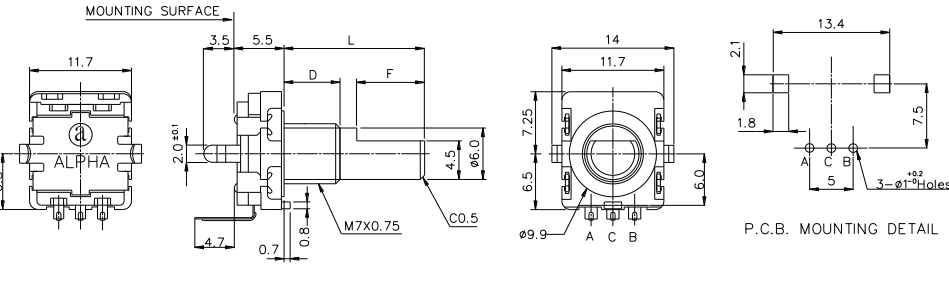
### Model Description

Model	Terminal Type	Switch	Bushing Type (D)		Bushing Thread
<a href="#">RE111F-20B1</a>	Horizontal	Without switch	Ø7mm	5mm	With thread
<a href="#">RE111F-20B1N</a>	Horizontal	Without switch	Ø7mm	5mm	Without thread
<a href="#">RE111F-20B3</a>	Horizontal	Without switch	Ø7mm	7mm	With thread
<a href="#">RE111F-20B3N</a>	Horizontal	Without switch	Ø7mm	7mm	Without thread
<a href="#">RE111F-21B1</a>	Horizontal	With switch	Ø7mm	5mm	With thread
<a href="#">RE111F-21B1N</a>	Horizontal	With switch	Ø7mm	5mm	Without thread
<a href="#">RE111F-21B3</a>	Horizontal	With switch	Ø7mm	7mm	With thread
<a href="#">RE111F-21B3N</a>	Horizontal	With switch	Ø7mm	7mm	Without thread
<a href="#">RE111F-40B1</a>	Vertical	Without switch	Ø7mm	5mm	With thread
<a href="#">RE111F-40B1N</a>	Vertical	Without switch	Ø7mm	5mm	Without thread
<a href="#">RE111F-40B3</a>	Vertical	Without switch	Ø7mm	7mm	With thread
<a href="#">RE111F-40B3N</a>	Vertical	Without switch	Ø7mm <td 7mm	Without thread	
<a href="#">RE111F-41B1</a>	Vertical	With switch	Ø7mm	5mm	With thread
<a href="#">RE111F-41B1N</a>	Vertical	With switch	Ø7mm	5mm	Without thread
<a href="#">RE111F-41B3</a>	Vertical	With switch	Ø7mm	7mm	With thread
<a href="#">RE111F-41B3N</a>	Vertical	With switch	Ø7mm	7mm	Without thread
<a href="#">RE111F-D1B1</a>	Vertical	With switch	Ø7mm	5mm	With thread
<a href="#">RE111F-D1B1N</a>	Vertical	With switch	Ø7mm	5mm	Without thread
<a href="#">RE111F-D1B3</a>	Vertical	With switch	Ø7mm	7mm	With thread
<a href="#">RE111F-D1B3N</a>	Vertical	With switch	Ø7mm	7mm	Without thread

Order Code	Outline Drawing
RE111F-20B1 RE111F-20B3	  <p>Technical drawing showing top, side, and P.C.B. mounting detail views with dimensions. Dimensions include: 11.7, 10.0, 7.25, 6.5, 0.9, 14.1, 5.1, D, L, F, 4.5, Ø6.0, CO.5, 1.9, 4.0, 5.4, 0.7, 11.7, 9.6, 7.25, 6.0, 3.5, 1.8, 5.0, 2.1, 3-Ø1 HOLE, 3.4, 2.0, 5.0, and P.C.B. MOUNTING DETAIL.</p>


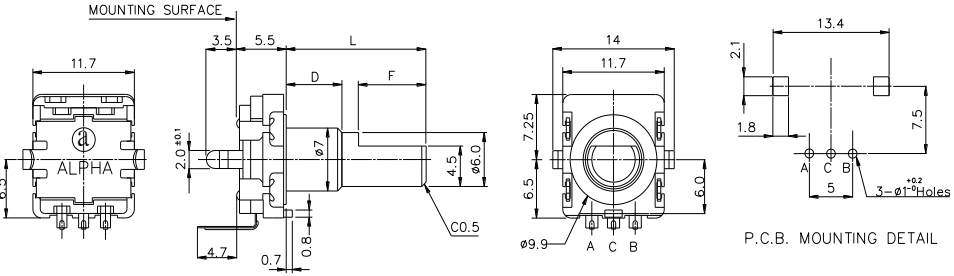

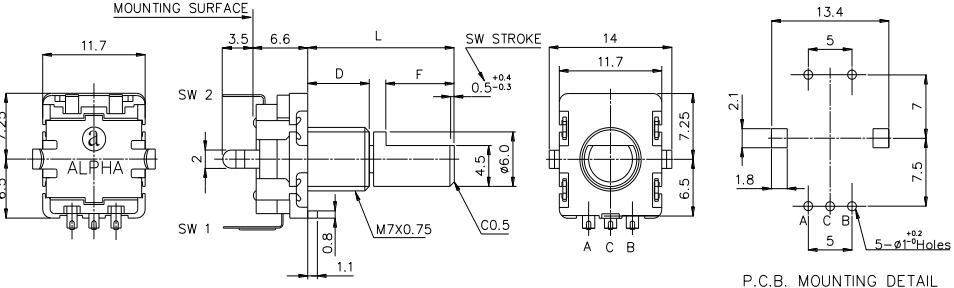

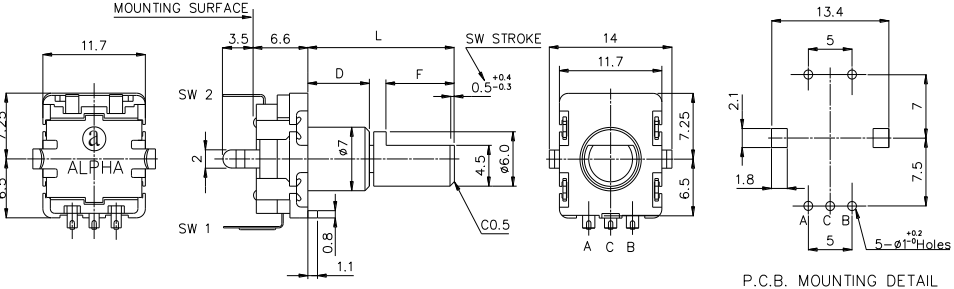
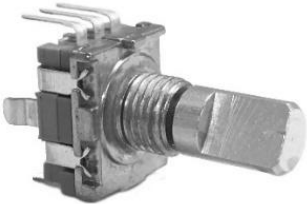
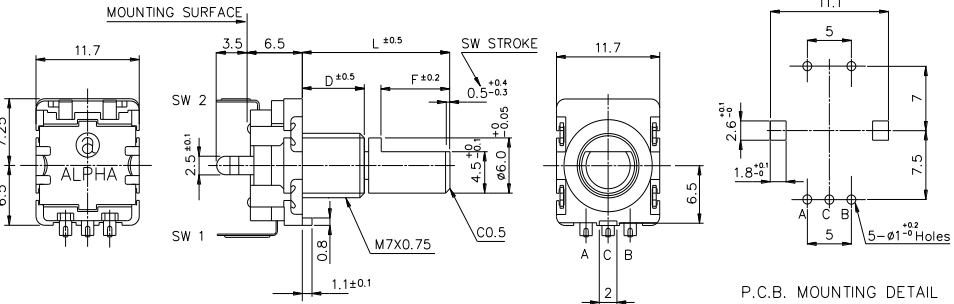
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## 11mm Metal Shaft Rotary Encoder

Order Code	Outline Drawing
RE111F-20B1N RE111F-20B3N 	
RE111F-21B1 RE111F-21B3 	
RE111F-21B1N RE111F-21B3N 	
RE111F-40B1 RE111F-40B3 	

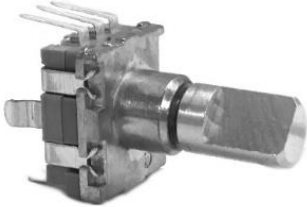
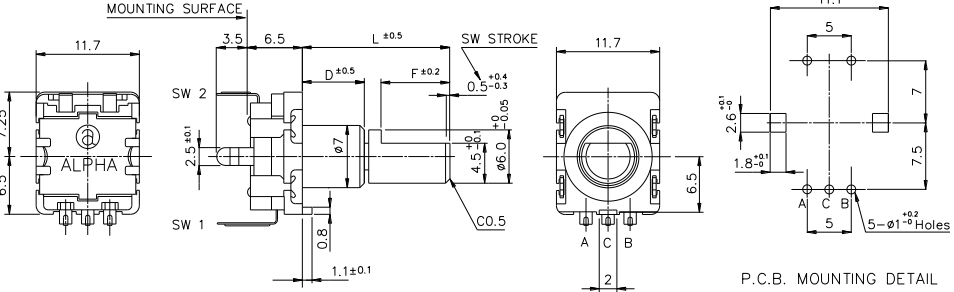
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## 11mm Metal Shaft Rotary Encoder

Order Code	Outline Drawing		
RE111F-40B1N RE111F-40B3N 			
RE111F-41B1 RE111F-41B3 			
RE111F-41B1N RE111F-41B3N 			
RE111F-D1B1 RE111F-D1B3 			

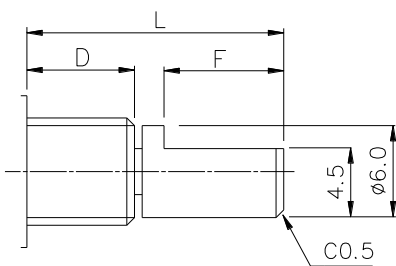
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## 11mm Metal Shaft Rotary Encoder

Order Code	Outline Drawing
RE111F-D1B1N RE111F-D1B3N 	

### ■ Shaft and Bushing Dimensions

#### F Type



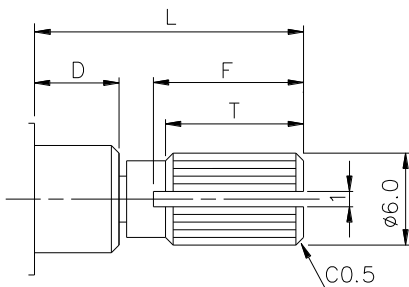
#### Without Switch

D	5(B1)	5(B1)	7(B3)	7(B3)	7(B3)	7(B3)	7(B3)
L	15	20	15	17	20	25	30
F	7	10	7	7	10	12	12

#### With Switch

D	5(B1)	5(B1)	7(B3)	7(B3)	7(B3)	7(B3)	7(B3)
L	15	20	15	17	20	25	30
F	7	10	6	7	10	12	12

#### K Type

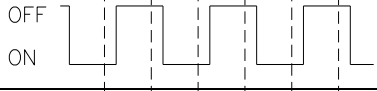
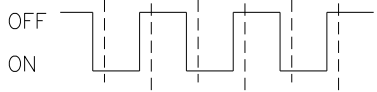
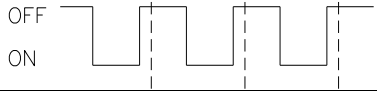
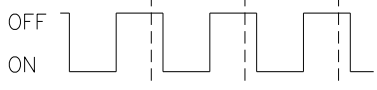


D	5(B1)	7(B3)	7(B3)	7(B3)
L	15	20	25	30
F	7	7	14	14
T	6	6	12	12

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## 11mm Metal Shaft Rotary Encoder

### ■Resolution and Output Signal

Model	Resolution (Pulses/Rotation)	Detent Number	Output Signal Format		
			Shaft Rotational Direction	Signal	Output
RE111F	15/360°	30	C.W.	A (Terminal A-C)	
				B (Terminal B-C)	
	20/360°	20	C.W.	A (Terminal A-C)	
				B (Terminal B-C)	

Design and specifications presented here are for the standard parts only. Please kindly contact us for your special requests and ask for the current technical specifications before purchase and/or use.

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