

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 (I mA Min.)	
Operating Temperature Range	-10 °C~70 °C	
Rotational Torque	30 ~ 200 gf.cm	
Rotational Life	RE111F : 15,000 cycles	Rotate 360° ccw and rotate 360° cw as 1 cycle
	RE111WF (NEW) : 30,000 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	Ø7mm	5mm
B3	Ø7mm	7mm

N means Without thread

Resolution

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

Shaft

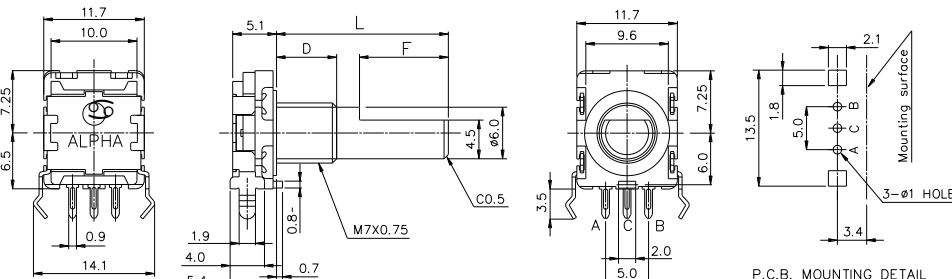
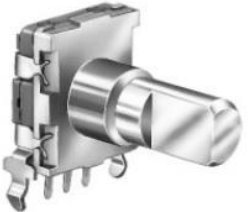
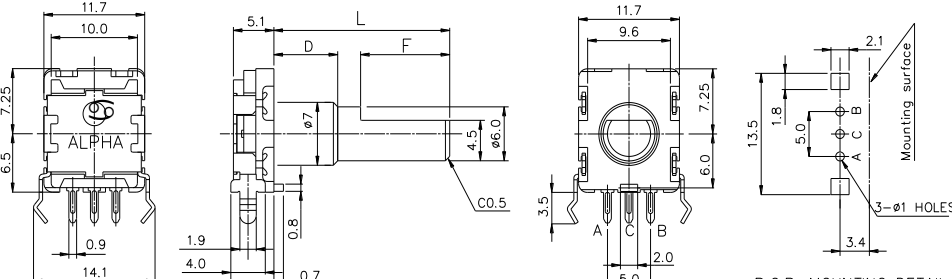
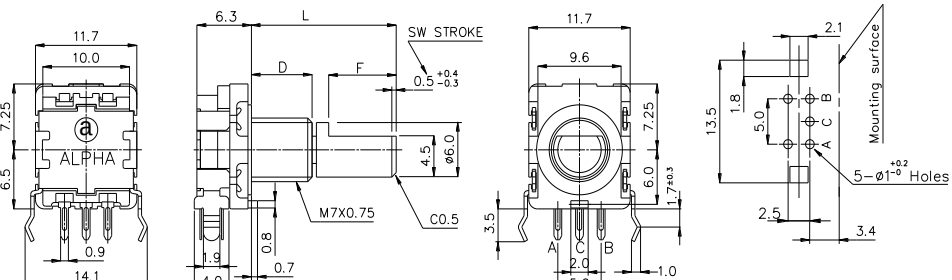
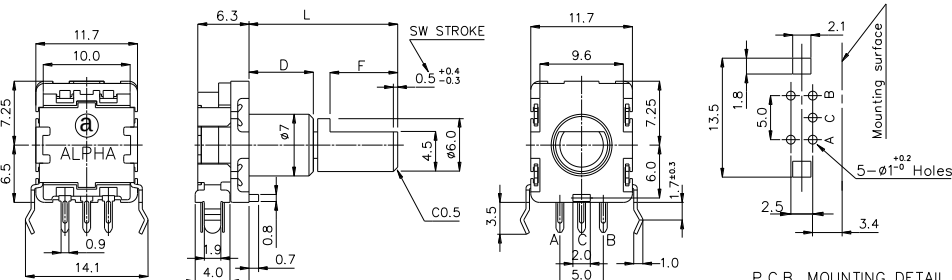
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■Model Description

Model	Terminal Type	Switch	Bushing Type (D)		Bushing Thread
RE111F-20B1	Horizontal	Without switch	Ø7mm	5mm	With thread
RE111F-20B1N	Horizontal	Without switch	Ø7mm	5mm	Without thread
RE111F-20B3	Horizontal	Without switch	Ø7mm	7mm	With thread
RE111F-20B3N	Horizontal	Without switch	Ø7mm	7mm	Without thread
RE111F-21B1	Horizontal	With switch	Ø7mm	5mm	With thread
RE111F-21B1N	Horizontal	With switch	Ø7mm	5mm	Without thread
RE111F-21B3	Horizontal	With switch	Ø7mm	7mm	With thread
RE111F-21B3N	Horizontal	With switch	Ø7mm	7mm	Without thread
RE111F-40B1	Vertical	Without switch	Ø7mm	5mm	With thread
RE111F-40B1N	Vertical	Without switch	Ø7mm	5mm	Without thread
RE111F-40B3	Vertical	Without switch	Ø7mm	7mm	With thread
RE111F-40B3N	Vertical	Without switch	Ø7mm	7mm	Without thread
RE111F-41B1	Vertical	With switch	Ø7mm	5mm	With thread
RE111F-41B1N	Vertical	With switch	Ø7mm	5mm	Without thread
RE111F-41B3	Vertical	With switch	Ø7mm	7mm	With thread
RE111F-41B3N	Vertical	With switch	Ø7mm	7mm	Without thread
RE111F-D1B1	Vertical	With switch	Ø7mm	5mm	With thread
RE111F-D1B1N	Vertical	With switch	Ø7mm	5mm	Without thread
RE111F-D1B3	Vertical	With switch	Ø7mm	7mm	With thread
RE111F-D1B3N	Vertical	With switch	Ø7mm	7mm	Without thread
RE111WF-21B1	Horizontal	With switch	Ø7mm	5mm	With thread
RE111WF-40B1	Vertical	Without switch	Ø7mm	5mm	With thread
RE111WF-40B1T	Vertical	Without switch	Ø7mm	5mm	With thread
RE111WF-41B1	Vertical	With switch	Ø7mm	5mm	With thread
RE111WF-41B1T	Vertical	With switch	Ø7mm	5mm	With thread

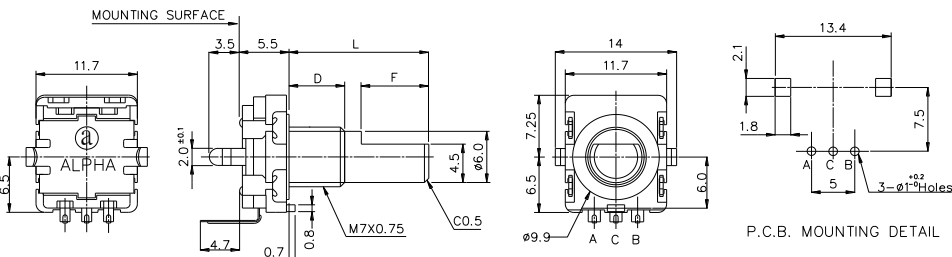
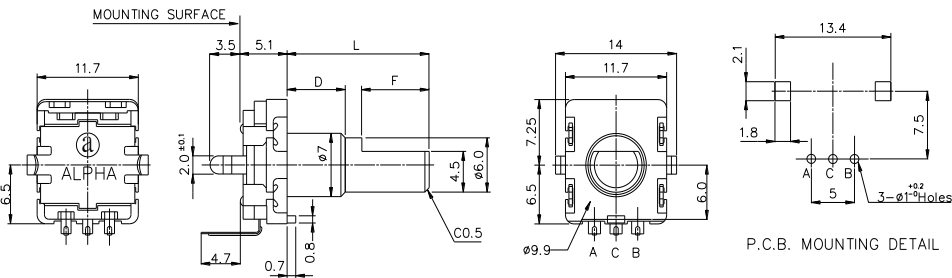
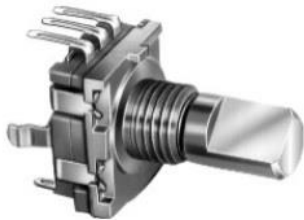
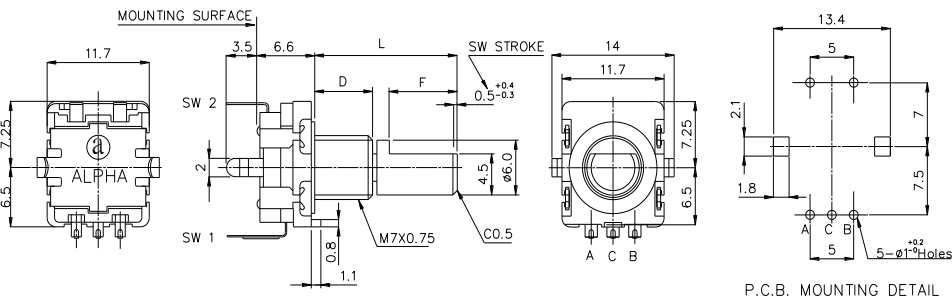
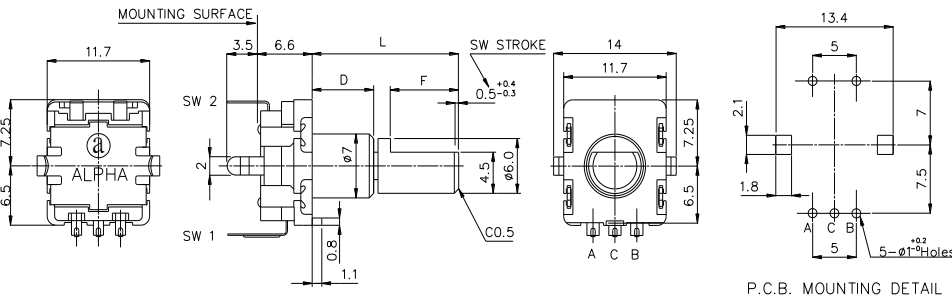
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Order Code	Outline Drawing
RE111F-20B1 RE111F-20B3 	 P.C.B. MOUNTING DETAIL
RE111F-20B1N RE111F-20B3N 	 P.C.B. MOUNTING DETAIL
RE111F-21B1 RE111F-21B3 	 P.C.B. MOUNTING DETAIL
RE111F-21B1N RE111F-21B3N 	 P.C.B. MOUNTING DETAIL

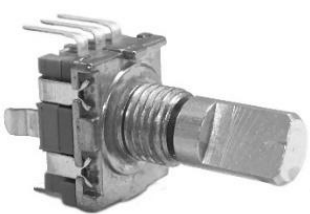
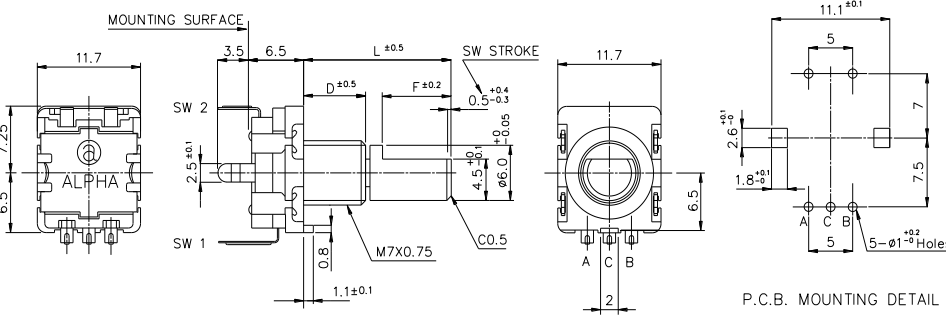
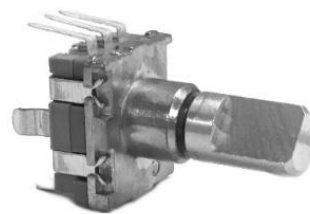
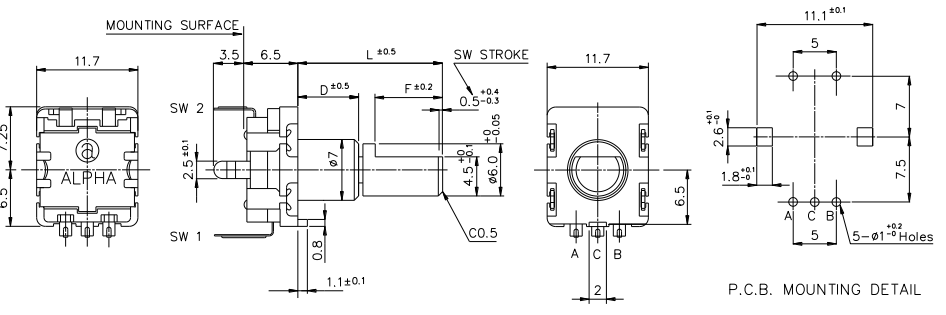
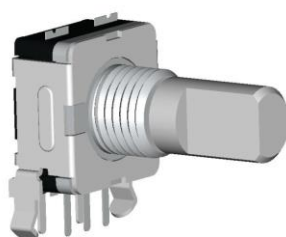
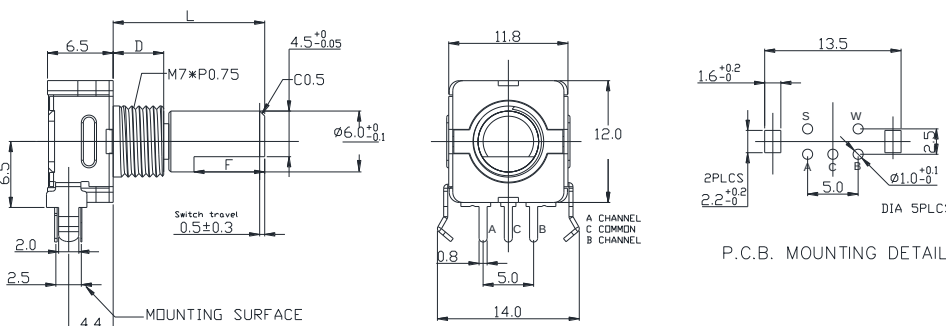
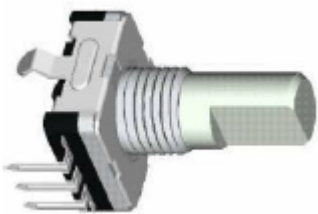
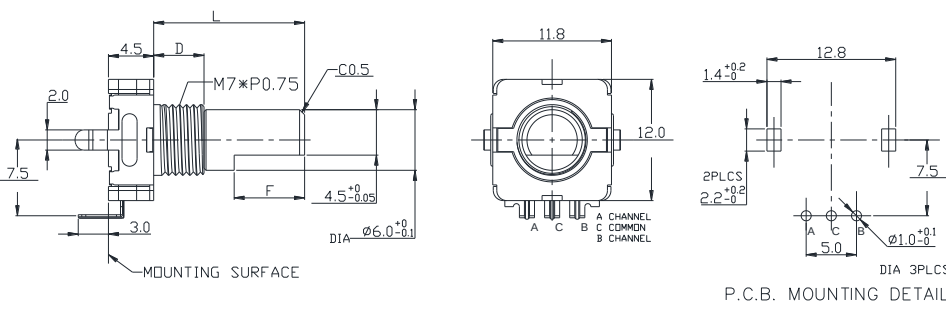
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11mm Metal Shaft Rotary Encoder

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

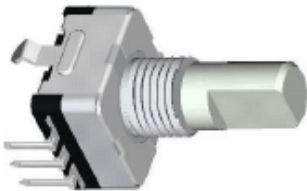
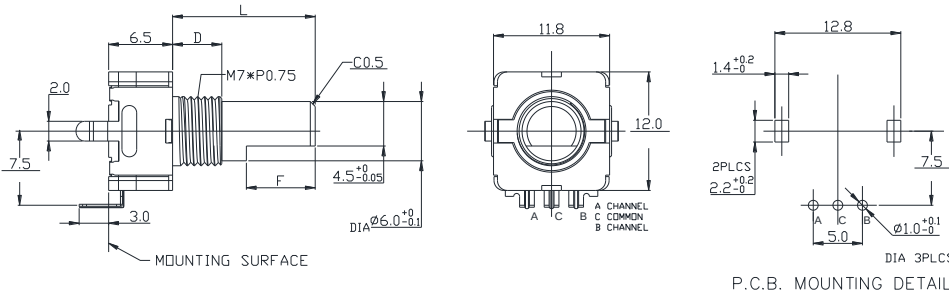
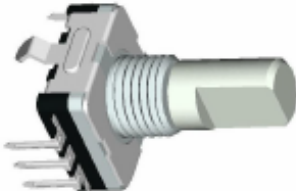
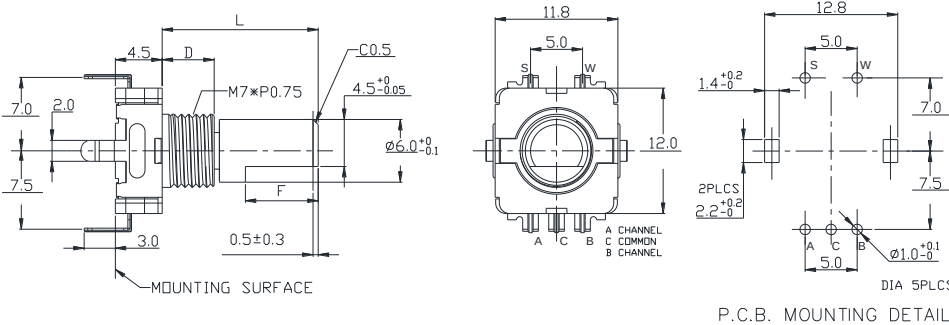
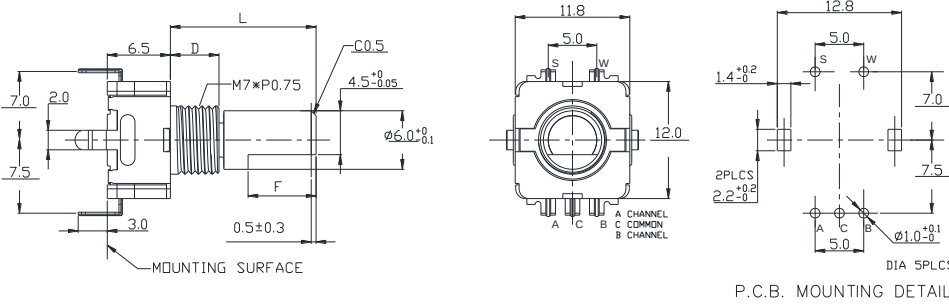
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11mm Metal Shaft Rotary Encoder

Order Code	Outline Drawing
RE111F-D1B1 RE111F-D1B3 	 P.C.B. MOUNTING DETAIL
RE111F-D1B1N RE111F-D1B3N 	 P.C.B. MOUNTING DETAIL
RE111WF-21B1 (New) 	 P.C.B. MOUNTING DETAIL
RE111WF-40B1 (New) 	 P.C.B. MOUNTING DETAIL

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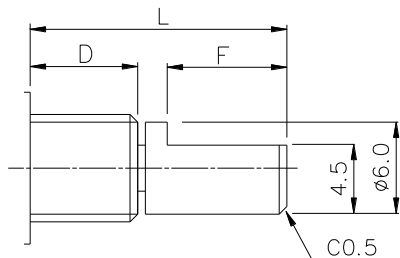
Order Code	Outline Drawing
RE111WF-40B1T (New) 	 Side view dimensions: 6.5, D, L, 2.0, 7.5, 3.0, M7*P0.75, C0.5, 4.5^{+0.05}/_{-0.05}, DIA $\phi 6.0^{+0}_{-0.1}$, MOUNTING SURFACE. Front view dimensions: 11.8, 12.0, A CHANNEL, A, C, B CHANNEL, B. P.C.B. MOUNTING DETAIL: 12.8, 1.4^{+0.2}/₋₀, 2.2^{+0.2}/₋₀, 7.5, 5.0, DIA 3PLCS, $\phi 1.0^{+0.1}_{-0}$.
RE111WF-41B1 (New) 	 Side view dimensions: 4.5, D, L, 2.0, 7.0, 7.5, 3.0, M7*P0.75, C0.5, 4.5^{+0.05}/_{-0.05}, $\phi 6.0^{+0}_{-0.1}$, 0.5$\pm$0.3, MOUNTING SURFACE. Front view dimensions: 11.8, 5.0, 12.0, S, W, A CHANNEL, A, C, B CHANNEL, B. P.C.B. MOUNTING DETAIL: 12.8, 1.4^{+0.2}/₋₀, 5.0, 7.0, 7.5, 2.2^{+0.2}/₋₀, DIA 5PLCS, $\phi 1.0^{+0.1}_{-0}$.
RE111WF-41B1T (New) 	 Side view dimensions: 6.5, D, L, 2.0, 7.0, 7.5, 3.0, M7*P0.75, C0.5, 4.5^{+0.05}/_{-0.05}, $\phi 6.0^{+0}_{-0.1}$, 0.5$\pm$0.3, MOUNTING SURFACE. Front view dimensions: 11.8, 5.0, 12.0, S, W, A CHANNEL, A, C, B CHANNEL, B. P.C.B. MOUNTING DETAIL: 12.8, 1.4^{+0.2}/₋₀, 5.0, 7.0, 7.5, 2.2^{+0.2}/₋₀, DIA 5PLCS, $\phi 1.0^{+0.1}_{-0}$.

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■ Shaft and Bushing Dimensions

F Type



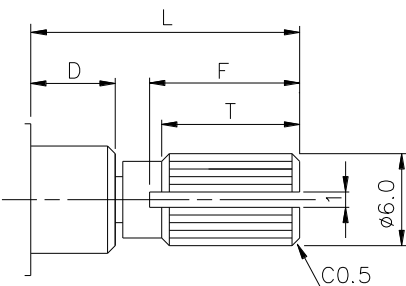
Without Switch

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

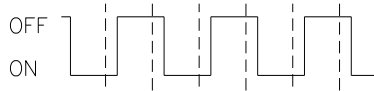
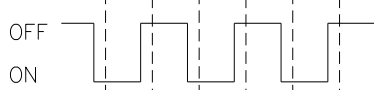
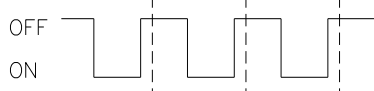
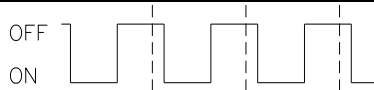


D	5(B1)	7(B3)	7(B3)	7(B3)
L	15	20	25	30
F	7	7	14	14
T	6	6	12	12

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■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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