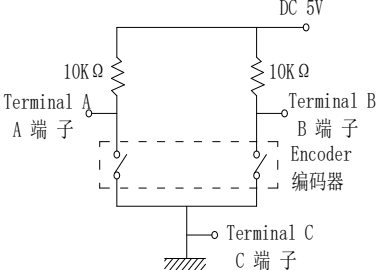
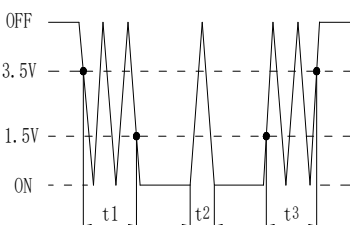
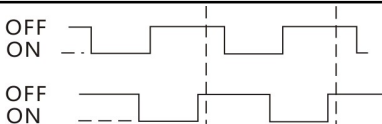




ISO 9001 國際品質認證
ISO 9001 CERTIFICATE

松 暉 電 機 工 業 股 份 有 限 公 司
SONG HUEI ELECTRIC CO., LTD.
佛 山 市 松 暉 電 機 科 技 有 限 公 司
FOSHAN SONG HUEI ELECTRIC CO., LTD.

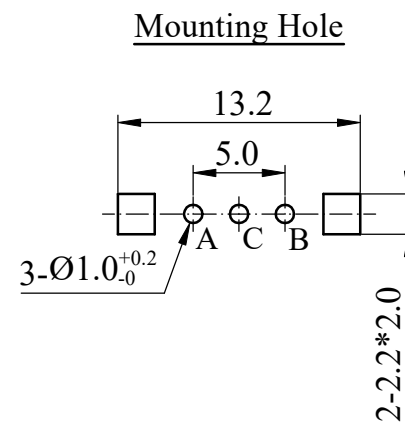
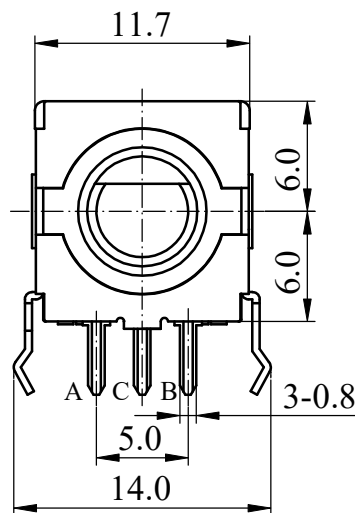
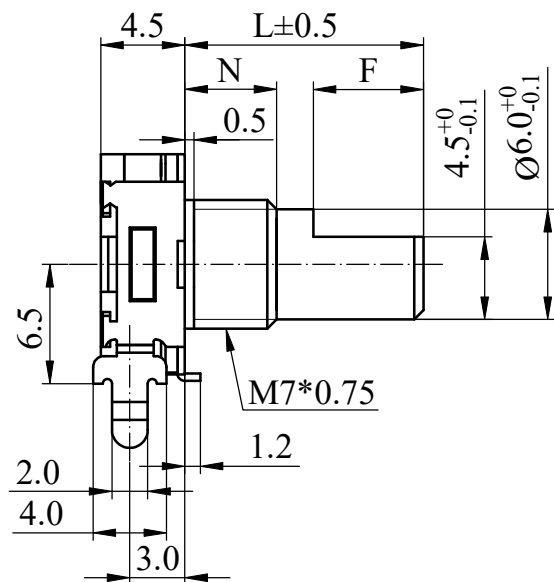
一般事項 General	
使用溫度範圍 Operating temperature	-10 °C ~ 70 °C
儲存溫度 Storage temperature	-40 °C ~ 85 °C
電氣特性 Electrical Characteristics	
額定功率 Power rating	DC 5 V 0.5 mA
絕緣阻抗 Insulation resistance	$\geq 100 \text{ M}\Omega$ at DC 300 V
耐電壓 Withstand voltage	For 1 minute or more (at AC 300 V)
滑動雜訊 Sliding noise	$t_1, t_3 \leq 3 \text{ mS}$, $t_2 \leq 2 \text{ mS}$ (Test conditions 測試條件: $360^\circ / \text{S}$) Using the C / R filter circuit is recommended 建議使用 C / R 濾波電路  
分解能力 Resolution	20 pulses / 360° for each phase 每相 20 脈衝 / 360°
相位差 Phase difference	$\Delta T = 0.25 \pm 0.17 \text{ T}$
輸出信號和旋轉方向 Output signal and rotational direction	逆時針方向 A Signal C.C.W direction B Signal 
機械特性 Mechanical Characteristics	
全回轉角度 Total rotational angle	360°
全回力矩 Rotational torque	20 ~ 200 gf.cm (Shaft may be hard rotatable at -10 °C ~ +5 °C 但在 -10 °C ~ +5 °C 軸勉強可轉動)
軸推拉力矩 Shaft push-pull strength	8 Kgf max
定位點數及位置 Number and position detent	☐ 20 detents (Step angle: $18^\circ \pm 3^\circ$) ☐ 30 detents (Step angle: $12^\circ \pm 3^\circ$) ☐ 0 detents (Step angle: 360°)
軸向間隙 Shaft play in axial direction	0.4 mm max
軸擺動 Shaft wobble	$0.7 * L / 30 \text{ mm p-p}$ 以下 (L: 指安裝平面到軸的柄端的距離) $0.7 * L / 30 \text{ mm p-p}$ Max L: Distance between mounting surface and the top of the shaft.
軸的回轉方向擺動 Shaft play in rotational wobble	5° 以下 5° Max
回轉壽命 Rotational life	30,000 cycles at a speed of 600 cycles / per hour 每小時 600 圈的速度測試



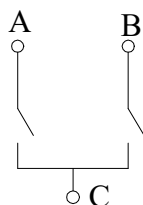
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焊錫耐熱性 Resistance to soldering heat	手焊: 300 °C 以下, 3 秒以內. 自動或半自動機台焊錫條件: 預熱: 基板表面溫度 100 °C 以下, 時間 1 分以內, 過錫爐: 260 ± 5 °C 3 ~ 5 秒 Manual soldering: less than 300 °C and within 3 seconds. For automated or semi-automated soldering equipments: Preheating: surface temperature of board: less than 100 °C and within 1 min. Auto soldering: 260 ± 5 °C for 3 ~ 5 seconds.
推動開關規格 Push-on Switch Specific Ations	
開關電路 Switch circuit	Single pole and single throw (push on) 單極單投 (推動)
開關工作行程 Switch travel (mm)	0.5 ^{+0.4} _{-0.3} mm
開關作動力 Switch operating force	500 ⁺²⁰⁰ ₋₂₀₀ gf.cm
開關額定功率 Switch rating power	DC 5 V 10 mA
開關接觸阻抗 Switch contact resistance	第一個週期: 100 mΩ, 在有效的壽命範圍結束後 200 mΩ。 First period 100 mΩ ; 200 mΩ after the end of useful life is reached
開關按壓壽命 Switch push life	20,000 cycles (500 cycles / H, shaft push load 1 kgf max ; 按壓力 1 kg 以下, 500 次 / H)
Note 注明: 當產品無帶開關結構時, 以上推動開關規格整項取消 Note: When product without switch structure, the above switch specifications are cancelled.	



CIRCUIT



△	△							
	N=	N=5			N=7		Non notation tolerance	
	L=	12	15	20	15	20	< 10	±0.3
	F=	6	7	10	7	10	10 ~ 100	±0.5
	choose						> 100	±0.8

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MODEL: ED1111(F)/LAL/0496

Approval



Checked



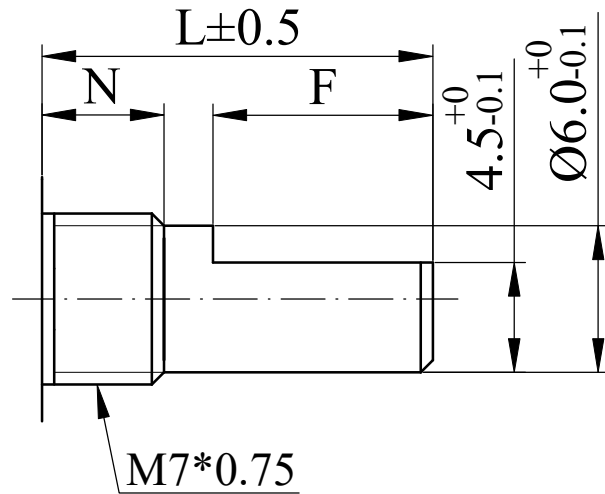
Drawn



UNIT	mm	SCALE	2:1
VERSION	1.3	DATE	2018.04.27
DRAWING NO.	ED-084		

△			
△	N=5,增加L=12,F=6	何鸿根	2022.08.26
△	整理图元	何鸿根	2019.01.05
△	增加L=15,F=7	何鸿根	2018.07.20
ISSUE	SUBJECT	NAME	DATE
RECORD			

Shaft Types 軸型:

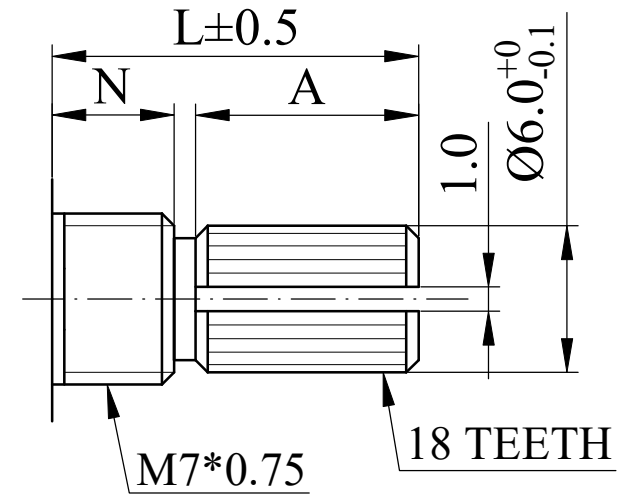


F Type
N=5mm

L=	12	15	20
F=	6	7	12

N=7mm

L=	15	20	
F=	7	12	



KC Type
N=5mm

L=	20		
A=	10		

N=7mm

L=	20		
A=	10		