



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.

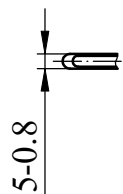
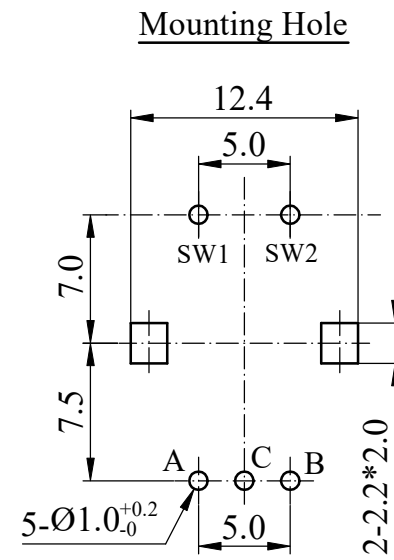
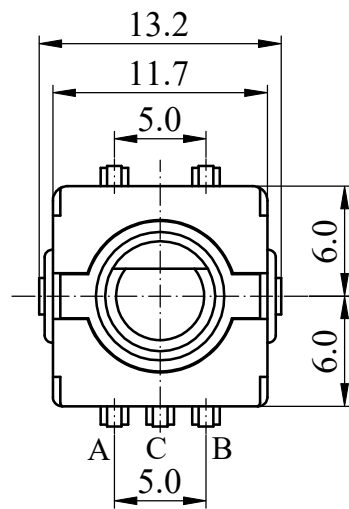
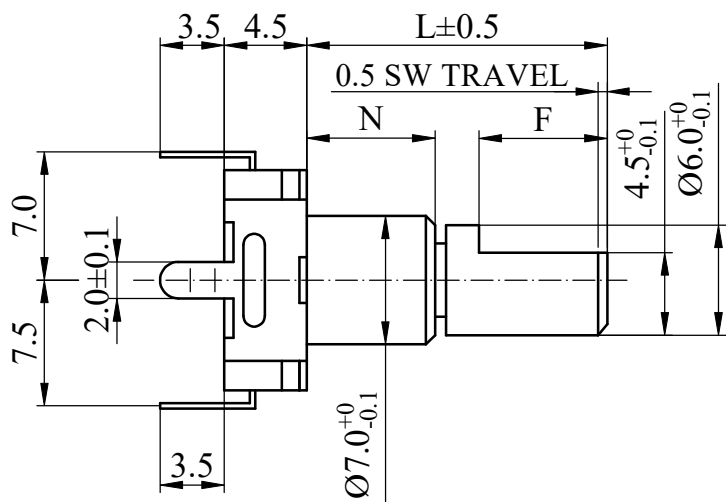
一般事項 General	
使用溫度範圍 Operating temperature	-10 °C ~ 70 °C
儲存溫度 Storage temperature	-40 °C ~ 85 °C
電氣特性 Electrical Characteristics	
額定功率 Power rating	DC 5 V 0.5 mA
絕緣阻抗 Insulation resistance	≥ 100 MΩ at DC 300 V
耐電壓 Withstand voltage	For 1 minute or more (at AC 300 V)
滑動雜訊 Sliding noise	<p>t1, t3 ≤ 3 mS, t2 ≤ 2 mS (Test conditions 測試條件: 360° / S) Using the C / R filter circuit is recommended 建議使用 C / R 濾波電路</p>
分解能力 Resolution	20 pulses / 360° for each phase 每相 20 脈衝 / 360°
相位差 Phase difference	Δ T = 0.25 ± 0.17 T
輸出信號和旋轉方向 Output signal and rotational direction	<p>逆時針方向 A Signal OFF ON</p> <p>C.C.W direction B Signal OFF ON</p>
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	<input type="checkbox"/> 20 detents (Step angle: 18° ± 3°) <input type="checkbox"/> 30 detents (Step angle: 12° ± 3°) <input type="checkbox"/> 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 mm p-p 以下 (L: 指安裝平面到軸的柄端的距離) 0.7 * L / 30 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



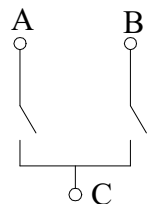
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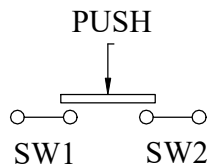
焊錫耐熱性 Resistance to soldering heat	手焊：300 °C 以下，3 秒以內。自動或半自動機台焊錫條件：預熱：基板表面溫度 100 °C 以下，時間 1 分以內，過錫爐：260 ± 5 °C 3 ~ 5 秒 Manual soldering: less than 300 °C and within 3 seconds. For automated or semi-automated soldering equipments: Preheating: surface temperature of board: less than 100 °C and within 1 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



SWITCH



	△3			△			Non notation tolerance		
	N=5			N=7					
L=	10	15	20	17	20	20	25	< 10	±0.3
F=	4	7	10	7	7	10	12	10 ~ 100	±0.5
CHOOSE								> 100	±0.8



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MODEL: ED1116S(F)/LAL/0496



ISSUE

SUBJECT

NAME

DATE

N=5,增加L=10,F=4

N=7,增加L=20,F=7

增加N=5,L=15,20

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2024.01.09

2023.08.10

2020.01.10

Approval



Checked



Drawn



UNIT

mm

SCALE

2:1

VERSION

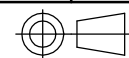
1.3

DATE

2019.10.09

DRAWING NO.

ED-102



RECORD