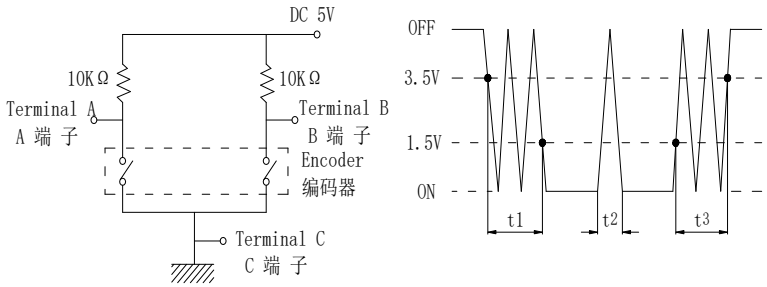
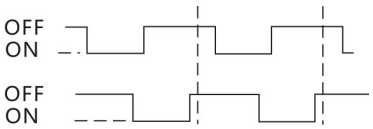
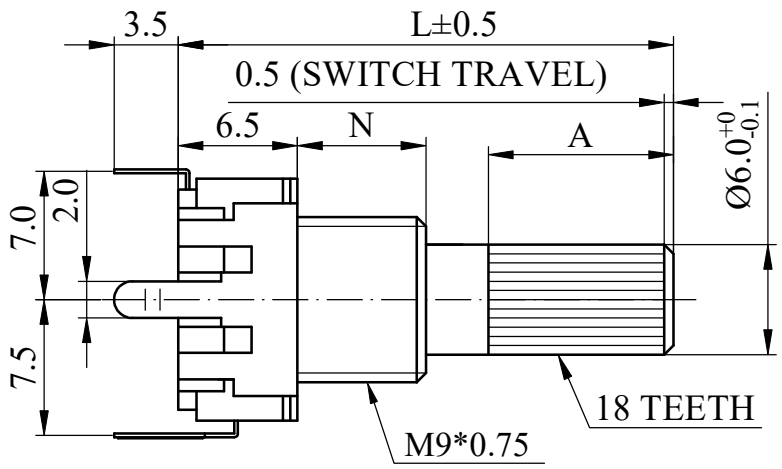
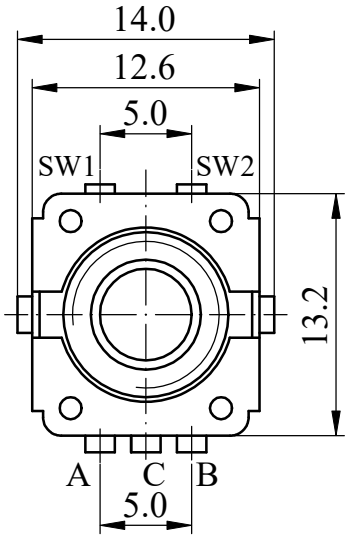
ISO 9001 國際品質認證
ISO 9001 CERTIFICATE

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.

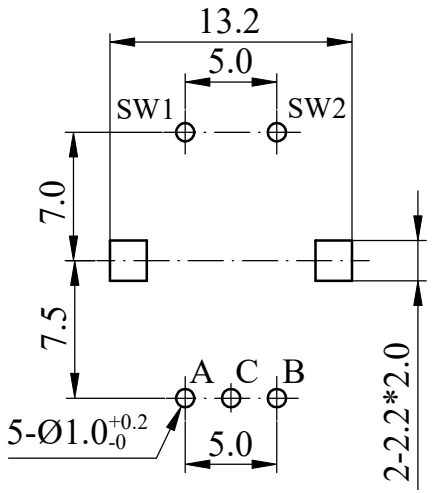
一般事項 General	
使用溫度範圍 Operating temperature	-10 ℃ ~ 70 ℃
儲存溫度 Storage temperature	-40 ℃ ~ 85 ℃
電氣特性 Electrical Characteristics	
額定功率 Power rating	DC 5 V 0.5 mA
絕緣阻抗 Insulation resistance	100 MΩ at DC 300 V
耐電壓 Withstand voltage	For 1 minute or more (at AC 300 V)
滑動雜訊 Sliding noise	t1, t3 ≤ 3 mS，t2 ≤ 2 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 
分解能力 Resolution	☐ 12 ☐ 24 個相位脈衝 / 360 ° ☐ 12 ☐ 24 pulses / 360 ° for each phase.
相位差 Phase difference	△ T = 0.25 ± 0.17 T
輸出信號和旋轉方向 Output signal and rotational direction	順時針方向 A Signal 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 ℃ ~ +5 ℃ 但在 -10 ℃ ~ +5 ℃ 軸勉強可轉動)
軸推拉强度 Shaft push-pull strength	☐ With switch 5 Kgf ☐ without switch 8 Kgf ☐ 帶開關為 5 Kgf ☐ 不帶開關為 8 Kgf
定位點數及位置 Number and position detent	☐ 12 detents (Step angle：30 ° ± 3 °) ☐ 24 detents (Step angle：15 ° ± 3 °) ☐ 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

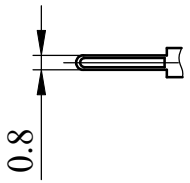
焊錫耐熱性 Resistance to soldering heat	手焊：300 ℃ 以下, 3 秒以內. 自動或半自動機台焊錫條件：預熱:基板表面溫度 100 ℃ 以下, 時間 1分以內, 過錫爐：260 ± 5 ℃ 3 ~ 5 秒 Manual soldering： less than 300 ℃ and within 3 seconds. For automated or semi-automated soldering equipments： Preheating：surface temperature of board：less than 100 ℃ and within 1 min.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



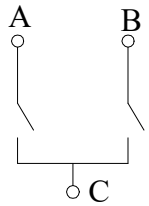


Mounting Hole

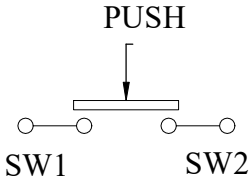




CIRCUIT



SWITCH



		N=5			N=7			Non notation tolerance	
1	L=	17.5	20	25	17.5	20	25	< 10	±0.3
2	A=	6	7	12	4	6.5	11.5	10 ~ 100	±0.5
	choose							> 100	±0.8

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MODEL: ED1213S(KC)/PH/0496

Approval	Checked	Drawn
2024-06-03 黄珈琳	廠長 2024-06-03 鄧記穩	R&D 2024-06-03 何鸿根

UNIT	mm	SCALE	2:1
VERSION	1.2	DATE	2019.10.08
DRAWING NO.	ED-101		

ISSUE	SUBJECT	NAME	DATE
4			
3			
2	修正A长度	何鸿根	2024.06.03
1	整理可选规格	何鸿根	2023.09.18

RECORD