



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.

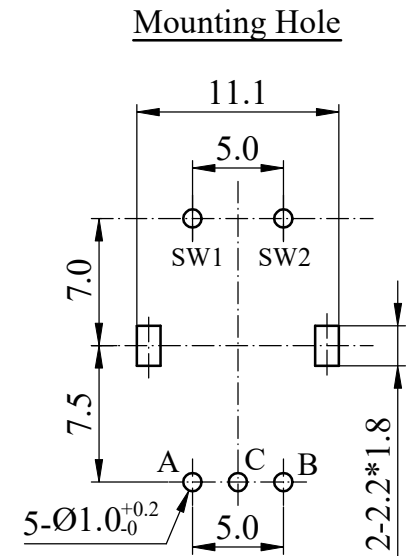
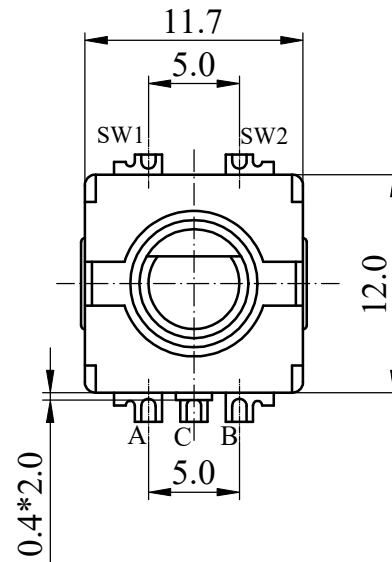
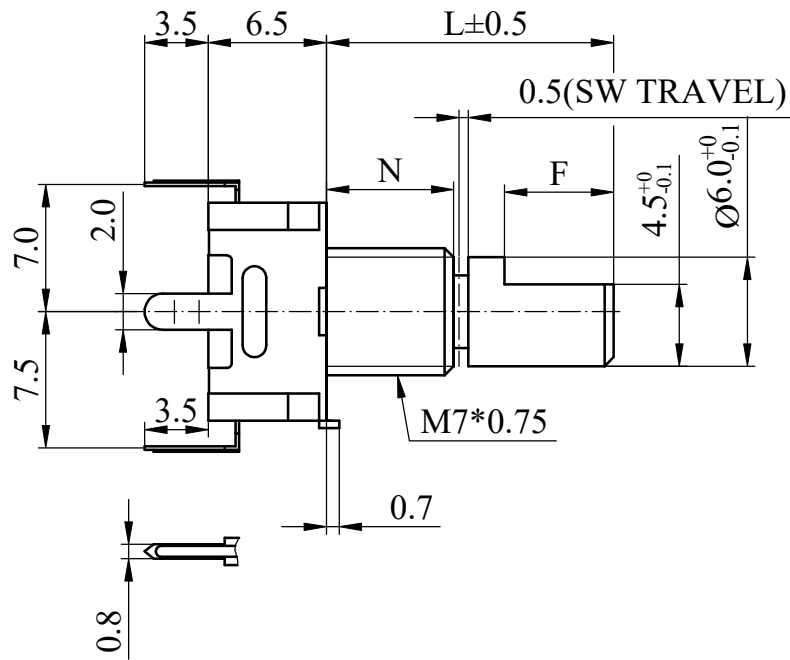
一般事項 General	
使用溫度範圍 Operating temperature	-10 °C ~ 70 °C
儲存溫度 Storage temperature	-40 °C ~ 85 °C
電氣特性 Electrical Characteristics	
額定功率 Power rating	DC 5 V 0.5 mA
絕緣阻抗 Insulation resistance	≥ 100 MΩ at DC 300 V
耐電壓 Withstand voltage	For 1 minute or more (at AC 300 V)
滑動雜訊 Sliding noise	<p>t1, t3 ≤ 3 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	△ 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



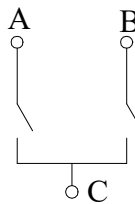
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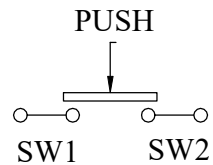
焊錫耐熱性 Resistance to soldering heat	手焊：300 °C 以下，3 秒以內。自動或半自動機台焊錫條件：預熱：基板表面溫度 100 °C 以下，時間 1 分以內，過錫爐：260 ± 5 °C 3 ~ 5 秒 Manual soldering: less than 300 °C and within 3 seconds. For automated or semi-automated soldering equipments: Preheating: surface temperature of board: less than 100 °C and within 1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



	△11					△12								△10			
	N=5					N=7											
L=	11	13.5	15	17.5	20	15	15	17.5	17.5	20	20	25	28	30	Non notation tolerance		
F=	4	5	7	10	10	5	7	7	10	7	10	12	7	12	< 10	±0.3	
CHOOSE															10 ~ 100	±0.5	
Standard	-	-	●	-	-	-	●	-	-	-	●	-	-	-	> 100	±0.8	



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MODEL: ED1115S(F)/LAL/0496

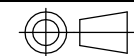
△13	增加常规轴长备注	何鸿根	2020.12.07
△12	N=7, 增加	何鸿根	2020.11.30
△11	N=5, 增加	何鸿根	2020.03.13
△10	N=7, 增加	何鸿根	2019.11.22
ISSUE	SUBJECT	NAME	DATE

Approval
R&D
2020-12-07
藍濬毅

Checked
廠長
2020-12-07
鄧記穩

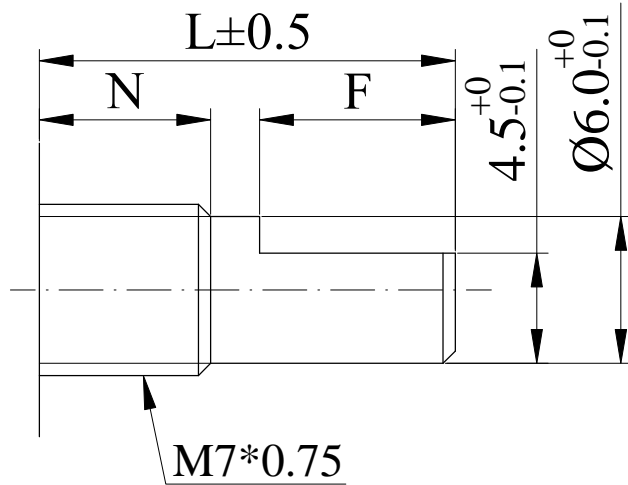
Projected
R&D
2020-12-07
何鸿根

UNIT mm SCALE 2:1
VERSION 2.3 DATE 2016.12.15
DRAWING NO. ED-062



RECORD

Shaft Types 軸型:

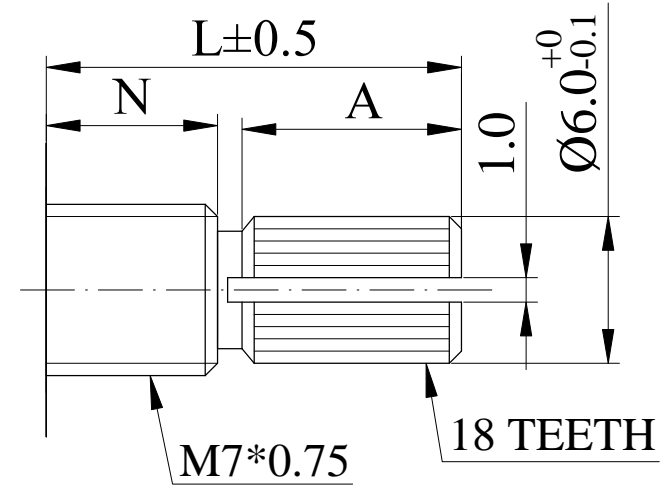


F Type
N=5mm

L=	15	17.5	20
F=	7	10	10

N=7mm

L=	15	17.5	20	25	30
F=	7	10	10	12	12



KC Type
N=5mm

L=	10	15	20
A=	4	6.5	10

N=7mm

L=	15	20	25	30
A=	6.5	10	15	17