

+ 编码器规格书

SPECIFICATIONS

适用型号 : ED09A010-FL15.2S5.0-A16-10S

APPLICABLE MODELS : ED09A010-FL15.2S5.0-A16-10S

1. 一般事项 General information

1-1 适用范围: 本规格书适用于对讲机.

Applying range: This specification is applied to walkie-talkie.

1-2 使用温度范围 Operating temperature range -40℃~+85℃

1-3 储存温度范围 Storage temperature range -55℃~+90℃

1-4 试验的状态 温度 15~35℃、45~85%RH

Test condition As our standard condition: temperature 15~35℃、Moisture: 45~85%RH

2.外观尺寸

Appearance and dimensions

2-1 外观 外观无锈蚀,电镀不良,破裂和明显变形、无油脂污染;

Appearance No harmful rust, cracks, scratches and poor under functioning

2-2 尺寸 见附图

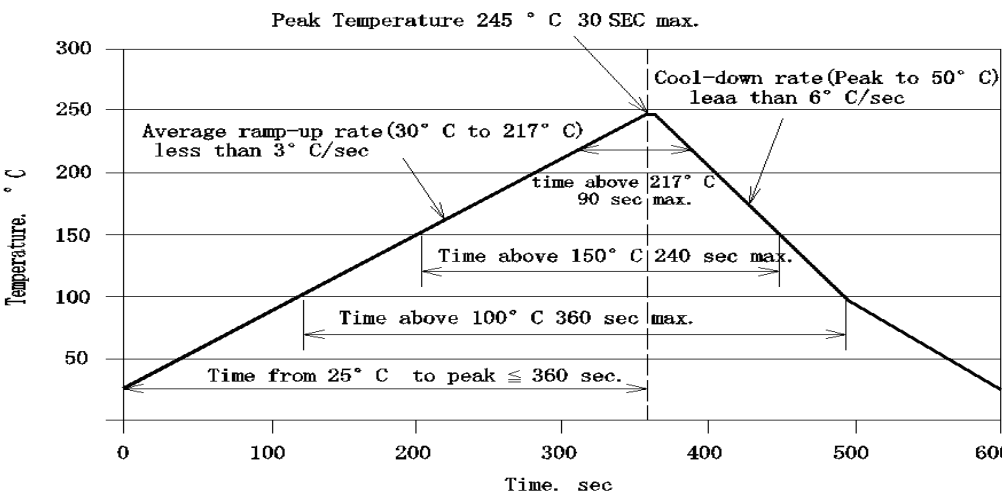
Dimensions Refer to attached drawing

3.机械特性 Mechanical characteristics

项目 Items	规格 Specifications	条件 Condition
3-1 转轴材料 Shaft material	不锈钢 Stainless steel	
3-2 定位点力矩 Detent torque (gf.cm)	250~500 gf.cm (before reflow test and cycle test)	
3-3 定位点数 Number of detent	16 定位点 16 detents	
3-4 全旋转角度 Total rotational angle	337.5° ±5°	
3-5 轴回转止动强度 Shaft stopper strength	5.0kgf.cm 以上 5.0kgf.cm min	
3-6 端子抗弯 Lead bend	端子需要承载 3 次弯曲(第 1 次是在生产前) lead shall withstand total 3 bends (1'st is done during production)	
3-7 端子强度 Terminal strength	轴向承载 450GMS/10 秒 450gms axial load for 10 second	
3-8 强度 Strength	轴向拉力: 98N min (10kgf min) 轴向推力: 98N min (10kgf min) 边推强度: 98N min (10kgf min) Axial pull: 98N min (10kgf min) Axial push: 98N min (10kgf min) Lateral push strength: 98N min (10kgf min)	静荷重 Static load
3-9 轴偏摆 Shaft wobble	在轴心顶端施加 500gf.cm 的推力, 轴摇晃不超过 0.127mm Shall not exceed 0.127mm with 500gf.cm at shaft tip	

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4.电气特性 Electrical characteristics																		
项目 Items		规格 Specifications								条件 Condition								
4.1 接触功率 Contact rating		0.15AMP at 30V.D.C resistive																
4-2 接触抵抗 Contact resistance		接触抵抗(ON): 200 mΩ 以下 接触抵抗(OFF): 1MΩ 以上 Contact resistance (ON) 200mΩ max Contact resistance (OFF): 1MΩ min (before reflow test and cycle test)								定位点位置 Detent position								
4-3 耐电压 Voltage resistance		绝缘材料无击穿 No subversion on insulated material								交流 380V/2 秒,施加位置: 所有端子与接地（外壳）间 AC380V/ 2S Applied position: Between all terminals and ground(frame)								
4-4 绝缘电阻 Insulation resistance		100MΩ 以上 100MΩ MIN								直流 250V 1 分钟,施加位置: 所有端子与接地(外壳) 间 DC250V 1min±5S Applied position: Between all terminals and ground(frame)								
4-5 编 码 输 出 Code output	Position Terminal	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
	4	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	
	2	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0	
	1	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	
5.耐久性 Durability																		
项目 Items		规格 Specifications								条件 Condition								
5-1 旋转寿命 Rotational life		接触抵抗(ON): 1Ω 以下 接触抵抗(OFF): 1MΩ 以上 Contact resistance (ON) : 1Ω max Contact resistance (OFF): 1MΩ min 定位点力矩: 150gf.cm 以上 Detent torque: 150gf.cm min								无负荷, 720 周/小时, 10,000 次 Encoder shall be operated 10,000 cycles at 720 cycles /H (without load) .								
5-2 耐寒性 Cold resistance		符合初始规格 3、4 的要求。 Specification in clause 3、4 shall be satisfied.								-40℃ 96 小时(无负荷放置) -40℃ 96 hours left without loading.								
5-3 耐热性 Heat resistance										85℃ 96 小时(无负荷放置) 85℃ 96 hours left without loading.								
5-4 耐湿性 Moisture resistance										40℃ 90-95%RH 96 小时(无负荷放置) 40℃ 90-95%RH 96 hours left without loading.								
6. 焊接条件 Soldering condering																		
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6-1 耐焊性 Soldering heat-resistance	A::回流焊 Reflow resistance:  The graph shows a reflow soldering temperature profile. The y-axis is Temperature in °C (50 to 300) and the x-axis is Time in seconds (0 to 600). The profile starts at 25°C, ramps up to a peak of 245°C (30 sec max), and then cools down. Key constraints include: Average ramp-up rate (30°C to 217°C) less than 3°C/sec; Time above 217°C max. 90 sec; Time above 150°C 240 sec max.; Time above 100°C 360 sec max.; Time from 25°C to peak ≤ 360 sec.; and Cool-down rate (Peak to 50°C) less than 6°C/sec.			
6-2 可焊性 Solderability	浸没面积至少达到 75%，焊锡温度 $235\pm5^{\circ}\text{C}$，3 ± 0.5 秒 With being covered 75% min. of immersed area. Solder temperature:$235\pm5^{\circ}\text{C}$ Solder dipping time: 3 ± 0.5 sec			
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