

编码器规格书

SPECIFICATIONS

适用型号 : ED104030-CA13. 2S5. 0-A2-10G
APPLICABLE MODELS : ED104030-CA13. 2S5. 0-A2-10G

1. 一般事项 General information

1-1 适用范围: 本规格书适用于车载机器、AV 机器、收音机、通讯设备用之 10 型金属轴编码器。
Applying range: This specification is applied to 10mm size metal shaft type encoder used in vehicle, audio-visual. radio and communication equipment.

1-2 使用温度范围 Operating temperature range $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

1-3 储存温度范围 Storage temperature range $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

1.1 1-4 试验的状态 试验的状态 温度 $5 \sim 35^{\circ}\text{C}$ 、 $45 \sim 85\% \text{RH}$
Test condition As our standard condition: temperature $5 \sim 35^{\circ}\text{C}$ 、Moisture: $25 \sim 85\% \text{RH}$

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。
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)	$350 \pm 100 \text{ gf.cm}$	
3-3 定位点数 Number of detent	2 定位点 2 detents	
3-4 全旋转角度 Total rotational angle	36°	
3-5 轴回转止动强度 Shaft stopper strength	4.1kgf.cm 以上 4.1kgf.cm min	
3-6 端子强度 Terminal strength	端子焊接部位无松动、损坏、脱落。 试验后,端子可能弯曲,但是应满足第 4 项规定的电气参数要求。 Shall be free from terminal looseness damage and breakage of terminal soldering position. terminals may be bent after test. But electrical performance requirements specified in item 4 shall be satisfied.	在端子前端的垂直方向施加 4.5N(0.45kgf)的静止荷重 10 秒钟。(每个端子 1 次) A static load of 4.5N(0.45kgf) shall be applied to the tip of terminal for 10S in a desired direction. The test shall be done once per terminal
3-7 强度 Strength	轴向拉力: 98.1N min (10kgf min) 轴向推力: 98.1N min (10kgf min) 边推强度: 98.1N min (10kgf min) Axial pull: 98.1N min (10kgf min) Axial push: 98.1N min (10kgf min) Lateral push strength: 98.1N min (10kgf min)	静荷重 Static load
3-8 轴偏摆 Shaft wobble	转轴偏摆(mm p-p 以下) Shaft wobble (mm p-p less) 10 以上 MIN $0.4 \times L/30$ L: :距轴套安装面的测量点 L: Measurement point from mounting surface of bushing.	在距安装面 10mm 轴柄的位置, 施加弯曲力矩 15N. Bending torque of 15N to be applied to the shaft at 10 mm from the mounting surface.

3-9 耐焊接热 Soldering Heat Resistance	焊锡温度: 350±5℃ 焊锡时间: 3±0.5 秒 Solder temperature: 350±5℃ Solder dipping time: 3±0.5S					
4.电气特性 Electrical characteristics						
项目 Items		规格 Specifications		条件 Condition		
4-1 定格电压 Rated voltage		DC 42V				
4-2 定格电流 Rated current		0.2A 最大 0.2A Max				
4-3 接触抵抗 Contact resistance		接触抵抗(ON): 50 mΩ 以下 Contact resistance (ON) 50m Ω max		定位点位置 Detent position		
4-4 耐电压 Voltage resistance		绝缘材料无击穿 No subversion on insulated material		交流 500V 1 分钟,施加位置: 所有端子与接地（外壳）间 AC500V 1minute Applied position: Between all terminals and ground(frame)		
4-5 绝缘电阻 Insulation resistance		100MΩ 以上 100MΩ MIN		直流 500V,施加位置: 所有端子与接地（外壳）间 DC250V Applied position: Between all terminals and ground(frame)		
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): 寿命后 50 mΩ 以下 Contact resistance (ON) 50m Ω max after cycle test 定位点力矩 :寿命后 150 以上 Detent torque 150gf.cm above after cycle test		负荷, 速度: 720 周/小时: 寿命 33,000 次,耐磨后 旋转力矩在 150gf.cm 以上 Encoder shall be operated 33,000 cycles at 720 cycles /H (with load) . Detent torque 150gf.cm above after cycle test		
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℃ 2 小时(无负荷放置) -40℃ 2 hours left without loading.		
5-3 耐热性 Heat resistance				85℃ 2 小时(无负荷放置) 85℃ 2 hours left without loading.		
5-4 耐湿性 Moisture resistance				85℃ 95%RH 96 小时(无负荷放置) 85℃ 95%RH 96 hours left without loading.		
5-5 防水性能 Water seal		符合初始规格 3、4 的要求。 Specification in clause 3、4 shall be satisfied.		IP 68		
东莞市长泰尔电子有限公司 DONG GUAN CHANG TAI ER ELECTRONICS CO.,LTD				设计 Designed By	审核 Checked By	核准 Approved By