# 东莞市林积为实业投资有限公司 Dongguan LJV Industry Investments Co.,Ltd.

# 承 认 书

### FOR APPROVAL

新规	
New release	
变更 Revised	00

承认书编号Spec. No

SP-RE08-922

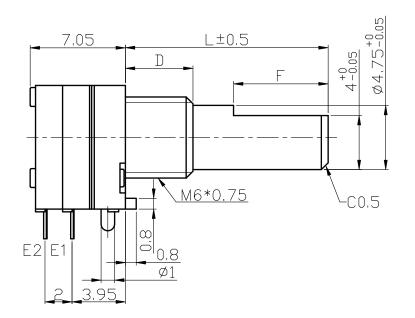
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承认书包含以下内容	·	Digitature.			
This Specification is composed of	f under mentioned:		_		
项 目 ITEM 1. 产品使用注意事项			<b></b>	〔码 Page:	
Product Usage Announcements			• •	1/6	
2. 产品外形尺寸图 Product External Drawing				2/2	
3. 规格书——机械性能、电气	性能、耐久性能 ectrical Endurance Characteristi			3 <sup>~</sup> 5/6	
4. 阻值变化特性(线型,仅限于	电位器)			/	
Resistance Characteristic(Tap 5. 出货检验报告	er,01ny of VR)			/	
Inspection report				/	
6. 材质分解表 Material Analysis List				/	
7. 环保检测资料 SGS Test Data				/	
经办	核  对	核准		业务部	3
Prepared By	Checked By	Approved	<u> </u>	Sales Departm	nent
工程部	工程部	工程部			
2018. 06. 04	2018. 06. 04	(2018. 06. 04)			
陆美谕	王家明	徐志刚			
地址:东莞市凤岗	镇玉泉电子信息	息产业园	Г	371 P7-0-	

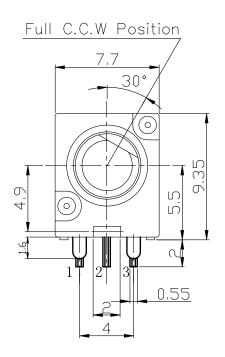
ADD: Yuquan Electronic Information Industrial park, Fenggang Town Dongguan City

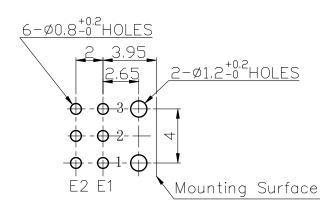
Website: www. ljv. cn

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E-mail:ljv@ljv.cn







P.C.B MOUNTING DETAIL

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click position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
E1(1-2)	0	1	1	0	0	1	1	0	0	0	1	1	0	0	1	1
E1(2-3)	1	1	0	0	1	1	0	0	0	1	1	0	0	1	1	0
E2(1-2)	1	1	0	1	0	0	1	1	0	0	1	1	0	1	0	0
E2(2-3)	0	0	1	1	1	1	0	0	0	0	1	1	1	1	0	0

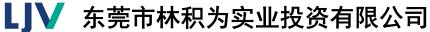
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			BASIC DIMENSIONS	TOL.	00	2010-04-01	ORIGINAL	DRAWING	
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	SCALE	UNIT	10 <l< td=""><td>±0.5</td><td>02</td><td></td><td></td><td></td><td></td></l<>	±0.5	02				
	SUALE	UNTI	100≪L	±0.8	03				
	3:1	mm	ANGLE	±5°	04				
MODEL:	RE08120 X X-	-V02			VERSION	DRAW	CHKD		APPD
					A0				

第 1 页



Dongguan LJV Industry Investments Co,.Ltd

#### RE08逻辑编码器系列规格书

REO8 LOGIC ENCODER SERIES SPECIFICATION

#### 1. 一般事项General

1-1 适用规格 Scope

本规格书适用于使用在电子设备上08型逻辑编码器.

This specification applies to 08mm logic encoder, using in electronic equipment.

1-2 标准状态Standard atmospheric conditions

除另有规定外,测量应在以下状态下进行:

Unless otherwise specified ,the standard range of atmospheric conditions for making measurements and test is as following limits:

温 度 Ambient temperature : 15℃ to 35℃ 相对湿度 Relative humidity : 25% to 85% 气 压 Air pressure :86kpa to 106kpa

如果对在上述所提到的条件中所做的实测值有疑问的话,应使用以下条件进行测量:

If doubt arises on the decision based on the measured values under the above-mentioned conditions, the following conditions shall be employed:

温 度 Ambient temperature : 20±1℃ 相对湿度 Relative humidity : 63% to 67% 气 压 Air pressure :86kpa to 106kpa

1-3 使用温度范围

Operating temperature range :-30℃ to+80℃

1-4 保存温度范围

Storage temperature range :  $-40^{\circ}\text{C}$  to+85°C

#### 2. 构造Construction

2-1 尺寸 Dimensions

见所附成品图 Refer to attached drawing

#### 3. 额定值 Rating

3-1 额定电压

Rated voltage:DC 5V

3-2 额定电流(阻抗负载)

Rated current :1mA (Resistance loading)

3-3 最大使用电流(阻抗负载)

Max. operating current:2.5mA (Resistance loading)

#### 4. 电气性能 Electrical Characteristics

1 [] (] LIGHT DICOU	4. 也 (压胺 brectical characteristics								
项目	条件	规格							
ITEM	CONDITIONS	SPECIFICATIONS							
4-1. 信道		16信道							
Channel		16Channel							
4-2. 接触阻抗	出力信号处于0N时安定状态条件下测定.	10以下							
Contact resistance	Measurement shall be stable condition which a	端子间1ΩMax, 开关间100mΩMax							
	output signal is ON.	terminal $1\Omega\mathrm{Max}$ , switch $100\mathrm{m}\Omega\mathrm{Max}$							
4-3. 绝缘阻抗	在端子和轴套间施加电压 250V DC。								
Insulation	Measurement shall be made under the condition	100ΜΩ 以上							
resistance	which a voltage of 250V DC is applied between	$100M\Omega$ Min							
	individual terminals and bushing.								
4-4. 耐电压	在端子和轴套间施加AC300V电压1分钟	不得有绝缘破坏							
Dielectric	A voltage of 300V AC shall be applied for	Without arcing or breakdown.							
strength	1 minute between individual terminals and bushing.								

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	REOB LOGIC ENCODER SERIES SPECIFICATION	
5. 机械性能 Mechai	nical Characteristics	
5-1. 全回转角度		300° ±5°
Total ratational angle		
5-2. 定位点力矩		$\Box 2 \sim 15$ mN. m. (20 $\sim 150$ gf. cm)
Detent torque		■15~40mN.m. (150~400gf.cm)
5-3. 定位点数及位置		16detents Step angle:20° ±3°
Number and position		16点定位间隔角度20°±3°
of detent		
5-4. 轴的推拉强	在轴端, 沿轴向施加80N(8Kgf) 的静负荷力推和拉各10秒钟	轴向虚位间隙0.4以内
度Push-pull	(产品焊锡固定在PCB上。)	Shaft play in axial
stren-gth of	Push and pull static load of 80N(8Kgf) shall be	direction 0.4 Max
shaft	applied to the shaft in the axial direction for	
	10S. (After soldering of the PC board)	
5-5. 端子强度	在端子的先端施加5N(500gf)的力1分钟。	端子无损坏, 无过度的松动. 允许变形.
Terminal	A static load of 5N(500gf)be applied to the tip of	Without damage or excessive
strength	terminals for 1 minute in any direction.	looseness of terminals. terminal
		bend is permitted.
5-6. 轴套螺纹紧固强度		0.8N.m(8.0kgf.cm)以上
Bushing Nut		0.8N.m(8.0kgf.cm) Min
Tighten Strength		
5-7. 止动强度		0.3N.m(3.0kgf.cm)以上
End stop strength		0.3N.m(3.0kgf.cm) Min
5-8. 轴向间隙		0.4mm 以下
Shaft play in axial		0.4mm Max
direction		
322 33 01011	在距离轴顶端5mm处,沿径向瞬间施加50mN.m(500gf.cm)的	0.7*L/30mm p-p 以下 (L: 指
	江起南和项辆50000克,有任何解问施加50000、11(500g1. Cm/ 的 力测试	安装平面到轴的柄端的距离.)
5-9. 轴摆动	A momentary load of 50mN.m should be applied at the	タ表   囲動細切物細切距离. / 0.7*L/30mm p-p MAX
Shaft wobble	point 5mm from the tip of the shaft in a direction	L:Distance between mounting
Shart wobbie	perpendicular to the axis of shaft.	surface and measuring point
	perpendicular to the dails of shart.	on the shaft
5-10. 轴的回转方向	用角度板测定.	5°以下
		5° MAX
摆动Shaft play	Testing by angle board.	O MAX
in rotational		
wobble		W 17 W 18 (12 17 6-2)
5-11. 开关电路		单极单投(按压0N)
接点数		Single pole and single throw
Switch circuit and		(push ON)
number of pulse		
5-12. 开关动作力	在轴端,沿轴向施加的按压力.	$5.5 \pm 2N (550 \pm 200gf)$
Operation	Push static load to the shaft in the axial	
fore of switch	direction	
5-13. 开关移动量		$\Box 0.5 \pm 0.3 \text{ mm}$
Travel of switch		$\Box 1.8 \pm 0.5$ mm
5-14防水等级		■ ID67
Water resistant grade		■ IP67
6 耐久性能 ENDURAL	NCE CHARACTERISTICS	
项目	条件	规格
ITEM	CONDITIONS	SPECIFICATIONS
TTEM		$\Box$ 30, 000 $\pm$ 200 cycles
	在无负荷条件下轴以600~1000周/小时速度回转,	
6-1. 回转寿命	一日连续5000~8000次.	■IP67 15,000±200cycles
Rotational	The shaft of encoder shall be rotated at a speed of	
life	600~1000cycles/H without electrical load, after with	尚余有轻微定位感.
	measurements shall be made.	端子间接触阻抗200Ω以下
	(5000 to 8000 continuous cycles for 24 hours.)	Detent feeling has to remains
		Contact resistance 200ΩMax





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6-2. 按压寿命	在无负荷条件下沿轴向施以10N(1Kgf)以下的力,以600次/小时的速度按压。 Push 10N(1Kgf) to the shaft of encoder in the axial direction under non-load conditions, and with a speed of 600 times/hour.	□20,000±200次. (0.5行程) 20,000±200cycles. (0.5 Travel) □15,000±200次. (1.8行程) 15,000±200cycles. (1.8 Travel) 接触电阻:≤200mΩ. 其它应满足初期规格. Contact resistance:200mΩ or less. Specification in clause shall be satisfied.
	温度40±2℃,湿度90~95%的恒温恒湿槽中放置96±4 小时后,在常温、常湿中放置1.5小时后测试. The logic encoder shall be stored at temperature of40 ±2℃ with relative humidity of 90% to95% for96±4H in a thermostatic chamber. And the encoder shall be subjected to standard at-mospheric conditions	所有项应满足初期规格 Specifications in clause all items is shall be satisfied.
6-4.耐热性 Dry heat	for 1.5H, After which measurements shall be made. 温度85±3℃的恒温箱中放置96±4小时, 常温、常湿放置1.5小时后测试. The logic encoder shall be stored at a temperature of 85±3℃for 96±4H in a thermostatic chamber. And then the encoder. shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.	所有项应满足初期规格。 Specifications in clause all items is shall be satisfied.
Cold	温度-40±3℃的恒温箱中放置96±4小时, 常温放置1.5小时后测试. The logic encoder shall be stored at a temperature of -40±3℃for 96±4H in a thermostatic chamber. And then the encoder. shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.	所有项应满足初期规格。 Specifications in clause all items is shall be satisfied.
6-6. 焊锡耐热性 Resistance to Soldering heat	槽焊 Dip soldering. 使用基板:t=1.6mm的单面覆铜板. Printed wiring board:single-sided copper clad laminate board with thickness of 1.6mm. 预热:基板表面温度100℃以下,时间1分钟以内. Preheating:1.Surface temperature of board:100℃. or less 2.Preheating time:within 1 minute. 焊接:温度260±5℃或以下,时间3秒以内. Soldering:Solder temperature:260±5℃ or less Immersion time:within 3s 手焊 Manual soldering. 温度300℃以下,时间3秒以内. Bit temperature of soldering iron:300℃less than Application time of soldering iron:within 3s.	不得有绝缘体的破损、变形、接触无异常. Electrical characteristics shall be satisfied No mechanical abnormality.
6-7. 焊锡性 Solderability	端子在260±5℃温度的焊锡槽内浸锡3±0.5秒. The terminals shall be immersed into solder bath at 260℃for 3±0.5s.	浸渍面须有75%以上焊锡附着 A new uniform coating of solder shall cover75% minimum of the surface being immersed.
7 包装部分 Packing	Portion Portion	
项目	条件	规格
ITEM	CONDITIONS	SPECIFICATIONS
11-1. 包装方式	使用吸塑盒和纸箱包装。	内箱:每盒100pcs, 每箱10盒, 共计: 1000pcs/箱
Packing	Packed in plastic sucking box and carton.	外箱: 每箱装4个内箱, 共计: 4000pcs/箱 Inner packing: 100pcs Per tray,10 tray in a box, total 1000 pcs in a box. Carton packing: 4 boxes in a carton, total 4000pcs in a carton.





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	N200 20010 20000200 0200120 012011 10111 1011	
项目	条件	规格
ITEM	CONDITIONS	SPECIFICATIONS









(1).Ps/Carton: 4000pcs/carton

(2).Carton size:L:420mm\*W:290mm\*H:240mm (3). Package style: box (1000pcs/box) (4).Box size:L:280mm\*W:200mm\*H:110mm

(5). Tray style: Foamed plastic plate. (100pcs/tray)

(6). Tray size:L:265mm\*W:192mm\*H:13mm.

	签收: 含部				GC1/1	PZ1/1	
	回收: 勾选处理结果			可选处理结果	□回收 □遗失	□回收 □遗失	
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初始		初始发行	2014. 12. 09	- 10 July	TI du	工程部	
文号 File No				工程部 2018, 06, 04	工程部 2018, 06, 04	2018. 06. 04	
RE08逻辑编码器				陆美谕	王家明	徐志刚	
版本 VERSION:	A0			111176-1117			