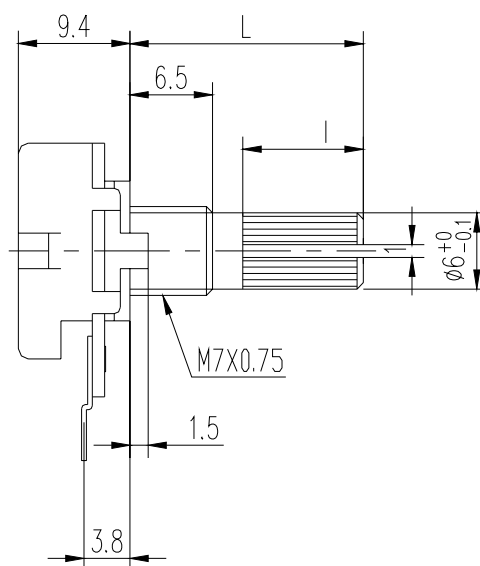
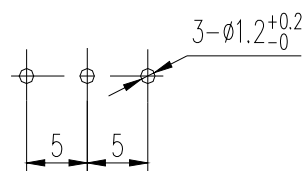


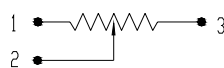
東莞工廠 DONGGUAN FACTORY:
東莞常新昌電子有限公司
DONGGUAN CHANGXINCHANG
ELECTRONIC CO., LTD
ADD: HUANGCHAOLANG INDUSTRY
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Shaft shown in full
C.C.W. position




线路板开孔尺寸



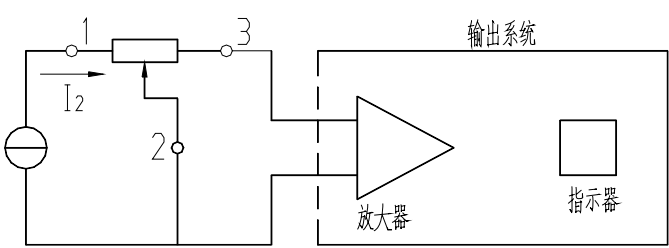
电路图

				
L	15	20	25	
I	7	12	12	

			江苏国科新昌科技有限公司			
			JIANG SU GUO KE XIN CHANG ELECTRONIC CO., LTD			
			Projected view		机种	WH148
NO.	DESCRIPTION	DATE	TOL UNLESS OTHERWISE STATED			
DRAWN BY	CHECKED BY	APPROVED BY	<div>Less than 10 ±0.3</div> <div>above 10~30 ±0.5</div> <div>above 30~100 ±1</div> <div>above ±5°</div>		品名	WH148-1A-2 A500K 15/13

WI-QE-012/2011.11.16

1. General Characteristics 1.1 Shape and dimensions In accordance with the outline and dimension drawing. 1.2 Operating temperature range $-10^{\circ}\text{C} \sim +75^{\circ}\text{C}$ 1.3 Conserving temperature range $-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$ 1.4 Test conditions Ordinary temperature ($5 \sim 35^{\circ}\text{C}$) Ordinary humidity ($45 \sim 85\%\text{Rh}$) Ordinary atmospheric pressure ($86 \sim 106\text{kPa}$)			1. 一般特性 1.1 形状尺寸 见附图 1.2 使用温度范围 $-10^{\circ}\text{C} \sim +75^{\circ}\text{C}$ 1.3 保存温度范围 $-20^{\circ}\text{C} \sim +85^{\circ}\text{C}$ 1.4 测试条件 常温 (温度 $5 \sim 35^{\circ}\text{C}$) 常湿 (湿度 $45 \sim 85\%\text{Rh}$) 常压 (气压 $86 \sim 106\text{kPa}$)		
2. Mechanical Characteristics			2. 机械特性		
	Item 项目		Measuring condition 测试条件		Specifications 规格
Rotation operation 回转操作	2.1	Total rotation angle 全回转角度			$300^{\circ} \pm 5^{\circ}$
	2.2	Operating force 动作力	Measure the rotation torque 测试旋转力矩		$10 \sim 150\text{gf.cm}$
	2.3	Lever stop strength 止档力矩	Measure when rotate to the tail-end CW or CCW.		$\geq 4\text{Kgf.cm}$
3. Electrical characteristics			3. 电气特性		
	Item 项目	Measuring condition 测试条件			Specifications 规格
3.1	Rating 额定值	Power rating(70°C) 70°C 时额定功率 W			0.125W
		Max operating voltage (virtual value of alternating current) 最高使用电压（交流峰有效值）V			200V
3.2	Total Resistance error 总阻误差	Measurement shall be made at 1、3 terminals of resistance. 在电阻体的 1、3 端测试			<input type="checkbox"/> $\Delta R \leq 10\%R$ <input checked="" type="checkbox"/> $\Delta R \leq 20\%R$ <input type="checkbox"/> $\Delta R \leq \quad \%R$
3.3	Residual resistance 残留电阻	Measurement shall be made separately when potentiometers rotate at 1 terminal and 3 terminal. 电位器旋至 1 与 3 端时分别测试			$R_{1,2} \leq 10\Omega$ $R_{2,3} \leq 10\Omega$

Item 项目		Measuring condition 测试条件	Specifications 规格
3.4	Slider noise 滑动噪声	<p>The residual resistance with the shaft (lever) placed at the end of terminal 1, shall be measured between the terminals 1 and 2. Next with the shaft (lever) placed at the end of terminal 3, the resistance shall be measured between the terminals 2 and 3. If there are tapped terminals, the shaft (lever) shall be turned (moved) and the resulting minimum resistance between the taped terminal and the terminal 2 shall be measured.</p>  <p>按照如图的测试电路测试，以每分钟 2~5 圈的速度转动转轴。</p>	$\leq 68\text{mV}$
3.5	Insulation resistance 绝缘电阻	Measure to Apply DC500V. (Between terminal for reinforcing and the other terminals) DC500V 测试	100M Ω min. 不小于 100M Ω
3.6	Withstand voltage 耐电压	Apply A.C500V for 1min(Between terminal for reinforcing and the other terminals) A. C500V1 分钟	No damage. Arc and dielectric breakdown. 无损伤、电弧和电故障

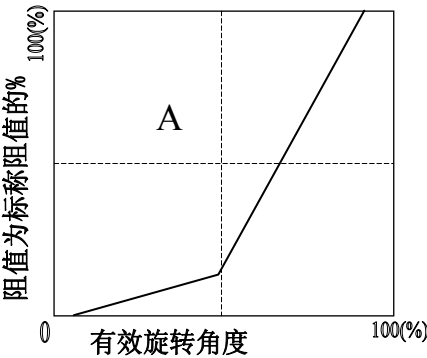
4. Endurance


4. 耐久特性

Item 项目		Measuring condition 测试条件	Specifications 规格
4.1	Heat resistance 耐热特性	<p>Temperature $85 \pm 2^\circ\text{C}$ Time 16 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度 $85 \pm 2^\circ\text{C}$ 时间 16 小时 然后放置在常温 and 湿度下一个小时再测试。</p>	<p>Item 2.2 2.3 3.2 3.3 3.4 The same as the initial spec. 项目: 2.2 2.3 3.2 3.3 3.4 同初始规格</p>

Item 项目		Measuring condition 测试条件	Specifications 规格
4.2	Moisture resistance 耐湿特性	Temperature 40±2℃ Humidity 90~95%Rh Time 96±4 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度 40±2℃ 湿度 90~95%Rh 时间 96±4 小时 然后放置在常温和湿度下一个小时再测试。	The same as above. 同上
4.3	Low temperature resistance 耐寒特性	Temperature -20±3℃ Time 16±2 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度 -20±3℃ 时间 16±2 小时 然后放置在常温和湿度下一个小时再测试。	The same as above. 同上
4.4	Rotation life 旋转寿命	Operation times 10,000T Reciprocate 10,000 times at a speed of 10~15 times reciprocation per minute with no-load in the ordinary temp and humidity. 操作次数 10,000T 在常温、常湿, 无负载的情况下, 以每分钟往复 10~15 次的速度进行 10,000 次	Item 2.2 2.3 3.3 3.4 The same as the initial spec. Item 3.2 $\Delta R \leq 25\%R$ 项目 2.2 2.3 3.3 3.4: 同初始规格 项目: 3.2 $\Delta R \leq 25\%R$

附图：
(线性规律)



设计	审核	批准
印 章		日期
		 江苏国科新昌科技有限公司 JIANGSU GUOKE XINCHANG TECHNOLOGY CO., LTD