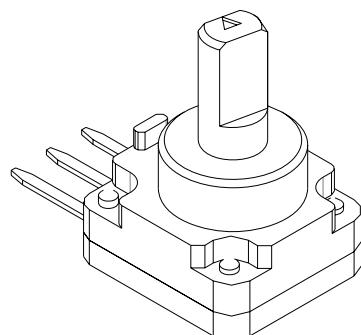


P.C.B MOUNTING HOLE DETAIL



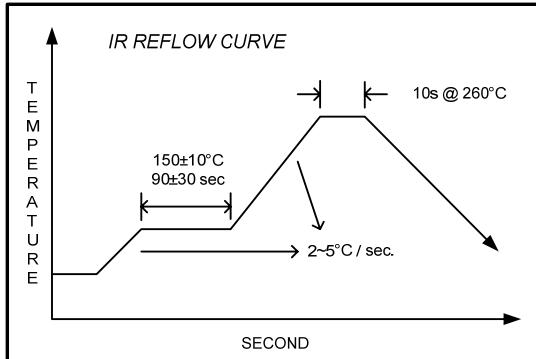
PIN NO	Signal	Description	Description
1	Vdd	Power Supply	5.0V DC
2	Vout	Voltage Signal Output	0~Vdd
3	Vss	Ground	Groudn

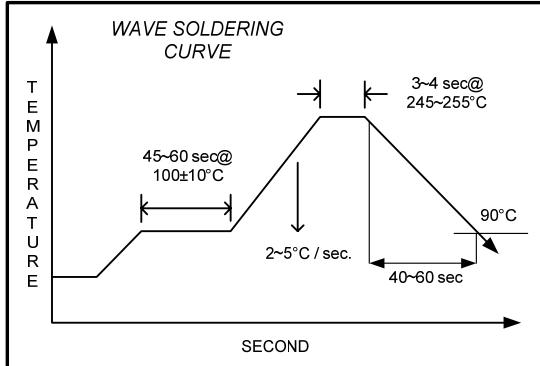
			江苏国科新昌科技有限公司 JIANG SU GUO KE XIN CHANG ELECTRONIC CO., LTD		
NO.	DESCRIPTION	DATE	TOL UNLESS OTHERWISE STATED	UNIT	mm
DRAWN BY	CHECKED BY	APPROVED BY	Less than 10 ± 0.3	NAME	HC101B-20-10RA-XXX
Liang			above 10~30 ± 0.5		
			above 30~100 ± 1		
			above ±5°	DWG NO.	DWGHC101B003A

WI-QE-012/2011.11.16

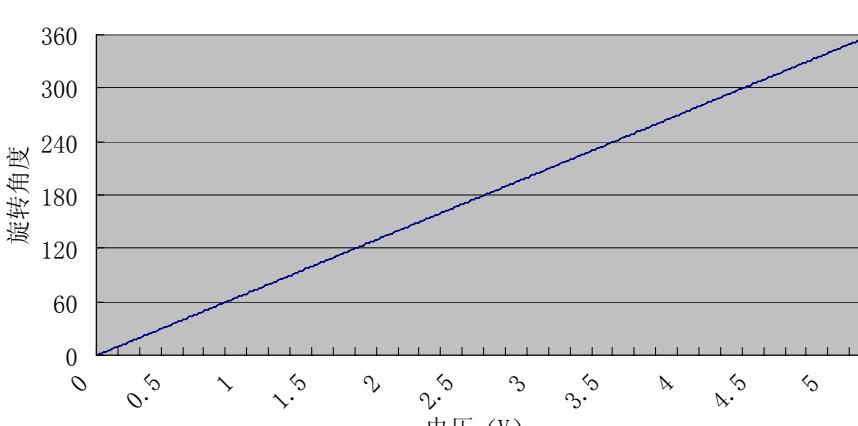
<p><b>1. General Characteristics</b></p> <p><b>1.1 Shape and dimensions</b> In accordance with the outline and dimension drawing.</p> <p><b>1.2 Operating temperature range</b> −30°C ~ +80°C</p> <p><b>1.3 Conserving temperature range</b> −10°C ~ +60°C</p> <p><b>1.4 Test conditions</b> Ordinary temperature (5~35°C) Ordinary humidity (45~85% Rh) Ordinary atmospheric pressure (86~106kPa)</p>			<p><b>1. 一般特性</b></p> <p><b>1.1 形状尺寸</b> 见附图</p> <p><b>1.2 使用温度范围</b> −30°C ~ +80°C</p> <p><b>1.3 保存温度范围</b> −30°C ~ +80°C</p> <p><b>1.4 测试条件</b></p> <table style="margin-left: 20px;"> <tr><td>常温</td><td>(温度 5~35°C)</td></tr> <tr><td>常湿</td><td>(湿度 45~85% Rh)</td></tr> <tr><td>常压</td><td>(气压 86~106kPa)</td></tr> </table>	常温	(温度 5~35°C)	常湿	(湿度 45~85% Rh)	常压	(气压 86~106kPa)
常温	(温度 5~35°C)								
常湿	(湿度 45~85% Rh)								
常压	(气压 86~106kPa)								
<p><b>2. Mechanical Characteristics</b></p>			<b>2. 机械特性</b>						
	Item 项目	Measuring condition 测试条件	Specification s 规格						
Rotation operation  回转操作	2.1 Total rotation angle 全回转角度	The rotation Angle of machine 机械回转角度	360°						
	2.2 Operating force 动作力	Measure the rotation torque 测试旋转力矩	5~30gf.cm						
	2.3 Lever Strength Stop 止档力矩	Measure when rotate to the tail end by CW or CCW. 顺时针（或逆时针）旋到底测试							
	2.4 Electrical angle 有效角度	The rotation Angle of electricity 电气角度	360°						
<p><b>3. Electrical characteristics</b></p>		<p><b>3. 电气特性</b></p>							
	Item 项目	Measuring condition 测试条件	Specifications 规格						
3.1	Power rating 额定功率 W		0.05W						
3.2	Operating Voltage 工作电压		<input type="checkbox"/> 3.3VDC <input checked="" type="checkbox"/> 5.0VDC						
3.3	Output Voltage 输出电压		<input type="checkbox"/> 0-3.3 VDC <input checked="" type="checkbox"/> 0-5.0 VDC						
3.4	工作电流 Operating Current		Max: <7mA Typical: 2.5mA 5VDC						

Item 项目		Measuring condition 测试条件	Specifications 规格																		
3.5	Contact noise 接触杂音		None 无																		
3.6	Independent linearity 独立线性	Voltage Ratio <table border="1"> <caption>Data points estimated from the graph</caption> <thead> <tr> <th>Shaft Rotation Angle</th> <th>Voltage Ratio (%)</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td></tr> <tr><td>50</td><td>12</td></tr> <tr><td>100</td><td>24</td></tr> <tr><td>150</td><td>36</td></tr> <tr><td>200</td><td>48</td></tr> <tr><td>250</td><td>60</td></tr> <tr><td>300</td><td>72</td></tr> <tr><td>350</td><td>84</td></tr> </tbody> </table>	Shaft Rotation Angle	Voltage Ratio (%)	0	0	50	12	100	24	150	36	200	48	250	60	300	72	350	84	
Shaft Rotation Angle	Voltage Ratio (%)																				
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300	72																				
350	84																				
3.7	Output bandwidth 输出频宽		20 KHz																		
3.8	Output response time 输出响应时间		3 uS																		
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	Temperature ..... $80 \pm 2^\circ\text{C}$ Time ..... 96 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度 ..... $80 \pm 2^\circ\text{C}$ 时间 ..... 96 小时 然后放置在常温和湿度下一个小时再测试。	Output variation <2%																		

Item 项目		Measuring condition 测试条件	Specifications 规格
4.2	Moisture resistance 耐湿特性	<p>Temperature ..... <math>60 \pm 2^\circ\text{C}</math>            Humidity ..... 90~95% Rh            Time ..... 96 hours            After that , leave in ordinary temp and humidity for an hour. Then measure.            温度 ..... <math>60 \pm 2^\circ\text{C}</math>            湿度 ..... 90~95% Rh            时间 ..... 96 小时            然后放置在常温和湿度下一个小时再测试。</p>	Output variation <2%
4.3	Low temperature resistance 耐寒特性	<p>Temperature ..... <math>-30 \pm 2^\circ\text{C}</math>            Time ..... 96 hours            After that , leave in ordinary temp and humidity for an hour. Then measure.            温度 ..... <math>-30 \pm 2^\circ\text{C}</math>            时间 ..... 96 小时            然后放置在常温和湿度下一个小时再测试。</p>	Output variation <2%
4.4	Life 寿命	<p>Operation at a speed of 10 ~ 15 times reciprocation per minute with no-load in the ordinary temp and humidity.            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</p>	10-Million, Electrical 电气寿命 1 千万次以上
4.5	Dipping Test 浸锡试验	10s 260°C	Output Variation<1%
4.6	Soldering Condition 焊锡条件		
4.6.1	REFLOW 回流焊		 <p>IR REFLOW CURVE</p> <p>TEMPERATURE</p> <p>SECOND</p> <p>150±10°C 90±30 sec</p> <p>2-5°C / sec.</p> <p>10s @ 260°C</p>

4.6.2	WAVE 波峰焊	 A graph titled "WAVE SOLDERING CURVE" showing temperature versus time. The vertical axis is labeled "TEMPERATURE" and the horizontal axis is labeled "SECOND". The curve starts at a low temperature, rises linearly to a peak of 100±10°C over 45~60 seconds, remains constant for 3~4 seconds at 245~255°C, and then falls linearly back down to 90°C over 40~60 seconds.
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5. Environmental		5. 环境	
Item 项目	Measuring condition 测试条件		Specifications 规格
5.1 ESD; HUMAN	MIL-STD-883G Method 3015.7		(±)1000V ~ 4000V, Step: (±)500V
5.2 ESD; MACHINE	JEDEC EIA/JESD22-A115		(±)100V ~ 300V, Step: (±)50V

6. Output curve		6. 输出曲线																
6.1 Output curve 输出曲线	Output signal tracking tester 输出轨迹测试仪	<p style="text-align: center;">输出线性图</p>  <table border="1"> <caption>Data points estimated from the graph</caption> <thead> <tr> <th>电压 (V)</th> <th>旋转角度</th> </tr> </thead> <tbody> <tr><td>0.5</td><td>0</td></tr> <tr><td>1.0</td><td>60</td></tr> <tr><td>1.5</td><td>120</td></tr> <tr><td>2.0</td><td>180</td></tr> <tr><td>2.5</td><td>240</td></tr> <tr><td>3.0</td><td>300</td></tr> <tr><td>3.5</td><td>360</td></tr> </tbody> </table>	电压 (V)	旋转角度	0.5	0	1.0	60	1.5	120	2.0	180	2.5	240	3.0	300	3.5	360
电压 (V)	旋转角度																	
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设计: 陆志峰	审核: 施继峰	批准: 尹鸿强
印 章		<p style="text-align: center;">江苏国科新昌科技有限公司 JIANGSU GUOKE XINCHANG TECHNOLOGY CO., LTD</p>