

確 認 書 APPROVAL SHEET

TO:

We are pleased in sending you herewith our specification and drawings For your approval.
Please return to us one " APPROVAL SHEET" with your approved signatures.

COMMODITY: 摇杆总承

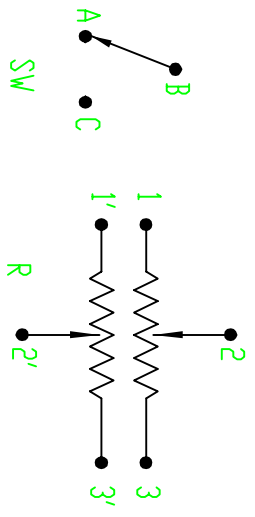
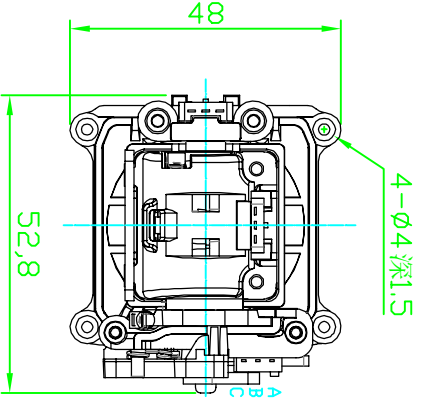
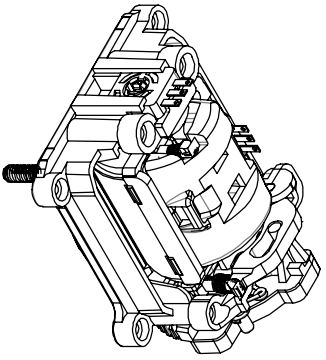
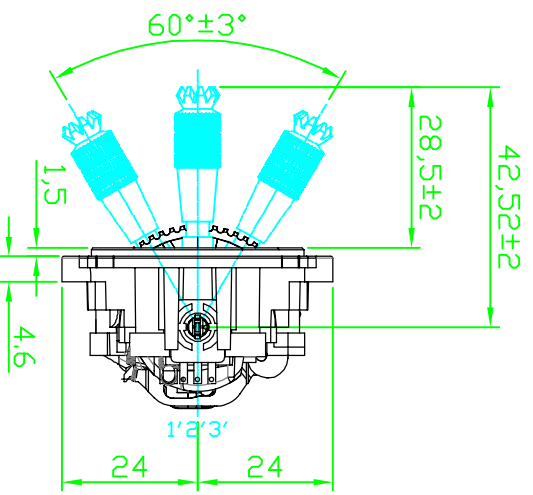
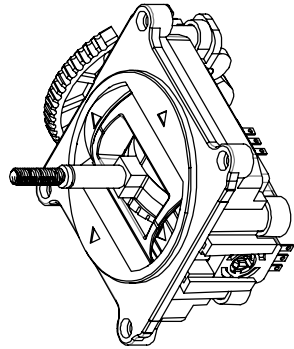
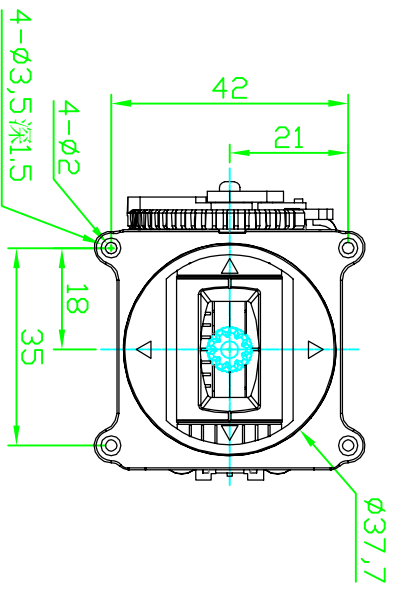
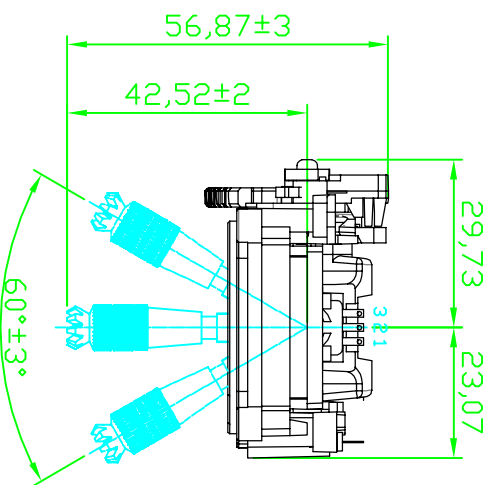
MODEL NUMBER: 3D42A4-3010-B5K± 15%-75°

ISSUE DATE: 2017-08-29 客户料号:

APPROVED DATE: _____

APPROVED SIGNATURES		

批准	审核	制定



CIRCUIT

ND.	DESCRIPTION	DATE	单位	mm	比例	1.5:1	第 1 张	共 1 张
DRAWN BY	CHECKED BY	APPROVED BY	Projected view					
TDL UNLESS OTHERWISE STATED			机种					
Less than 10 ±0.3			小摇杆总承					
above 10~30 ±0.5			品名					
above 30~100 ±1			3D42A4-3010-B5K-75°					
above ±5°			图号					
			HZ-3D42A4-001A					

1. General Characteristics		1. 一般特性	
1.1 Shape and dimensions In accordance with the outline and dimension drawing.		1.1 形状尺寸 见附图	
1.2 Operating temperature range -10°C~+75°C		1.2 使用温度范围 -10°C~+75°C	
1.3 Conserving temperature range -20°C~+85°C		1.3 保存温度范围 -20°C~+85°C	
1.4 Test conditions Ordinary temperature (5~35°C) Ordinary humidity (45~85°C) Ordinary atmospheric pressure (86~106kPa)		1.4 测试条件 常温 (温度 5~35°C) 常湿 (湿度 45~85%) 常压 (气压 86~106kPa)	
2. Mechanical Characteristics		2. 机械特性	
	Item 项目	Measuring condition 测试条件	Specifications 规格
Rotation operation	2.1	Total rotation angle 全回转角度	The rotation Angle of machine 机械回转角度
回转操作		Electricity travel 电气行程	In effect angle 印刷电阻有效角度
		Middle tapping angle 中心抽头角度	Middle tapping angle in resistance 印刷电阻中间银层度数
	2.2	Operating force 动作力	Measure the slip-off torque of the detent. 测试脱离中心点时的力矩
	2.3	Switch life 开关寿命	
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	0.0125W
		Operating Voltage 工作电压	■3.3VDC □5.0VDC
		Output Voltage 输出电压	■0-3.3 VDC □0-5.0 VDC
		工作電流 Operating Current	Max: <4mA 3.3 VDC
3.2	Switch Rating 开关额定值	Switch Power 开关电力	DC30V 0.1A
		Tact switch Resistance 开关接触电阻	≤500 mΩ

Item 项目		Measuring condition 测试条件	Specifications 规格
3.3	Marginal value 边缘值	The 1 and 2 ends and the 2 and 3 ends are tested when the 1 terminal and the 3 terminal edge state are placed 摆至 1 端与 3 端边缘状态时，分别测试 1, 2 端和 2, 3 端	$\leq 0.5V$
3.4	Medium value 中间值	Measurement shall be made at 1、2 terminals and 2、3 terminals as stilling station 静止状态时在 1、2 端和 2、3 端测试	1.52~1.78V
3.5	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 checked="" type="checkbox"/> 5K $\pm 15\%$ <input type="checkbox"/> 10K $\pm 20\%$ <input type="checkbox"/> 100 K $\pm 10\%$
3.6	Contact resistance 接触阻抗	Sum of terminal 1-2 resistance plus terminal 2-3 resistance and minus terminal 1-3 resistance and eliminate $2 \leq \text{total resistance} \times 30\%$. 端子 1-2 的阻值加上端子 2-3 的阻值之和减去端子 1-3 的阻值再除以 2 的值小于或者等于全阻值的 30%。 $\{(R_{12}+R_{23}-R_{13}) \div 2 \leq \text{全阻值} \times 30\%$	
3.7	Insulation resistance 绝缘电阻	Measure to Apply AC250V. (Between terminal for reinforcing and the other terminals) AC250V 测试	100M Ω min. 不小于 100M Ω
3.8	Withstand voltage 耐电压	Apply A.C250V for 1min. (Between terminal for reinforcing and the other terminals) A.C250V1 分钟	No damage. Arc and dielectric breakdown. 无损伤、电弧和电故障

4. Endurance

4. 耐久特性

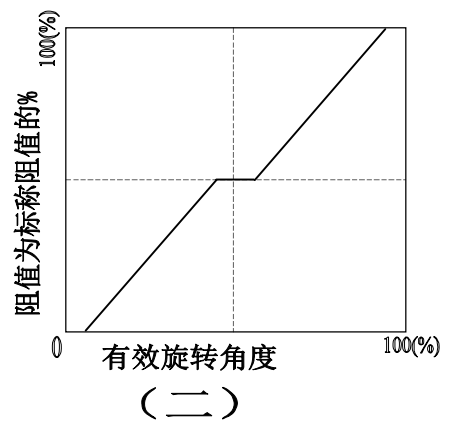
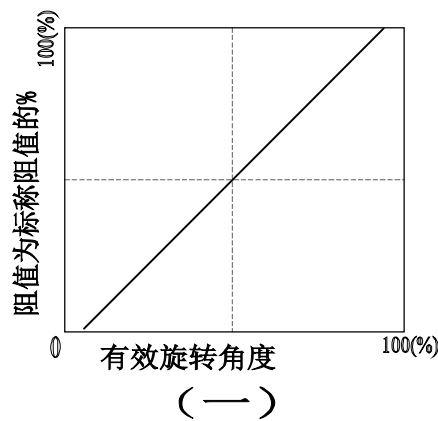
Item 项目		Measuring condition 测试条件	Specifications 规格
4.1	Heat resistance 耐热特性	Temperature $\dots\dots 85 \pm 2^\circ C$ Time $\dots\dots\dots 16$ hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度 $\dots\dots\dots 85 \pm 2^\circ C$ 时间 $\dots\dots\dots 16$ 小时 然后放置在常温和湿度下一个小时再测试。	Item 2.2 , 3.2 , 3.3, 3.4 , 3.5, 3.6 The same as the initial spec. 项目: 2.2 , 3.2 , 3.3, 3.4 , 3.5, 3.6 同初始规格

Item 项目	Measuring condition 测试条件	Specifications 规格
4.2 Moisture resistance 耐湿特性	Temperature ······ $40 \pm 2^{\circ}\text{C}$ Humidity ······ 90~95%Rh Time ······ 96 ± 4 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度····· $40 \pm 2^{\circ}\text{C}$ 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 ······ $-20 \pm 3^{\circ}\text{C}$ Time ······ 16 ± 2 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 温度 ······ $-20 \pm 3^{\circ}\text{C}$ 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 H ₂ S resistance 耐硫化特 性	Density ······ 3 ± 1 ppm. Temperature ······ $40 \pm 2^{\circ}\text{C}$ Humidity ······ 80%Rh Time ······ 24 ± 2 hours After that , leave in ordinary temp and humidity for an hour. Then measure. 浓度 ······ 3 ± 1 ppm. 温度 ······ $40 \pm 2^{\circ}\text{C}$ 湿度 ······ 80%Rh 时间····· 24 ± 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
4.5 Vibration 耐振动特 性	Amplitude ······ 1.5mm Frequency ······ 10~55~10Hz for 1 min Vibration directions X.Y.Z (3 directions) Time ······ X.Y.Z. each 2 hours 振幅····· 1.5mm 频率 ······ 10~55~10Hz 1 分钟 颤动方向 X.Y.Z (3 个方位) 时间····· X.Y.Z. 各 2 小时	The same as above. 同上

Item 项目		Measuring condition 测试条件	Specifications 规格
4.6	Impact resistance 耐冲击特性	Acceleration ····· 735m/s(75G) Time ····· 6ms Directions ····· 6 directions×3 times 加速度····· 735m/s(75G) 作用时间····· 6ms 方向····· 6 个方位×3 次	There shall not be visual transformation and noticeable wobble of terminal etc.. 无视觉变化和明显的端部摆振。
4.7	Drop resistance 耐跌落特性	Install the remote control, take to the height of over 60cm, continuous falling 3 times 装在整机上后, 拿至≥75cm 的高度连续跌落 3 次	Item 2.2 , 3.2 , 3.3, 3.4 , 3.5, 3.6 The same as the initial spec. 项目: 2.2 , 3.2 , 3.3, 3.4 , 3.5, 3.6 同初始规格
4.8	Operation life 操作寿命	Operation times ····· 100,000T Reciprocate 100,000 times at a speed of 30~40 times reciprocation per minute with no-load in the ordinary temp and humidity. 操作次数····· 100,000T 在常温、常湿, 无负载的情况下, 以每分钟往复 30~40 次的速度进行 100,000 次以上	Item 2.2 , 3.2 , 3.3, 3.4 The same as the initial spec. Item 3.5 $\Delta R \leq 25\%R$ 项目 2.2 , 3.2 , 3.3, 3.4: 同初始规格 项目 3.5 $\Delta R \leq 25\%R$

附图:
(线性规律)

- 一
- 二



设计	审核	批准
印 章		日期