



# 规格书

## SPECIFICATION

|               |        |               |
|---------------|--------|---------------|
| CUSTOMER NAME | 客户名称:  |               |
| CUSTOMER NO.  | 客户编号:  |               |
| SERIES        | 系 列:   | 倾斜震动开关        |
| MODEL NO.     | 型 号:   | XB-SW-100D-A3 |
| DRAWING NO.   | 图 形 号: | Tilt switch   |

**If specification of this product meets your request, please confirm all the items of it and return to us with signature and stamp, it will be basis of our production and record. Thanks your cooperation in advance!**

若此产品规格符合贵司要求，敬请确认此规格书内所有项目  
并签名和盖章后回传给我司，以作我司产品制作之

依据和存档之用，多谢合作！

### EXAMINE & APPROVAL 审批

|                                                                                        |                        |
|----------------------------------------------------------------------------------------|------------------------|
| <b>APPROVE 接受</b>                                                                      | <b>NOT APPROVE 不接受</b> |
| <br><br><br><br><br><br><br><br><br><br><b>SIGNATURE 签署      STAMP 盖章      DATE 日期</b> |                        |

|                                                       |                                                       |                                                      |                                                      |
|-------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| PREPARED BY.制表人                                       | CHECKED BY.校对                                         | APPROVED BY.审核                                       | APPROVAL BY.批准                                       |
| <div>研发部</div> <div>戴海明</div> <div>2022. 06. 08</div> | <div>品质部</div> <div>黄自清</div> <div>2022. 06. 08</div> | <div>工程部</div> <div>庞军</div> <div>2022. 06. 08</div> | <div>总经办</div> <div>吴量</div> <div>2022. 06. 08</div> |

东莞市溪榜电子有限公司

# Dong guan Xi Bang Electronics Co., Ltd

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## Quality core! Afterburner for Made in China!

## 产品规格书Product Details specification

| Product Name   | File No.     | Version | Date       | Page |
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| XB-SW-100D滚珠开关 | XB-SW-3D-132 | A3      | 2023.01.23 | 1/3  |

### ■ 功能Function

1.水平倾斜检测

Horizontal tilt detecting.

2.垂直翻转检测

Vertical flip detecting.

### ■ 应用产品Applications

1.智能家用电器 Smart home appliances

2.倾倒安全防护电器 Tilting safety protection circuit

3.智能电子设备 Intelligent electronic equipment

### ■ 产品特性Features

1. 此产品是滚珠型倾斜感应开关。

This products is Ball type tilt vibration sensitive switch.

2. 产品水平时处于断开OFF状态，产品向**左或右**倾斜超过 $45\pm 15$ 度时，开关会处于通路ON状态。

When the product is horizontal, it is in off state. When the product tilts to the left or right more than  $45\pm 15$  degrees, the switch will be in the channel on state.

3. 本开关在受外力振动时会产生间歇性通断现象。

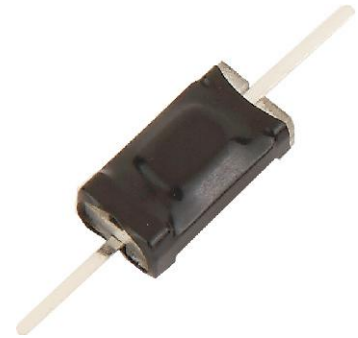
When the switch is vibrated by external force, it may have intermittent on-off phenomemo.

4. 本开关是一种触发性开关，不适用于长时间通电功能，仅适合触发信号。

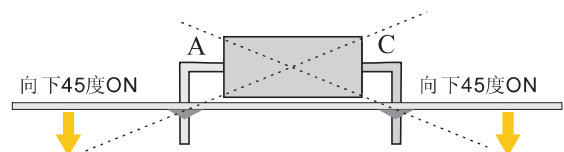
This switch is a trigger switch, which is not suitable for long-time power on function, but only for trigger signal.

5. 导通测试参考旋转角速度大于20度/秒, 过慢的角速度可能不触发或触发角增大。

The reference rotation angular velocity of conduction test is greater than 20 degrees / s, and the too slow angular velocity may not trigger or the trigger angle may increase.



触发波形图



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#### ■ 电气特性 Electrical characteristics:

|   |      |                       |                                     |
|---|------|-----------------------|-------------------------------------|
| 1 | 工作电压 | Voltage               | 5VDC                                |
| 2 | 电流   | Current               | 1-10mA                              |
| 3 | 导通方式 | Conduction mode       | Discontinuous conduction mode 非连续导通 |
| 4 | 导通电阻 | Conduction resistance | <30 Ω                               |
| 5 | 电气寿命 | Electrical life       | 100,000 times                       |

#### ■ 机械特性 Mechanical characteristics

|   |      |                        |                          |
|---|------|------------------------|--------------------------|
| 1 | 操作耐温 | Operating temperature  | -25℃ to 85℃              |
| 2 | 储存温度 | Storage Temperature    | -10℃ to 40℃              |
| 3 | 端子拉力 | Pull force of terminal | 500gf for 1 minute       |
| 4 | 盐雾测试 | Salt mist test         | 95% RH, 40℃ for 24 hours |
| 5 | 机械寿命 | Operating life         | 200,000 times            |

#### ■ 材料列表Bill of material :

|   |      |            |                               |
|---|------|------------|-------------------------------|
| 1 | 铜帽   | Copper cap | Brass, silver/nickel-plated   |
| 2 | 滚珠   | Ball       | Brass / steel, silver-plated  |
| 3 | 胶座   | Plastic    | Temperature resistance nylon  |
| 4 | 热收缩管 | Cover      | PE/PET heat shrinkable tubing |

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#### ■ 焊接特性Welding characteristics

1.手工焊: 330℃±10℃, <3秒.

Manual welding : 330℃ ± 10℃, <3s.

2.波峰焊接(DIP): 250℃±10℃, <5秒.

Wave peak soldering (DIP): 250℃ ± 10℃, <5s.

3.焊锡: 无铅.

Solder tin: lead free.

4.不可使用强酸、碱性助焊剂.

Do not use strong acid alkali flux.

#### ■ 包装Packaging:

500PCS/袋 (PVC塑料袋)

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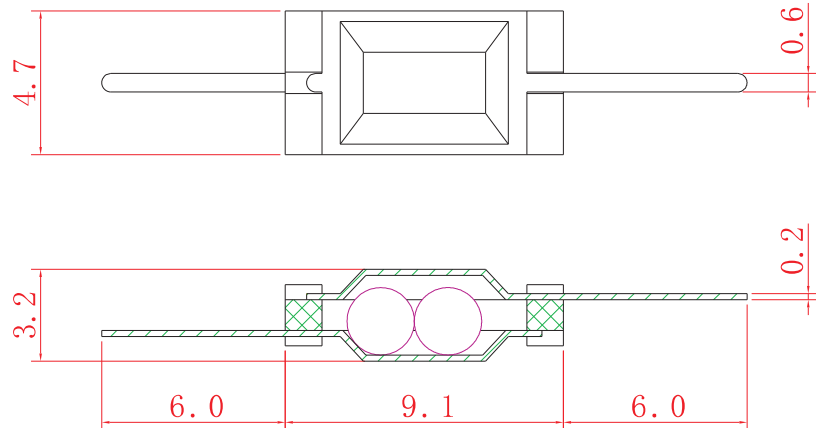
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### ■ 尺寸SIZE

Unit: mm,  
Tolerance  $\pm 0.25$



### ■ Note 注意事项

- 1.If the product used for high security products and durability of extremely high equipment (such as life safety equipment, aviation facilities, disaster prevention device), please confirm whether a share, can seek advice our company for details.  
如果该产品要用于高安全性产品及耐久性极高的设备中（如生命安全设备、航空设施、防灾装置），请确认是否合用，或咨询我司了解详情。
- 2.In case of fire, Please do not overload applicable.  
请勿超负荷使用，以防发生火灾。
- 3.The welding temperature or time more than standard, can cause switch collapse.  
焊接温度或时间超过规范时，会造成开关解体。
- 4.Do not use water solubility flux. May cause damage to the switch.  
勿使用水溶性助焊剂、可能会造成开关损坏。
- 5.Do not use solvent wash switch.  
勿使用溶剂清洗开关。
- 6.This switch conduction rate of 98% (conductivity rate per 100 times value switchactions, can good conduction ratio).  
本开关导通率为98%以上（导通率是指开关每100次动作中，可以良好导通的比率）。
- 7.Xibang company is only responsible for the defective problems of the product itself, return and exchange the defective products, and does not bear other joint and several expenses.  
溪榜公司只承担本产品本身不良问题,对不良品进行退换货,不承担其它连带费用责任。

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