

产品规格书  
Product Dteils specification

贴片式全方位振动传感器 SMT Omnidirectional Vibration Sensor				
零件编号Part No.	Grade	日期Date	专利patent	Page
YT-JM-CGQ16.25TP	A	2019	201621434651.2	1/7

## ● 产品描述Description :

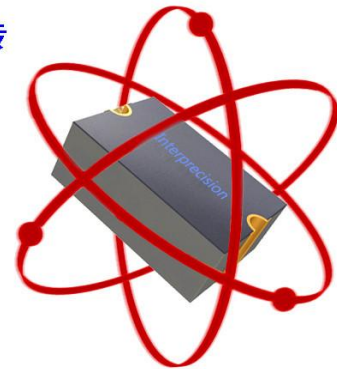
1.贴片式全方位振动传感器，产品在静止时通常产品是合闭或不合闭，属于不工作状态。振动触发、运动检测，倾斜感应，等触发唤醒功能。

2.产品在受到任何程度的动作时就会有脉冲信号输出开始唤醒电路，只要产生连续性动作产品就会不停的工作。

3.高感知，高灵敏，高稳定触发。

4.其外观微型化程度及功能的实用性全面取代了目前传统式产品结构上的创新。

自由旋转



## ● 功能Function :

1. 振动触发、运动检测，倾斜感应，等触发唤醒功能。

2. 传感器是完全被动的，无需任何信号调节，其耗电量取决于应用电路的限制电阻。

3. 产品通过内部滚珠的接触来侦测环境动作，受到外部振动期间，触点间电阻会持续性的发生由高到低或由低到高的变化（建议在应该设计软件时要考虑的是高到低电平、低到高电平的转换变化而不是打开的开关信号，通过电路或软件的延时设置可对自身产品灵敏度的要求 来做调试、即可提升产品的准确性和实用性）。

## ● 应用Application :

产品广泛适应于：振动感应系统、智能防盗装置，自动步枪/手枪电子装置，特种装备配件、汽车电子/GPRS跟踪器，胎压监测(TPMS)，RFID电子标签，智能穿戴，智能蓝牙，智能家居电子，微型发射器感应装置/接收器，无线智能数码电子，自动化装置及各类智能系统的振动感应或运动检测而设定应用下的触发唤醒功能。

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● **产品特性Characteristic :**

1. 贴片式全方位振动传感开关 (微型滚珠振动传感器)

SMT omnidirectional vibration sensing switch

(miniature ball vibrating sensor )

2. 产品在任何条件下受到振动或移动时都会有脉冲信号输出开始触发唤醒电路。

Products under any condition when suffer vibration or movement will have pulse signal output and trigger circuit environmental standards.

3. 产品完全100%测试，属于全密封式封装，可防水、防尘

Products with 100% inspected, completely sealed package, waterproof and dustproof.

4. 产品体积小不占空间，适合产品的最好选择。

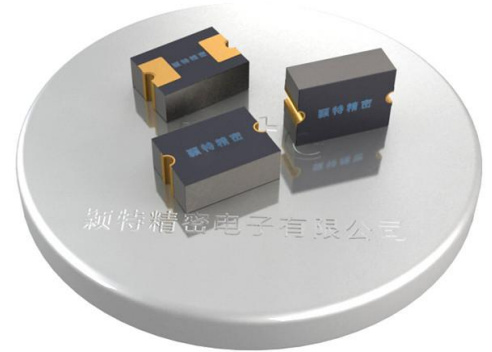
The Product has small volume, and does not occupy space, best choice for products.

5. 采用耐高温400℃材料，核壳流程技术、抽真空技术，电镀光泽良好、使用寿命500万次以上。

The products use high temperature resistance 400 °C materials and adopt core-shell process technology, vacuum technology. electroplating luster good. The usage life is more than 5000,000 times.

6. 材料符合ROHS及REACH.SVHC环保标准

Material conform with ROHS, REACH, SVHC .



## 颖特精密电子有限公司 IntePrecision Switches&Sensors CO.,LTD

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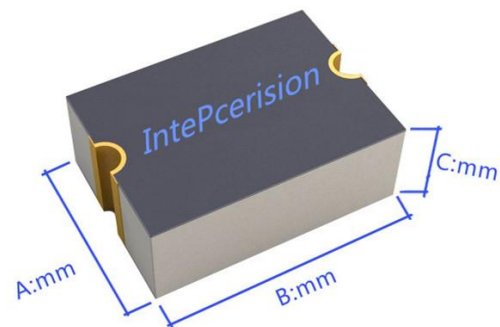
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● **电器性能规格Electrical Characteristics :**

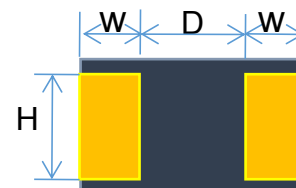
额定电压 Rated Voltage	0.5—24Vdc
接触电阻 Contact Resistance	30 MOhm Max
耐温 Temperature Range	-55°C ~ 100°C
潮湿敏感等级 MSL	1级
额定电流 Rated Current	50nA (0.05 μA) -10mA
绝缘电阻 Insulation Resistance	100 Ohm Min
振动寿命 Vibration durability	5万小时/500万cycles以上...

● **产品规格 Parts Specification :**

产品尺寸Part dimension	
A	2.3mm
B	2.8mm
C	1.6mm



焊位 Welding Position	
Value(mm) ±Tolerance(mm)	
H	2.5±0.15
W	1.2 ±0.15
D	1.0 ±0.15

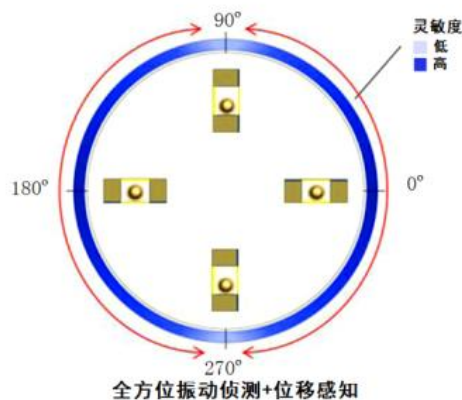


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●产品灵敏度及功能示意图 Product Sensitivity and Function Diagram



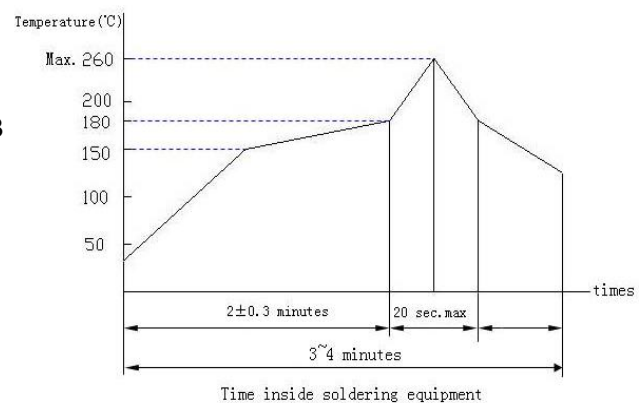
●回流焊条件 Reflow condition:

1. 预热: 电镀层表面的温度应达到**180°C**,  $2 \pm 0.3$  分钟后电路板进入回流焊设备。

Preheat: Temperature on the copper foil surface should reach 180°C.  $2 \pm 0.3$  minutes after the P.W.B entered into the soldering equipment.

2. 回流焊温度: 电镀层表面温度最高为**260°C**且停留不超过**5秒**后电路板进入低温焊接处。

Soldering heat: Temperature on the copper foil surface should reach the peak temperature of 260°C wit in 5 seconds after the P.W.B enter into soldering heat zone.



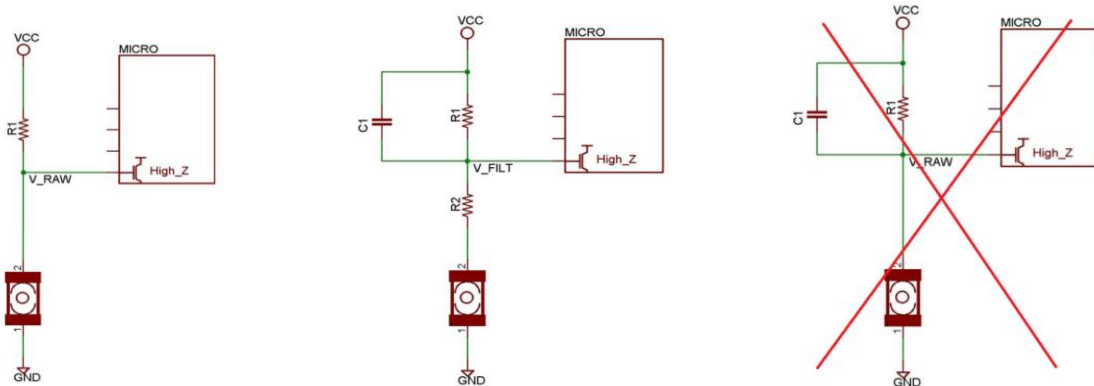
●手工焊条件 Manual welding condition:

焊接温度:  $300 \pm 5^\circ\text{C}$ , 时间: 3秒钟 Welding temperature  $300 \pm 5^\circ\text{C}$ , Time: 3S

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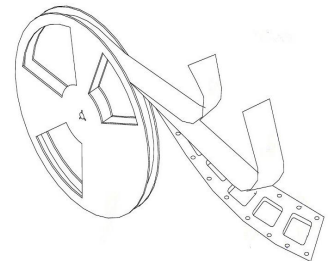
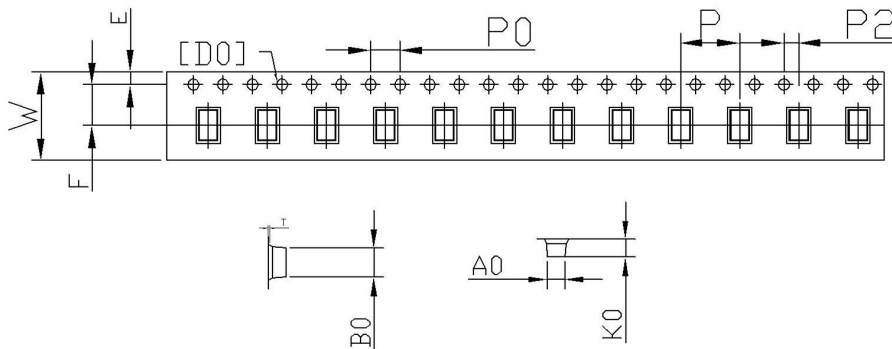
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● 应用电路Application circuit



● 包装Packing :

编带包装 Tape&Reel Packing SMT/3500pcs.



编号	尺寸 (mm)	编号	尺寸 (mm)
A0	2.8±0.1	W	12±0.3
K0	2.0±0.1	F	5.5±0.1
B0	3.5±0.1	E	1.75±0.1
T	0.3±0.05	P0	4.0±0.1
D0	1.5±0.1	P	8.0±0.1
		P2	2.0±0.1

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● **注意事项(Notes):**

1.在产品使用之前要求严格对产品进行目标性应用效果测试

Perform objective application effectiveness testing for the parts before using.

2.此产品以根据它本身特性、规格定位做说明书介绍.

The Instruction based on parts characteristic and specification.

3.此产品不适应于生命支持和更高的安全保障设备及高耐性装置等

The products do not apply to life support, higher safety equipments and higher performance equipments.

4.避免接触强性化工液体物、酸碱性，水溶解等以防对开关损坏，不得靠近强磁。

Avoid contact with strong chemical liquids, acid and alkali, water dissolution, etc. to prevent damage to the switch, and do not get close to strong magnets

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#### ● SGS/REACH检测报告



#### 测试报告 (SVHC)

No. CANEC1909924501

日期: 2019年06月03日 第1页,共18页

东莞市颖特精密电子有限公司  
东莞市万江区西提路新联街3号

以下测试之样品是由申请者所提供及确认: 振动传感开关

SGS工作编号: CP19-027643 - SZ  
 型号: YT-JM-CGQ16.25TP  
 样品接收日期: 2019年05月28日  
 测试周期: 2019年05月28日 - 2019年06月03日  
 测试要求: 根据客户要求,

- (i) 基于欧洲化学品管理署截止2019年1月15日公布的供授权审议的高关注物质候选清单(根据欧盟第1907/2006号REACH法规), 对197种高关注物质(SVHC)进行筛分测试。
- (ii) 基于WTO 2019年2月7日通报中额外鉴定的1种高关注物质(SVHC)进行筛分测试。
- (iii) 基于欧洲化学品管理署于2019年3月13日公布的潜在的高关注物质咨询清单(根据欧盟第1907/2006号REACH法规), 对3种高关注物质(SVHC)进行筛分测试。

测试结果: 请参见下一页

总结:

根据具体的范围和筛分测试, 所提交样品中SVHC测试结果≤0.1%(w/w)。	通过
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史丽兰

Violet,Shi史丽兰  
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