



浙江佳龙电子有限公司

ZHEJIANG JIALONG ELECTRON CO.,LTD

Customer 客户: _____

Your part No. 客户号: _____

Date 日期: _____

SPECIFICATION 规格书

Product names/产品名称: 拨动开关

Product model/型号: SK-23D06

Sample No/样品数量: _____

Approval signature 客户签章:

By Date/日期:

Please confirm and sign back

JL R&D Department		
Approved	Checked	Designed
龙亨军 2014.8.18	刘敏 2014.8.18	王跃 2014.8.18

Add/地址: Qianshi Industrial Zone, Yongjia, Wenzhou, Zhejiang

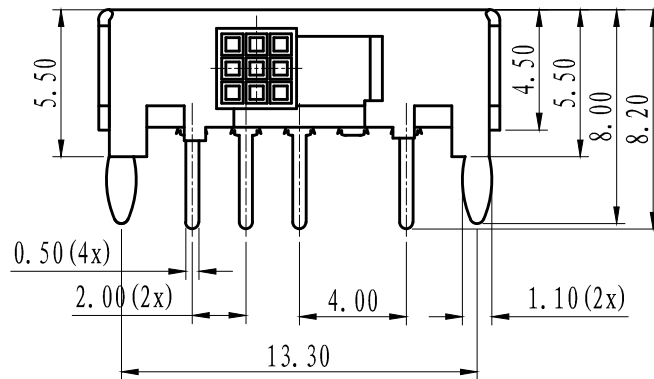
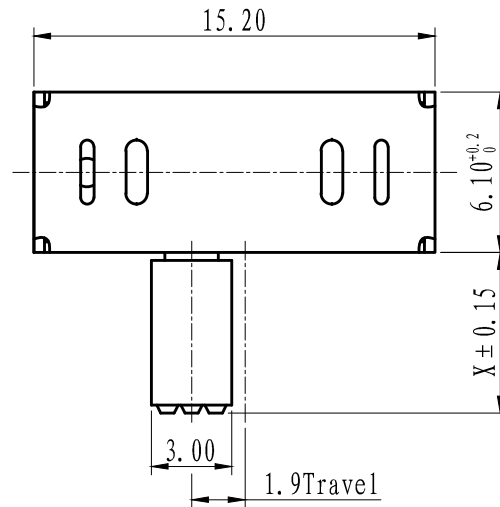
浙江省温州市永嘉县千石工业区

Tel/电话: 86-577-67288055 67288056 Fax/传真: 86-577-67288058

E-mail/邮箱: jialong@calonsw.com Web/网站: www.calonsw.com

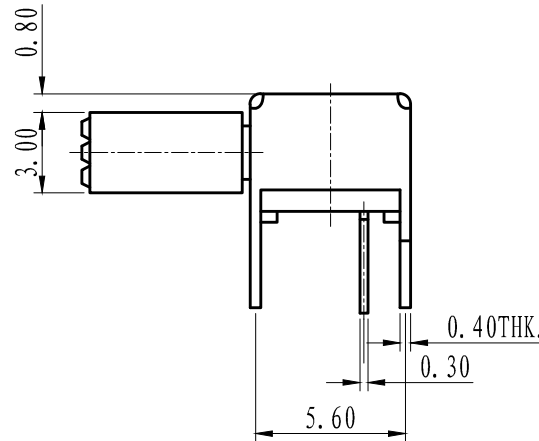


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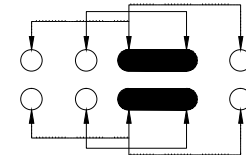


NOTE:
TOLERANCE UNLESS OTHERWISE SPECIFIED
X. ± 0.30 . X ± 0.20 . XX ± 0.10

技术参数/Specifications		
额定参数/Rating	0.3A 50V DC	
环境温度/Environment Temperature	$-25^{\circ}\text{C} \sim 85^{\circ}\text{C}$	
接触电阻 Contact Resistance	$\leq 50\text{m}\Omega$	
绝缘电阻/Insulation Resistance	$\geq 100\text{M}\Omega$ (at 500VDC)	
耐电压 Withstand Voltage	端子-端子 Terminal-Terminal	500V AC/10mA/5s
	端子-手柄 Terminal-knob	1500V AC/10mA/5s
电气寿命 Electronical life	10000 Cycles	
操作力 Operating Force	1.5~3.5N	

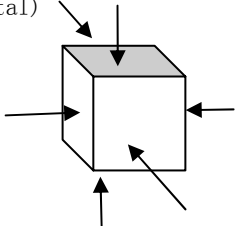


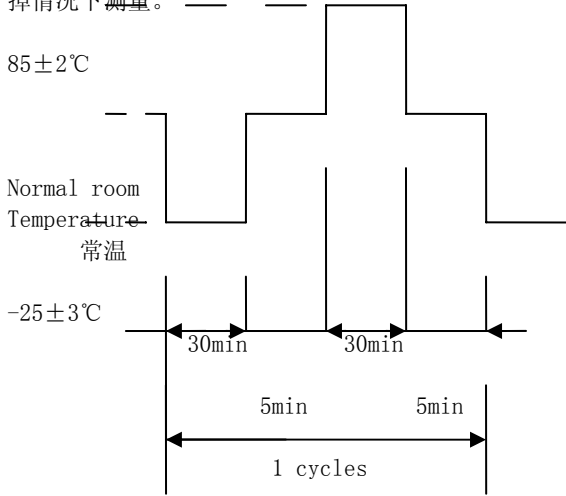
电气原理图:
CIRCUIT:



					成品图 PRODUCT DRAWING				浙江佳龙电子有限公司 ZHEJIANG JIALONG ELECTRON CO.,LTD	
									拨动开关 SLIDE SWITCH	
标记 MARK	数量 NO.	更改文件号 REVISE FILE NO.	签名 SIGNATURE	日期 DATE	投影 PROJECTION	版次 REV.	重量 WT.	比例 SCALE	11-SK-23D06	
设计 DESIGN			标准化 STANDARDIZATION		第一角 第一角 FIRST ANGLE	A0		4:1 (A4)		
审核 (CHECK)			批准 APPROVE		共 页 ALTOGETHER PAGES				第 页 THE PAGE	
工艺 TECHNOLOGY			日期 DATE							

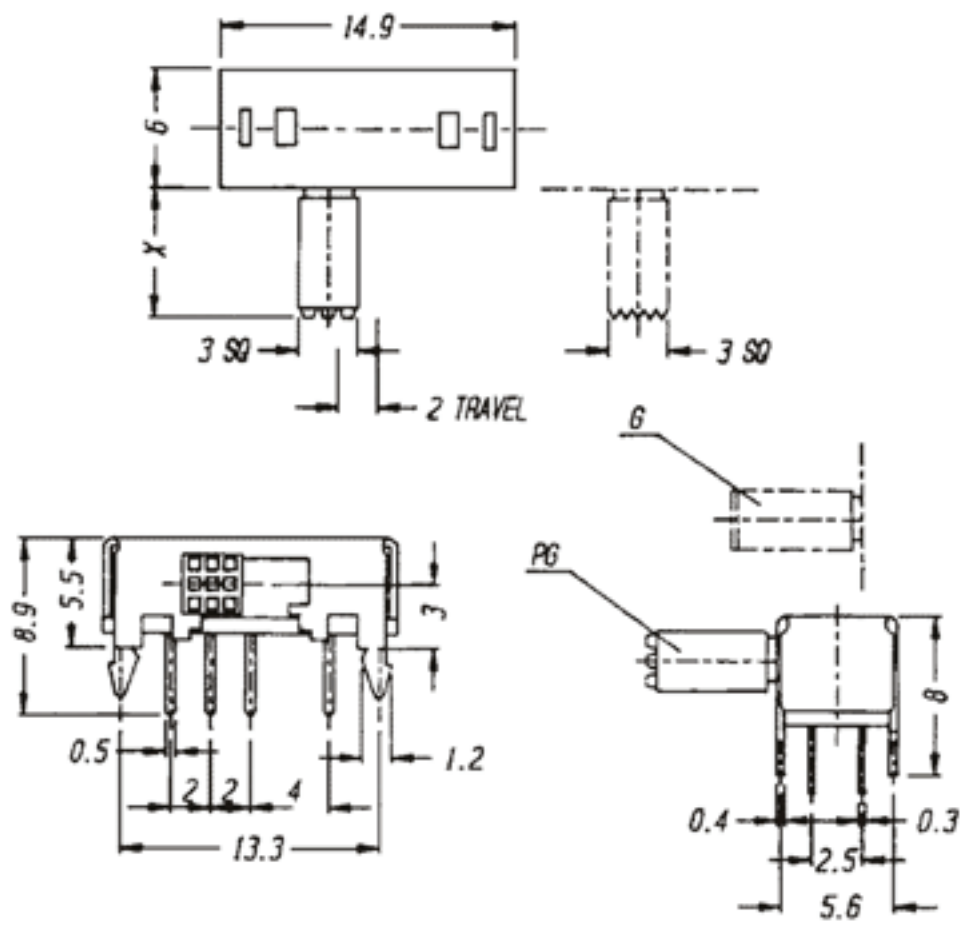
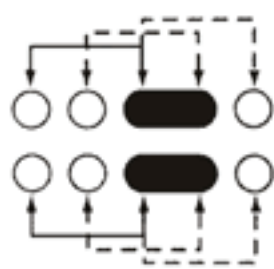
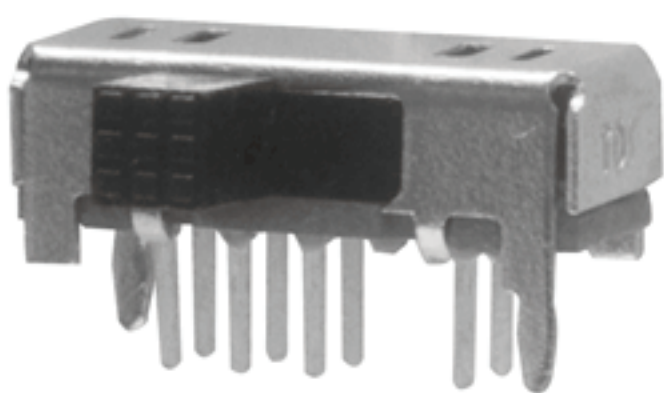
Products model 产品型号: SK-23D06		TITLE 标题: PRODUCT SPECIFICATIONS 产品规格书		Page 页数 1/3
1. General 总则				
1.1 Scope 范围 This specification is applied to <u>SlideSwitches</u> used for electronic equipment. 这规格适应于使用在电器设备的 <u>拨动开关</u> .				
1.2 Operating temperature range 操作环境温度 -25~+85℃				
1.3 Test conditions 测试条件 Unless otherwise specified, the atmospheric conditions for making measurements and tests are as follows.除另有规定外,测量和测试的大气条件如下:				
1.3.1 Ambient temperature 环境温度 : 15-35℃ ; 1.3.2 Relative humidity 相对湿度: 45-85%				
1.3.3 Air pressure 气压: 86-106 kPa (860-1060 mbar)				
1.4 Should any doubt arise in judgement, tests shall be conducted at the following conditions.在判断时出现争议,就照下列条件测试				
1.4.1 Ambient temperature 环境温度 : 20±2℃ 1.4.2 Relative humidity 相对湿度: 60-70%				
1.4.3 Air pressure 气压 : 86-106 kPa (860-1060 mbar)				
2. Appearance, construction and dimensions 外观、结构和尺寸				
1.1 Appearance 外观: Switch shall have no rust, crack and plating failures. 开关表面无锈斑、开裂和电镀不良				
2.2 Construction and dimensions 结构和尺寸 Refer to individual product drawing.参照产品图				
3. Ratings 额定值 0.3A 50VDC				
4. Electrical specification 电性能				
	Items 项目	Test conditions 测试条件		Criteria 标准
4.1	Contact resistance 接触电阻	Shall be measured at 0.1A, 6~8V DC by voltage drop method after some operations without load.无负载操作几次后,用直流 0.1A 6~8V 的设备点滴测试方法。 Applied position 适应位置: Between terminal and terminal (Between contact terminal) 端子之间 (连接端子之间)		50 mΩ MAX
4.2	Insulation resistance 绝缘电阻	Test voltage 测试电压: 500 V DC, measured after 1min±5s 测量时间 1min±5s Applied position 适应位置: Between terminal and terminal (Between no contact terminal) 端子之间 (不接端子之间)		100 MΩ MIN
4.3	Voltage proof 耐压	Following test voltages shall be applied for 1min.如下电压, 加压时间 1 分钟(Cut-off current 漏电流: 10mA) 1.Between terminal and terminal 端子之间: 500V AC(50~60Hz) 2.Between terminal and knob 端子与手柄之间:1500VAC		No dielectric breakdown shall occur. 不击穿
5. Mechanical specification 机械性能				
No. 序号	Item 项目	Test condition 测试条件		Criteria 标准
5.1 Operating features 操作特性	5.1.1 Operating force 操作力	A static load shall be applied to the tip of button in positive operating direction.在按手柄部施加一个力使之在一个方向动作.		1.5-3.5N
	5.1.2 Operating travel 行程	the travel distance for the button from side to side shall be measured.手柄从这边到那边的运动距离.		1.9±0.2mm
5.2	Vibration 振动	Switch shall be mount to a testing machine test. Parameters of test as follows 开关必须安装在测试设备上做测试, 测试参数如下: (1) Vibration frequency range: 10-55 Hz 振动频率范围: 10-55 Hz (2) Total amplitude 振幅 : 1.5mm (3) Sweep cycle 扫频循环: 10-55-10 Hz (4) Method of changing the sweep vibration frequency 振动频率扫频方法 : Logarithmic or linear.对数或线性 (5) Direction of vibration: Three perpendicular directions including actuator.振动方向: 3 轴方向包括操作件。 (6) Duration 周期: 2 h each (6 h in total) 每个方向 2 个小时 (共 6 个小时)		Contact resistance (Item4.1): 接触电阻 50 mΩ MAX Insulation resistance (Item 4.2): 绝缘电阻 100 MΩ MIN Voltage proof:(Item 4.3): 耐压 No dielectric breakdown shall occur.电气不击穿 Operating force (Item 5.1): Within specified value.操作力在规定值内 Shall be free from mechanical Abnormalities 无机械异常

Products model 产品型号: SK-23D06		TITLE 标题 PRODUCT SPECIFICATIONS 产品规格书	Page 页数 2/3
	Item 项目	Test condition 测试条件	Criteria 标准
5.3	Shocks 冲击	Switch shall be measured after following test at the condition of releasing self-lock. 开关在断开状态测试后做测量。 (1) Mounting method : Normal mounting method 安装方法: 一般安装 (2) Acceleration 加速度 : 30g (3) Duration 周期 : 11ms (4) Test direction 测试方向 : 6 directions (5) Number of shocks : 3 times per direction (18 times in total) 冲击次数: 每个方向 3 次 (共 18 次) 	Contact resistance(Item4.1): 接触电阻 50 mΩ MAX Insulation resistance (Item4.2): 绝缘电阻 100 MΩ MIN Voltage proof (Item 4.3): 耐压 No dielectric breakdown shall occur. 电气不击穿 Operating force(Item 5.1): Within specified value. 操作力在规定值内 Shall be free from mechanical abnormalities 无机械异常
5.4	Mechanical life 机械寿命	Switch shall be mount to a testing machine test. Parameters of test as follows 开关必须安装在测试设备上做测试, 测试参数如下: Operation Rate 操作速度: 30cycles/min Total number of Operation 总操作次数: 10,000 cycles/次	Contact resistance(Item4.1): 接触电阻: 100 mΩ MAX Insulation resistance (Item4.2) 绝缘电阻 100MΩ MIN Voltage proof 耐压: No dielectric breakdown shall occur. 电气不击穿 Operating force(Item5.1): Within+10, -30% specified value. 操作力在初始值的+10, -30%。 Temperature rise 温升: ≤ 55。No abnormalities shall be recognized in appearance and construction. 在结构和外观上无异常
6. Environmental test 环境实验			
	Item 项目	Test conditions 测试条件	Criteria 标准
6.1	Low temperature 低温	After testing at -25±2℃ for 48 h, the switch shall be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1 h. Water drops shall be removed. 开关在 -25±2℃停留 48 小时测试后, 在常温和常湿的条件下放 1 个小时, 让表面水滴干掉情况下测量。	Contact resistance(Item4.1): 接触电阻: 100 mΩ MAX Insulation resistance (Item4.2): 绝缘电阻 100 MΩ MIN Voltage proof (Item4.3): 耐压 No dielectric breakdown shall occur. 电气无击穿 Operating force(Item5.1): Within specified value. 操作力在规定值内 No abnormalities shall be recognized in appearance and construction. 在结构和外观上无异常
6.2	High temperature 高温	After testing at 85±2℃ for 48 h, the switch shall be allowed to stand under normal room temperature and humidity condition for 1 h, and then measurement shall be made within 1 h. Water dropsshall be removed. 开关在 85±2℃停留 48 小时测试后, 在常温和常湿的条件下放 1 个小时, 让表面水滴干掉情况下测量。	
6.3	Damp heat, steady state 恒定湿热	After testing at 40±2℃ and 90-95%RH for 96h, the switch shall be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1h. Water drops shall be removed. 开关在 40±2℃湿度 90-95%RH 停留 48 小时测试后, 在常温和常湿的条件下放 1 个小时, 让表面水滴干掉情况下测量。	

Products model 产品型号: SK-23D06		TITLE 标题 PRODUCT SPECIFICATIONS 产品规格书	Page 页数 3/3
	Item 项目	Test condition 测试条件	Criteria 标准
6.4	Salt mist 盐雾	Switch shall be checked after following test. 测试后开关必须检查 (1)Temperature 温度: $35\pm 2^{\circ}\text{C}$ (2)Salt proportion 盐份比例: $5\pm 1\%$ (solids by mass 固体) (3)Duration 周期: $8\pm 1\text{h}$ After test, salt deposit shall be removed in running water. 测试后, 盐分必须用流动水冲洗。	No remarkable corrosion shall be recognized in metal part. 金属件表面无明显腐蚀
6.5	Change of temperature 高低温变化	After 5 cycles of following conditions the switch shall be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1h after that. Water drops shall be removed. 开关按下列条件做 5 个循环测试后, 在常温常湿下停留 1 个小时使表面水滴干掉情况下测量。 	Contact resistance(Item4.1): 接触电阻: $100\text{ m}\Omega\text{ MAX}$ Insulation resistance (Item4.2): 绝缘电阻 $100\text{ M}\Omega\text{ MIN}$ Voltage proof (Item4.3): 耐压 No dielectric breakdown shall occur. 电气无击穿 Operating force(Item5.1): 操作力在规定值内 No abnormalities shall be recognized in appearance and construction. 在结构和外观上无异常
6.6	Solderability 可焊性	Slot welding $235\pm 5^{\circ}\text{C}$, $2\pm 0.5\text{S}$, The test method is according to the item 4.5.1 and item 4.6 of GB2423.28-82 The Basic Environmental Testing Procedures of Electric and Electronic Products Test T: Soldering Test Method 槽焊法 $235\pm 5^{\circ}\text{C}$, $2\pm 0.5\text{S}$, 试验方法按 GB2423.28-82《电工电子产品基本环境试验规程 试验 T: 锡焊试验方法》中 4.5.1 和 4.6 条规定。	The area of tin adhering to the terminal should be more than 90% (1h Steam Aging). 接线端沾锡面积应在 90%以上 (1h 蒸汽老化)。
6.7	Resistance to Soldering Heat 耐焊接热	After the test of slot welding $260\pm 5^{\circ}\text{C}$, $3\pm 1\text{S}$, in normal conditions, it recovered in 30 min with The specific test method is according to the item 5.4 of GB2423.28-82 The Basic Environmental Test 槽焊法 $260\pm 5^{\circ}\text{C}$ 浸 $3\pm 1\text{S}$ 后, 正常条件后恢复 30min, 具体试验方法按 GB2423.28-82《电工电子产品基本环境试验规程 试验 T: 锡焊试验方法》中 5.4 条规定。	No damage and deforming and can work functionally. 开关应无变形、损伤现象, 并功能动作正常。
7. Electrical performance 电气性能			
	Item 项目	Rating 参数	Criteria 标准
7.1	Endurance 耐久性	0.3A 50VDC 1E4	According to GB15092.1 参照 GB15092.1

SK-23D06 (L3R1) (2P3T)

Rating:
0.3A 50V DC



Code Explanation 型号说明
For Series:SS, SK, TS, PS, MS, MK

Series 系列

Pole 刀(接码的个数)

Throw 掷(停档的位数)

SS - 2 4 D 01 - G 9 - L1R3 - AF - NT - N - 500gf

Travelling 行程

C	D	E	F	G	H
1.5	2.0	2.5	3.0	3.5	4.0
I	J	K	L	N	P
4.5	5.0	5.5	6.0	7.0	8.0

Sequential No. 排列序号

Knob Height 柄长度

Measuring from Top of the shell

针脚方向

L1R3	L3R1

单排针方向

AF	AB	SP

Tapping 孔类型

NT(3)	T2	T2.6	T3
Non-Tapping 不攻牙(孔径φ3)	2.0mm 攻牙	2.6mm 攻牙	3.0mm 攻牙

Timing(Optional) 切换类别

S	NS	()
Shorting 短路	Non-Shorting 非短路	Non-Specified 不指示

Oprating Force 操作力度

100gf	to	800gf
100克	到	800克

按客户要求According to customers' demand

Knob Type 柄形						

General Specification 一般规格
For Series: SS, SK, MS, MK, TS, PS

Rating	使用功率	AS Per Individual Specification
Contact Resistance	接触电阻	50MΩ max.
Insulation Resistance	绝缘电阻	100MΩ at 500V DC
Withstand Voltage	抵抗电压	AC 500V For 1 minute
Operating Force	操作力	AS Per Individual Specification
Switching Life	使用寿命	10,000 Cycles Min.Unloading 15~18 Cycles Per Min.