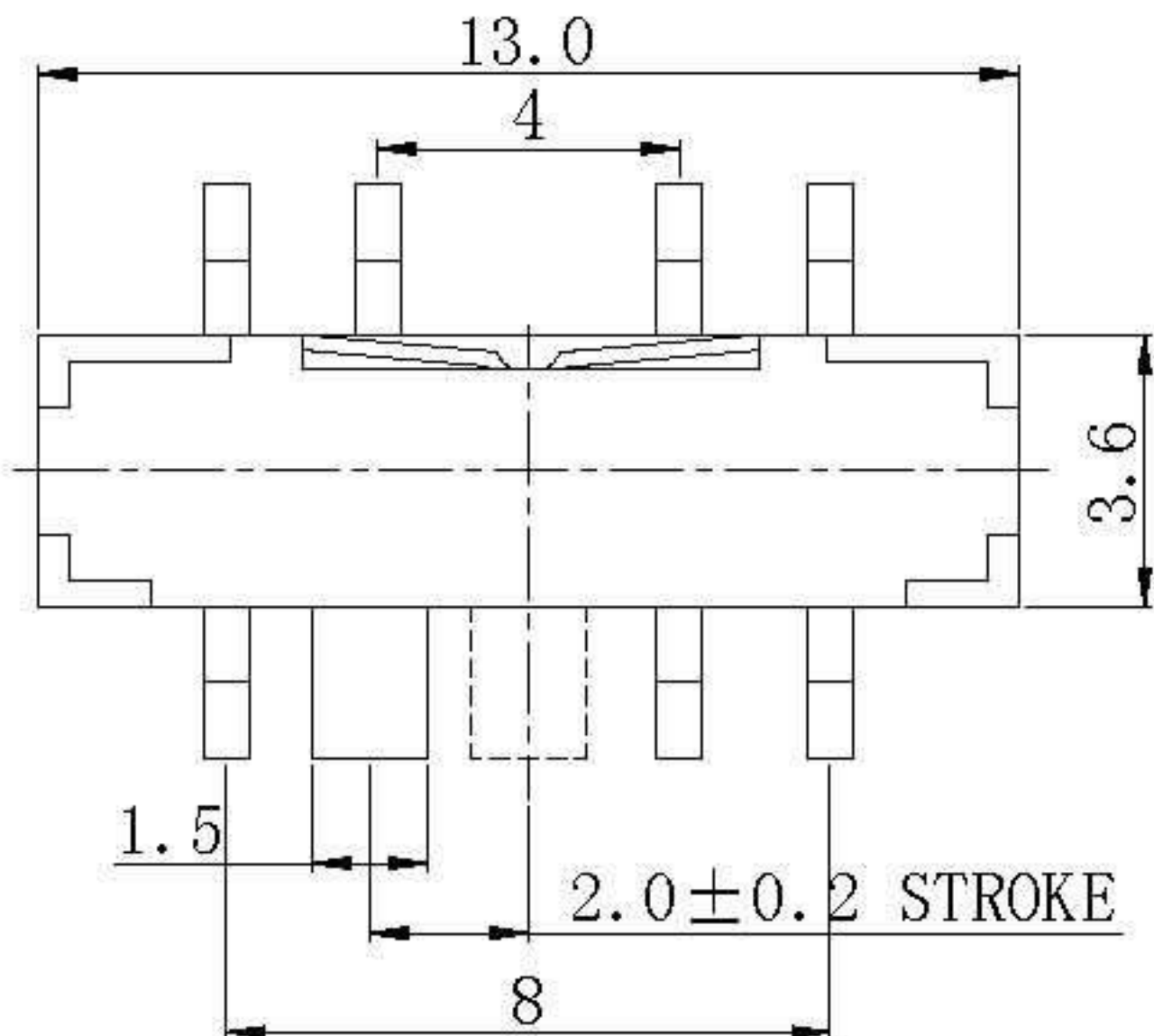
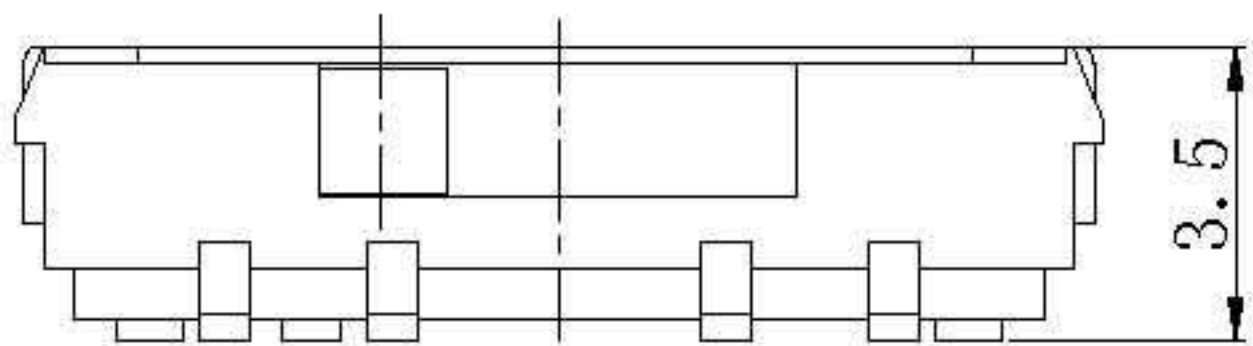
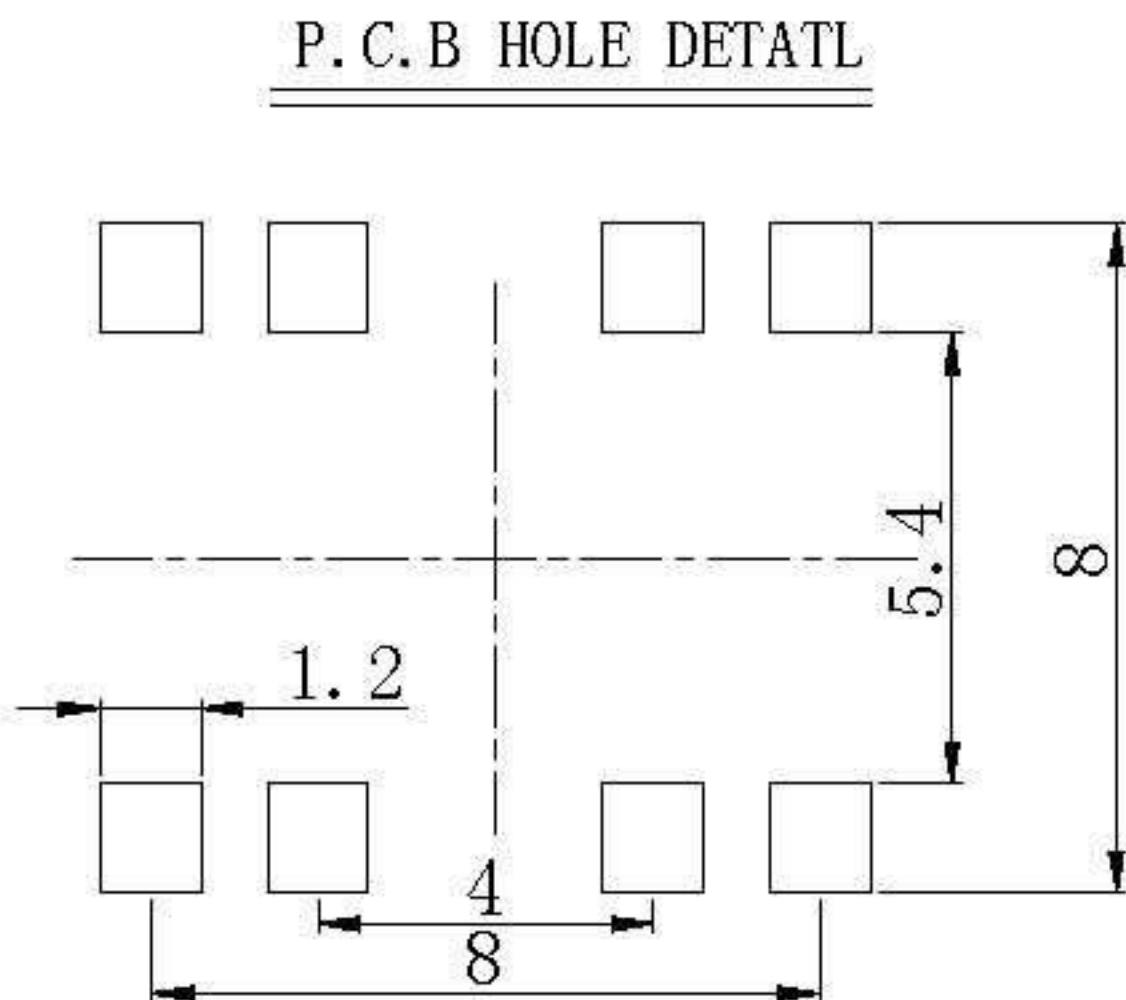
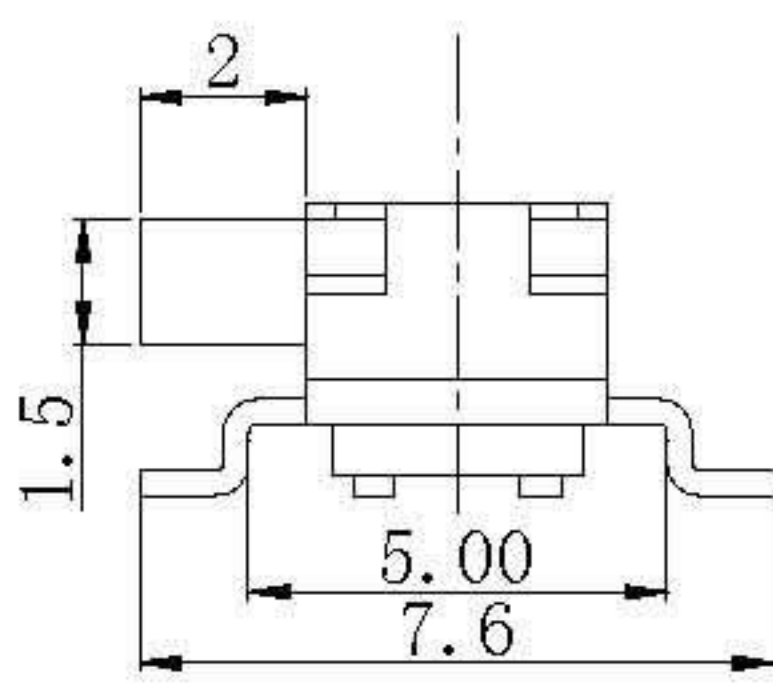
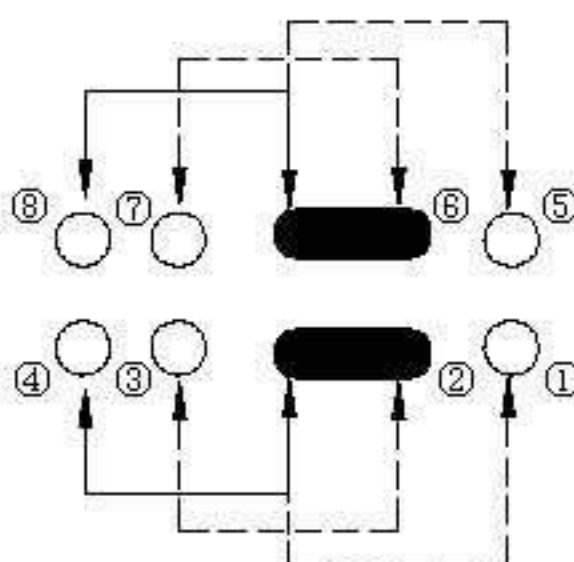


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类 型		滑动开关		品 名		MSL031-01M-23			
1. 功能规格									
1.1额定电压		DC6V		1.6自由位置 (FP)					
1.2额定电流		0.3A		1.7动作位置 (OP)					
1.3接触电阻 (CR)		≤70mΩ (初始值)		1.8行程 (PT)		2.0±0.2			
1.4 操作力 (OF)		200±100gf		1.9回弹力 (RF)					
1.5灵敏度 (BT)				1.10總行程 (TT)					
2. 可靠度参数									
2.1机械寿命		10,000 cycles		2.5耐焊接热		见附表5			
2.2电气寿命		10,000 cycles		2.6适用温度		-15℃ - +65℃			
2.3绝缘电阻		≥100MΩ DC500V(初始值)		2.7适用湿度		<85%RH			
2.4耐压强度		AC500V 1 minute (初始值)		2.8					
3 尺寸规格图									
<div><div></div><div></div><div></div><div></div><div></div></div>									
版 本		修订内容				日期		修订人	
文件编号		第A版 第0次修订				一般公差		±0.2	
文件名称		成品规格书				单 位		mm	
拟制		审核		批准		生效日期		20051219	

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1、General(一般特性)：										
1.1 Switch rating:			DC 6V, 0.3A（规格： DC 6V, 0.3A）							
1.2Operating temperature range			-15℃~65℃（操作温度范围: -15℃~65℃）							
1.3 Preservative temperature range			-25℃~70℃(储存温度: -25℃~70℃)							
1.4 Appearance、Markings and dimensions			Refer to individual product drawing（外观、标识和尺寸参见图纸）							
1.5 Standard conditions（标准测试条件）										
Unless otherwise specified, the test and measurements shall be carried out as follows:										
（若无特别说明，则试验和测量在下列条件下进行:）										
			Ambient temperature : 5~35℃		(环境温度: 5~35℃)					
			Relative humidity : 45~85%		(相对湿度:45~85%)					
			Air pressure : 86~106kpa		大气压力: 86~106kpa					
However, if doubt arises on the decision based on the measured values under the above mentioned conditions ,the following conditions shall be employed.										
（若按以上环境条件进行检测出现有争议的结果，则按以下环境条件进行测试:）										
			Ambient temperature : 20~2℃		(环境温度: 20~2℃)					
			Relative humidity : 60±5%RH		(相对湿度:60±5%)					
			Air pressure : 86~106kpa		(大气压力: 86~106kpa)					
2.Performance 功能参数										
2.1 Electrical characteristics(电气特性)										
Items 项目			Test conditions 测试条件						Criteria 标准	
2.1.1		Contact resistance 接触电阻	Applying a static load twice the operating force to the stem, measurements shall be made between the terminals. Measurement shall be made with a contact resistance meter for 2m Ω precision under the condition which a voltage of DC 5V and a current of 0.1A shall be applied between the terminals. 在按钮上施加两倍操作力的静负荷值，采用精度为 2m Ω 高稳定度线性毫欧表，在 DC 5V 0.1A 的条件下测量端子两端的接触电阻。						70m Ω max 70 毫欧以下	
2.1.2		Insulation resistance 绝缘电阻	DC 500V voltage is applied between each pair of terminals and between the terminal and the metal frame for one minute. Measurement shall be made with a test instrument of insulation resistance under the condition which a voltage of DC 500V is applied between the terminals . 采用绝缘电阻器仪分别在相互绝缘的所有端子之间各接线端子与外露的非金属零件之间加载 DC 500V 持续 1 分钟测试绝缘电阻值。						100M Ω min 100 兆欧以上	
2.1.3		Dielectric withstand in voltage 耐压强度	AC 500V(50Hz or 60Hz) shall be applied across terminals and frame for one minute. 在端子两端之间加载 AC 500V（50Hz or 60Hz），持续时间为 1 分钟。						No damage to parts arcing or breakdown etc. 没有绝缘破坏等异常。	
PAGE 页码	MARK 标志	REVISION 版本	DATE 日期	DESIGN 拟制	CHECK 审核	APPROVAL 批准				

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Items 项目		Test conditions 测试条件				Criteria 标准
3.Mechanical characteristics 机械特性						
3.1.1	Operation force 操作力	Placing the switch such that the direction of switch operation is side, and then gradually increasing the load applied to the stem, the maximum load for the stem to come to operating position shall be measured. 置开关侧面状态, 渐增力度使型物至动作位置为最大值之力度。				Refer to individual drawing. 参考规格图纸
3.1.2	Terminal strength 端子强度	A static load of 500gf shall be applied to the tip of the terminal for 30 sec. in any direction. 在任意一个方向的先端加上 500gf 力度测试, 时间为 30 秒。				Electrical characteristics shall be satisfied without damage or excessive looseness of terminals. 在端子中没有裂开, 松动等异常, 满足于机械, 电器性能。
3.1.3	Displacement of actuator(Knob) 柄强度	A static load of 1kgf shall be applied to the terminal for 15 Sec. In any direction. 在型物前端任意一个方向加 1Kgf 力度测试, 时间为 15 秒。				
4.Climatic characteristics 耐候性能						
4.1	Gold test 低温测试	(1) Temperature : -30±2℃ (温度: -30±2℃) (2) Duration of test : 96 hours (测试持续时间: 96 小时) (3) Take off a drop water (取出放置在正常室温中) (4) Standard condition after test : 1 hour (放置 1 小时后测试此产品)				After test: Contact resistance: 1 Ω max NO 2.1.2 to 2.1.3 and 3.1.1 to 3.1.2 shall be satisfied. 试验后: 接触电阻: 1 Ω 最大值 开关及结构应无损害;
4.2	Heat test 高温测试	(1) Temperature : 80±2℃ (温度: 80±2℃) (2) Duration of test : 96 hour (测试持续时间: 96 小时) Standard conditions after test : 1 hour (放置 1 小时后测试此产品)				
4.3	Humidity test 湿度测试	(1) Temperature :60±2℃ (温度: 60±2℃) (2) Relative humidity : 90~95% (相对湿度: 90~95%) (3) Duration of test : 96 hours (周期: 96 小时) Take off a drop water Standard condition after test : 1 hour (1 小时后测试此产品)				
5. soldering characteristics 焊接性能						
5.1	Soldering Ability test 可焊性试验	The top of the terminals shall be dipped 2mm in the solder bath of 235±5℃ for 3 seconds. 端子顶部被浸入锡焊池中 2mm 深, 浓度为 235±5℃,时间持续 3 秒钟。				A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed. 覆锡性能达到浸入表面的 90%以上
5.2	Hand soldering 手工焊	Use a soldering iron of 30 watts, controlled at 350 °C approximately 3 seconds while applying solder. 焊接时需在 30 瓦烙铁, 控制于 350℃, 大约 3 秒钟条件下进行。				There shall be no defects in appearance or in the mechanical functions. 没有出现任何外观和机械功能上的损伤。
5.3	Wave soldering 波峰焊	Recommended solder temperature at 260℃for 6seconds subject to P.C.B 1.6mm thickness.(Soldering for through hole type) 焊炉焊接的时候温度控制在 260℃, 过炉时间为 6 秒, 于(基板)厚度为 1.6mm。				

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Items 项目		Test conditions 测试条件			Criteria 标准	
6. Durability characteristic:耐久性能						
6.1	Mechanical life 机械寿命	(1) Without loading 无负载 (2) Operating speed : 15 cycles/minute 操作频率: 15 次/分钟 (3) Push force : maximum value of operating force twice 推动力: 操作力的最大规格值的两倍 (4) Life: 10,000 cycles 寿命: 10,000 次			After test: (1)Contact resistance: 1 ohm Max. (2)Insulation resistance: 10M ohm Min. (3)Bounce: 5m sec. Max. (4)Withstand voltage: AC250V, 1 minute (5)Operating force: 30% of initial value (6) There shall be no defects in appearance or in the mechanical functions. 试验后: (1) 接触电阻:1 欧姆以下 (2) 绝缘电阻:10 兆欧姆以上 (3) 灵敏度: 5 毫秒以下 (4) 耐压强度: AC250V, 1 分钟 (5) 操作力度: 测试初始值的 30%以内 (6) 没有出现任何外观和机械功能上的损伤。	
6.2	Electrical life 电气寿命	(1) which the load of 0.3A DC 60V 负载为 0.3A DC 60V (2) Operating speed : 10 cycles/minute 操作频率: 10 次/分钟 (3) Push force : maximum value of operating force twice 推动力: 操作力的最大规格值的两倍 (4) Life: 10,000cycles 寿命: 10,000 次				
7.Salt Mist 盐雾试验						
7.1	Salt Mist 盐雾试验	Test equipment : NSS Salt Solution : 5 ± 1%(Solders by mass) The PH of salt : 6.5~7.2 Test temperature : 35 ± 2℃ Test pressure : 1 Kgf/cm*cm The temperature of pressure barrel : 47 ± 2℃ The slide switch shall be checked after following test : (1) Purge of the product (2) Duration : 8 hours (3) Purge of the product with 40℃ max temperature and use wind gun drying it. 试验设备: 盐雾试验机 盐溶液浓度: 5 ± 1%(Solders by mass) PH 值: 6.5~7.2 试验室温度: 35 ± 2℃ 试验室压力: 1 Kgf/cm.cm 压力桶温度: 47 ± 2℃ 试件在下述试验后测量: (1) 使用三氯乙烷清洗产品上的油渍尘埃 (2) 试验时间: 8 小时 (3) 使用不高于 40℃的清水清洗产品, 用风枪吹干。			No remarkable corrosion shall be recognized in metal part. (uninclude sideline corner angle and pressing border line) 试验后样品: 在金属件表面上没有腐蚀斑点。(不包括边线棱角位置和冲压毛边处)	

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8. Quality records of delivered goods 出货证明记录					
8.1 Package boxes or package bags should be attached labels or identifiers of Model No., Quantity and Quality Pursuing No. 成品包装箱或包装袋上应附有产品型号、数量及质量追踪号的标签或标识。					
8.2 There shall be quality records of inspection and test in package boxed. 出货产品包装批、出货批应附有产品检验、试验之质量证明记录。					
9.Application Notes:注意事项					
9.1 Avoid storing the products in a place at high temperature, high humidity and in corrosive gases. 避免储藏于高温、潮湿及腐蚀的场所。					
9.2 Avoid excessive force when inserting into P.C.B so as to avoid deformation of terminals. 当插入 P.C.B 避免使用过分的外力，以防端子变形。					
9.3 Influence for the characteristics by something dust or foreign articles. There is a possibility something dust or foreign articles put into click of brush plate and it should cause abnormal rotation feeling. 避免灰尘或外物会掉入开关内影响其接触性能。					
10. Incoming inspection declaring: 来料检验声明书:					
10.1 You must comply with the following principles in the process of the incoming inspecting and using our products, if not, we won't be liable for any damages from it. 如贵司不按照来料检验声明书严格操作，产品有损坏我司概不负责。					
10.2 The requirement of the incoming inspection must meet the product's specification that have been affirmed and signed by you. If the following things appear in the process of the incoming inspection, the use is restricted, please feed back us in time; we will take back of all. 成品装箱或包装袋上应附有产品型号、数量及质量追踪号标签或标识。如有问题请贵司及时转知我司，在调查如实情况下我司接受全数退回。					
10.3 The products that are attached or stickled by the unqualified labels; 产品贴上质量保证标识。					
10.4 In the process of the incoming inspection, the following main function parameters must be checked and they must meet the specification. If the sum the badness rate is more than 1% in the process, the use is restricted, please feedback us in time, we will take back of all. 主要检查功能参数和所需证明。如发现有问题超过 1%，请及时转知，我司全数退回。 (1) Operating Force; 操作力; (2) Operating Position; 操作位置; (3) Initial Contact Resistance; 接触电阻; (4) Soldering ability; 焊接功能; (5) Soldering temperature; 焊接温度; (6) Action of function; 功能参数;					
10.5 If the serious packaging disrepair of products appears in the process of the incoming inspection, please refuse accepting them and return them to us directly. 如贵司在来料检验程序中发现产品有严重破损包装，请拒收并退回我司。					
10.6 Operating strength: the max pressing force is 3Kgf in the side direction with the up-surface of stem; the max pulling force is 3Kgf.the badness product's damage and function destroying for above all, we won't be liable for it. 操作强度:型物表面侧面压力为 3Kgf max;操作力为 3Kgf max.如产品功能有上述不良情况,我司不负责。					
10.7 For switches is a multi-function parameters part in our company, which are assembled by many components, the max permitting badness rate is 500PPM in producing process. If the damages are for our producing process badness aim, we won't be liable for it. 开关由不同功能参数零件装配而成，如制程中允许不良品 500PPM，我司不负责。					
10.8 If badness rate of the main function parameters which is more than 500PPM or the sum of rate is more than 1500PPM appears in your producing process, please stop using them immediately and feed back us to do with it in time. 如在生产过程中发现主要功能参数损坏达 500PPM 或总制程不良率超过 1500PPM,请立即停止生产并及时反馈于我司处理。					
10.9 If your incoming inspection is careless and it arose that the badness rate of your producing process is more than 1%, we won't be liable for the damage. 如贵司在制程中导致损坏数量达到 1% ， 我司不负责。					
10.1 We should save this product without notice right when Reliable ability、action function、frame or designed is changed. 我司将保留对以上说明的产品进行任何改善可靠性、功能、外观或设计而不另行通知的权利。					