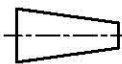


KD

TITLE : VERTICAL SLIDE SWITCH

MODEL : SS13F24-GBY5



| | | | | | |
|---------------|-------|-------|------|------------|------------|
| UNIT : MM | DWN. | 廖金明 | DATE | 2014-07-12 | |
| SCALE : 3 : 1 | CHK'D | 张柱成 | DATE | 2014-07-12 | |
| VERSION | 01 | APPD. | 周丽琼 | DATE | 2014-07-12 |

TOLERANCE
 <=1.5mm ± 0.1
 > 1.5mm ± 0.2
 >=10mm ± 0.3

ANGLE TOL
 ±2°

| NO. | PART NAME | MATERIAL | QTY | FINISHING |
|-----|--------------|----------------|-----|-----------|
| 7 | SPRING | STEEL WIRE | 1 | NATURE |
| 6 | STEEL BALL | STEEL | 1 | NATURE |
| 5 | BOARD | PHENOLIC RESIN | 1 | NATURE |
| 4 | CONTACT CLIP | PBS STRIP | 1 | Ag PLATED |
| 3 | FRAME | IRON STRIP | 1 | Ni PLATED |
| 2 | TERMINAL | BRASS STRIP | 4 | Ag PLATED |
| 1 | NOB | POM | 1 | BLACK |



SPECIFICATION

承認書

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|---------------------------------------|--|---|-------|---|--------------|
| 文件編號 | DGKD/JS-SS-123 | 版本 | A / 1 | 頁碼 | 共 3 頁, 第 1 頁 |
| DESCRIPTION | 產品系列: VERTICAL SLIDE SWITCH | | | DRAWN BY | 制訂: 廖金明 |
| MODEL NO | 產品型號: SS13F24 | | | CHECKED BY | 核對: 張柱成 |
| 1. RATING | 額定值: 0.5A 50V DC | | | | |
| 2. FUNCTION | 接觸型式: 1P3T | | | APPROVED BY | 審批: 周麗琮 |
| 3. TIMING | 時間特性: NON-SHORTING | | | | |
| 4. ELECTRICAL CHARACTERISTICS 電氣性能規格: | | | | | |
| ITEM 項目 | | TEST CONDITIONS 測試條件 | | PERFORMANCE 性能 | |
| 4.1 | CONTACT RESISTANCE 接觸電阻 | MEASURED AT SMALL CURRENT (100 mA OR LESS) 1000HZ 在微小電流 (100 mA) 以下測試 | | 30m Ω MAX. 30 毫歐以下。 | |
| 4.2 | INSULATION RESISTANCE 絕緣電阻 | APPLY A VOLTAGE OF 500V DC SHALL BE APPLIED FOR 1 MIN AFTER WHICH MEASUREMENT BE MADE: (1) BETWEEN CONDUCTORS NOT TO BE CONTACT (2) BETWEEN INDIVIDUAL TERMINALS AND FRAME 輸入 500V DC 電壓 1 分鐘, 按以下接觸方法測試: (1) 不接觸的插腳之間 (2) 插腳與外殼之間 | | 100M Ω MIN. 100 兆歐以上。 | |
| 4.3 | DIELECTRIC STRENGTH 耐電壓 | AC 500V rms (50-60HZ) FOR 1 MIN TRIP CURRENT: 0.5mA (1) BETWEEN CONDUCTORS NOT TO BE CONTACT. (2) BETWEEN INDIVIDUAL TERMINLS AND FRAME 輸入 AC 500V (50-60HZ) 電壓, 1 分鐘感度電流為 0.5mA, 按以下接觸方法測試: (1) 不接觸的插腳之間 (2) 插腳與外殼之間 | | WITHOUT DAMAGE TO PARTS ARCING OR BREAKDOWN ETC. 沒有絕緣破壞等異常。 | |
| 5. MECHANICAL CHARACTERISTICS 機械性能規格: | | | | | |
| ITEM 項目 | | TEST CONDITIONS 測試條件 | | PERFORMANCE 性能 | |
| 5.1 | OPERATING FORCE 作動力 | MEASUREMENT SHALL BE MADE AT THE NEAREST POINT OF THE COMPONENT OR AT THE POINT 3mm FROM THE TIP OF THE ACTUATOR (KNOB). 在距離膠柄前端 3mm 作測定點。 | | T1→T2: 220gf±100gf T2→T3: 300gf±100gf | |
| 5.2 | TERMINAL STRENGTH 端子強度 | A STATIC LOAD OF 500gf SHALL BE APPLIED TO THE TERMINAL FOR 15 SEC. IN ANY DIRECTION. 在插腳前端任意一個方向加 500gf 力度測試, 時間為 15 秒。 | | ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED WITHOUT DAMAGE OR EXCESSIVE LOOSENESS OF TERMINALS. 在插腳中沒有裂開、鬆動異常, 滿足於機械、電器性能。 | |
| 5.3 | DISPLACEMENT OF ACTUATOR (KNOB) 柄強度 | A STATIC LOAD OF 9.8 N (1kgf) SHALL BE APPLIED TO THE TOP OF THE ACTUATOR (KNOB) AND THEN DISPLACEMENT SHALL BE MEASURED TO THE DIRECTION OF THE ARROW. 在柄的前端施加 9.8N (1kgf) 的力度, 位移應沿印記的方向上測定。 | | THE LEVER SHALL HAVE NO SERIOUS DEFORMATION AND FUNCTION IS NORMALLY. 柄部無嚴重變形, 可以正常工作。 | |
| 5.4 | PRACTICAL TEMPERATURE RANGE 使用溫度範圍 | -16°C~+60°C 在-16°C~+60°C溫度內使用 | | | |



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| ITEM 項目 | TEST CONDITIONS 測試條件 | | | PERFORMANCE 性能 | | |
| 5.5 | STANDARD ATMOSPHERIC CONDITIONS 測試標準狀態 | UNLESS OTHERWISE SPECIFIED, THE STANDARD RANGE OF ATMOSPHERIC CONDITIONS FOR MAKING MEASUREMENTS AND TESTS ARE AS FOLLOWS: (1) AMBIENT TEMPERATURE: 5°C TO 35°C (2) RELATIVE HUMIDITY: 45% TO 85% (3) AIR PRESSURE: 86Kpa TO 106Kpa 在沒有指定的情況下測試溫度、濕度、氣壓如下: (1) 溫度為 5~35°C (2) 濕度為 45%~85% (3) 氣壓為 86Kpa~106Kpa | | | | |
| 6. ENDURANCE CHARACTERISTICS (耐久性): | | | | | | |
| ITEM 項目 | TEST CONDITIONS 測試條件 | | | PERFORMANCE 性能 | | |
| 6.1 | MECHANICAL-LIFE TEST 機械壽命 | SWITCH SHALL BE SUBJECTED TO 10,000 CYCLES AT A SPEED OF 15~25 PER MINUTE WITHOUT LOAD. 開關在無負荷的條件下以每分鐘 15~25 回的速度進行 10,000 次的測試。 | | | 1. CONTACT RESISTANCE: $\leq 100m\ \Omega$ 2. INSULATION RESISTANCE: $\geq 50M\ \Omega$ 3. UNDER A VOLTAGE 500V AC (50Hz) WITHOUT DESTROYING AND LOSSING. 4. OPERATING FORCE $\pm 50\%$ SPEC. 5. NO DEFORMATION AND LOOSENESS 1. 接觸電阻: ≤ 100 毫歐 2. 絕緣電阻: ≥ 50 兆歐 3. 施加 50Hz 500V 的交流電壓無擊穿和飛弧現象。 4. 作動力變化範圍規格值 $\pm 50\%$ 5. 開關外觀無異常，鉚合部分應牢固，緊固部分應無鬆動。 | |
| 6.2 | SOLDERABILITY TEST 可焊性試驗 | THE TOP OF THE TERMINALS SHALL BE DIPPED 2mm IN THE SOLDER BATH OF $240 \pm 5^\circ C$ FOR 3 ± 0.5 SECONDS. 端子頂部被浸入錫焊池中 2mm 深，溫度為 $240 \pm 5^\circ C$ ，時間為 3 ± 0.5 秒。 | | | THE AREA OF SOLDERABILITY SHOULD BE OVER 75%. 焊接面積要有 75% 以上。 | |
| 6.3 | RESISTANCE TO SOLDERING HEAT TEST 耐焊性試驗 | SOLDER BATH METHOD: SOLDER TEMPERATURE $250 \pm 5^\circ C$ IMMERSION TIME 3 ± 0.5 SEC IMMERSION DEPTH UP TO THE SURFACE OF THE BOARD THICKNESS OF PRINTED WIRING BOARD 1.6mm DIMENSIONS OF COMPONENT HOLES IN THE PRINTED WIRING BOARD SHALL BEING ACCORDANCE WITH THOSE SPECIFIED IN THIS SPECIFICATION. 焊爐焊接的時間溫度控制在 $250 \pm 5^\circ C$ ，過爐時間為 3 ± 0.5 秒，於（基板）厚度 1.6mm. | | | WITHOUT DEFORMATION OF CASE OR EXCESSIVE LOOSENESS OF TEMINALS. ELECTRICAL CHARACTERISTICS SHALL BE SATISFIED. 本體無變形，能滿足於機械、電器性能。 | |
| 6.4 | COLD TEST 耐冷試驗 | THE SWITCH SHALL BE STORED AT A TEMPERATURE OF $-25 \pm 3^\circ C$ FOR 48 HOURS. AND THEN IT SHALL BE SUBJECTED TO THE CONTROLLED RECOVERY CONDITIONS FOR 1 HOUR AFTER WHICH MEASURE MENT SHALL BE MADE. 开关放置在溫度 $-25 \pm 3^\circ C$ 中 48 小時後，再放置正常室溫中 1 小時來進行測試。 | | | THERE SHALL BE NO DEFORMATION OR CRACKS IN MOLDED PART. 外觀無異常，滿足于機械、電器性能。 | |



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文件編號

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| ITEM 項目 | | TEST CONDITIONS 測試條件 | PERFORMANCE 性能 |
|---------|----------------------------------|---|---|
| 6.5 | HEAT TEST 耐热试验 | THE SWITCH SHALL BE STORED AT A TEMPERATURE OF 70 ± 2 °C FOR 48 HOURS. THEN THE SWITCH SHALL BE MAINTAINED AT STANDARD ATMOSPHERIC CONDITIONS FOR 1 HOUR AFTER WHICH MEASUREMENT SHALL BE MADE. 开关放置在温度 70 ± 2 °C 中测试 48 小时后, 再放置正常室温中 1 小时来测定。 | THERE SHALL BE NO DEFORMATION OR CRACKS IN MOLDED PART. 外观无异常, 满足于机械、电器性能。 |
| 6.6 | HUMIDITY TEST 潮湿试验 | THE JACK SHALL BE STORED AT A TEMPERATURE OF 40 ± 2 °C AND A HUMIDITY OF 90% TO 95% FOR 96 HOURS. THEN THE SWITCH SHALL BE MAINTAINED AT STANDARD ATMOSPHERIC CONDITION FOR 1 HOUR PROCEDURES BE MADE. 放置 40 ± 2 °C 的相对湿度为 90%~95% 环境中 96 小时后, 再将样板放在正常环境 1 小时后进行测试。 | THERE SHALL BE NO DEFORMATION OR CRACKS IN MOLDED PART. 外观无异常, 满足于机械、电气性能。 |
| 7.0 | CONSERVATION TEMPERATURE 保存溫度 | THE SWITCHES' STORE CONDITIONS REQUIREMENT AND STORE TIME LIMIT: 1. THE SWITCHES PACKED IN THE CARTON BOARD BOXES AND WOODEN BOXES CAN BE TRANSPORTED BY ANY KINDS OF VEHICLES, BUT NEED AVOIDING BEING STRICKEN BY RAIN, SNOW AND MECHANISM. 2. THE SWITCHES SHOULD BE KEPT UNDER THE BELOW CONDITIONS: THE TEMPERATURE IS KEPT WITHIN THE LIMITS OF SUBZERO THEN DEGREE CENTIGRADE TO FORTY DEGREE CENTIGRADE; THE RELATIVE HUMIDITY SHOULD BE NOT MORE THAN EIGHTY PERCENT AND THERE IS NO ACID, ALKALI, SULFIDE, OZONE, ALKALINE AIR AND ANY OTHER POISONOUS GAS AROUND THE STOREHOUSE. 開關保存條件要求和期限: 1、裝有產品的紙箱或木箱允許用任何方法運輸, 唯需避免雨雪直接淋襲和機械撞擊。 2、產品應存放在環境為 $-10 \sim +40$ °C, 相對濕度不大於 80%, 周圍空氣不應有酸、堿、硫化物、臭氧、氨氣及其它對產品有害氣體的倉庫內。 | |
| 8.0 | CHINA OF ORIGIN 原產國 | MADE IN DONG GUAN CHINA. 中國東莞製造。 | |
| 9.0 | ROHS COMPLIANT 符合 RoHS 指令 | ON THE RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT, THE USE OF PROHIBITED SUBSTANCE IS LIMITED TO: (1) Cd <100ppm; (2) Pb, Hg, Cr(VI), PBB AND PBDE <1000ppm. (3) INCLUDE THE RANGE OF THAT RoHS RELEASE. 電子電氣設備中限制使用某種特定有害物質, 禁用物質允許最大含量值的 MCV: (1) Cd 為 <100ppm; (2) Pb, Hg, Cr(VI), PBB AND PBDE 為 <1000ppm. (3) 包括 RoHS 最新豁免的範圍。 | MEET THE ABOVE REQUIREMENT. 符合要求。 |