

Model No.	POS.1	POS.2	POS.3
3MD4	MOM	OFF	MOM
Term. Comm.	2-3,5-6	OPEN	2-1,5-4
SCHEMATIC			

SWITCH FUNCTION

克重 650 ± 100

RECOMMENDED MOUNTING

SOLDER LUG

SPECIFICATIONS

MECHANICAL LIFE: 30,000 make-and-break cycles.
CONTACT RESISTANCE: 10mΩ max. initial @ 2-4VDC
 100mA for both silver and gold plated contacts.
INSULATION RESISTANCE: 1,000MΩ min.
DIELECTRIC STRENGTH: 1,000 V RMS@sea level.
OPERATING TEMPERATURE: -30°C to 85°C.

MATERIALS

CASE: Dially phthalate (DAP) (UL94v-0).
ACTUATOR: Nylon, black std.
BUSHING: Brass, nickel plated.
HOUSING: Stainless Steel.
SWITCH SUPPORT: Brass, Tin plated.
TERMINAL/CONTACT: Brass, Silver or gold plated.

RATING :

R : 0.4 Volt-Amps(VA) max. @20V max.(AC or DC)
 Q : 2Amps @250VAC
 5Amps @120 VAC or 28 VDC

	符 號	原 尺 寸	修 改 後 尺 寸	變 更 日 期	SCALE (比例): 3 : 2 TOLERANCE (公差): 0.00 mm ± 0.25mm 0.0 mm ± 0.40mm ANGULAR : ± 2.54 mm FILE NAME :	TITLE 圖 名	Miniature Rocker & Paddle Switches			SIZE 圖 紙	A4
	Ⓐ					DWG NO. 圖 號				UNIT 單 位	inch mm
	Ⓑ					REV. 版 本	A	DATE 日 期	JUN - 28 - 2004	SHEET 張 數	1 of 1
	Ⓒ					CHECKED BY 審 核	RICHARD		DRAWN BY 製 圖	BLUE	
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1. Style

This specification describes "Miniature Rocker & Paddle Switches", mainly used as signal switch of electric devices, with the general requirements of mechanical and electrical characteristic.

Operating Temperature Range : -30 °C~+85°C.

2. Current Range:

2.1 Silver Plating Standard :

Plating		Rating
Q=Silver	Fixed Terminal : Silver plated over copper alloy. Movable contact : Silver plated over copper alloy.	5Amps @120VAC or 28VDC. 2Amps @250VAC.
C=Gold over silver	Fixed Terminal : Copper alloy with silver plated over gold plate. Movable contact : Copper alloy with silver plated over gold plate.	
S=Silver, tin-lead	Fixed Terminal : Copper alloy with silver plated ,tin-lead. Movable contact : Silver plated over copper alloy.	
K=Gold over silver tin-lead	Fixed Terminal : Copper alloy with silver plated over gold plate, tin-lead. Movable contact : Copper alloy with silver plated over gold plate.	

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2.2 Gold Plating Standard :

Plating		Rating
R=Gold	Fixed Terminal : Copper alloy with gold plate over nickel plate. Movable contact : Copper alloy with gold plate over nickel plate.	0.4 VA Max. @20VAC or DC Max.
G=Gold, tin-lead	Fixed Terminal : Copper alloy with gold plated over nickel plate, tin-lead. Movable contact : Copper alloy with gold plated over nickel plate.	

3.Type of Actuation: Miniature Rocker & Paddle Switches.

4. Test Sequence:

ELECTRIC PERFORMANCE	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	1	Visual Examination	By Visual Examination check without and out pressure & testing.	There shall be no defects that affect the serviceability of the product.
	2	Contact Resistance	@2-4VDC 100mA. For both silver and gold plated contacts.	10mΩ Max
	3	Insulation Resistance	Measurements shall be made following application of 1000 V/ DC 100mA potential across terminals and cover.	1000MΩ min/1000V
	4	Dielectric Withstanding Voltage	1500 VAC(50Hz or 60Hz) shall be applied across terminals and cover for 1 minute.	There shall be no breakdown or flashover.

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	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
MECHANICAL PERFORMANCE	5	Solder Heat Resistance	<p>■ Through Hole Type</p> <p>① Soldering Temperature: $260 \pm 5^{\circ}\text{C}$.</p> <p>② Duration of Solder Immersion: 5 ± 1 seconds</p> <p>③ Frequency of Soldering Process 2 times max.</p> <p>(PCB is 1.6mm in thickness)</p>	<p>① Shall be free from pronounced backlash and falling-off or breakage terminals</p> <p>② As shown in item 2-4.</p>
	6	Vibration	<p>Shall be vibrated in accordance with Method 201A of MIL-STD-202F</p> <p>① Frequency: 10-55-10Hz in 1-min/cycle.</p> <p>② Direction: 3 vertical directions including the directions of operation</p> <p>③ Test time: 2 hours each direction.</p>	As shown in item 2-4
	7	Shock	<p>Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F</p> <p>① Acceleration; 5kg</p> <p>② Action time: $11 \pm 1\text{m}$ seconds.</p> <p>③ Testing Direction: 6 sides.</p> <p>④ Test Cycle: 3 times in each direction.</p>	As shown in item 2-4
	8	Actuation Force	<p>MODEL-1305N MECHANICAL TEST</p> <p>500gram、1000gram、2000gram.</p>	At for test the force. Force: 300grams \pm 50 grams.
OPERATING LIFE	9	Operating Life	<p>Measurements shall be made following the test forth below:</p> <p>① 5A, 120VAC resistive load—silver plated. 0.4A, 20VAC resistive load—gold plated.</p> <p>② Rate of Operation: 6-8operation cycles per minute.</p> <p>③ Electronics Life Test: 6,000 cycles.</p> <p>④ Mechanical Life Test: 40,000 cycles.</p>	<p>① Contact Resistance: 10mΩ Max.</p> <p>② Insulation Resistance: 1000MΩ min.</p>

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HUMIDITY RESISTANCE

ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
10	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 hour before the measurements are made: ①Temperature:-40±3℃ ②Time:96 hours.	As shown in item 2~4.
11	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ①Temperature:85±2℃ ②Time:96 hours.	① As shown in item 3~4. ② Insulation Resistance: 100MΩ .
12	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ①Temperature:40±2℃ ②Relative Humidity:90~95% ③Time:96 hours.	①Contact Resistance: 10 mΩ Max. ② Insulation Resistance: 1000MΩ min.
13	The Salt Testing	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ①Temperature:35±2℃ ②The ratio of salt-water : 5% ③The spray amount of salt- water : 1~2 ml/h. ④ Time:48 hours.	The testing standard based on bubble, crack, And magnifying glass with gauge.

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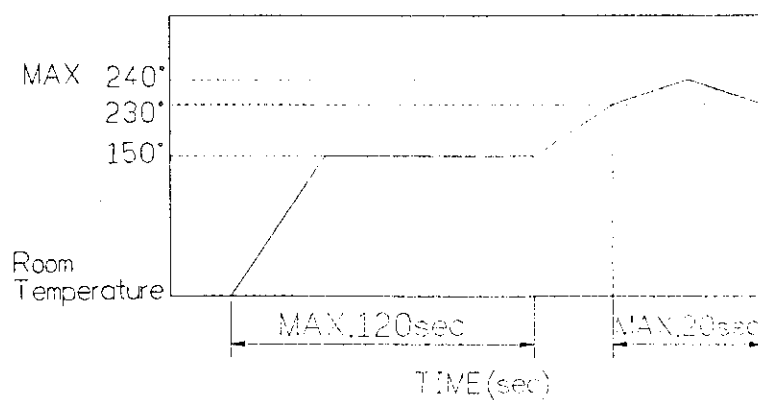
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5. SOLDERING CONDITIONS:

■ Automation Soldering



■ Manual Soldering

Soldering Temperature	Max. 350°C
Continuous Soldering Time	Max. 3 seconds

■ Precautions in Handling

Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.