



SPECIFICATION

DESCRIPTION	SLIDE SWITCH	DATE	MAY. 13, 98	WRT'T	CHK'D	APP'D
MODEL NO.	MSL-1245	PAGE	1 OF 4	Hyang		

1. GENERAL

1-1 Switch rating: dc 6 v. 0.3 A Max

1-2 operation temperature range: -10℃ ~ 60℃

1-3 Appearance and dimensions: See outside drawing page

1-4 Standard conditions : unless otherwise specified,the test and measurements shall be carried out as follows.

Ambient temperature: 5~35℃

Relative humidity:45~85% RH

Air pressure: 86~106kpa (860 ~ 1060mbar)

However,if doubt arises on the decision based on the measured values under the above-mentions,the following conditions shall be employed.

Ambient temperature: 20± 2℃

Relative humidity:65± 5% RH

Air pressure: 86~106kpa(86~ 1060 mbar)

2. PERFORMANCE

2-1 Electrical characteristics

	ITEMS	TEST CONDITIONS	AFTER TEST
2.1.1	Contact resistance	Applying a static load twice the actuating force to the center of stem,measurements shall be made with a 1 small-curren contact resistance meter.	<u>70</u> MΩmax
2.1.2	Insulation resistance	Measurements shall be made following application of DC V potential across terminals and frame for one minute.	<u>100</u> MΩ min
2.1.3	Dielectric withstandin voltage	AC V(50or 60)shall be applied across terminals and frame for one minute.	Three shall be no breakdown

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NO	ITEM	TEST CONDITIONS	PERFORMANCE	
2.2.1	Operation force	Gradually increasing the load applied to the center of maximum load required for the stem to come to a stop shall be measured.	Details are given in the assembly drawings.	
2.2.2	Travel	Applying a static load twice the actuating force to the center of the stem, the travel distance for the stem to come to a stop shall be measured.	Details are given in the assembly drawings.	
2.2.3	Stop strength	A static load of <u>2</u> kgf shall be applied in direction of stem operation for a period of <u>15</u> seconds	No damage (Electrical and mechanical)	
2.2.4	Stem strength	The maximum force to withstand a pull applied to the direction of stem operation shall be measured.	<u>1</u> kgf min	
2.2.5	Terminal strength	A force of gf being applied in one direction on the tip of the terminal for one minute and only one time to each terminal.	The terminal may be deformed but shall not sustain any trouble such as deviation and breaking of terminal and breaking of insulation material. Electrical performance shall be assured.	
2.2.6	Vibration test	1) Amplitude : 1.5mm 2) Sweep rate: 10-55-10Hz for 1 minute. 3) Sweep method: Logarithmic frequency sweep rate. 4) Vibration direction: X.Y.Z (3 directions) 5) Time: Each direction 2 hours (Total 6 hours)	No 2.1 and 2.2.1 to 2.2.2 shall be satisfied.	
2.2.7	Soldering heat test	Soldering area: $t/2$ of .B thickness (P.W.B: $t=1.6$) Soldering temperature: $260 \pm 5^{\circ}\text{C}$ Soldering time: 5 ± 1 sec	No damage (Electrical and mechanical)	

NO	ITEM	TEST CONDITIONS	PERFORMANCE
2.3.1	Cold tes	1)Temperature:-20±2℃ 2)Duration of test:96 hours 3)Take off a drop water 4)Standard condition after test:1 hours	Contact resistance : 140 MΩ max Insulation resistance :50 MΩ min (No2.3.1to2.3.4)
2.3.2	Heat test	1)Temperature:80 ±2℃ 2)Duration of test:96 hours 3)Standard condition after test:1 hour	:10 MΩ min (No2.3.3)
2.3.3	Humidity test	1)Temperature:60 ± 2℃ 2)Relative humidity:90 ~ 95% 3)Duration of test:96hours 4)Take off a drop water 5)Standard condition after test:1 hour	Withstanding voltage :250 Vac,1minute insulation unbroken Operating force: withen+10%, -30%of specification
2.3.4	Operating life test	1)DC5v,5mA Resistance load 2)Operation speed:15 ~20 cycless/mim 3)Push force:Maximum value of operation force 4)Cycle of operation:10.000 cycle	There a shall be no defects in appearance or in the mechanical fuctions.

3.SOLDERING

3.1 Auto soldering conditions

ITEM	CODITION
Preheat temperature	110℃ max(Environmental temperature of soldering surface of P.W.B)
Preheat time	60sec max
Area of fiux	1/2 max of P.W.B thickness
Temperature of solder	255℃max
Time of immersion	within 5 sec
Soldering number	within 2 times(but should bring down heat of the first soldering)
Printed wiring board	single sided copper-ciad laminates

- 1) After switches were soldered,please be careful not clean switches with solvent.
- 2) In the case of using soldering iron,soldering conditions shall be 280 max and 3 sec max.
- 3) After switches were soldered,please be careful not to load the knobs of switches.

3.2 Manual soldering conditions

Temperature :350 ± 10℃

time: 3+¹ sec max

3. SOLDERING

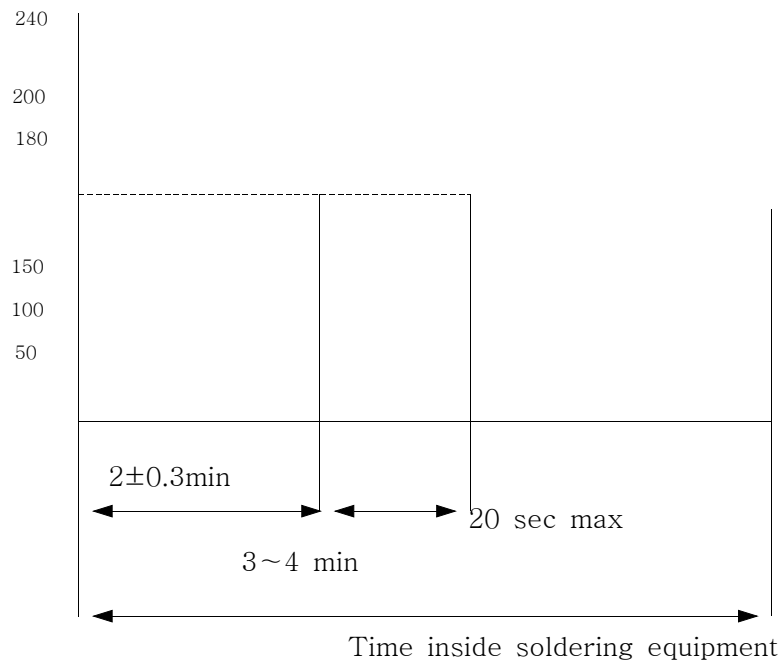
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Reflow soldering conditions

Preheat : Temperature on the copper foil surface should reach 180, 2 0.3 minutes
after the P.W.B entered into the soldering equipment.

Soldering heat : Temperature on the copper foil surface reach the peak temperature
of witch 20 seconds after the P.W.B entered into soldering heat zone.



Temperature Profile