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1. GENERAL MATTERS


- 1.1 Application: This specification is applied to low current circuit hook switch for electronic equipment
- 1.2 Operating temperature range : -20~70°C, 45~85% RH
- 1.3 Storage temperature range : -30~80°C, however 96 hours maximum for continuous storage over a range -20~30°C and a range 70~80°C
- 1.4 Test conditions :
- The standard test conditions shall be 5~35°C in temperature, 45~85% RH and 860~1060mbar in atmospheric pressure.
- Should any doubt arise in judgement, tests shall be conducted at 20±2°C, 65±5% RH and 860~1060 mbar.

2. RATED VOLTAGE AND CURRENT.

- 2.1 48V DC, 0.2A (with resistance and inductance)
- 2.2 Minimun : 1V DC 10μA

3. ELECTRICAL PERFORMANCE

	PROPERTY	TEST CONDITION	PERFORMANCE
3.1	Contact arrangement		2pole, 2throw
3.2	Contact resistance	Measured at 1A, 5V DC or by ohmmeter allowing a small current at 1 KHz with 200gf	Less than 100mΩ
3.3	Insulation resistance	DC 500V is applied between terminals and between terminals and earth for 1minute ±5seconds.	Greater than100MΩ
3.4	Voltage proof	AC 500V (50-60Hz) is applied between terminals and between terminals and earth for 1 minute.	No insulation defect shall be observed.
3.5	Bounce	Measured by lightly striking the center of the button stem at a rate of 3 operations / sec	Less than 10 sec

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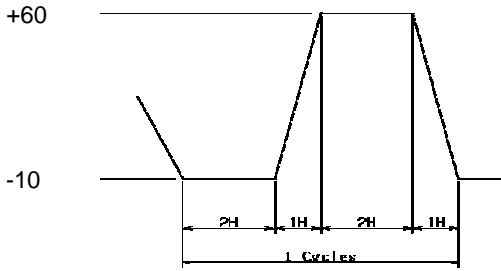
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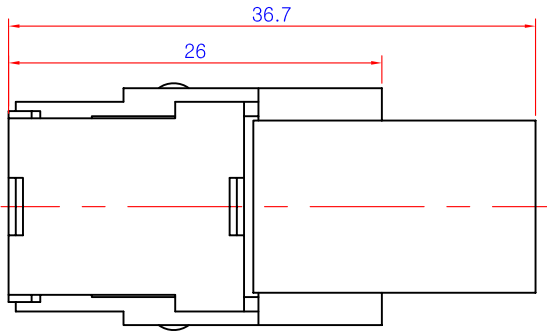
4. MECHANICAL PERFORMANCE

	PROPERTY	TEST CONDITION	PERFORMANCE
4.1	Operating force	A gradually increasing load is applied to the center of the button stem	As per drawing
4.2	Travel	A static force of 500gf is applied in one direction	As per drawing
4.3	Arrangement of action		Spring feed-back
4.4	Shock resistance	An impact load of 30g is applied according to the method 201, MIL-STD-202	The requirement in item 3 shall be met
4.5	Vibration resistance	The test is conducted according to the method 201, MIL-STD-202	The requirement in item 3 shall be satisfied without any degradation in both appearance

5. WEATHER PROOF

	PROPERTY	TEST CONDITION	PERFORMANCE
5.1	Cold heat proof	After testing at -20 ± 2 for 96hrs, the sample is allowed to stand under normal temperature and humidity conditions for 30 min and measurement is performed within 30 min after that, Water drops should be wiped off	* Contact resistance : 200m max * Operating force : within +10% - 30% initial value. * Insulation resistance : 10MΩ min * Withstanding voltage : 500V AC for 1 minute
5.2	Dry heat proof	After testing at 85 ± 2 for 96hrs, the the sample is allowed to stand under normal temperature for 30 min and measurement is performed within 30 min after that.	
5.3	Damp heat proof	After testing at 40 ± 2 and 90~95% in relative humidity for 96hrs, the sample is allowed to stand under normal temperature and humidity conditions for 30 min, and measurement is performed within 30 min after that. Water drops should be wiped off.	

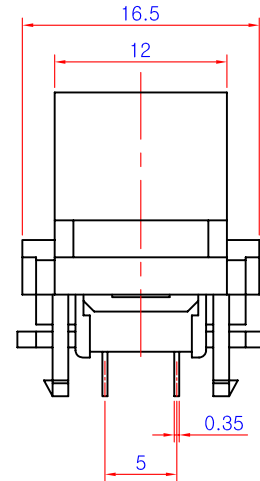
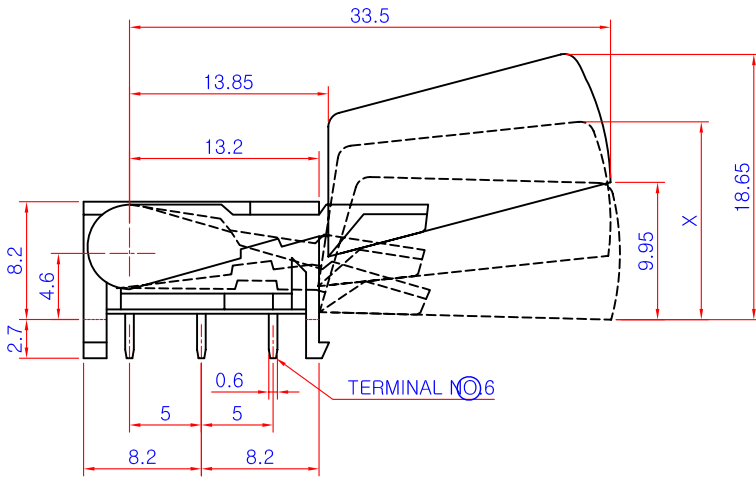
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	PROPERTY	TEST CONDITION	PERFORMANCE
5.4	Life test	300,000 cycles without load 100,000 cycles with 0.2A 48V DC resistive load	* Contact resistance : 200m max * Operating force : within +10% - 30% initial value. * Insulation resistance : 10MΩ min * Withstanding voltage : 500V AC for 1 minute
5.5	Thermal cycling	After test conducted under 5 cycles, the sample is allowed to stand under normal temperature and humidity conditions for for 1 hour, and the measurement is performed within 1 hour 	The requirement in item 2 shall be met
6. Soldering conditions			
	PROPERTY	TEST CONDITION	PERFORMANCE
6.1	Auto dip soldering	* Flux built-up : mounting surface should not be coated with flux * Preheating temperature : Ambient temperature of the soldered surface of PC bord 100 max * Preheating time : 45 sec max * Soldering temperature : 260 max * Continuous dipping time : 5 sec max * Number of soldering : 2 times max	
6.2	Manual soldering	* Soldering temperature : 350 max * Continuous soldering time : 3 sec max	



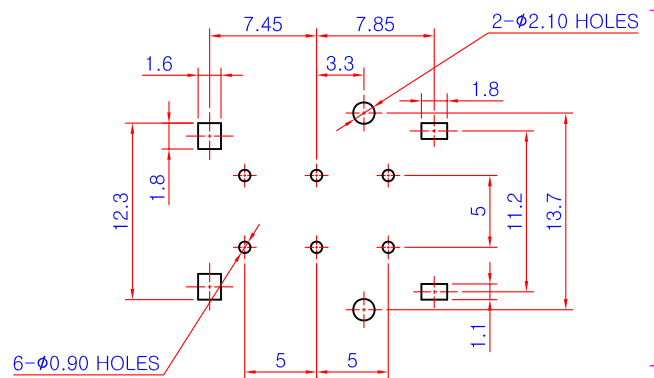
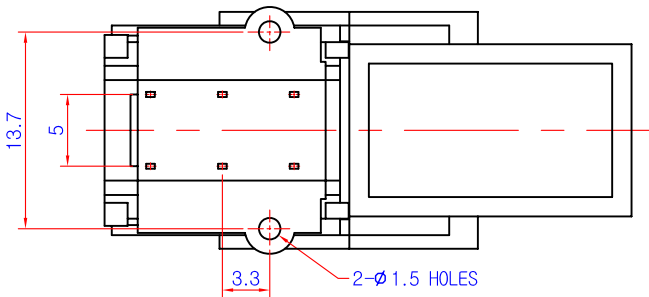
TIME LAG DIAGRAM

① ③	ON	OFF
② ③	OFF	ON
④ ⑥	ON	OFF
⑤ ⑥	OFF	ON

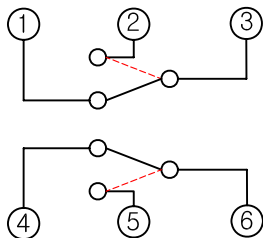
17.65 Max. 11 Min. (m/m)
TRAVEL POSITION (X)



P.C.B Mounting Dimensions



CIRCUIT DIAGRAM (VIEW "A")



* NOTES

1. RATING : 48V DC. 200mA
2. CIRCUIT : 2C - 2P
3. CONTACT RESISTANCE : 50mΩ MAX.
4. OPERATING FORCE : MAX 70gf

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MODEL NO : MH - 2240A

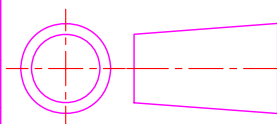
Kim jong pil

TITLE : HOOK S/W ASS"Y

SCALE : 2 : 1

FILE NO :

DATE : 2003 ,



MYUNGDO SYSTEM

DWG NO :