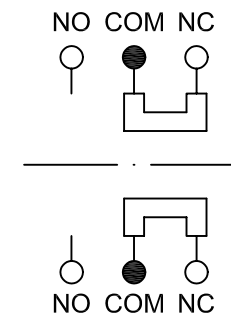
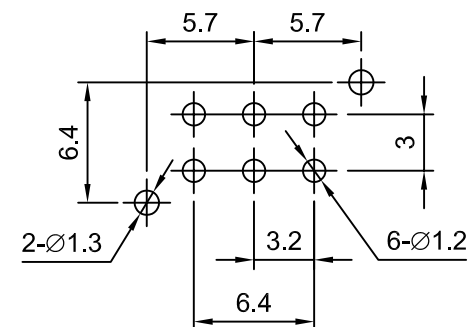


1. LOCK TYPE .
2. RATING : 50 V DC , 0.7 A .
3. CONTACT RESISTANCE : 50 mΩ MAX .
4. INSULATION RESISTANCE : 500 V DC , 100 MΩ MIN .
5. OPERATING FORCE : 200±150 gf (1P2T) , 300±150 gf (2P2T & 4P2T) .
6. OPERATING TEMPERATURE : -20°C ~ 70°C .
7. OPERATING LIFE : 10,000 CYCLES .

SCHEMATIC



P.C.B. LAYOUT



DIMENSION	TOLERANCE
BELOW 10mm	±0.3
10~100mm	±0.5
ABOVE 100mm	±0.8
ANGLE	±3°

△				DATE	DRAWN BY	CHECKED BY	APPROVAL BY
△				2006/04/04	REBECCA	KAVEN	FRANK
△				UNIT :	SKIAGRAPHY :		
SYM	DATE	DESCRIPTION	REV.	mm			

HUAI YANG CO., LTD.

TEL:(02) 8261-0858

TITLE :
M SERIES
MINI PUSH BUTTON
SWITCH

PART NO :
M-B2PL-10

DWG NO :
M-B2PL-10

HUAI YANG CO., LTD.
SPECIFICATIONS OF M SERIES
PUSH BUTTON SWITCHES

1. POLE - POSITION : 1P2T, 2P2T, 4P2T, MOMENTARY AND LOCK TYPE ARE AVAILABLE.

2. OPERATING TEMPERATURE RANGE : -20℃ ~ 70℃

3. RATING : 50V DC 0.7A

4. ELECTRICAL PERFORMANCE

	ITEM	TEST CONDITIONS	CRITERIA
4-1	CONTACT RESISTANCE	DC 1.5V 100mA, BY METHOD OF VOLTAGE DROP.	50 mΩ MAX.
4-2	INSULATION RESISTANCE	DC 500V	100 MΩ MIN.
4-3	DIELECTRIC STRENGTH	AC 500V FOR 1 MINUTE	BREAKDOWN IS NOT ALLOWABLE

5. MECHANICAL PERFORMANCE

	ITEM	TEST CONDITIONS	CRITERIA
5-1	OPERATING FORCE	1P2T 2P2T 4P2T	200±150gf 300±150gf 300±150gf
5-2	TRAVEL	LOCK TRAVEL	2.5 ± 0.3 mm
5-3	TIMING	NON-SHORTING TYPE	
5-4	ROBUSTNESS OF TERMINAL	ANY DIRECTION TO APPLY A STATIC LOAD 500gf AT END OF TERMINAL FOR 1 MINUTE. ONCE FOR A TERMINAL ONLY.	TERMINAL COULD BE BENT BUT LOOSENED TERMINAL OR BOARD BROKEN IS NOT ALLOWABLE.
5-5	ROBUSTNESS OF ACTUATOR	ALONG OPERATING DIRECTION TO APPLY A STATIC LOAD 5 Kgf AT END OF ACTUATOR FOR 1 MINUTE.	ACTUATOR BROKEN, DEFORMED OR ANY UNSUAL APPEARANCE OCCURRED ON SWITCH

			CONSTRUCTION IS NOT ALLOWABLE.
5-6	THE THRUST OF KNOB	TO ASSEMBLE THE KNOB TO THE RIGHT POSITION ON HEAD OF SWITCH ALONG THE OPERATION DIRECTION.	600gf MIN
5-7	SOLDERABILITY	260±5°C IN 3 SECONDS	SOLDER COVERAGE 75% Min.

6. RESISTANCE OF SOLDERING HEAT

6-1 MANUAL SOLDERING : 350±5°C IN 3 SECONDS.

6-2 DIP SOLDERING : 260±5°C IN 3 SECONDS.

7. OPERATING LIFE WITHOUT LOAD AFTER 10,000 CYCLES

7-1 CONTACT RESISTANCE : 100 mΩ MAX.

7-2 OPERATING FORCE : WITHIN THE RANGE ±30% OF SPECIFICATION.

7-3 INSULATION RESISTANCE : 500V DC 100MΩ MIN.

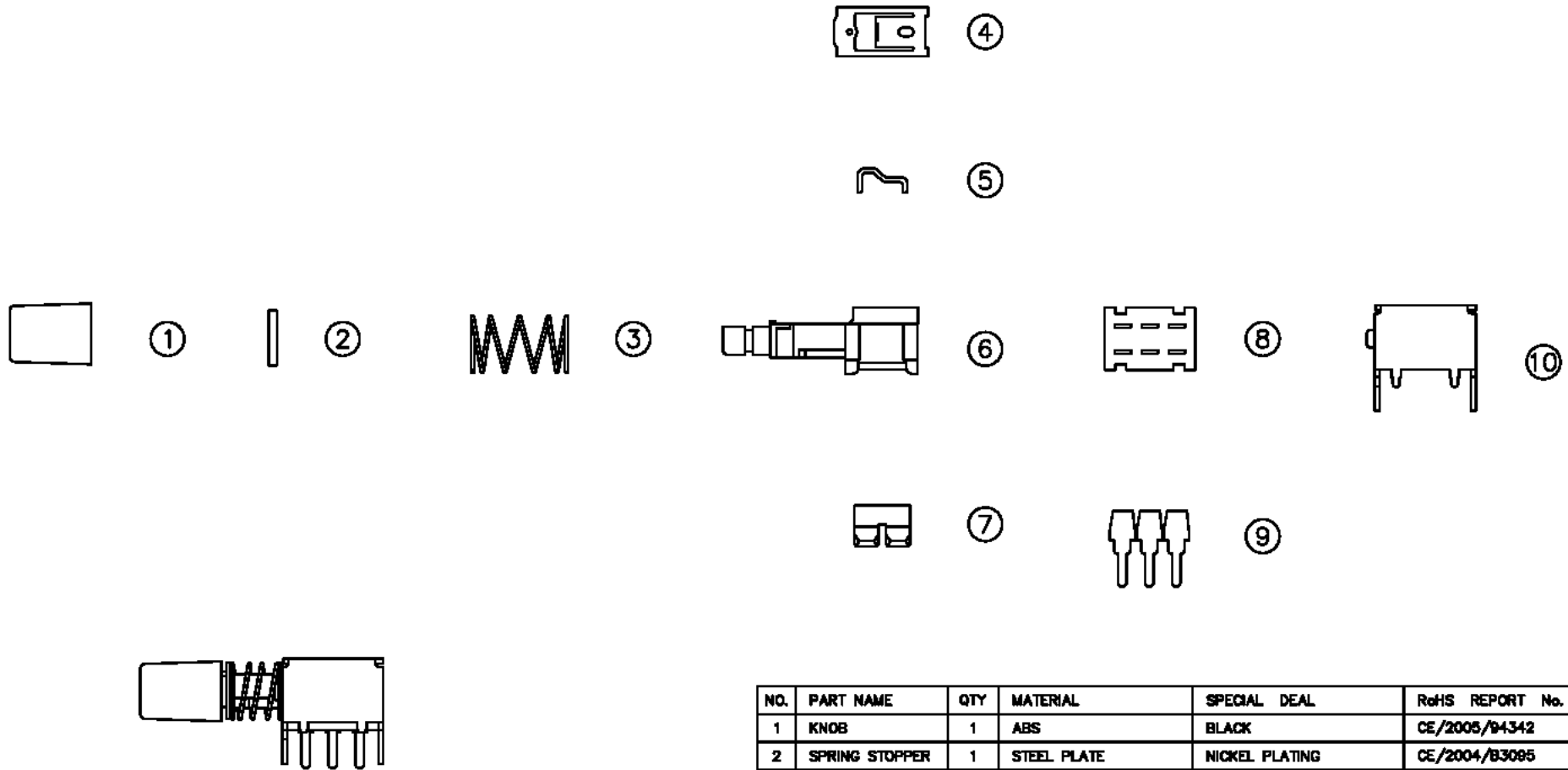
7-4 DIELECTRIC STRENGTH : 500V AC FOR 1 MINUTE, BREAKDOWN IS NOT ALLOWABLE.

8. ENVIRONMENTAL PERFORMANCE

	ITEM	TEST CONDITIONS	CRITERIA
8-1	COLD	-20±2°C FOR 96 HOURS	1. IT SHOULD MEET REQUIREMENTS OF ITEM 4. 2. MECHANICAL PERFORMANCE SHOULD REMAIN TO NORMAL.
8-2	DRY HEAT	70±2°C FOR 96 HOURS	1. CONTACT RESISTANCE SHALL BE LESS THAN 100 mΩ. 2. IT HAS TO MEET THE

			<p>REQUIREMENTS OF 4-2 AND 4-3.</p> <p>3. MECHANICAL PERFORMANCE SHOULD REMAIN TO NORMAL.</p>
8-3	DAMP HEAT	40°C±2°C 90% ~ 95%RH FOR 96 HOURS	<p>1. CONTACT RESISTANCE SHALL BE LESS THAN 100 mΩ.</p> <p>2. INSULATION RESISTANCE SHOULD BE HIGHER THAN 10 M Ω.</p> <p>3. DIELECTRIC STRENGTH SHOULD MEET THE REQUIREMENTS OF 4-3.</p> <p>4. MECHANICAL PERFORMANCE SHOULD REMAIN TO NORMAL.</p>

DIMENSION	TOLERANCE
BELOW 10 mm	± 0.3
10~100 mm	± 0.5
ABOVE 100 mm	± 0.8
ANGLE	± 3°



NO.	PART NAME	QTY	MATERIAL	SPECIAL DEAL	RoHS REPORT No.
1	KNOB	1	ABS	BLACK	CE/2005/94342
2	SPRING STOPPER	1	STEEL PLATE	NICKEL PLATING	CE/2004/83095
3	SPRING	1	STAINLESS STEEL		F880101/LF-CTS031178
4	SPRING PLATE	1	PHOSPHOR BRONZE		CE/2004/83192
5	LOCK PIN	1	PHOSPHOR BRONZE WIRE		CE/2004/84129
6	ACTUATOR	1	POM	YELLOW	CE/2004/85428A ; CE/2005/91875
7	CLIP	2	PHOSPHOR BRONZE	SILVER CLAD 0.5 μm	CE/2005/95608A
8	TERMINAL BOARD	1	P+CARBAMIDE	COFFEE	CE/2005/21653
9	TERMINAL	6	BRASS	SILVER PLATING 0.5 μm	SZTYR050514736-LP
10	FRAME	1	STEEL PLATE	TIN PLATING	CE/2005/11380 ; CE/2004/A2010

△					DATE	2006/11/22	UNIT	mm	MODE	PUSH BUTTON SWITCH
△					APPROVAL	KAVEN	SCALE	1 : 1	PART	M-82PL-10
△					CONFIRM	REBECCA	VIEW		2D FILE NAME	M-82PL-10
	DATE	APPROVAL	DESIGN	ENGINEERING CHANGE DESCRIPTION	DESIGN	LISHISONG	VER.	01	3D FILE NAME	

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