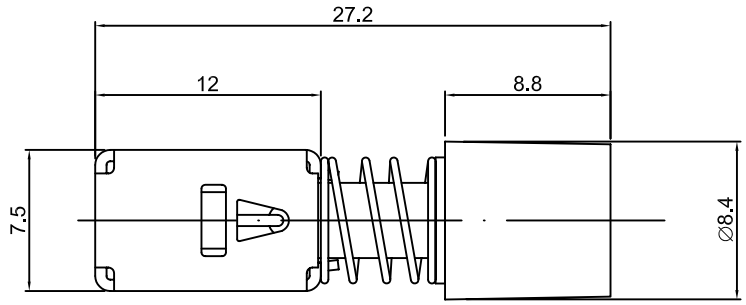
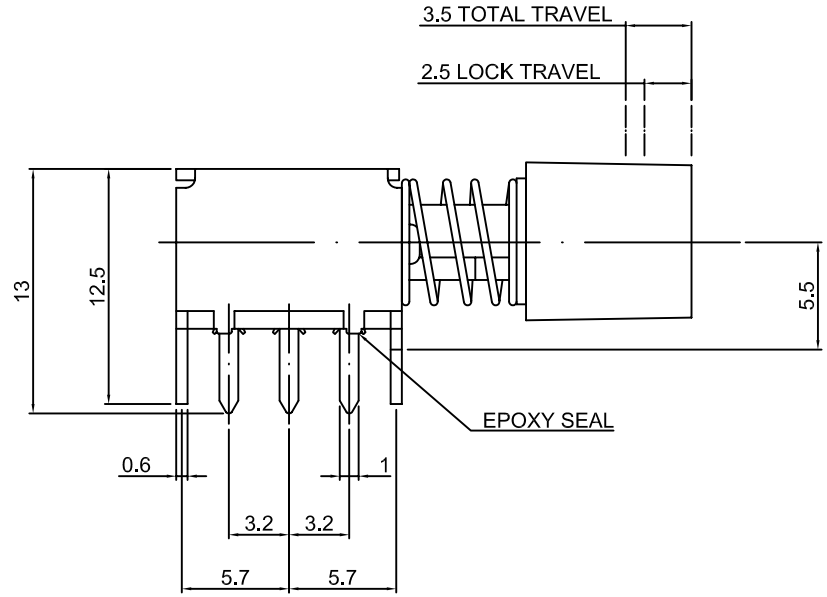
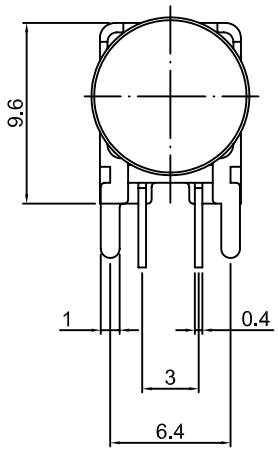
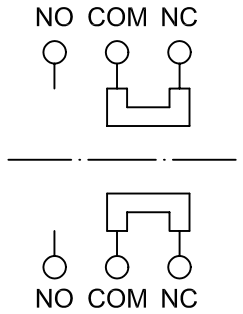


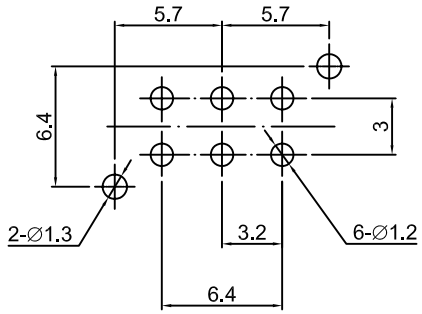




SCHEMATIC



P.C.B. LAYOUT



1. LOCK TYPE .
2. RATING : 30 V DC , 1 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℃ ~ 70℃ .
7. OPERATING LIFE : 10,000 CYCLES .

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

SYM	DATE	DESCRIPTION	REV.
△			
△			
△			

DATE	DRAWN BY	CHECKED BY	APPROVAL BY
2005/03/01	OWEN		

UNIT : mm

SKIAGRAPHY :

HUAI YANG CO., LTD.

TEL:(02) 8261-0858

TITLE : M SERIES MINI PUSH BUTTON SWITCH

PART NO :	DWG NO :
M-B2PL-20	M-B2PL-20

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：30V DC 1A

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	SOLDERABILITY	260±5℃ IN 3 SECONDS	SOLDER COVERAGE 75% Min.

6. RESISTANCE OF SOLDERING HEAT
   6-1 MANUAL SOLDERING：300℃ IN 3 SECONDS.
   6-2 DIP SOLDERING：260℃ IN 3 SECONDS.

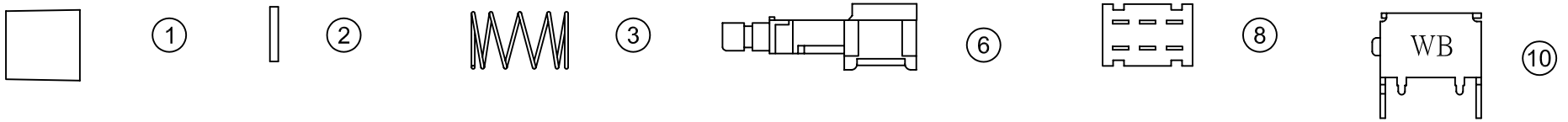
7. OPERATING LIFE WITHOUT LOAD AFTER 10,000 CYCLES
   7-1 CONTACT RESISTANCE：100 mΩ MAX.
   7-2 OPERATING FORCE：WITHIN THE RANGE ±30% OF SPECIFICATION.
   7-3 INSULATION RESISTANCE：500V DC 100MΩ MIN.
   7-4 DIELECTRIC STRENGTH：500V AC FOR 1 MINUTE, BREAKDOWN IS NOT ALLOWABLE.

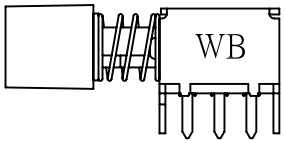
8. ENVIRONMENTAL PERFORMANCE

	ITEM	TEST CONDITIONS	CRITERIA
8-1	COLD	-20±2℃ FOR 96 HOURS	1. IT SHOULD MEET REQUIREMENTS OF ITEM 4. 2. MECHANINCAL PERFORMANCE SHOULD REMAIN TO NORMAL.
8-2	DRY HEAT	70±2℃ FOR 96 HOURS	1. CONTACT RESISTANCE SHALL BE LESS THAN 100 mΩ. 2. IT HAS TO MEET THE REQUIREMENTS OF 4-2 AND 4-3. 3. MECHANICAL PERFORMANCE SHOULD REMAIN

			TO NORMAL.
8-3	DAMP HEAT	40℃±2℃ 90% ~ 95%RH FOR 96 HOURS	1. CONTACT RESISTANCE SHALL BE LESS THAN 100 mΩ. 2. INSULATION RESISTANCE SHOULD BE HIGHER THAN 10 MΩ. 3. DIELECTRIC STRENGTH SHOULD MEET THE REQUIREMENTS OF 4-3. 4. MECHANICAL PERFORMANCE SHOULD REMAIN TO NORMAL.

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	PA66	BLACK	REFERENCE APPENDIX (BASF REPORT)
2	SPRING STOPPER	1	STEEL PLATE	NICKEL PLATING	CE/2004/B3095
3	SPRING	1	STAINLESS STEEL		F690101/LF-CTS031176
4	SPRING PLATE	1	PHOSPHOR BRONZE		CE/2004/63192
5	LOCK PIN	1	PHOSPHOR BRONZE WIRE		CE/2004/B4129
6	ACTUATOR	1	POM	YELLOW	CE/2004/B5428A ; CE/2005/91875
7	CLIP	2	PHOSPHOR BRONZE	SILVER CLAD	CE/2005/95608A
8	TERMINAL BOARD	1	P+CARBAMIDE	COFFEE	CE/2005/21653
9	TERMINAL	6	BRASS	SILVER PLATING	CE/2005/82737 ; GZSCR050423350/LP
10	FRAME	1	STEEL PLATE	TIN PLATING	SZTY050514737-LP

3					DATE	2007/01/23	UNIT	mm	MODE	PUSH BUTTON SWITCH	**HUAI YANG CO., LTD.**
2					APPROVAL	KAVEN	SCALE	1 : 1	PART	M-B2PL-20	
1					CONFIRM	REBECCA	VIEW		2D FILE NAME	M-B2PL-20	**TEL:(02) 8261-0858**
	DATE	APPROVAL	DESIGN	ENGINEERING CHANGE DESCRIPTION	DESIGN	LISHISONG	VER.	01	3D FILE NAME		