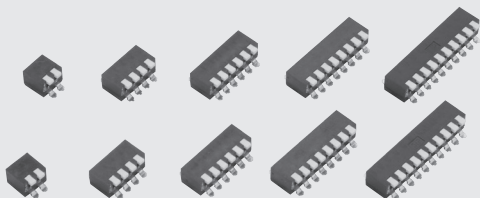


PIANO SWITCHES (FULL PITCH)

CYP

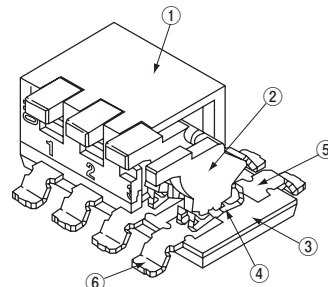
RoHS compliant



FEATURES

- Low profile design of 5 mm
- Excellent contact stability by twin gold-plated contact
- Washable type available by seal tape
- RoHS compliant
- Fine click action
- Resin material is UL Recognized 94V-0

INTERNAL STRUCTURE

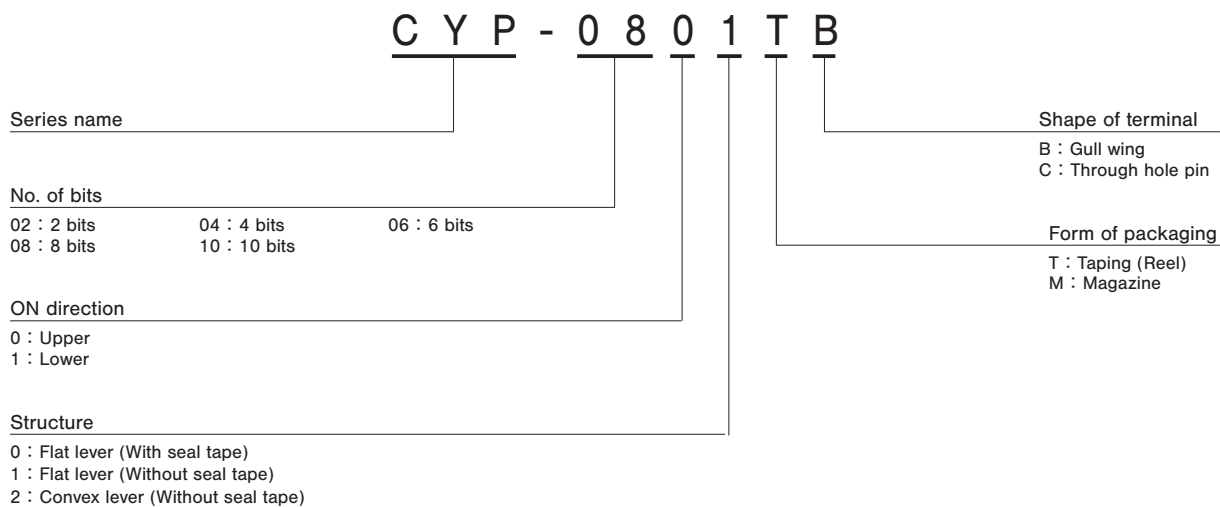


Part name		Material
①	Cover	Polyamide
②	Lever	
③	Base	
④	Slider contact	Copper alloy, Gold-plated
⑤	Fixed contact	
⑥	Terminal pin	

APPLICATIONS

- OA equipments, communication devices
- Measurement equipment, FA equipment

PART NUMBER DESIGNATION



※ Please refer to the LIST OF PART NUMBERS when placing orders.

CYP

PIANO SWITCHES (FULL PITCH)

LIST OF PART NUMBERS

No. of bits	ON direction	Form of packaging	Structure	Flat lever (Without seal tape)			Convex lever (Without seal tape)			Flat lever (With seal tape)			Packaging quantity
				B	Gull wing	C Through hole pin	B	Gull wing	C Through hole pin	B	Gull wing	C Through hole pin	
2	Upper	Taping		CYP-0201TB			CYP-0202TB			CYP-0200TB			700 pcs./reel
		Magazine		CYP-0201MB	CYP-0201MC		CYP-0202MB	CYP-0202MC		CYP-0200MB	CYP-0200MC		70 pcs./stick
	Lower	Taping		CYP-0211TB			CYP-0212TB			CYP-0210TB			700 pcs./reel
		Magazine		CYP-0211MB	CYP-0211MC		CYP-0212MB	CYP-0212MC		CYP-0210MB	CYP-0210MC		70 pcs./stick
4	Upper	Taping		CYP-0401TB			CYP-0402TB			CYP-0400TB			700 pcs./reel
		Magazine		CYP-0401MB	CYP-0401MC		CYP-0402MB	CYP-0402MC		CYP-0400MB	CYP-0400MC		40 pcs./stick
	Lower	Taping		CYP-0411TB			CYP-0412TB			CYP-0410TB			700 pcs./reel
		Magazine		CYP-0411MB	CYP-0411MC		CYP-0412MB	CYP-0412MC		CYP-0410MB	CYP-0410MC		40 pcs./stick
6	Upper	Taping		CYP-0601TB			CYP-0602TB			CYP-0600TB			700 pcs./reel
		Magazine		CYP-0601MB	CYP-0601MC		CYP-0602MB	CYP-0602MC		CYP-0600MB	CYP-0600MC		28 pcs./stick
	Lower	Taping		CYP-0611TB			CYP-0612TB			CYP-0610TB			700 pcs./reel
		Magazine		CYP-0611MB	CYP-0611MC		CYP-0612MB	CYP-0612MC		CYP-0610MB	CYP-0610MC		28 pcs./stick
8	Upper	Taping		CYP-0801TB			CYP-0802TB			CYP-0800TB			700 pcs./reel
		Magazine		CYP-0801MB	CYP-0801MC		CYP-0802MB	CYP-0802MC		CYP-0800MB	CYP-0800MC		20 pcs./stick
	Lower	Taping		CYP-0811TB			CYP-0812TB			CYP-0810TB			700 pcs./reel
		Magazine		CYP-0811MB	CYP-0811MC		CYP-0812MB	CYP-0812MC		CYP-0810MB	CYP-0810MC		20 pcs./stick
10	Upper	Taping		CYP-1001TB			CYP-1002TB			CYP-1000TB			700 pcs./reel
		Magazine		CYP-1001MB	CYP-1001MC		CYP-1002MB	CYP-1002MC		CYP-1000MB	CYP-1000MC		16 pcs./stick
	Lower	Taping		CYP-1011TB			CYP-1012TB			CYP-1010TB			700 pcs./reel
		Magazine		CYP-1011MB	CYP-1011MC		CYP-1012MB	CYP-1012MC		CYP-1010MB	CYP-1010MC		16 pcs./stick

STANDARD SPECIFICATIONS

Operating temp. range	- 40 ~ 85 °C
Storage temp. range	
Sealing	Washable type available with seal tape
Net weight	Approx. 0.28 g (CYP-02) Approx. 0.50 g (CYP-04) Approx. 0.73 g (CYP-06) Approx. 0.97 g (CYP-08) Approx. 1.16 g (CYP-10)

ELECTRICAL CHARACTERISTICS

Contact rating Non-switching Switching Minimum	DC50 V 100 mA DC6 V, 100 mA DC24 V, 25 mA DC20 mV 1 µA
Contact resistance	100 mΩ maximum
Insulation resistance	1000 MΩ (DC100 V) minimum
Dielectric strength	AC500 V, 60 s

MECHANICAL CHARACTERISTICS

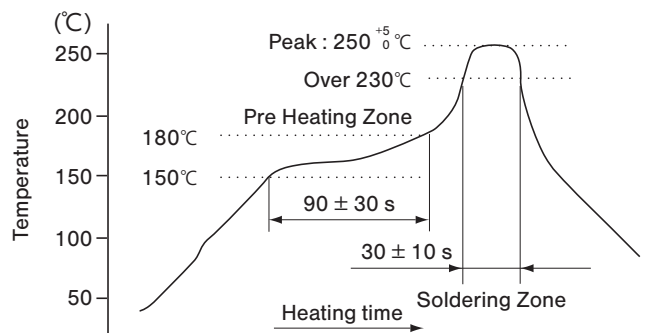
Operating force	0.3 ~ 5 N {0.03 ~ 0.51 kgf} maximum
Stop strength	8 N {0.82 kgf} 60 s
Solderability	245 ± 3 °C, 2 ~ 3 s
Soldering heat	Reflow : 255 °C (Peak temperature) Flow : 260 ± 3 °C, 5 ~ 6 s, two times maximum Please refer to the profile below)
	Manual soldering : 350 ± 10 °C, 3 ~ 4 s
Shear (Adhesion)	5 N {0.51 kgf} 10 s
Substrate bending	Width 90 mm, bend 3 mm, 5 s, 1 time
Pull-off strength	5 N {0.51 kgf} 10 s

{ } : Reference only

ENVIRONMENTAL CHARACTERISTICS

Vibration	(Amplitude) 1.5 mm or (Acceleration) 98 m/s ² , 10-500 Hz, 3 directions for 10 cycles each
Shock	490 m/s ² , 11 ms, 6 directions for 3 times each
Load life	Continuous load 1000 cycles, DC6 ± 0.5 V, 100 ± 10 mA
Humidity	-10 ~ 65 °C, Relative humidity 0 ~ 96 %, 24 h for 10 cycles
High temp. exposure	85 °C, 96 h
Low temp. exposure	-40 °C, 96 h
Thermal shock	-40 (0.5 h) ~ 85 °C (0.5 h), 5 cycles

◀Reflow profile for soldering heat evaluation▶

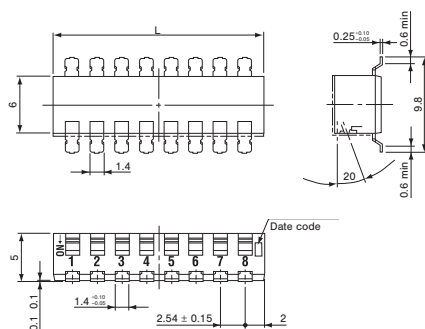


Reflow : two times maximum

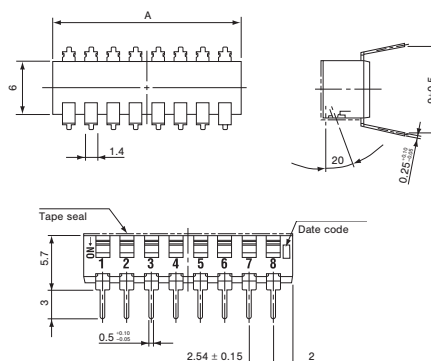
■ OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.3 (Unit : mm)

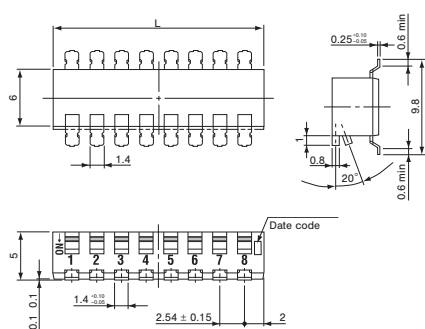
● Flat lever, Gull wing



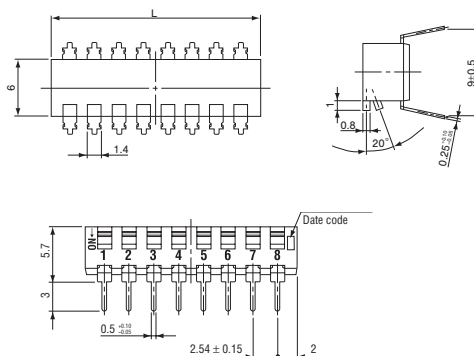
● Flat lever, Through hole pin



● Convex lever, Gull wing



● Convex lever, Through hole pin



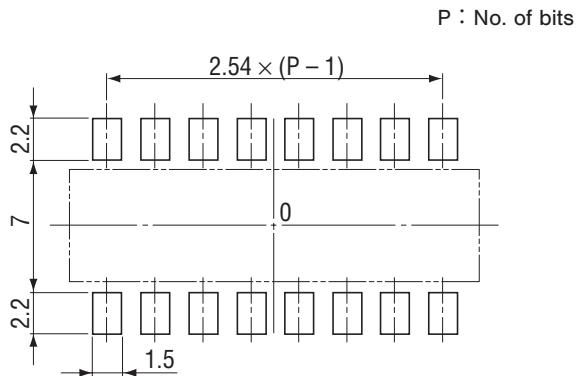
Part number	Schematic	No. of bits	L dimension
CYP-02		2	6.48
CYP-04		4	11.56
CYP-06		6	16.64
CYP-08		8	21.72
CYP-010		10	26.8

CYP

PIANO SWITCHES (FULL PITCH)

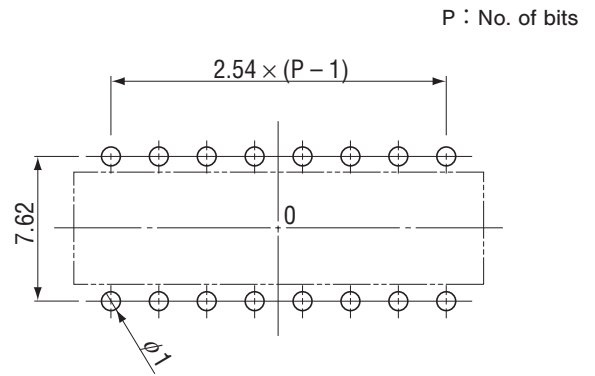
RECOMMENDED P.C.B. PAD DIMENSIONS

(Unit : mm)



SIZE OF P.C.B. PROCESSING

(Unit : mm)

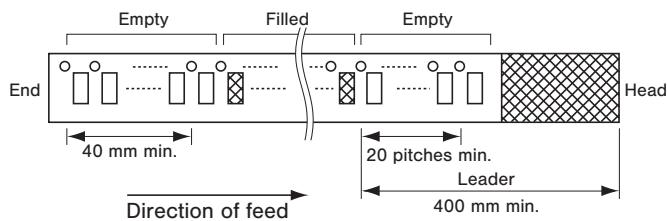


PACKAGING SPECIFICATIONS

<Taping packaging specifications>

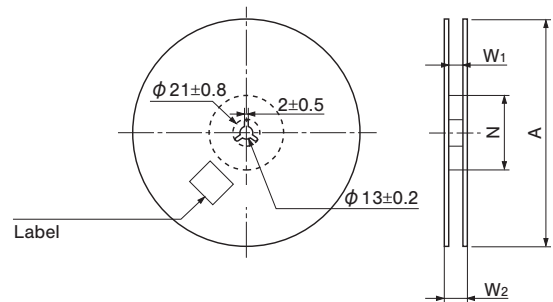
- Taping version is packaged in 700 pcs. per reel. Orders will be accepted for units of 700 pcs., i.e., 700, 1400, 2100 pcs., etc.
- Taping version is boxed with 1 reel.
Maximum number of consecutive missing pieces = 2
Leader length and reel dimension are shown in the diagrams below:

● Embossed tape dimensions



● Reel dimensions

(Unit: mm)

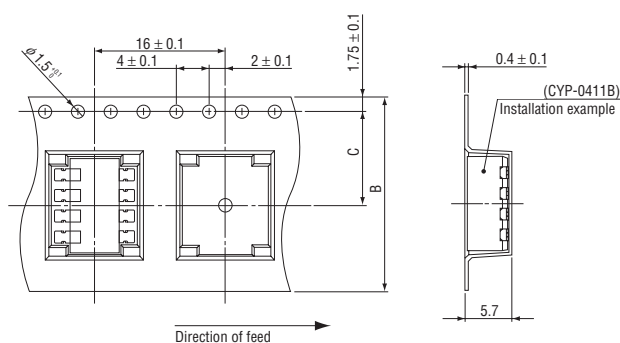


(Unit: mm)

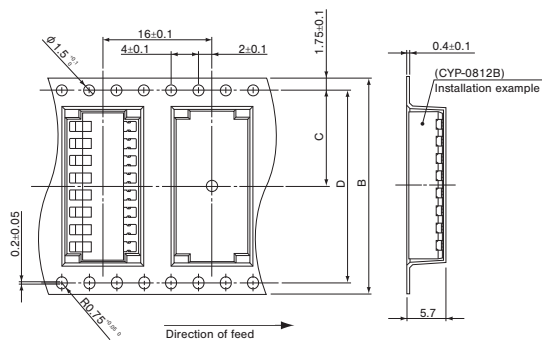
No. of bits	A	W1	W2	N
2	$\phi 330 \pm 2$	25.4 ± 1	29.4 ± 1	$\phi 80 \pm 1$
4		25.4 ± 1	29.4 ± 1	
6		33.4 ± 1	37.4 ± 1	
8		45.4 ± 1	49.4 ± 1	
10		45.4 ± 1	49.4 ± 1	

Unless otherwise specified, tolerance : ± 0.3 (Unit : mm)

● 2 bits, 4 bits, 6 bits



● 8 bits, 10 bits



(Unit: mm)

No. of bits	B	C	D
2	16	7.5 ± 0.1	—
4	24	11.5 ± 0.1	
6			
8	32	14.2 ± 0.1	28.4 ± 0.1
10	42	20.2 ± 0.1	40.4 ± 0.1

<Magazine packaging specifications>

- Packing quantities of magazines are different depending on the bit number of the switches.

Please order the multiple numbers of the specific packing quantities. (e.g. 70 pcs., 140 pcs., 210 pcs., etc., in case of 2 bits version)

Pieces in package : 2 bits, 70 pcs./stick
 4 bits, 40 pcs./stick
 6 bits, 28 pcs./stick
 8 bits, 20 pcs./stick
 10 bits, 16 pcs./stick