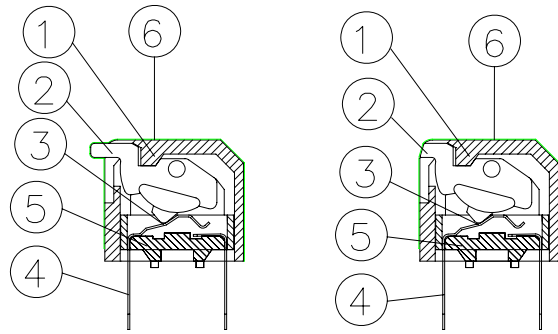


ITEM	DESC.	Q'TY	MATERIALS	TREATMENT	REMARK
1.	COVER	1	THERMOPLASTIC PBT UL 94V-0	MOLDED RED (OR BLUE, BLACK)	-
2.	ACTUATOR	-	THERMOPLASTIC PBT UL 94V-0	MOLDED WHITE	-
3.	CONTACT	-	Be-BRONZE	GOLD PLATED	-
4.	TERMINAL	-	PHOSPHOR BRONZE	GOLD PLATED	-
5.	BASE	1	THERMOPLASTIC PBT UL 94V-0	MOLDED BLACK	-
6.	TAPE	1	BLENDED SILICONE AND RUBBER	-	-



DPL TYPE

DP TYPE

① Prod. No. : DP - - - - V - (Be)

Actuator Type: _____

- = Short Key.
- L = Long Key.

Number Of Position: _____

- 02 = 2 Position .
- 03 = 3 Position .
- 04 = 4 Position .
- 05 = 5 Position .
- 06 = 6 Position .
- 07 = 7 Position .
- 08 = 8 Position .
- 09 = 9 Position .
- 10 = 10 Position .
- 12 = 12 Position .

Package Style:

- = Tube

Soldering:
V=Lead Free

Seal:

- = Regular
- T= Top Tape Sealed
- = Push Down "ON"
- U = Push Down "OFF"

Color Of Cover:

- = Red
- B= Blue
- K= Black

D		
C		
B		
A	DWG.REL	
REV.	ECO. NO.	APPD.

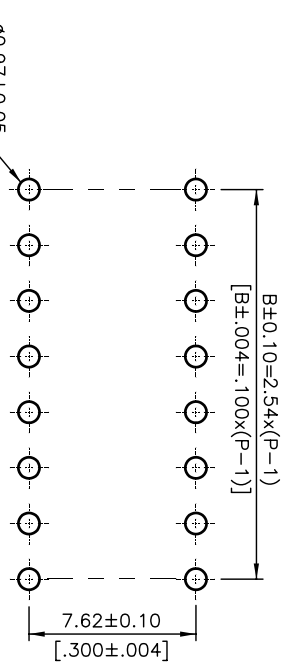
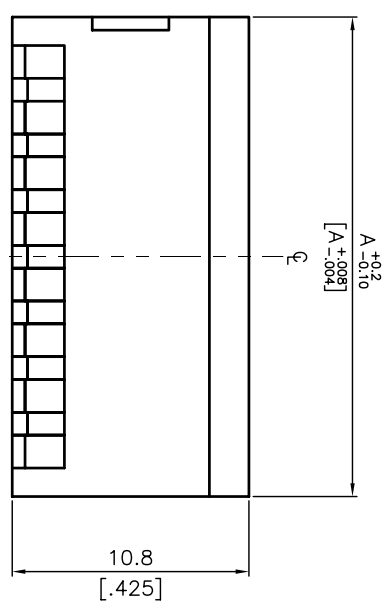
TITLE: PIANO TYPE DIP SWITCHES		APPD. :
PRROD. NO. :DP,DPL-0000-0-V		CHKD. :
FILE NO. : E-V-CD03		PR. :
REV : A	SHEET : 1 of 1	

1 2 3 4 5 6 7 8 9 10

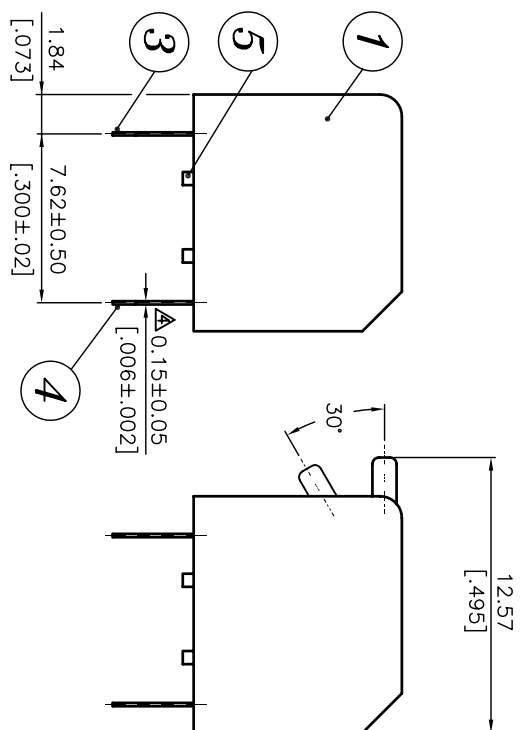
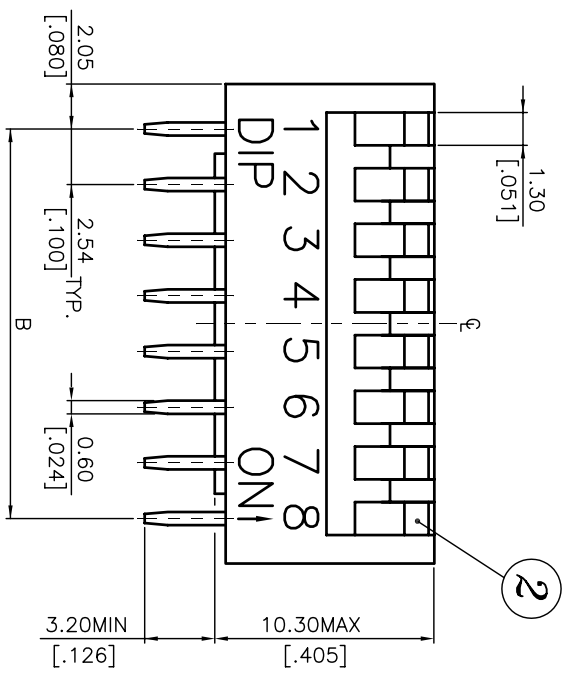
NOTE: 1. ALL DIMENSIONS ARE IN MILLIMETERS, BRACKETED DIMENSIONS ARE IN INCHES.

2. GENERAL TOLERANCES: 10mm OVER - ±0.20mm. 10mm BELOW - ±0.10mm.

3. MATERIAL: SEE PAGE 3 OF 3.



P.C.B. LAYOUT

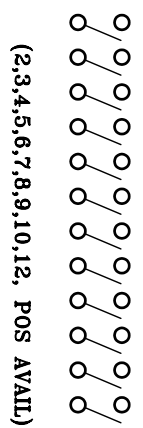


DP SERIES

DPL SERIES

PROD. NO.	NO. OF POS.	DIM. A	DIM. B
DP -12 U	12	32.04[1.261]	27.94[1.100]
DPL-12 U	12	32.04[1.261]	27.94[1.100]
DP -10 U	10	26.96[1.061]	22.86[.900]
DPL-10 U	10	26.96[1.061]	22.86[.900]
DP -09 U	9	24.42[.961]	20.32[.800]
DPL-09 U	9	24.42[.961]	20.32[.800]
DP -08 U	8	21.88[.861]	17.78[.700]
DPL-08 U	8	21.88[.861]	17.78[.700]
DP -07 U	7	19.34[.761]	15.24[.600]
DPL-07 U	7	19.34[.761]	15.24[.600]
DP -06 U	6	16.80[.661]	12.70[.500]
DPL-06 U	6	16.80[.661]	12.70[.500]
DP -05 U	5	14.26[.561]	10.16[.400]
DPL-05 U	5	14.26[.561]	10.16[.400]
DP -04 U	4	11.72[.461]	7.62[.300]
DPL-04 U	4	11.72[.461]	7.62[.300]
DP -03 U	3	9.18[.361]	5.08[.200]
DPL-03 U	3	9.18[.361]	5.08[.200]
DP -02 U	2	6.64[.261]	2.54[.100]
DPL-02 U	2	6.64[.261]	2.54[.100]

SCHEMATIC(TYP.)



ZONE	REV.	DESCRIPTION	DATE	APPD.
Δ				
Δ				
Δ	A	DWG. REE.	08.17.08	

APPD:	QTY:	SCALE:	4 : 1	PART NO.:	DP - □ □ U - V	MAT'L:		PART NAME:	PLANO TYPE DIP SWITCH
CHKD:	SCALE:	UNITS:	mm	REV:	A	FINISH:		DWG NO.:	R D 2 P 8 U - V
DR:	DESIGN:			DIPTRONICS MANUFACTURING INC.		圓達實業股份有限公司			

DP(L) SPECIFICATION

FILE No. : E-B-AD03
 REV. : D
 Page : 1 / 3

1. Style:

This specification describes "DUAL IN-LINE PACKAGE SWITCHES" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating Temperature Range : -20°C ~ +70°C

1.2 Storage Temperature Range : -40°C ~ +85°C

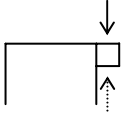
2. Current Range:

2.1 Non-Switching : 100mA, 50V DC

2.2 Switching : 25mA, 24V DC

3. Type of Actuation: Actuated by sliding

4. Test Sequence :

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
ELECTRIC PERFORMANCE	1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product.
	2	Contact Resistance	①To be measured between the two terminals associated with each switch pole. ②Measurements shall be made with a 1kHz shall current contact resistance meter.	50mΩ max. (initial)
	3	Insulation Resistance	500V DC, 1 minute ± 5 sec.	100MΩ min.
	4	Dielectric withstanding Voltage	500V AC (50Hz or 60 Hz) shall be applied between all the adjacent terminals and between the terminal and the frame for 1 minute.	There shall be no breakdown or flashover
	5	Capacitance	1 MHz ± 10 kHz	5 pF max.
MECHANICAL PERFORMANCE	6	Operation Force	Applied in the direction of operation. ON→OFF OFF→ON 	400gf max (3.92N max)

DP(L) SPECIFICATION

FILE No. : E-B-AD03
 REV. : D
 Page : 2 / 3

MECHANICAL PERFORMANCE	7	Stop Strength	A static load of 1 kgf is applied in the operating direction and pulling direction operated for a period of 15 seconds.	There shall be no sign of damage mechanically	
	8	Soldering Heat Resistance	1.Soldering Temperature :		As shown in item 2~6
			TEMP	TIME	
			260°C±5°C	5±1 sec.	
	8	Soldering Heat Resistance	2.Duration of Solder Immersion: 5±1 sec.		As shown in item 2~6
			3.Frequency of Soldering Process: 2 times max. (PCB is 1.6mm in thickness.)		
2.Duration of Solder Immersion: 5±1 sec.					
9	Vibration	Shall be vibrated in accordance with Method 201A of MIL-STD-202F ①Frequency: 10-55-10 Hz 1 min/cycle. ②Direction: 3 vertical directions including the direction of operation. ③Test Time: 2 hours each direction.	As shown in item 2~6		
10	Shock	Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F ①Acceleration: 50G. ②Action Time : 11 ± 1 m sec. ③Testing Direction: 6 sides. ④Test cycle : 3 times in each direction	As shown in item 2~6		
11	Solderability	①Soldering Temperature:230±5°C ②Flux: 5-10 seconds. ③Duration of solder Immersion: 3±0.5 sec.	No anti-soldering and the coverage of dipping into solder must more than 75% was requested.		
DURABILITY	12	Operation Life	Measurements shall be made following the test set forth below: ①25 mA, 24V DC resistive load ②Rate of Operation: 15~20 cycles/minute ③Cycle of Operation: 2000 cycles.	①As shown in item 3,4 ②Contact Resistance: 100mΩ max. (final-after test)	

DP(L) SPECIFICATION

FILE No. : E-B-AD03
 REV. : D
 Page : 3 / 3

WEATHER-PROOF	13	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : ①Temperature : $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ ②Time: 96 hours	As shown in item 2~6
	14	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : ①Temperature : $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ②Time: 96 hours	1.As shown in item 3~6 2.Contact Resistance: 100mΩ max.
	15	Humidity Resistance	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made : ①Temperature : $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ②Relative Humidity :90~95% ③Time: 96 hours	1 As shown in item 4,6 2 Contact Resistance: 100mΩ max. 3 Insulation Resistance : 10MΩ min.

5. SOLDERING CONDITIONS:

■ Manual Soldering

Soldering Temperature	Max.350°C
Continuous Soldering Time	Max. 3 seconds

■ Precautions in Handling

- Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
- Don't clean the switch body except with top tape sealed type, which can only spray of cleaning method from top of s/w.
- Please make sure that there is no flux rose over the surface of the PCB