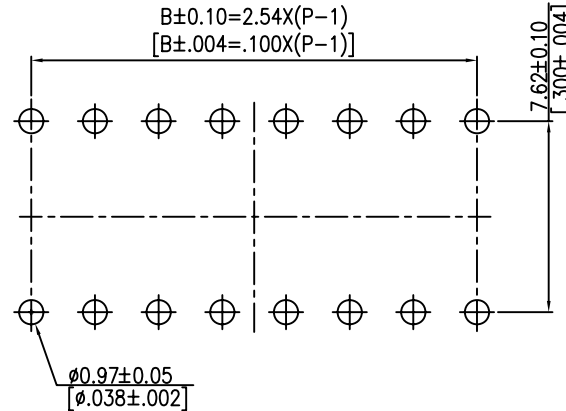
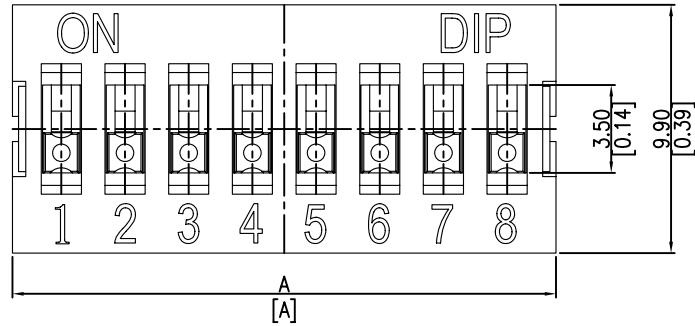


- NOTE:**
1. ALL DIMENSIONS ARE IN MILLIMETERS, BRACKETED DIMENSIONS ARE IN INCHES.
 2. GENERAL TOLERANCES: 10mm OVER - ± 0.20 mm.
10mm BELOW - ± 0.10 mm.
 3. MATERIAL: SEE PAGE 3 OF 3.
 4. This product is lead Free.

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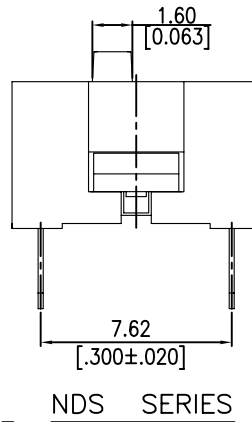
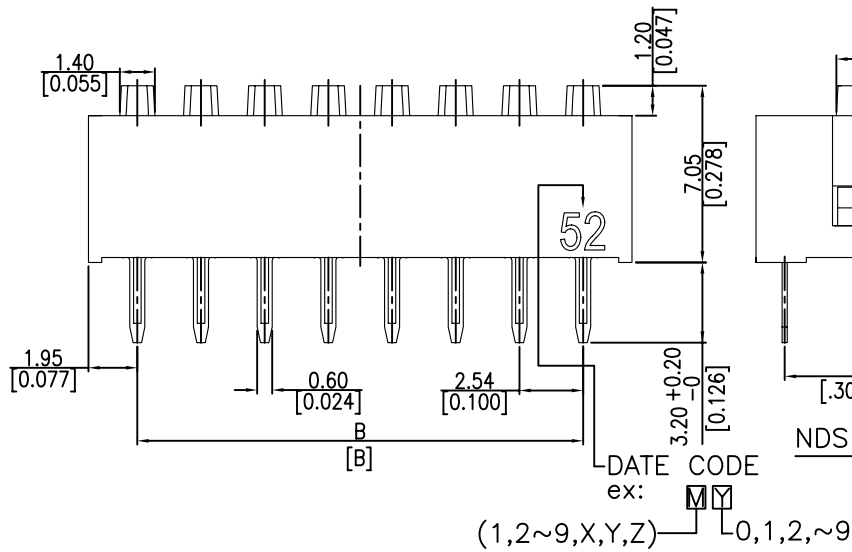
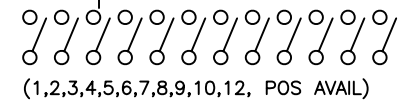
附表A



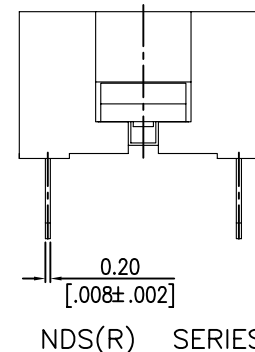
P.C.B. LAYOUT

NDS(R)-12-V	12	31.84[1.254]	27.94[1.100]
NDS(R)-10-V	10	26.76[1.054]	22.86[.900]
NDS(R)-09-V	9	24.22[.954]	20.32[.800]
NDS(R)-08-V	8	21.68[.854]	17.78[.700]
NDS(R)-07-V	7	19.14[.754]	15.24[.600]
NDS(R)-06-V	6	16.60[.654]	12.70[.500]
NDS(R)-05-V	5	14.06[.554]	10.16[.400]
NDS(R)-04-V	4	11.52[.454]	7.62[.300]
NDS(R)-03-V	3	8.98[.354]	5.08[.200]
NDS(R)-02-V	2	6.44[.254]	2.54[.100]
NDS(R)-01-V	1	3.90[.154]	-
PROD. NO.	NO. OF POS.	DIM. A	DIM. B

SCHEMATIC(TYP.)



NDS SERIES

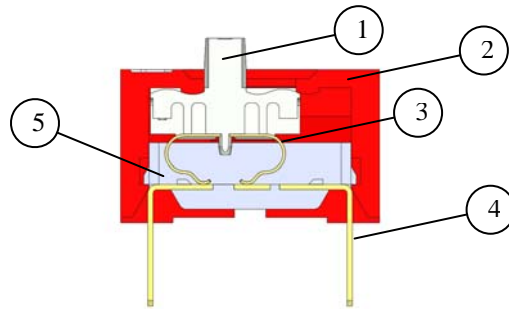


NDS(R) SERIES

ZONE	REV.	DESCRIPTION	DATE	APPD.
A		DWG REL.	2012.07.19	

APPD:	Q'TY:	達實業股份有限公司 DIPTRONICS MANUFACTURING INC.	PART NAME:	SLIDE TYPE DIP SWITCH
CHKD:	SCALE: 1:5		DWG NO:	RD1P2-9
DR: 屈君	REV: A	UNITS: mm	PART NO:	參考附表A
DESIGN: 屈君			MAT'L:	
			FINISH:	

ITEM	DESC.	Q'TY	MATERIALS	TREATMENT	REMARK
1.	ACTUATOR		THERMOPLASTIC PBT UL 94V-0	WHITE	
2.	COVER	1	THERMOPLASTIC PBT UL 94V-0	RED	
3.	CONTACT		PHOSPHOR BRONZE	GOLD PLATED	
4.	TERMINAL		BRONZE	GOLD PLATED	
5.	BASE	1	THERMOPLASTIC PA66 UL 94V-0	BLACK	



REMARK:

① PROD. NO.: NDS □ - □ □ □ - □ - V

Actuator Type:

□ = Raised Actuator

R = Recessed Actuator

Number Of Position :

- 01 = 1 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 .

Lead Free Solderable

Seal:

□ = Regular

T = Top Tape Sealed

Color of Cover:

□ = Red

B = Blue

K = Black

B	依工變 13039	
A	DWG.REL	邱明義
REV.	ECO. NO.	APPD.

TITLE :	SLIDE TYPE DIP SWITCHES	APPD. :
PRROD.NO.:NDS(R)-□□□-□-V		CHKD. :
FILE NO.: E-V-CD21		PR. : JUAN
		REV : B SHEET :1of1



NDS(R)-V SPECIFICATION

FILE No. : E-V-AD18
 REV. : A
 Page : 1 / 4

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 : -40°C ~ +85°C

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

1.3 The shelf life of product is within 6 months.

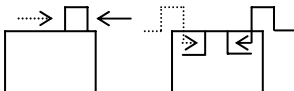
2. Current Range:

2.1 Non-Switching : 100mA, 50V DC

2.2 Switching : 25mA, 24V DC

3. Type of Actuation: Actuated by sliding

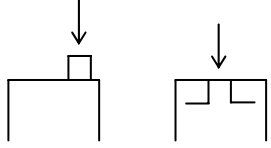
4. Test Sequence :

	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 	1000gf Max (9.8N Max)



NDS(R)-V SPECIFICATION

FILE No. : E-V-AD18
 REV. : A
 Page : 2 / 4

MECHANICAL PERFORMANCE	7	Stop Strength	<p>A static load of 1 kgf (9.8N) is applied in the operating direction and pulling direction operated for a period of 15 seconds.</p> <p>A static load of 5 kgf (49N) to apply on stem top position for a period of 15 seconds.</p> 	<p>There shall be no sign of damage mechanically</p> <p>There shall be no sign of electrical function out of order or damage.</p>	
	8	Soldering Heat Resistance	Soldering Temperature :	As shown in item 2~6	
			TEMP		TIME
			260°C±5°C		5±1 sec.
	(PCB is 1.6mm in thickness.)				
9	Vibration	<p>Shall be vibrated in accordance with Method 201A of MIL-STD-202F</p> <p>①Frequency: 10-55-10 Hz 1 min/cycle.</p> <p>②Direction: 3 vertical directions including the direction of operation.</p> <p>③Test Time: 2 hours each direction.</p>	As shown in item 2~6		
10	Shock	<p>Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F</p> <p>①Acceleration: 50G.</p> <p>②Action Time : 11 ± 1 m sec.</p> <p>③Testing Direction: 6 sides.</p> <p>④Test cycle : 3 times in each direction</p>	As shown in item 2~6		
11	Solderability	<p>①NDS(R)-V Soldering Temperature:245±3°C Lead-Free solder : M705E JIS Z 3282 Class A (Tin 96.5% , Silver 3% , Copper 0.5%)</p> <p>②Flux: 5-10 seconds.</p> <p>③Duration of solder Immersion: 5±1 sec.</p>	No anti-soldering and the coverage of dipping into solder must more than 75% was requested.		
DURABILITY	12	Operation Life	<p>Measurements shall be made following the test set forth below:</p> <p>①25 mA, 24V DC resistive load</p> <p>②Rate of Operation: 15~20 cycles/ minute</p> <p>③Cycle of Operation: 2000 cycles.</p>	<p>① As shown in item 3,4</p> <p>②Contact Resistance: 100mΩ Max. (final-after test)</p>	



NDS(R)-V SPECIFICATION

FILE No. : E-V-AD18
 REV. : A
 Page : 3 / 4

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	①As shown in item 3~6 ②Contact Resistance: 100mΩ Max.
	15	Resistance Humidity	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	①As shown in item 4,6 ②Contact Resistance: 100mΩ Max. ③Insulation Resistance : 10MΩ Min.

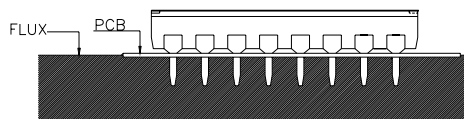
5. SOLDERING CONDITIONS:

■ Manual Soldering

Soldering Temperature	Max.350°C
Continuous Soldering Time	Max. 5 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.
- Must set all poles of switch in "OFF" position when high temp of soldering, re-soldering...etc. In case careless to set in "ON" position for about processing will cause operation force decreasing & contact resistance increasing.
- Please make sure that there is no flux rose over the surface of the PCB





■ Notes on storage conditions:

Do not store in the following environment or it may affect product's function and solderability:

1. temperature of -10 (max) ~ +40 (min) °C & humidity at 85% (min)
2. environment with corrosive gas
3. storage over 6 months
4. place of direct sunlight

Store with proper packaging conditions and to avoid loading heavy force

We suggest to use the products within 3 months or at least 6 months.

After opening the package, the rest products must be stored in the appropriate moisture-proof & airtight environment