

# DPU/T SERIES

A-25-31

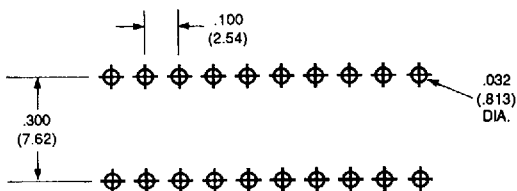
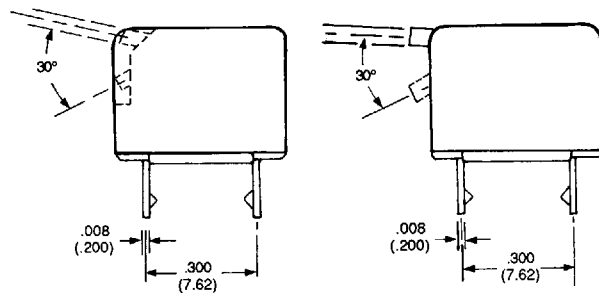
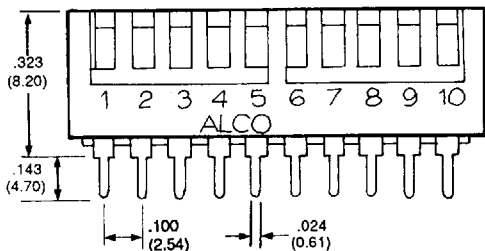
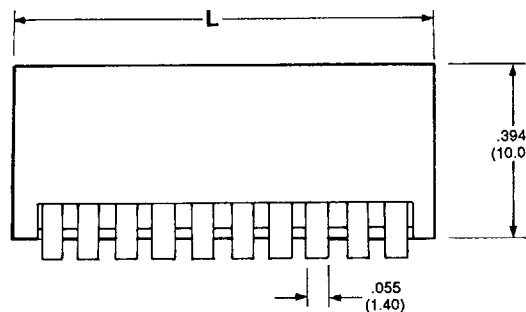
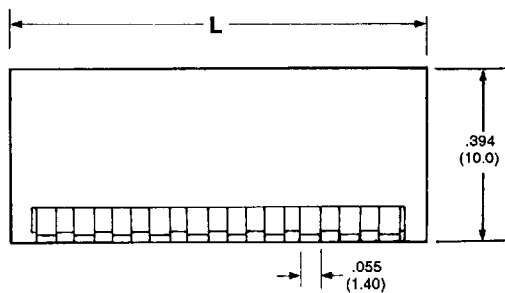
## Piano Style DIP Switch with Extended or Flush Actuators

### SPECIFICATIONS

Contact Rating .....	0.4VA @ 20 VDC (max.)
Initial Contact Resistance:.....	50 milliohms (max.)
Insulation Resistance:.....	100 megohms (min.) @ 100 VDC
Dielectric Strength: .....	500 VDC at sea level
Operating Force:.....	400 grams max.
Life Expectancy:.....	1,000 cycles
Actuator Travel:.....	30°
Contacts:.....	gold flash over nickel
Terminals:.....	solder plate
Case, Cover Material:.....	PPS 94V-0
Actuator: .....	Nylon 66G 94V-0
Operating Temperature:.....	-20°C to +85°C (-4°F to +185°F)
Solder Heat Resistance: .....	260°±5°C for two seconds when mounted on a .062" thick PCB with switch in "OFF" position.

### DP SERIES FEATURES

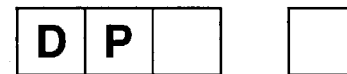
- Available with extended or flush actuators
- "ON" in up position
- Tape Seal (DPT)
- Flush actuator style prevents accidental actuation



PC. HOLE LAYOUT

POLES	BODY LENGTH "L"
4	.494(12.54)
6	.694(17.62)
8	.894(22.70)
10	1.094(27.78)

### HOW TO ORDER



DIP-PIANO SERIES

ACTUATOR STYLES  
 U= Extended  
 T= Flush with TapeSeal

NO. OF POSITIONS [www.DataSheet4U.com](http://www.DataSheet4U.com)  
 04,06,08,10

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# SOLDERING PROCESS RECOMMENDATION GUIDE

AUGAT/ INTCON PRDT GP

49E D ■ 1095335 0001533 628 ■ AUIP ○

The majority of customers utilizing miniature or sub miniature switches in the industry today have a great concern about the switches capabilities during their soldering and cleaning cycles. This concern centers around the introduction of contaminants into the switch contact area which could cause the switch to experience various failure modes either immediately or during the life cycle of the switches usage. These failure modes can show in a number of manners. The following are just a few examples: high contact resistance, open contacts, low dielectric strength breakdown, and high actuation forces causing use related applications to malfunction. Since most fluxes become active with the introduction of the high temperatures used in all soldering techniques, the switch must either prevent these fluxes from entering into its contact area or allow cleaning techniques to carry flux particles out. It must be understood that switch contamination can occur during any procedure: from hand soldering to the new age Surface Mount systems using vapor phase , I.R., or Convection chambers for solder reflow.

We at Augat/Alcoswitch offer a wide range of switches to handle any soldering operations. However, certain soldering conditions will not apply to all switches. The following conditions and charts should help assist you in the soldering of our switches in your application. If you need additional information, feel free to contact the factory.

## SOLDERING TYPES

### A. Wave Soldering:

Top & Bottom board preheats: 200°F(93°C) for approximately 3 to 4 minutes.  
Solder Temperature and Dwell Time: 500°F(260°C) for approximately 3 to 5 seconds.

### B. Hand Soldering

1. 500°F-600°F(260°C-316°C)utilizing a controlled 40 Watt iron for 3 to 5 seconds maximum.
2. 500°F(260°C) utilizing a controlled 30 Watt iron for 10 seconds maximum.

### C. Dip Soldering

Solder Temperature & Dwell Time: 500°F(260°C) for 10 seconds maximum.

### D.Surface Mount

1. Convection IR  
Zone 1 = 212°F(100°C) for 120 seconds maximum.  
Zone 2 = 419°F(215°C) is reaches in approximately 160 seconds after zone 1, and held at that temperature for approximately 10 seconds.
2. Radiant IR  
Zones 1 & 2 combined = 330°F(166°C) maximum with a total run of 210°C(99°C) seconds.  
Zone 3 & 4 combined = 460°F(238°C) is reached in approximately 30 seconds after zones 1 & 2 and held at that temperature for approximately 10 seconds.
3. Vapor Phase  
Zone 1 = 140°F (60°C) for 15 seconds.  
Zone 2 = 419°F(215°C) for 30 seconds.

## CLEANING TYPES

- A. Solvent Wash (1.1.1 Trichlorethylene, T.M.S., T.M.C.)
- B. Vapor Degreasing
- C. Solvent Immersion
- D. Aqueous Cleaning

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**AUGAT**

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**SOLDERING PROCESS RECOMMENDATION GUIDE**

SWITCH SERIES	SOLDERING TYPE			SURFACE MOUNT PROCESS			CLEANING PROCESSES			
	Wave	Hand	Dip*	Convection I.R.	Radiant I.R.	Vapor Phase	Solvent Wash	Vapor Degrease	Solvent Immerse	Aqueous Clean
<b>ALCO</b> ®										
AP, AT, AS SERIES	X	X	X				X			X
ALE,ATLE,ATE,APBE	X	X	X				X	X	X	X
ASE & F	X	X	X	X	X	X	X	X	X	X
COMMAND SERIES, PC	X	X								
COMMAND SERIES, LUGS		X								
CST/CSS SERIES	X	X	X				X	X	X	X
DIP ROT.: DR,RR &RA/C	X	X	X				X	X	X	X
DIP ROT.: DRS SERIES	X	X	X				X	X		X
DIPS:AD,AR,AA/C,ATT	X	X	X	X		X	X	X	X	X
DIPS:DP SERIES W/O TAPE		X	X				X			
DIPS:DP SERIES W/TAPE	X	X	X				X	X	X	X
DIPS:DTS WITH TAPE	X	X	X				X	X	X	X
DIPS:DTS,DYS W/O TAPE		X	X				X			
DIPS:S SERIES SIPS	X	X	X	X		X	X	X	X	X
DIPS:DPT WITH TAPE	X	X	X				X	X	X	X
DIPS:DPU WITHOUT TAPE		X	X							
DIPS:DSS101	X	X	X							
FSB1, FSB2		X	X							
FSM SERIES		X								
FT2D,FT1D	X	X	X				X	X	X	X
GEMINI: A SERIES	X	X	X				X			
GEMINI: AE SERIES	X	X	X				X	X	X	X
GREEN SERIES: ALL MT VERSIONS		X	X				X	X		
GREEN SERIES: ALL MT VERSIONS PC	X	X	X				X			
GREEN SERIES: MHV,MRV,MLD		X	X				X	X		
GREEN SERIES: MPA-6,MPG,MPN,MPE		X	X				X	X		
GREEN SERIES: MTE		X	X				X	X		
LVP/LHP SERIES	X	X	X							
MAS SERIES		X	X					X	X	
MHS SERIES	X	X	X				X	X	X	X
MKS SERIES	X	X	X				X	X	X	
MLP SERIES		X	X				X			
MM-9 SERIES		X	X							
MMS SERIES		X	X				X	X		
MPA-3 SERIES		X	X				X	X		
MPA-6 SERIES		X	X				X			
MPB SERIES		X	X				X	X		
MPN SERIES		X	X				X			
MPS SERIES		X	X				X	X		
MRBA SERIES		X	X				X	X		
MRC SERIES		X	X				X	X		
MRJ SERIES	X	X	X				X			
MRJE/MRJB SERIES	X	X	X				X	X	X	X
MRS SERIES	X	X	X				X	X		X

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	Wave	Hand	Dip*	Convection I.R.	Radiant I.R.	Vapor Phase	Solvent Wash	Vapor Degrease	Solvent Immerse	Aqueous Clean
MRS-RA SERIES	X	X	X				X	X		
MRSB SERIES	X	X	X				X	X	X	X
MRSK SERIES		X	X				X	X		
MSP-3 /MSPS SERIES		X	X							
MSP-5 SERIES		X	X				X	X		
MSPF SERIES		X	X				X	X		
MSPM SERIES		X	X				X	X		
MSS SERIES	X	X	X				X	X	X	X
MSSA SERIES	X	X	X				X	X	X	X
MSSA-01 & 04	X	X	X				X	X	X	X
PBL SERIES	X									X
PUSHWHEELS, CARD EDGE		X								
PUSHWHEELS, PC PINS	X	X	X							
QAS SERIES		X	X				X			
SC CIRCUIT BREAKERS	X	X								
SDS SERIES	X	X	X				X	X	X	X
SE SERIES	X	X	X				X	X	X	X
SKC SERIES		X								
SKF SERIES		X								
SKFC1		X	X				X	X		
SKFC2L		X								
SKT SERIES		X	X				X	X		
SL SERIES	X	X	X				X	X	X	
SLS/SLSA SERIES	X	X	X				X	X	X	
SMT/SMP:PC,PCV,RA,VRA	X	X	X				X	X	X	X
SMT/SMP:SPC,SRA,SRAB				X	X	X	X	X	X	X
SSA/SSJ SERIES	X	X	X				X	X		
SSB SERIES	X	X	X				X	X	X	X
SSM SERIES	X	X	X				X	X	X	X
STS SERIES	X	X	X				X	X	X	X
SWK SERIES		X								
TP SERIES: ALL PC/BLUE CASES	X									
TP SERIES:TP-ES	X	X	X				X	X	X	X
TP SERIES:W/TACT. FEEL & PROC. SEAL	X	X	X				X	X	X	X
TP SERIES:TPC,TPD,TPF,TP-N		X	X				X	X		
TP200 SERIES:TP1M,TP1L,TP2M,TP2L		X	X				X	X		
TR SERIES	X	X	X				X			
TRD	X	X	X				X			
TRD W/L.E.D.		X	X							
TS SERIES	X	X	X				X	X	X	X
TSS-PC, TSS-RA	X	X					X			
TT ALL PC/BLUE CASES	X	X					X			
TT,TTE-ES,TT-RA	X	X	X				X	X	X	X
TT,TTETT,TTE,TTN-WIRE LUG		X	X				X			
XR110, XR210, XRM		X								

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