

DTS/DYS SERIES

A-25-31

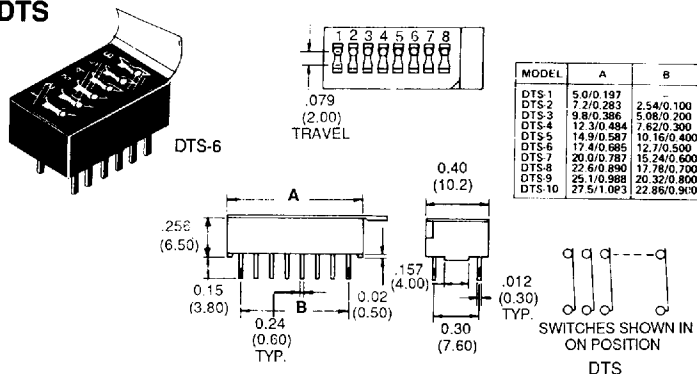
Low Profile Dip Switch

SPECIFICATIONS

Contacts: gold flash over nickel
Contact Rating: non-switching: 100 MA at 50 VDC
 switching: 100 MA at 5 VDC typ., 25 MA at 24 VDC max.
Initial Contact Resistance: 100 milliohms min.
Contact Timing: N/A
Insulation Resistance: 100 megohms min.
Dielectric Strength: 500 VDC at sea level
Life Expectancy: 2000 cycles
Operating Temperature: -10°C to +60°C (-14°F to +140°F)
Storage Temperature: -20°C to +85°C (-4°F to +185°F)

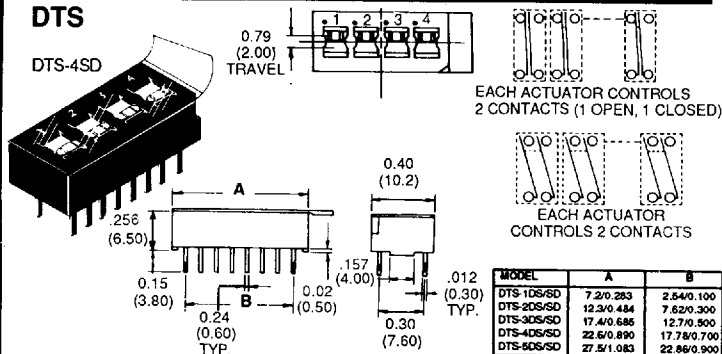
Case Material: glass filled thermoplastic resin
Cover Material: N/A
Actuation Force: DTS: 700g max, DYS 400g max
Plunger/Actuator Travel:079 / 2mm
Terminal Seal: epoxy
Process Seal: tape
Terminals/Fixed Contacts: gold flash over nickel
High Torque Bushing Shoulder: N/A
Solder Heat Resistance: manual: 350°C for 30 seconds
 wave: 260°C ± 5° for 10 seconds

DTS



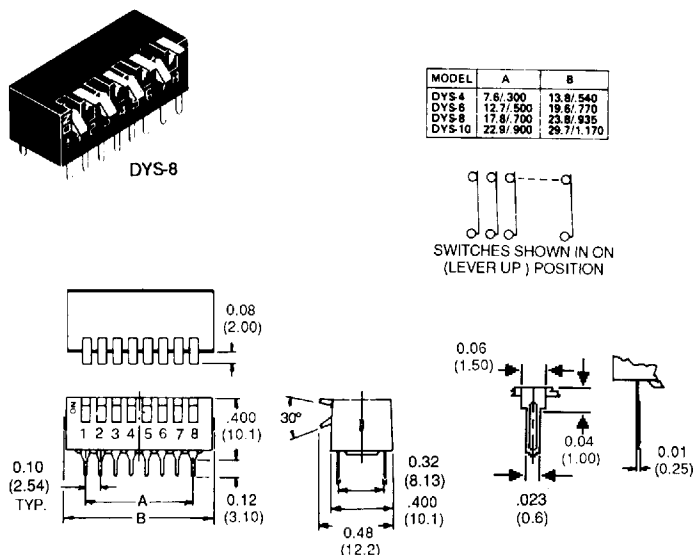
MODEL	TYPE	MARKINGS	ACTUATOR STYLE
DTS1	1PST	1	SLIDE
DTS2	2PST	1 through 2	SLIDE
DTS3	3PST	1 through 3	SLIDE
DTS4	4PST	1 through 4	SLIDE
DTS5	5PST	1 through 5	SLIDE
DTS6	6PST	1 through 6	SLIDE
DTS7	7PST	1 through 7	SLIDE
DTS8	8PST	1 through 8	SLIDE
DTS9	9PST	1 through 9	SLIDE
DTS10	10PST	1 through 10	SLIDE

DTS



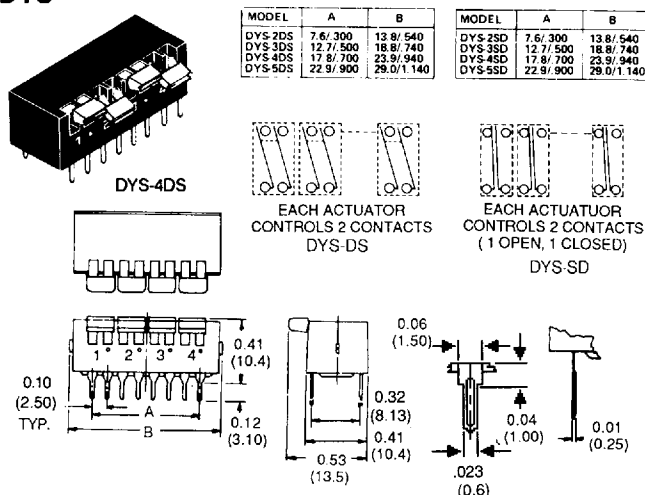
MODEL	TYPE	MARKINGS	ACTUATOR STYLE
DTS1DS	(1) DPST/N.O.-N.C.	1	SLIDE
DTS2DS	(2) DPST/N.O.-N.C.	1 through 2	SLIDE
DTS3DS	(3) DPST/N.O.-N.C.	1 through 3	SLIDE
DTS4DS	(4) DPST/N.O.-N.C.	1 through 4	SLIDE
DTS5DS	(5) DPST/N.O.-N.C.	1 through 5	SLIDE
DTS1SD	(1) DPST/N.O.-N.C.	1	SLIDE
DTS2SD	(2) DPST/N.O.-N.C.	1 through 2	SLIDE
DTS3SD	(3) DPST/N.O.-N.C.	1 through 3	SLIDE
DTS4SD	(4) DPST/N.O.-N.C.	1 through 4	SLIDE
DTS5SD	(5) DPST/N.O.-N.C.	1 through 5	SLIDE

DYS



MODEL	TYPE	MARKINGS	ACTUATOR STYLE
DYS4	4PST	1 through 4	SIDE
DYS6	6PST	1 through 6	SIDE
DYS8	8PST	1 through 8	SIDE
DYS10	10PST	1 through 10	SIDE

DYS



MODEL	TYPE	MARKINGS	ACTUATOR STYLE
DYS2DS	(2) DPST/N.O.-N.C.	1 through 2	SIDE
DYS3DS	(3) DPST/N.O.-N.C.	1 through 3	SIDE
DYS4DS	(4) DPST/N.O.-N.C.	1 through 4	SIDE
DYS5DS	(5) DPST/N.O.-N.C.	1 through 5	SIDE
DYS2SD	(2) DPST/N.O.-N.C.	1 through 2	SIDE
DYS3SD	(3) DPST/N.O.-N.C.	1 through 3	SIDE
DYS4SD	(4) DPST/N.O.-N.C.	1 through 4	SIDE
DYS5SD	(5) DPST/N.O.-N.C.	1 through 5	SIDE

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

AUGAT

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SOLDERING PROCESS RECOMMENDATION GUIDE

AUGAT/ INTCON PRDT GP

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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 reached 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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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
ALCO®										
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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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
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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