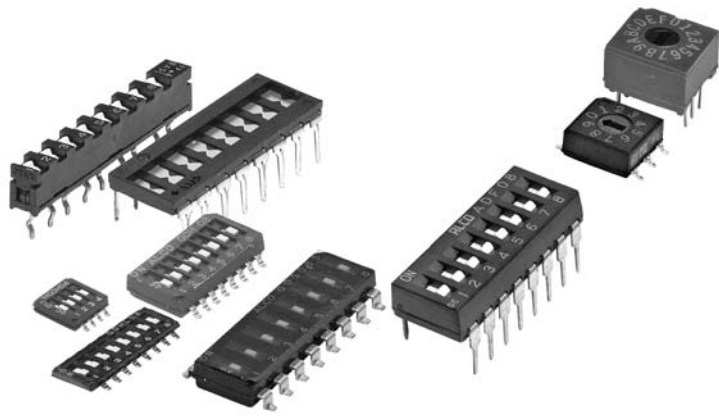


Product Range

DIP Switches



DIP Switches

■ **DIP Switches High Featured Line: GD Series**

- Bifurcated gold wiping contact system
- Very low profile versions
- Half pitch pinning
- End stackable
- Rocker actuator
- Corner notch
- THT or SMT pinning

■ **DIP Switches Basic Lines: AD Series and 7000 Series, DIP Assys up to 30 poles**

- Extremely high pressure contact system (gas tight) for AD series
- Flush or extended actuator
- THT, SMT; action pins for DIP assys series

■ **SIP Switches: STV, STR Series**

- Extremely high pressure contact system (gas tight)

■ **Shunts**

■ **DIP-FIX**

- Up to 24 poles
- C/O contacts up to 12 poles
- End stackable
- Easy configuration with predetermined breaking points

■ **Rotary DIP Switches:**

- Right angle versions
- Different output codes
- low profile: MRD Series
- many different actuator styles: DRD, DRM, DRS or DRW Series

GDS Series, Low Profile, THT & SMTpage A4



GDP Series, Piano Actuator, THT & SMTpage A6



Product Range (Continued)



GDR Series, Recesses Rocker Actuator, THT & SMTpage A8



GDH Series, Half Pitch, Low Profile, SMTpage A10



GDHL Series, Half Pitch, Ultra Low Profile, SMTpage A12



ADE Series, Extended Actuator, THTpage A14

ADE Series, Extended Actuator, SMTpage A16



ADF Series, Flush Actuator, THTpage A19

ADF Series, Flush Actuator, SMTpage A21



ADP & ADPA Series, Piano Style Actuator, THT & SMTpage A24



AR Series Hybrid, THT & SMTpage A27



7000 & 7100 Series, THTpage A30



DIP Shunt, THT & SMTpage A35

Product Range (Continued)



STV Series SIP Switch, THTpage A37



STR Series SIP Switch, Right Angle, THTpage A39



DIP Switches, THT & Action Pinspage A41

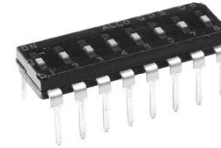


DIP-FIX Switches, Highly Simplified, THTpage A53

GDS Series, Low Profile, THT & SMT

Features

- Bifurcated gold wiping contact system (gold to gold contact system)
- Low profile
- End stackable
- Tape seal standard with corner notch
- Vacuum pick and place compatible
- Auto insertable
- Available in pc and surface mount configuration
- Shipped in the OFF position, ON position on request



Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching	100 mA @ 50 VDC
Contact rating, switching	25mA A @ 24 VDC
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 100 mOhm
Insulation resistance	min 100 MOhm
Dielectric strength	300 VAC for 1 min
Actuation force	0.6 to 6 N (60 to 600 gf)
Actuator travel	1.00 mm (.039) average

Environmental specification

Operating temperature	-45 to +100°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave or 260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	lcp
Terminals	copper alloy gold finish
Base	pps
Cover	pps
Tape seal	polyimide film
RoHS Directive 2002/95/EC	compliant

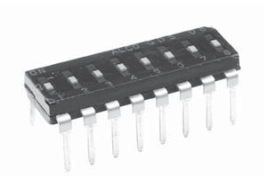
Product key	Typical product key				
	GDS	04	S	TR	04
Type	GDS Low profile DIP switch				
Positions	02 2 positions		08 8 positions		10 10 positions
Terminal	blank through hole - THT S surface mount - SMT				
Sealing	blank with tape seal NTS no tape seal				
Packaging	blank tube TR tape & reel				
Material	04 RoHS compliant				

GDS Series, Low Profile, THT & SMT (Continued)

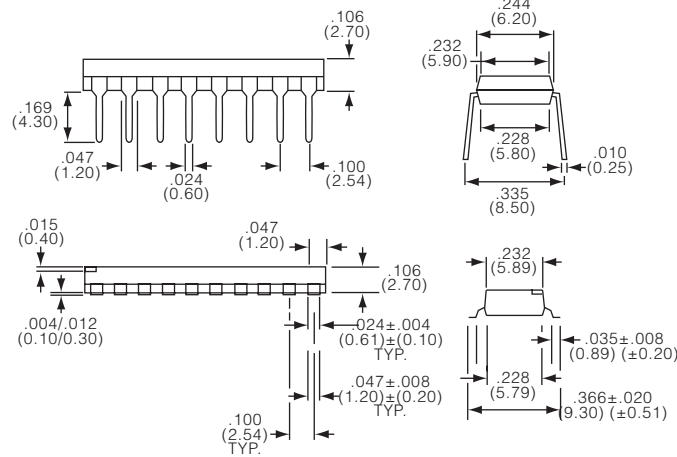
Positions



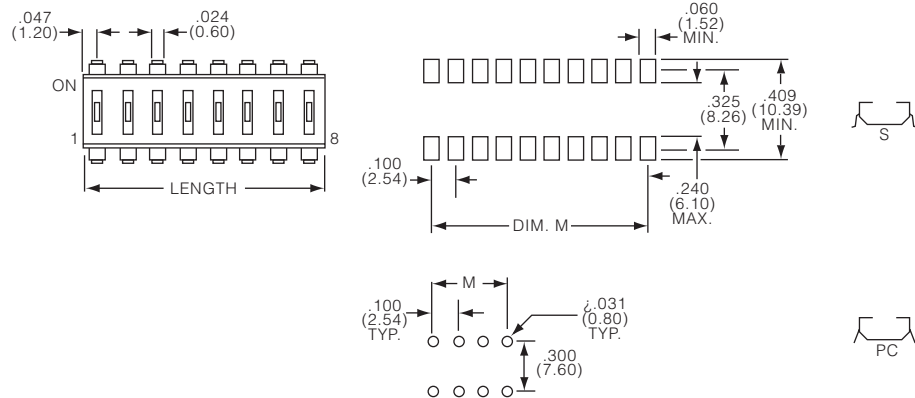
Codes 02, 04, 06, 08, 10 2, 4, 6, 8 and 10 positions



GDS0804



Code	Poles	Length	Dim M
02	2	4.94mm (.194)	2.54mm (.100)
04	4	10.02mm (.394)	7.62mm (.300)
06	6	15.10mm (.594)	12.7mm (.500)
08	8	20.18mm (.794)	17.78mm (.700)
10	10	25.26mm (.994)	22.86mm (.900)



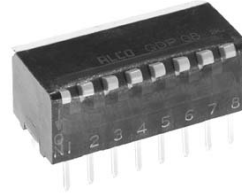
Product key	Positions	Terminal	Sealing	Packaging	Material	Part Number
GDS0204	2 positions	THT	with t.seal	tube	RoHS compliant	1825006-1
GDS02NTS04			no t.seal			1825006-2
GDS02S04	4 positions	SMT	with t.seal	tape & reel		1825006-3
GDS02STR04						1825006-4
GDS0404	4 positions	THT		tube		1825006-5
GDS04NTS04			no t.seal			1825006-6
GDS04S04	6 positions	SMT	with t.seal	tape & reel		1825006-7
GDS04STR04						1825006-8
GDS0604	6 positions	THT		tube		1825006-9
GDS06NTS04			no t.seal			1-1825006-0
GDS06S04	8 positions	SMT	with t.seal	tape & reel		1-1825006-1
GDS06STR04						1-1825006-2
GDS0804	8 positions	THT		tube		1-1825006-3
GDS08NTS04			no t.seal			1-1825006-4
GDS08S04	10 positions	SMT	with t.seal	tape & reel		1-1825006-5
GDS08STR04						1-1825006-6
GDS1004	10 positions	THT		tube		1-1825006-7
GDS10NTS04			no t.seal			1-1825006-8
GDS10S04	10 positions	SMT	with t.seal	tape & reel		1-1825006-9
GDS10STR04						2-1825006-0

Preferred parts in bold print

GDP Series, Piano Actuator, THT & SMT

Features

- Bifurcated gold wiping contact system (gold to gold contact system)
- Available in pc and surface mount configuration
- Traditional tape seal standard
- Shipped in the OFF position, ON position on request



Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching	100 mA @ 50 VDC
Contact rating, switching	25 mA @ 24 VDC
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 100 mOhm
Insulation resistance	min 100 MOhm
Dielectric strength	300 VAC for 1 min
Actuation force	6 N (600 gf) max
Actuator travel	1.30 mm (.051) average

Environmental specification

Operating temperature	-35 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave or 260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	lcp
Terminals	copper alloy gold finish
Base	pps
Cover	pps
Tape seal	polyimide film
RoHS Directive 2002/95/EC	compliant

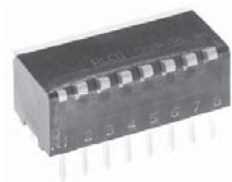
Product key		Typical product key		GDP		04		S		TR		04	
Type	GDP DIP switch with piano actuator												
Positions	02 2 positions	08 8 positions											
	04 4 positions	10 10 positions											
	06 6 positions												
Terminal	blank through hole - THT												
	S surface mount - SMT												
Sealing	blank with tape seal												
	NTS no tape seal												
Packaging	blank tube												
	TR tape & reel												
Material	04 RoHS compliant												

GDP Series, Piano Actuator, THT & SMT (Continued)

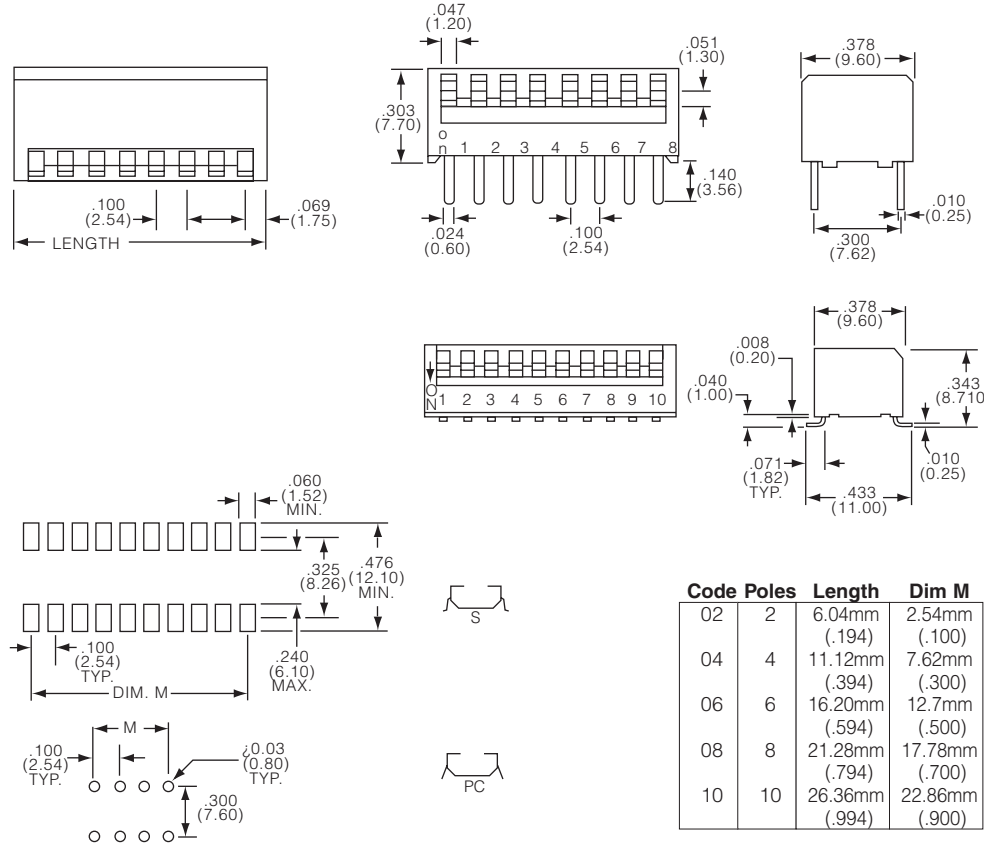
Positions



Codes 02, 04, 06, 08, 10 2, 4, 6, 8 and 10 positions



GDP0804



DIP Switches

Product key	Positions	Terminal	Sealing	Packaging	Material	Part Number
GDP0204	2 positions	THT	with t.seal	tube	RoHS compliant	1571998-1
GDP02NTS04			no t. seal			1571998-2
GDP02S04		SMT	with t.seal			1571998-3
GDP02STR04				tape & reel		1571998-4
GDP0404	4 positions	THT		tube		1571998-5
GDP04NTS04			no t. seal			1571998-6
GDP04S04		SMT	with t.seal			1571998-7
GDP04STR04				tape & reel		1571998-8
GDP0604	6 positions	THT		tube		1571998-9
GDP06NTS04			no t. seal			1-1571998-0
GDP06S04		SMT	with t.seal			1-1571998-1
GDP06STR04				tape & reel		1-1571998-2
GDP0804	8 positions	THT		tube		1-1571998-3
GDP08NTS04			no t. seal			1-1571998-4
GDP08S04		SMT	with t.seal			1-1571998-5
GDP08STR04				tape & reel		1-1571998-6
GDP1004	10 positions	THT		tube		1-1571998-7
GDP10NTS04			no t. seal			1-1571998-8
GDP10S04		SMT	with t.seal			1-1571998-9
GDP10STR04				tape & reel		2-1571998-0

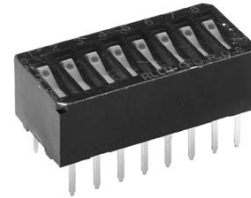
Preferred parts in bold print

GDR Series, Recesses Rocker Actuator, THT & SMT

DIP Switches

Features

- Bifurcated gold wiping contact system (gold to gold contact system)
- Available in pc and surface mount configuration
- Tape seal standard
- Shipped in the OFF position, ON position on request



Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching	100 mA @ 50 VDC
Contact rating, switching	25 mA @ 24 VDC
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 100 mOhm
Insulation resistance	min 100 MOhm
Dielectric strength	300 VAC for 1 min
Actuation force	6 N (600 gf) max

Environmental specification

Operating temperature	-35 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave or 260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	lcp
Terminals	copper alloy gold finish
Base	pps
Cover	pps
Tape seal	polyimide film
RoHS Directive 2002/95/EC	compliant

Product key

Typical product key

GDR 06 S 04

Type

GDR DIP switch with recessed rocker actuator

Positions

02	2 positions	08	8 positions
04	4 positions	10	10 positions
06	6 positions		

Terminal

blank	through hole - THT
S	surface mount - SMT

Material

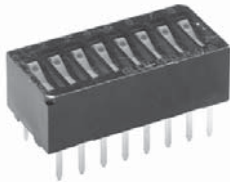
04 RoHS compliant

GDR Series, Recesses Rocker Actuator, THT & SMT (Continued)

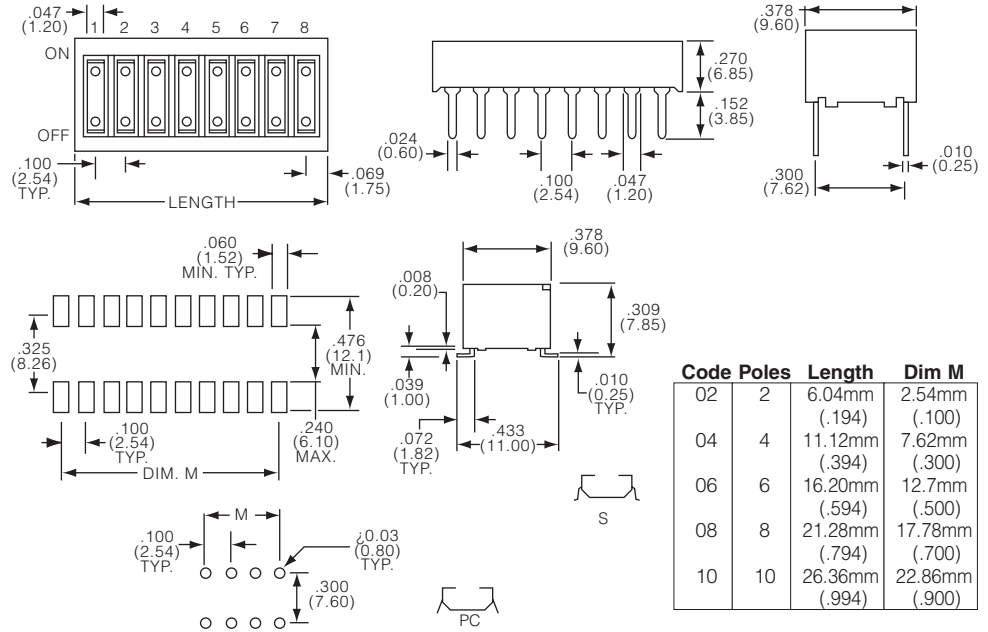
Positions



Codes 02, 04, 06, 08, 10 2, 4, 6, 8 and 10 positions



GDR0804



Product key	Positions	Terminal	Material	Part Number
GDR0204	2 positions	THT	RoHS	1825286-1
GDR02S04		SMT	compliant	1825286-2
GDR0404	4 positions	THT		1825286-3
GDR04S04		SMT		1825286-4
GDR0604	6 positions	THT		1825286-5
GDR06S04		SMT		1825286-6
GDR0804	8 positions	THT		1825286-7
GDR08S04		SMT		1825286-8
GDR1004	10 positions	THT		1825286-9
GDR10S04		SMT		1-1825286-0

Preferred parts in bold print

GDH Series, Half Pitch, Low Profile, SMT

Features

- Bifurcated gold wiping contact system (gold to gold contact system)
- Tape seal standard, with corner notch
- Vacuum pick and place compatible
- Half pitch .050" terminal spacing
- Shipped in the OFF position, ON position on request



Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching	100 mA @ 50 VDC
Contact rating, switching	25 mA @ 24 VDC
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 100 mOhm
Insulation resistance	min 100 MOhm
Dielectric strength	300 VAC for 1 min
Actuation force	6 N (600 gf) max
Actuator travel	1.00 mm (.039) average

Environmental specification

Operating temperature	-35 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave or 260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	lcp
Terminals	copper alloy gold finish
Base	pps
Cover	pps
Tape seal	polyimide film
RoHS Directive 2002/95/EC	compliant

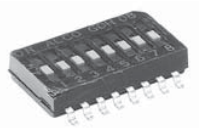
Product key		Typical product key		GDH	04	S	TR	04
Type	GDH Half pitch, low profile DIP switch							
Positions	02 2 positions	08 8 positions						
	04 4 positions	10 10 positions						
	06 6 positions							
Terminal	S surface mount - SMT							
Packaging	blank tube							
	TR tape & reel							
Sealing	blank tape seal							
	NTS no tape seal							
Material	04 RoHS compliant							

GDH Series, Half Pitch, Low Profile, SMT (Continued)

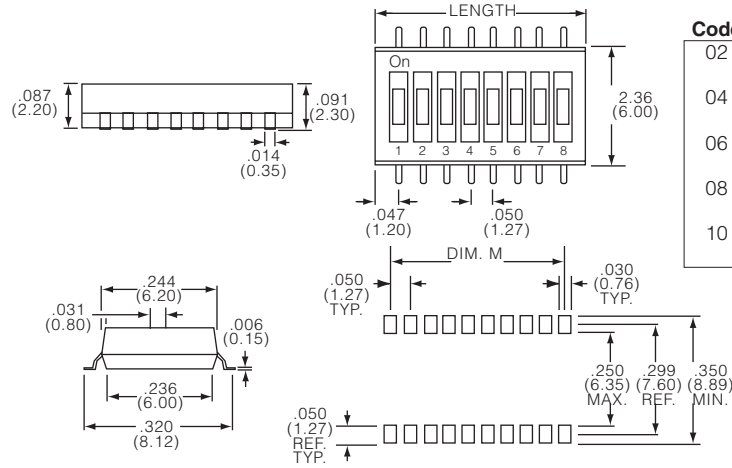
Positions



Codes 02, 04, 06, 08, 10 2, 4, 6, 8 and 10 positions



GDH0804



Code	Poles	Length	Dim M
02	2	3.66mm (.194)	1.27mm (.100)
04	4	6.20mm (.394)	3.81mm (.300)
06	6	8.75mm (.594)	6.35mm (.500)
08	8	11.29mm (.794)	8.89mm (.700)
10	10	13.82mm (.994)	11.43mm (.900)

Product key	Positions	Terminal	Packaging	Sealing	Material	Part Number
GDH02S04	2 positions	SMT	tube	with seal	RoHS compliant	1571983-1
GDH02STR04			tape & reel			1571983-3
GDH04S04	4 positions		tube			1571983-4
GDH04STR04			tape & reel			1571983-5
GDH04STRNTS04	6 positions			no seal		1571983-6
GDH06S04			tube	with seal		1571983-8
GDH06STR04	6 positions		tape & reel			1571983-9
GDH08S04			tube			1-1571983-0
GDH08STR04	8 positions		tape & reel			1-1571983-1
GDH08STRNTS04				no seal		1-1571983-2
GDH10S04	10 positions		tube	with seal		1-1571983-3
GDH10STR04			tape & reel			1-1571983-4

Preferred parts in bold print

GDHL Series, Half Pitch, Ultra Low Profile, SMT

DIP Switches

Features

- Bifurcated gold wiping contact system (gold to gold contact system)
- Height of only 1.50 mm (.059)
- Tape seal standard, with corner notch
- Vacuum pick and place compatible
- Shipped in the OFF position, ON position on request



Typical performance characteristics

Contact configuration SPST
 Contact rating, non-switching 100 mA @ 50 VDC
 Contact rating, switching 25mA @ 24 VDC
 Electrical life 1,000 cycles
 Mechanical life 1,000 cycles
 Contact resistance max 100 mOhm
 Insulation resistance min 100 MOhm
 Dielectric strength 300 VAC for 1 min
 Actuation force 4.90 N (490 gf) max
 Actuator travel 0.80 mm (.032) average

Environmental specification

Operating temperature -30 to +85°C
 Storage temperature -45 to +100°C
 Solder heat resistance 260°C/10s reflow

Material specifications

Contacts copper alloy gold finish
 Actuator lcp
 Terminals copper alloy gold finish
 Base pps
 Cover pps
 Tape seal polyimide film
 RoHS Directive 2002/95/EC compliant

Product key

Typical product key

GDHL 04 S TR

Type

GDHL Half pitch, ultra low profile DIP switch

Positions

02	2 positions	08	8 positions
04	4 positions	10	10 positions
06	6 positions		

Terminal

S surface mount - SMT

Packaging

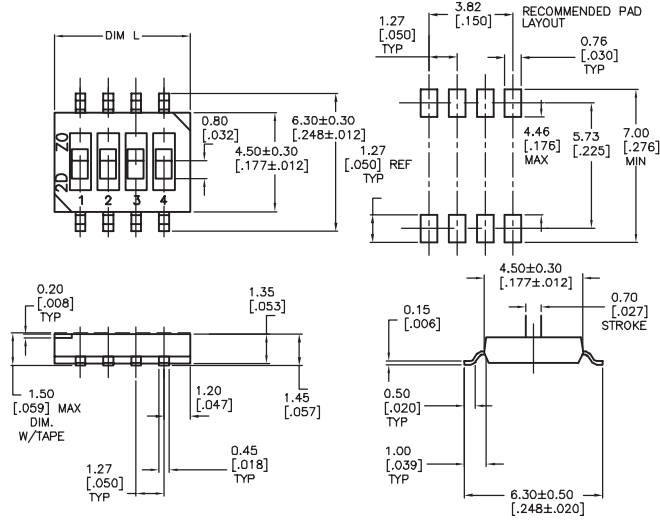
blank tube
TR tape & reel

GDHL Series, Half Pitch, Ultra Low Profile, SMT (Continued)

Positions



Codes 02 to 10 2 to 10 poles



Code	Positions	Dim L
02	2	3.76mm (.148)
04	4	6.30mm (.248)
06	6	8.84mm (.348)
08	8	11.38mm (.448)
10	10	13.92mm (.548)

DIP Switches

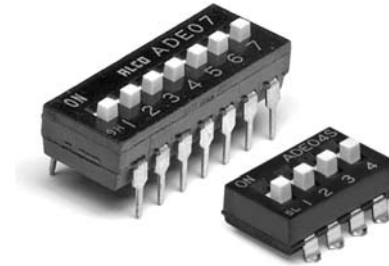
Product key	Positions	Terminal	Packaging	Part Number
GDHL02S	2 positions	SMT	tube	1977103-1
GDHL02STR			tape & reel	1977103-2
GDHL04S	4 positions		tube	1977103-3
GDHL04STR			tape & reel	1977103-4
GDHL06S	6 positions		tube	1977103-5
GDHL06STR			tape & reel	1977103-6
GDHL08S	8 positions		tube	1977103-7
GDHL08STR			tape & reel	1977103-8
GDHL10S	10 positions		tube	1977103-9
GDHL10STR			tape & reel	1-1977103-0

Preferred parts in bold print

ADE Series, Extended Actuator, THT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- Auto insertable
- Shipped in the OFF position



Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	100 mA @ 24 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 1000 MOhm
Dielectric strength	500 VAC for 1 min
Actuation force	8.0 N (800 gf) max
Actuator travel	1.30 mm (.051)

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon PA6T
Terminals	copper alloy gold finish
Base	PPS
Cover	PPS
RoHS Directive 2002/95/EC	compliant

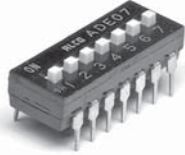
Product key		Typical product key		ADE 04		04	
Type							
ADE		extended actuator, auto insertable through hole DIP switch					
Positions							
02	2 positions	07	7 positions				
03	3 positions	08	8 positions				
04	4 positions	09	9 positions				
05	5 positions	10	10 positions				
06	6 positions	12	12 positions				
Terminal							
blank		through hole - THT					
Material							
04		RoHS compliant					

ADE Series, Extended Actuator, THT (Continued)

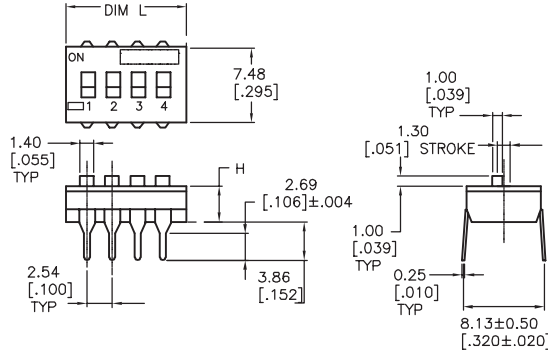
Positions



Codes 02 to 12 2 to 12 positions



ADE08

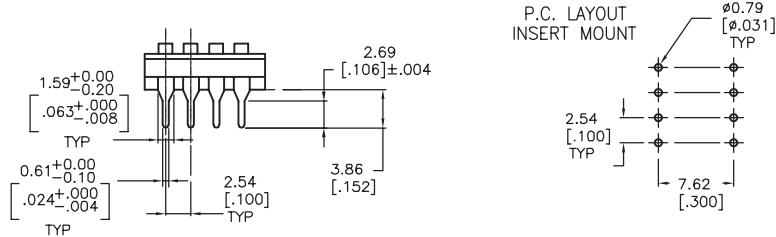


CodePos	Dim L	Dim H
02 2	7.06 (.278)	3.50 (.138)
03 3	9.60 (.378)	3.50 (.138)
04 4	12.14 (.478)	3.50 (.138)
05 5	14.68 (.578)	3.50 (.138)
06 6	17.22 (.678)	3.50 (.138)
07 7	19.76 (.778)	3.50 (.138)
08 8	22.30 (.878)	3.50 (.138)
09 9	24.84 (.978)	3.50 (.138)
10 10	27.38 (1.078)	3.50 (.138)
12 12	32.51 (1.278)	3.61 (.142)

Terminal



blank through hole - THT



Product key	Positions	Terminal	Material	Part Number
ADE0204	2 positions	THT	RoHS	1825057-1
ADE0304	3 positions	through hole	compliant	1825057-2
ADE0404	4 positions			1825057-3
ADE0504	5 positions			1825057-4
ADE0604	6 positions			1825057-5
ADE0704	7 positions			1825057-6
ADE0804	8 positions			1825057-7
ADE0904	9 positions			1825057-8
ADE1004	10 positions			1825057-9
ADE1201	12 positions			1-1825057-0

Preferred parts in bold print

ADE Series, Extended Actuator, SMT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- Auto insertable
- Shipped in the OFF position



Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	100 mA @ 24 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 1000 MOhm
Dielectric strength	500 VAC for 1 min
Actuation force	8.00 N (800 gf) max
Actuator travel	1.30 mm (.051)

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon PA6T
Terminals	copper alloy gold finish
Base	pps
Cover	pps
RoHS Directive 2002/95/EC	compliant

Product key

Typical product key

ADE 08 S 04

Type

ADE extended actuator, auto insertable surface mount DIP switch

Positions

02	2 positions	07	7 positions
03	3 positions	08	8 positions
04	4 positions	09	9 positions
05	5 positions	10	10 positions
06	6 positions	12	12 positions

Terminal

S	Gullwing
SA	J-lead

Material

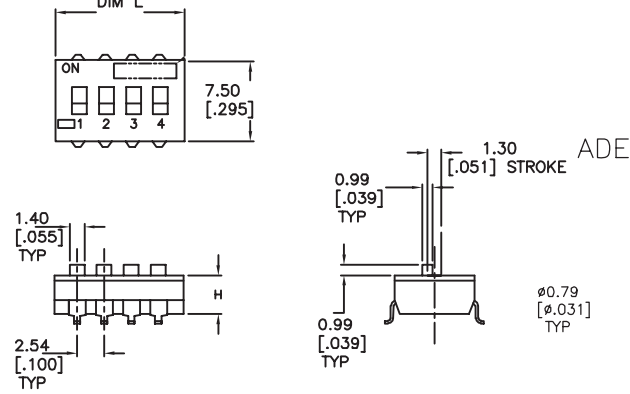
04 RoHS compliant

ADE Series, Extended Actuator, SMT (Continued)

Positions



Codes 02 to 12 2 to 12 positions



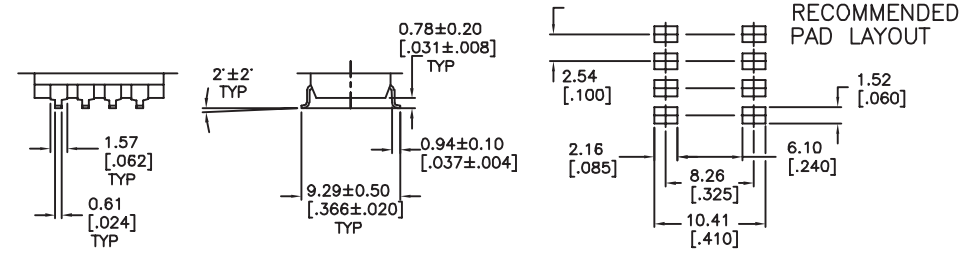
Code	Pos	Dim L	Dim H
02	2	7.06 (.278)	3.50 (.138)
03	3	9.60 (.378)	3.50 (.138)
04	4	12.14 (.478)	3.50 (.138)
05	5	14.68 (.578)	3.50 (.138)
06	6	17.22 (.678)	3.50 (.138)
07	7	19.76 (.778)	3.50 (.138)
08	8	22.30 (.878)	3.50 (.138)
09	9	24.84 (.978)	3.50 (.138)
10	10	27.38 (1.078)	3.50 (.138)
12	12	32.51 (1.278)	3.61 (.142)

DIP Switches

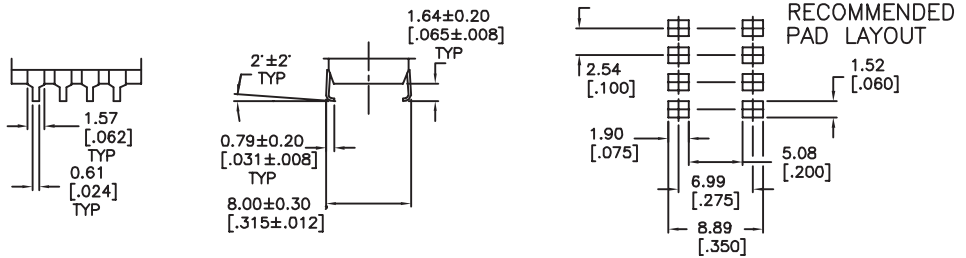
Terminal



Codes S gullwing SMT



Codes SA J-lead SMT



ADE Series, Extended Actuator, SMT (Continued)

DIP Switches

Product key	Positions	Terminal	Material	Part Number
ADE02S04	2 positions	Gullwing	RoHS compliant	1825058-1
ADE02SA04		J-lead		1825058-2
ADE03S04	3 positions	Gullwing		1825058-4
ADE03SA04		J-lead		1825058-5
ADE04S04	4 positions	Gullwing		1825058-7
ADE04SA04		J-lead		1825058-8
ADE05S04	5 positions	Gullwing		1-1825058-0
ADE05SA04		J-lead		1-1825058-1
ADE06S04	6 positions	Gullwing		1-1825058-3
ADE06SA04		J-lead		1-1825058-4
ADE07S04	7 positions	Gullwing		1-1825058-6
ADE07SA04		J-lead		1-1825058-7
ADE08S04	8 positions	Gullwing		1-1825058-9
ADE08SA04		J-lead		2-1825058-0
ADE09S04	9 positions	Gullwing		2-1825058-2
ADE09SA04		J-lead		2-1825058-3
ADE10S04	10 positions	Gullwing		2-1825058-5
ADE10SA04		J-lead		2-1825058-6
ADE12S04	12 positions	Gullwing		2-1825058-8
ADE12SA04		J-lead		2-1825058-9

Preferred parts in bold print

ADF Series, Flush Actuator, THT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- Auto insertable
- Shipped in the OFF position



DIP Switches

Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	100 mA @ 24 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 1000 MOhm
Dielectric strength	500 VAC for 1 min
Actuation force	8.0 N (800 gf) max
Actuator travel	1.30 mm (.051)

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon PA6T
Terminals	copper alloy gold finish
Base	pps
Cover	pps
RoHS Directive 2002/95/EC	compliant

Product key	Typical product key		ADF	08		04
Type	ADF Flush actuator, auto insertable through hole DIP switch					
Positions	02 2 positions	07 7 positions				
	03 3 positions	08 8 positions				
	04 4 positions	09 9 positions				
	05 5 positions	10 10 positions				
	06 6 positions	12 12 positions				
Terminal	blank through hole - THT					
Sealing	blank No tape					
	T tape seal					
Packaging	blank tube					
Material	04 RoHS compliant					

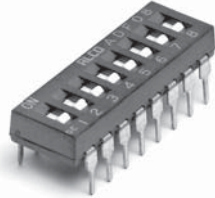
ADF Series, Flush Actuator, THT (Continued)

DIP Switches

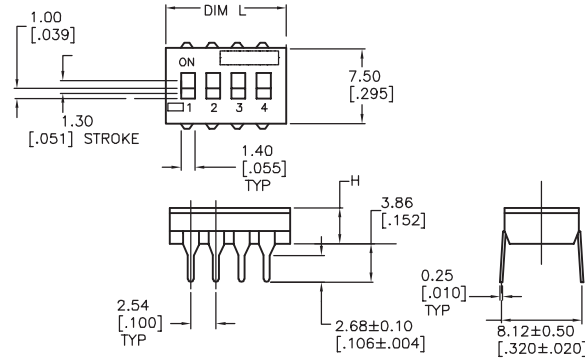
Positions



Codes 02 to 12 2 to 12 positions



ADF08

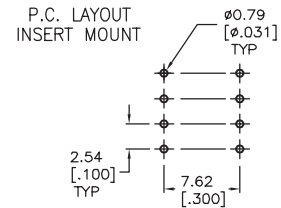
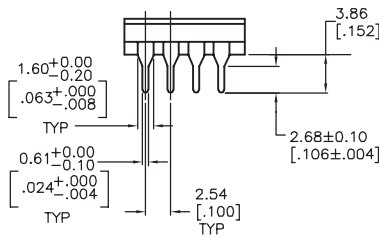


CodePos	Dim L	Dim H
02	2	7.06 (.278)
03	3	9.60 (.378)
04	4	12.14 (.478)
05	5	14.68 (.578)
06	6	17.22 (.678)
07	7	19.76 (.778)
08	8	22.30 (.878)
09	9	24.84 (.978)
10	10	27.38 (1.078)
12	12	32.51 (1.278)

Terminals



blank through hole - THT



Product key	Positions	Terminal	Sealing	Packaging	Material	Part Number
ADF0204	2 positions	THT	no tape	tube	RoHS compliant	1825002-1
ADF02T04		through hole	tape seal			1825002-2
ADF0304	3 positions		no tape			1825002-3
ADF03T04			tape seal			1825002-4
ADF0404	4 positions		no tape			1825002-5
ADF04T04			tape seal			1825002-6
ADF0504	5 positions		no tape			1825002-7
ADF05T04			tape seal			1825002-8
ADF0604	6 positions		no tape			1825002-9
ADF06T04			tape seal			1-1825002-0
ADF0704	7 positions		no tape			1-1825002-1
ADF07T04			tape seal			1-1825002-2
ADF0804	8 positions		no tape			1-1825002-3
ADF08T04			tape seal			1-1825002-4
ADF0904	9 positions		no tape			1-1825002-5
ADF09T04			tape seal			1-1825002-6
ADF1004	10 positions		no tape			1-1825002-7
ADF10T04			tape seal			1-1825002-8
ADF1204	12 positions		no tape			1-1825002-9
ADF12T04			tape seal			2-1825002-0

Preferred parts in bold print

ADF Series, Flush Actuator, SMT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- Auto insertable
- Shipped in the OFF position



DIP Switches

Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	100 mA @ 24 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 1000 MOhm
Dielectric strength	500 VAC for 1 min
Actuation force	8.00 N (800 gf) max
Actuator travel	1.30 mm (.051)

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon PA6T
Terminals	copper alloy gold finish
Base	pps
Cover	pps
RoHS Directive 2002/95/EC	compliant

Product key	Typical product key		ADF	04	S	04
Type	ADF Flush actuator, SMT DIP switch					
Positions	02 2 positions	07 7 positions				
	03 3 positions	08 8 positions				
	04 4 positions	09 9 positions				
	05 5 positions	10 10 positions				
	06 6 positions	12 12 positions				
Terminal	S SMT Gullwing	SA SMT J-lead				
Sealing	blank no tape					
	T tape seal					
Packaging	blank tube					
	TR tape & reel					
Material	04 RoHS compliant					

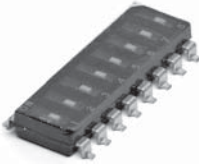
ADF Series, Flush Actuator, SMT (Continued)

DIP Switches

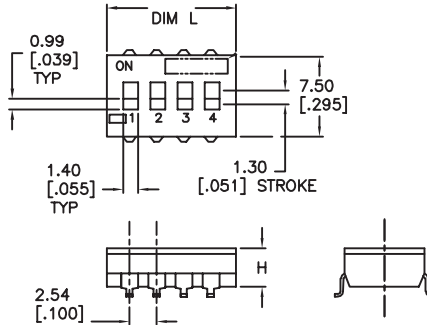
Positions



Codes 02 to 12 2 to 12 positions



ADF08

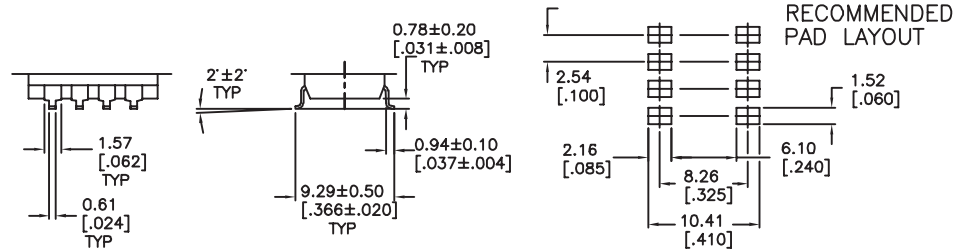


Code	Pos	Dim L	Dim H
02	2	7.06 (.278)	3.50 (.138)
03	3	9.60 (.378)	3.50 (.138)
04	4	12.14 (.478)	3.50 (.138)
05	5	14.68 (.578)	3.50 (.138)
06	6	17.22 (.678)	3.50 (.138)
07	7	19.76 (.778)	3.50 (.138)
08	8	22.30 (.878)	3.50 (.138)
09	9	24.84 (.978)	3.50 (.138)
10	10	27.38 (1.078)	3.50 (.138)
12	12	32.51 (1.278)	3.61 (.142)

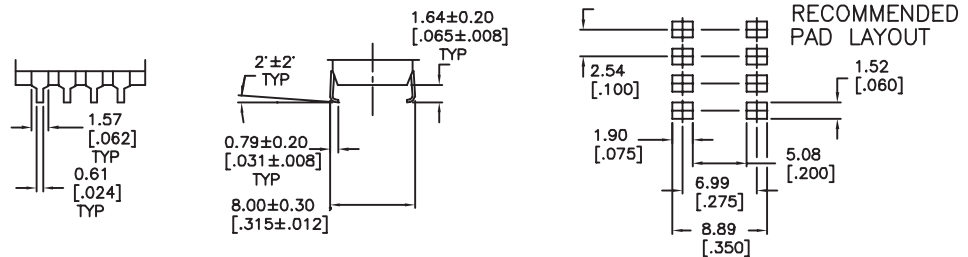
Terminal



Codes S gullwing SMT



Codes SA J-lead SMT



ADF Series, Flush Actuator, SMT (Continued)

Product key	Positions	Terminal	Sealing	Packaging	Material	Part Number
ADF02S04	2 positions	SMT Gullwing	no tape	tube	RoHS compliant	1825059-1
ADF02SA04		SMT J-lead				1825059-2
ADF02SAT04	3 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	1825059-3
ADF02SATTR04						1825059-4
ADF02ST04		1825059-5				
ADF02STTR04		1825059-6				
ADF03S04	3 positions	SMT J-lead	no tape	tube	RoHS compliant	1825059-7
ADF03SA04		1825059-8				
ADF03SAT04	4 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	1825059-9
ADF03SATTR04						1-1825059-0
ADF03ST04		1-1825059-1				
ADF03STTR04		1-1825059-2				
ADF04S04	4 positions	SMT J-lead	no tape	tube	RoHS compliant	1-1825059-3
ADF04SA04		1-1825059-4				
ADF04SAT04	5 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	1-1825059-5
ADF04SATTR04						1-1825059-6
ADF04ST04		1-1825059-7				
ADF04STTR04		1-1825059-8				
ADF05S04	5 positions	SMT J-lead	no tape	tube	RoHS compliant	1-1825059-9
ADF05SA04		2-1825059-0				
ADF05SAT04	6 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	2-1825059-1
ADF05SATTR04						2-1825059-2
ADF05ST04		2-1825059-3				
ADF05STTR04		2-1825059-4				
ADF06S04	6 positions	SMT J-lead	no tape	tube	RoHS compliant	2-1825059-5
ADF06SA04		2-1825059-6				
ADF06SAT04	7 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	2-1825059-7
ADF06SATTR04						2-1825059-8
ADF06ST04		2-1825059-9				
ADF06STTR04		3-1825059-0				
ADF07S04	7 positions	SMT J-lead	no tape	tube	RoHS compliant	3-1825059-1
ADF07SA04		3-1825059-2				
ADF07SAT04	8 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	3-1825059-3
ADF07SATTR04						3-1825059-4
ADF07ST04		3-1825059-5				
ADF07STTR04		3-1825059-6				
ADF08S04	8 positions	SMT J-lead	no tape	tube	RoHS compliant	3-1825059-7
ADF08SA04		3-1825059-8				
ADF08SAT04	9 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	3-1825059-9
ADF08SATTR04						4-1825059-0
ADF08ST04		4-1825059-1				
ADF08STTR04		4-1825059-2				
ADF09S04	9 positions	SMT J-lead	no tape	tube	RoHS compliant	4-1825059-3
ADF09SA04		4-1825059-4				
ADF09SAT04	10 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	4-1825059-5
ADF09SATTR04						4-1825059-6
ADF09ST04		4-1825059-7				
ADF09STTR04		4-1825059-8				
ADF10S04	10 positions	SMT J-lead	no tape	tube	RoHS compliant	4-1825059-9
ADF10SA04		5-1825059-0				
ADF10SAT04	12 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	5-1825059-1
ADF10SATTR04						5-1825059-2
ADF10ST04		5-1825059-3				
ADF10STTR04		5-1825059-4				
ADF12S04	12 positions	SMT J-lead	no tape	tube	RoHS compliant	5-1825059-5
ADF12SA04		5-1825059-6				
ADF12SAT04	12 positions	SMT Gullwing	tape seal	tape & reel	RoHS compliant	5-1825059-7
ADF12SATTR04						5-1825059-8
ADF12ST04		5-1825059-9				
ADF12STTR04		6-1825059-0				

Preferred parts in bold print

ADP & ADPA Series, Piano Style Actuator, THT & SMT (Continued)

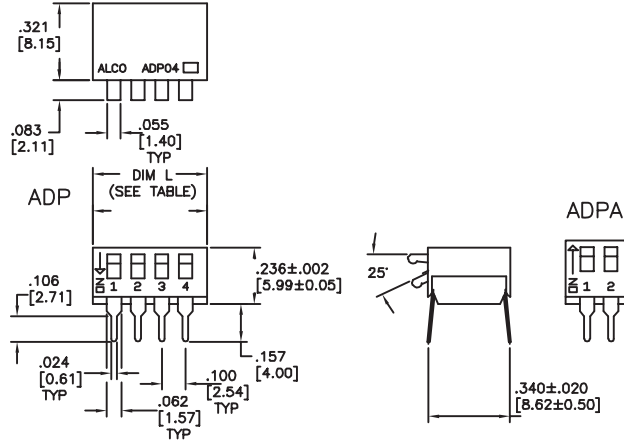
Positions



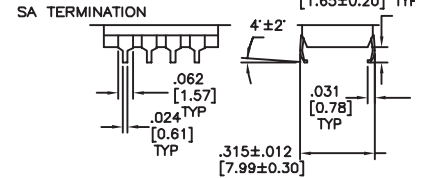
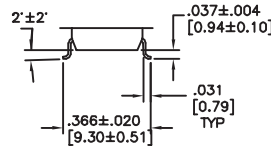
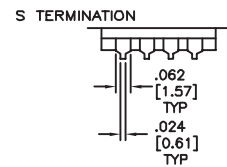
Codes 02 to 12 2 to 12 positions



ADP08



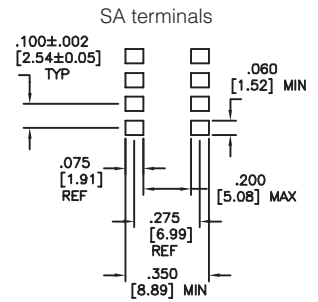
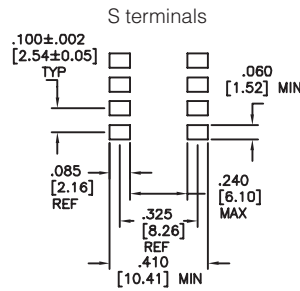
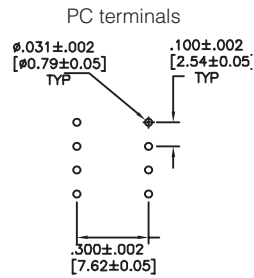
Code	Pos	Dim L
02	2	7.06 (.278)
03	3	9.60 (.378)
04	4	12.14 (.478)
05	5	14.68 (.578)
06	6	17.22 (.678)
07	7	19.76 (.778)
08	8	22.30 (.878)
09	9	24.84 (.978)
10	10	27.38(1.078)
12	12	32.51(1.278)



Terminal



proposed board layout



ADP & ADPA Series, Piano Style Actuator, THT & SMT (Continued)

DIP Switches

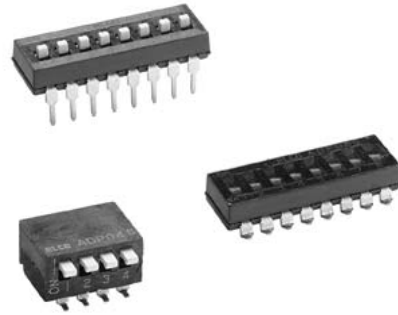
Product key	ON position	Positions	Terminal	Packaging	Material	Part Number
ADP0204	lever down	2 positions	THT	tube	RoHS compliant	1571999-1
ADP02S04			SMT Gullwing			1571999-2
ADP02SA04			SMT J-lead			1571999-3
ADP02STR04			SMT Gullwing	tape & reel		1571999-4
ADP0404		4 positions	THT	tube		1571999-6
ADP04S04			SMT Gullwing			1571999-7
ADP04SA04			SMT J-lead			1571999-8
ADP04STR04			SMT Gullwing	tape & reel		1571999-9
ADP0504		5 positions	THT	tube		1-1571999-1
ADP05S04			SMT Gullwing			1-1571999-2
ADP05SA04			SMT J-lead			1-1571999-3
ADP05STR04			SMT Gullwing	tape & reel		1-1571999-4
ADP0604		6 positions	THT	tube		1-1571999-6
ADP06S04			SMT Gullwing			1-1571999-7
ADP06SA04			SMT J-lead			1-1571999-8
ADP06STR04			SMT Gullwing	tape & reel		1-1571999-9
ADP0704		7 positions	THT	tube		2-1571999-1
ADP07S04			SMT Gullwing			2-1571999-2
ADP07SA04			SMT J-lead			2-1571999-3
ADP07STR04			SMT Gullwing	tape & reel		2-1571999-4
ADP0804		8 positions	THT	tube		2-1571999-6
ADP08S04			SMT Gullwing			2-1571999-7
ADP08SA04			SMT J-lead			2-1571999-8
ADP08STR04			SMT Gullwing	tape & reel		2-1571999-9
ADP0904		9 positions	THT	tube		3-1571999-1
ADP09S04			SMT Gullwing			3-1571999-2
ADP09SA04			SMT J-lead			3-1571999-3
ADP09STR04			SMT Gullwing	tape & reel		3-1571999-4
ADP1004		10 positions	THT	tube		3-1571999-6
ADP10S04			SMT Gullwing			3-1571999-7
ADP10SA04			SMT J-lead			3-1571999-8
ADP10STR04			SMT Gullwing	tape & reel		3-1571999-9
ADPA0204	lever up	2 positions	THT	tube		4-1571999-1
ADPA02S04			SMT Gullwing			4-1571999-2
ADPA02SA04			SMT J-lead			4-1571999-3
ADPA0404		4 positions	THT			4-1571999-4
ADPA04S04			SMT Gullwing			4-1571999-5
ADPA04SA04			SMT J-lead			4-1571999-6
ADPA0504		5 positions	THT			4-1571999-7
ADPA05S04			SMT Gullwing			4-1571999-8
ADPA05SA04			SMT J-lead			4-1571999-9
ADPA0604		6 positions	THT			5-1571999-0
ADPA06S04			SMT Gullwing			5-1571999-1
ADPA06SA04			SMT J-lead			5-1571999-2
ADPA0704		7 positions	THT			5-1571999-3
ADPA07S04			SMT Gullwing			5-1571999-4
ADPA07SA04			SMT J-lead			5-1571999-5
ADPA0804		8 positions	THT			5-1571999-6
ADPA08S04			SMT Gullwing			5-1571999-7
ADPA08SA04			SMT J-lead			5-1571999-8
ADPA0904		9 positions	THT			5-1571999-9
ADPA09S04			SMT Gullwing			6-1571999-0
ADPA09SA04			SMT J-lead			6-1571999-1
ADPA1004		10 positions	THT			6-1571999-2
ADPA10S04			SMT Gullwing			6-1571999-3
ADPA10SA04			SMT J-lead			6-1571999-4

Preferred parts in bold print

AR Series Hybrid, THT & SMT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- Thick film pull-up resistors molded into the base of the switch
- Replaces discrete resistor network plus DIP switch with one component
- Available with 3.3K Ohms or 10K Ohms resistors
- Auto insertable
- Extended, flush or piano actuator styles
- Through hole or surface mount termination available
- Shipped in OFF position



DIP Switches

Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	100mA @ 24 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	5,000 cycles
Mechanical life	5,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 1000 MOhm
Dielectric strength	500 VAC for 1 min
Actuation force	8.0 N (800 gf) max
Actuator travel	1.30 mm (.051)

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/10s wave or 260°C/10s reflow

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon PA6T
Terminals	copper alloy gold finish
Base	pps
Cover	pps
RoHS Directive 2002/95/EC	compliant

Product key		Typical product key	
		AR	F 08 10K
Type	AR Hybrid DIP switch		
Actuator style	E extended F flush	P piano (ON down) PA piano (ON up)	
Number of positions	02 2 positions 04 4 positions 06 6 positions	08 8 positions 10 10 positions	
Resistor value	3.3K 3.3K Ohms	10K 10K Ohms	
Terminal	blank through hole - THT	S gullwing SMT	
Seal	blank no seal	T tape seal	
Material	04 RoHS compliant		

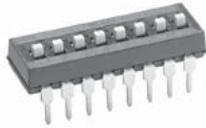
AR Series Hybrid, THT & SMT (Continued)

DIP Switches

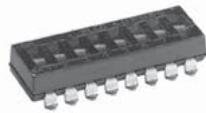
Actuator style & Positions



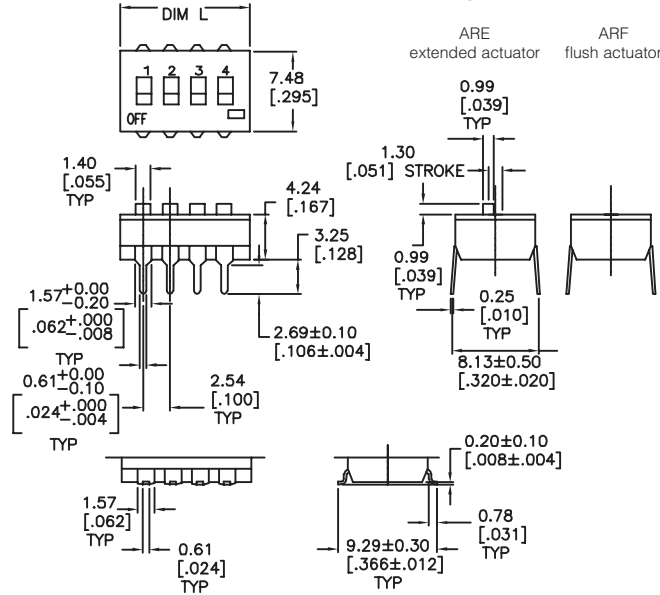
Codes E, F and codes 02 to 12 extended and flush actuators, 2 to 12 positions



ARE0810K04



ARF0810KS04

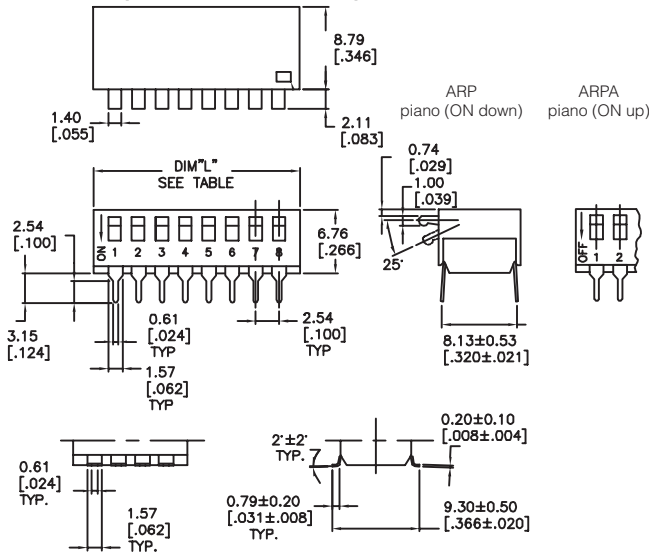


Code	Positions	Dim L
02	2	7.06mm (.278)
04	4	12.14mm (.478)
06	6	17.22mm (.678)
08	8	22.30mm (.878)
10	10	27.38mm (1.078)

Codes P, PA and codes 02 to 12 piano actuators, 2 to 12 positions



ARP043.3K04



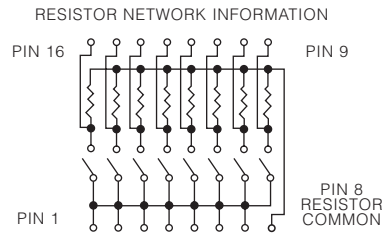
Code	Positions	Dim L
02	2	7.06mm (.278)
04	4	12.14mm (.478)
06	6	17.22mm (.678)
08	8	22.30mm (.878)
10	10	27.38mm (1.078)

Resistor value



3.3K, 10K resistor network, 3.3k Ohms, 10K Ohms

AR Series Hybrid, THT & SMT (Continued)

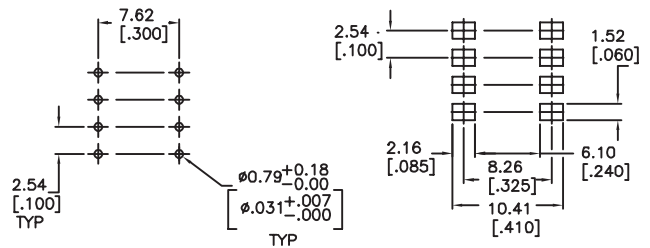


Terminal



PCB and SMT

RECOMMENDED BOARD LAYOUT

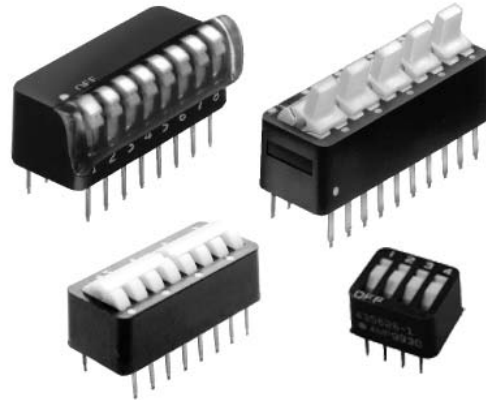


Product key	Actuator style	No. of positions	Resistance	Terminal	Seal	Material	Part Number
ARE043.3K04	extended	4 positions	3.3 kOhm	THT	no seal	RoHS compliant	1825428-5
ARE0810K04		8 positions	10 kOhm	gullwing SMT			1825428-6
ARE0810KS04	flush	10 positions	3.3 kOhm		THT		
ARE083.3K04							
ARE103.3K04							1825428-2
ARF023.3K04		2 positions					1825428-8
ARF0410K04		4 positions	10 kOhm				1825428-3
ARF043.3K04			3.3 kOhm				1825428-9
ARF043.3KT04						tape seal	1-1825428-0
ARF0810K04		8 positions	10 kOhm			no seal	1825428-4
ARF0810KT04						tape seal	1-1825428-1
ARF083.3K04			3.3 kOhm			no seal	1-1825428-2
ARP0810KS04	piano (up)	10 kOhm		gullwing SMT			1825429-1
ARPA0810K04	piano (down)			THT			1825429-2

7000 & 7100 Series, THT

Features

- Available in SPST, side actuated SPST and multiple series versions
- Contacts made of high strength copper alloy
- 7000 cycles can be obtained using the 7000 series
- 2000 cycles can be obtained using the 7100 series



Typical performance characteristics

Contact rating, non-switching (max)	1.0 Amp @ 40 VDC
Contact rating, switching (max)	60 milliamps @ 5 VDC
	15 milliamps @ 24 VDC
Electrical life	7000 series: 7000 cycles
	7100 series: 2000 cycles
Mechanical life	7000 series: 7000 cycles
	7100 series: 2000 cycles
Contact resistance	max 100 mOhms
Insulation resistance	min 1000 MOhms
Dielectric strength	500 V DC

Environmental specification

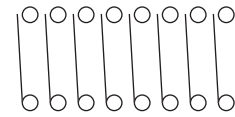
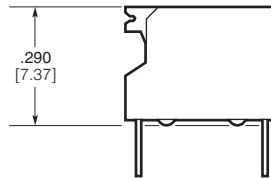
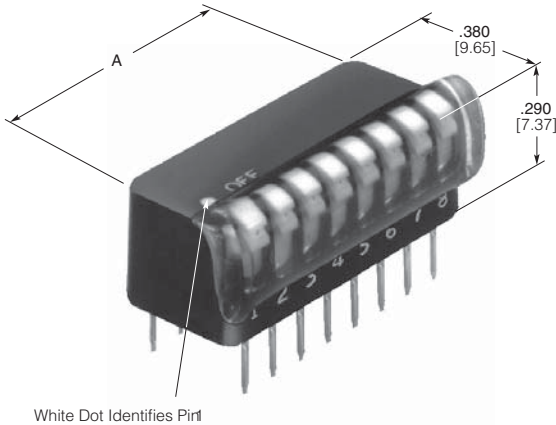
Operating temperature	-55 to +105°C
Storage temperature	-73 to +105°C
Solder heat resistance	265°C/10 s wave

Material specifications

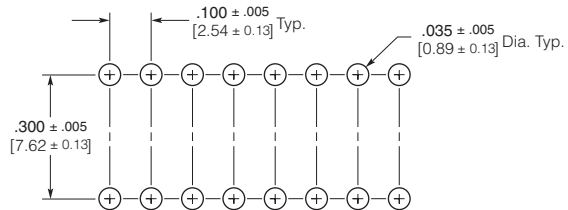
Contacts	copper alloy, gold finish
Actuator	thermoplastic
Terminals	copper alloy, tin finish
Base	glass filled polyester
RoHS Directive 2002/95/EC	compliant

7000 Series

Piano style actuator, single pole, single throw, side actuated, low profile



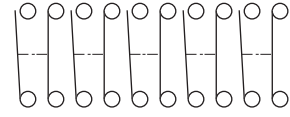
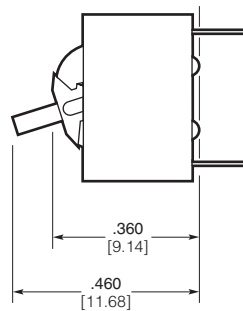
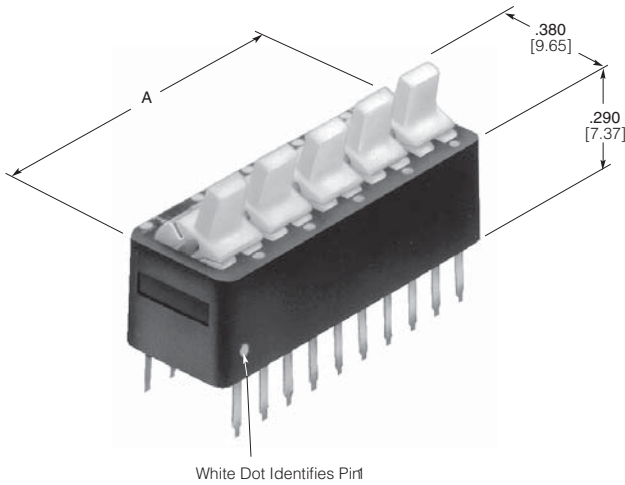
Pin 1
Note: switches shown in open position



Switches	Dim A	unsealed P/N	sealed P/N
2	7.11 (.280)	1-5435802-0	
3	9.65 (.380)	5435802-2	
4	12.19 (.480)	5435802-3	1-5435802-5
5	14.73 (.580)	5435802-4	1-5435802-6
6	17.27 (.680)	5435802-5	1-5435802-7
7	19.81 (.780)	5435802-6	1-5435802-8
8	22.35 (.880)	5435802-1	5435802-9
9	24.89 (.980)	5435802-7	1-5435802-9
10	27.43 (1.080)	5435802-8	2-5435802-0
11	29.97 (1.180)		2-5435802-1
12	32.51 (1.280)		2-5435802-2

7000 & 7100 Series, THT (Continued)

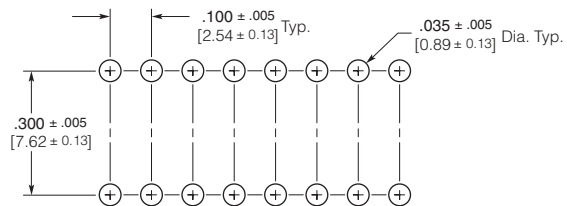
Extended actuator, combined single pole, double throw



Pin 1

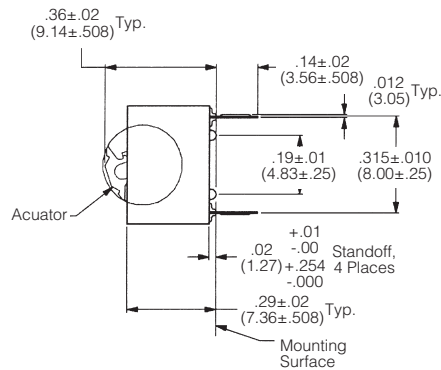
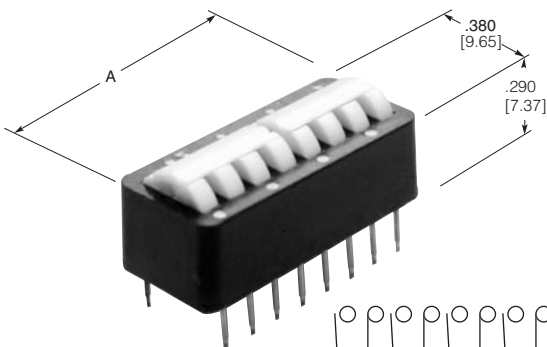
Note: switch positions are closed when rockers are down towards white dots. Switches have make-before-break design.

Extended lever actuator shown

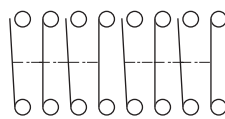


Switches	Dim A	Low profile actuator P/N	Extended lever actuator P/N
1	7.11 (.280)	5-435470-7	7-435470-1
2	12.19 (.480)	5-435470-1	7-435470-2
3	17.27 (.680)	5-435470-2	
4	22.35 (.880)	5-435470-3	7-435470-4
5	27.43 (1.080)		7-435470-5
6	32.51 (1.280)		7-435470-6

Extended actuator, combined single pole, double throw



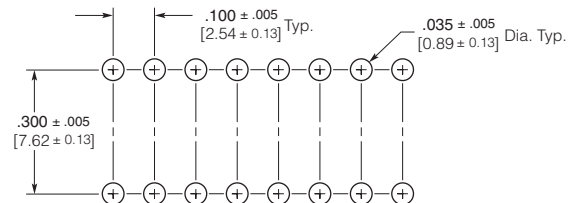
Low Profile Lever Actuator Shown



Pin 1

Note: switch positions are closed when rockers are down towards white dots. Switches have make-before-break design.

Extended lever actuator shown

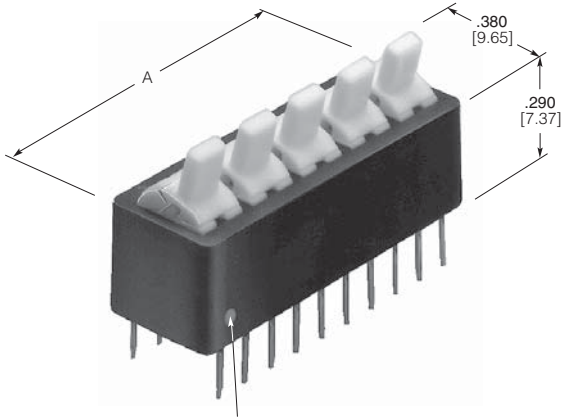


Switches	Dim A	Low profile actuator P/N	Extended lever actuator P/N
1	12.19 (.480)	5-435470-5	8-435470-1
2	22.35 (.880)	5-435470-9	

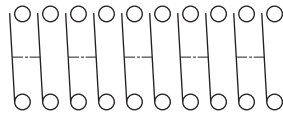
7000 & 7100 Series, THT (Continued)

DIP Switches

Extended actuator, multiple double pole, single throw

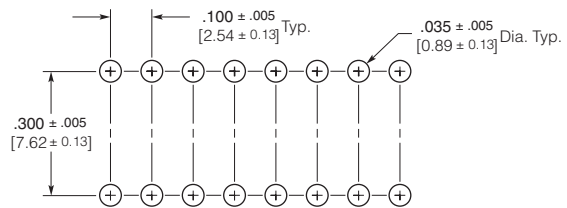
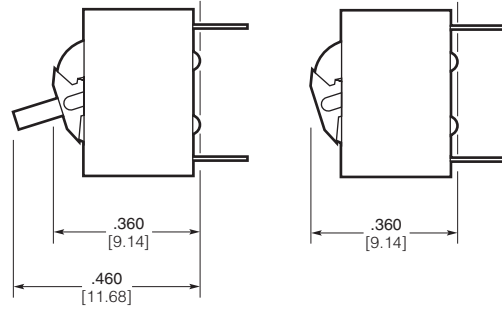


White Dot Identifies Pin 1



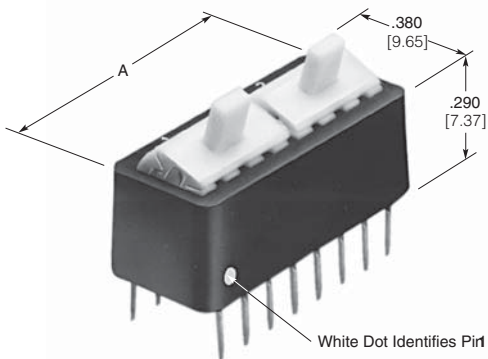
Pin 1

Note: switches shown in open position

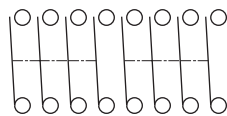


Switches	Dim A	Low profile	Extended lever
1	7.11 (.280)	5-435469-9	7-435469-1
2	12.19 (.480)		7-435469-2
4	22.35 (.880)	5-435469-3	7-435469-4
5	27.43 (1.080)		7-435469-5
6	32.51 (1.280)		7-435469-6

Extended actuator, 4 pole, single throw

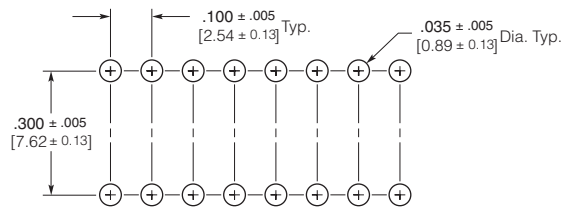
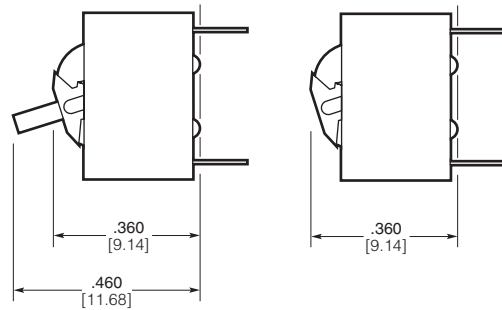


White Dot Identifies Pin 1



Pin 1

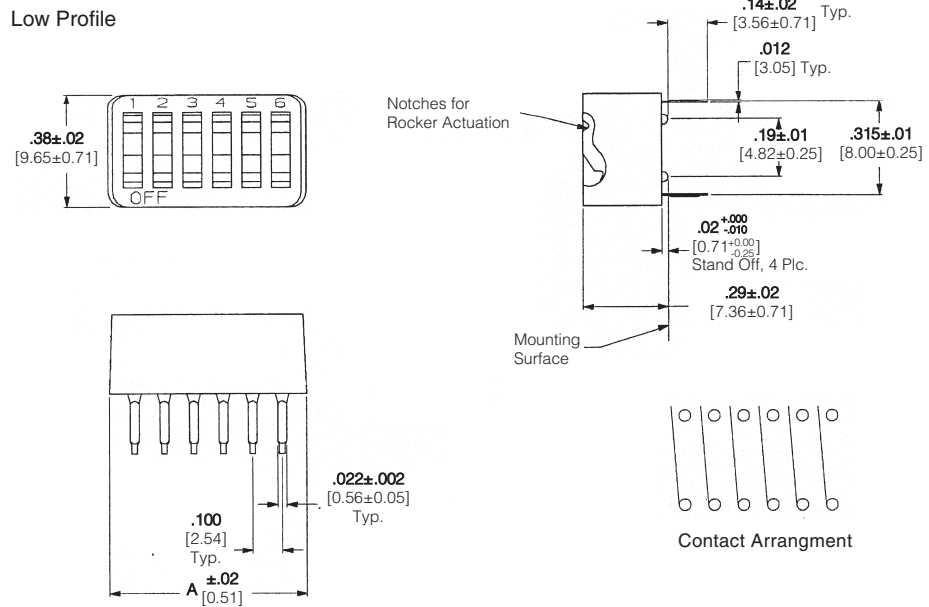
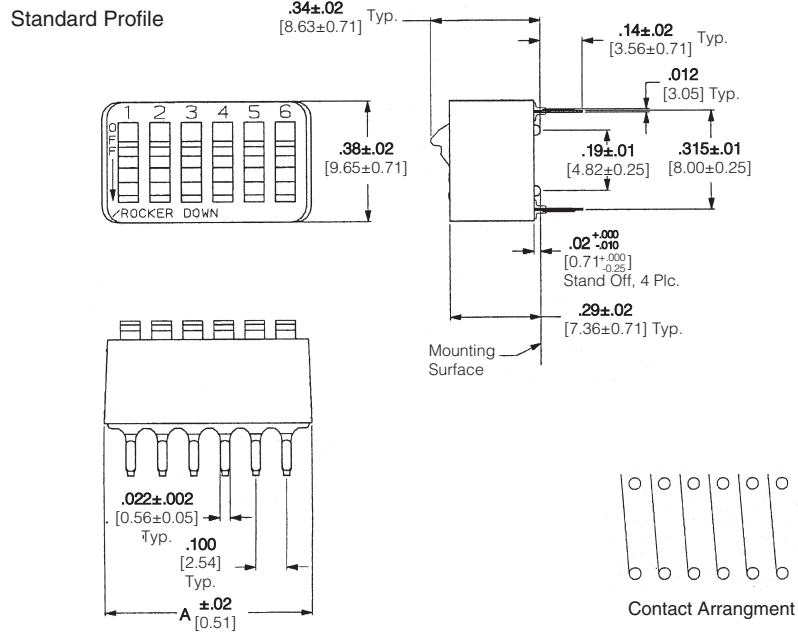
Note: switches shown in open position



Switches	Dim A	Low profile	Extended lever
1	12.19 (.480)	5-435469-7	8-435469-1

7000 & 7100 Series, THT (Continued)

Rocker style actuator



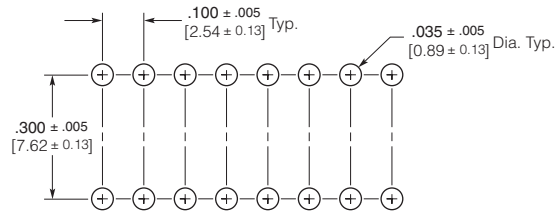
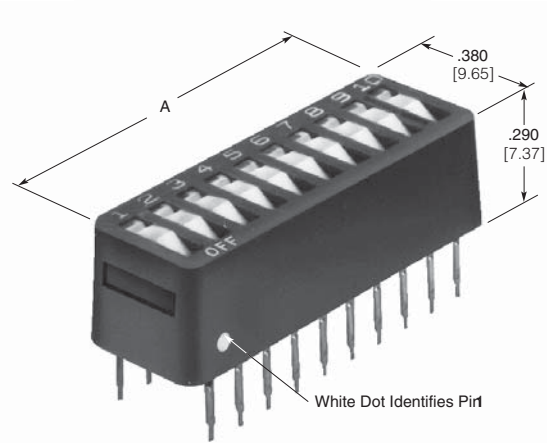
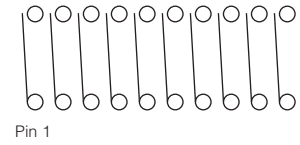
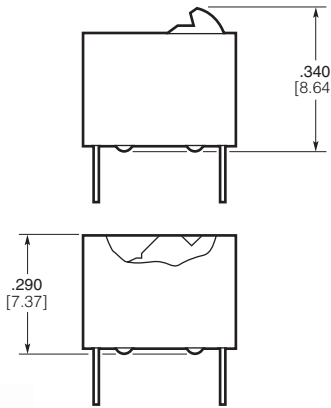
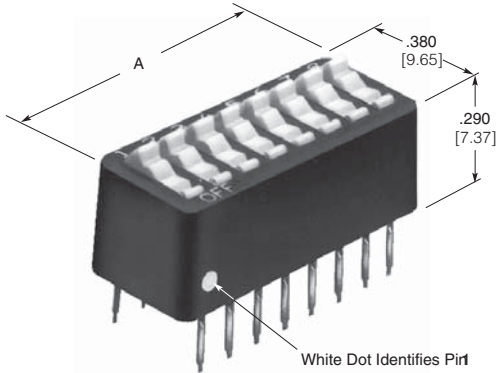
Switches	Dim A	Standard profile unsealed P/N	Standard profile sealed P/N	Low profile unsealed P/N	Low profile sealed P/N
2	7.11 (.280)	2-5435166-9			8-435626-6
3	9.65 (.380)				8-435626-7
4	12.19 (.480)	5435166-2	4-5435166-9	5-435626-1	8-435626-8
5	14.73 (.580)		5-5435166-0	5-435626-2	
6	17.27 (.680)	5435166-4	5-5435166-1		9-435626-0
7	19.81 (.780)	5435166-1	5-5435166-2		9-435626-1
8	22.35 (.880)	5435166-5	5-5435166-3	5-435626-5	9-435626-2
10	27.43 (1.080)	5435166-7	5-5435166-5		9-435626-4

7000 & 7100 Series, THT (Continued)

7100 Series

Rocker style actuator, single pole, single throw, standard and low profile

DIP Switches



Switches	Dim A	Standard profile unsealed P/N	Standard profile sealed P/N	Low profile unsealed P/N	Low profile sealed P/N
2	7.11 (.280)	2-5435640-9		5435668-1	2-5435668-6
3	9.65 (.380)	3-5435640-0			3-5435668-3
4	12.19 (.480)	5435640-2	3-5435640-5	5435668-3	3-5435668-4
5	14.73 (.580)	5435640-3	3-5435640-6	5435668-4	3-5435668-5
6	17.27 (.680)	5435640-4	3-5435640-7	5435668-5	2-5435668-5
7	19.81 (.780)	5435640-1	3-5435640-8		2-5435668-7
8	22.35 (.880)	5435640-5	3-5435640-9	5435668-7	2-5435668-8
9	24.89 (.980)	5435640-6	4-5435640-0		2-5435668-9
10	27.43 (1.080)	5435640-7	4-5435640-1	5435668-9	3-5435668-0
11	29.97 (1.180)				3-5435668-1
12	32.51 (1.280)	3-5435640-2	4-5435640-3		3-5435668-2

DIP Shunt, THT & SMT

Features

- High reliability, low cost solution for programming electronic equipment
- Through hole and surface mount configurations



DIP Switches

Typical performance characteristics

Contact rating 2 Amp for +20°C temperature-rise above ambient
 Insulation resistance 1,000 MOhms min
 Dielectric strength 500 VDC

Environmental specification

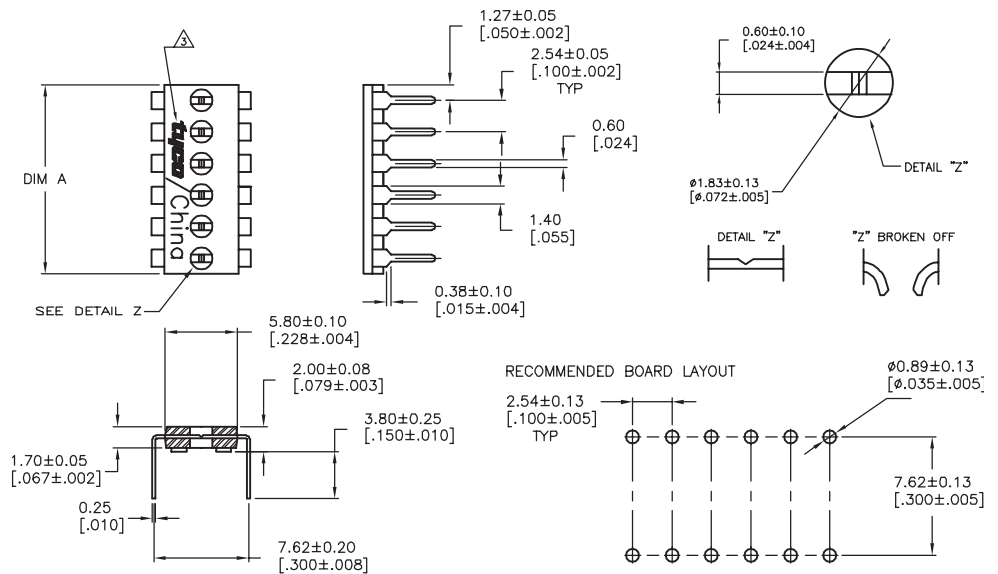
Operating temperature -55 to +105°C
 Storage temperature -55 to +105°C
 Solder heat resistance 265°C/10 sec wave, 260°C/10 sec reflow

Material specifications

Terminals copper alloy, tin over nickel finish
 Base PBT (THT), NYLON 6T (SMT)
 RoHS Directive 2002/95/EC compliant

Terminals

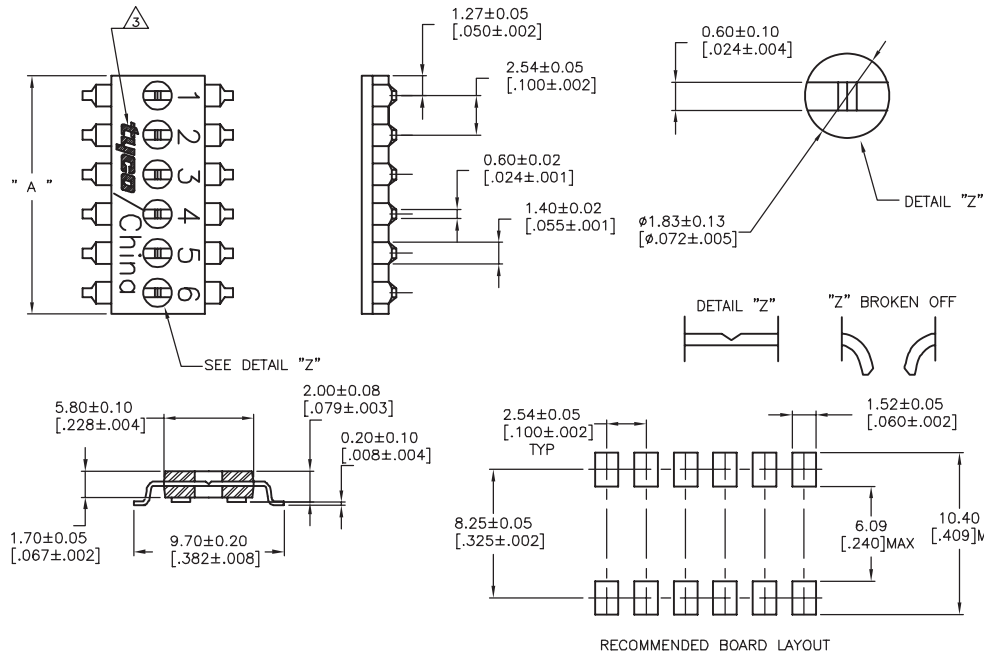
Through hole THT



Positions	Dim A	Part Number
2	0.508mm (.200)	1825190-1
3	0.762mm (.300)	1825190-2
4	1.016mm (.400)	1825190-3
5	1.27mm (.500)	1825190-4
6	1.524mm (.600)	1825190-5
7	1.778mm (.700)	1825190-6
8	2.032mm (.800)	1825190-7
9	2.286mm (.900)	1825190-8
10	2.54mm (1.00)	1825190-9
12	3.048mm (1.20)	1-1825190-0

DIP Shunt, THT & SMT (Continued)

Surface mount SMT



Positions	Dim A	Part Number
2	0.508mm (.200)	1825189-1
3	0.762mm (.300)	1825189-2
4	1.016mm (.400)	1825189-3
5	1.27mm (.500)	1825189-4
6	1.524mm (.600)	1825189-5
7	1.778mm (.700)	1825189-6
8	2.032mm (.800)	1825189-7
9	2.286mm (.900)	1825189-8
10	2.54mm (1.00)	1825189-9
12	3.048mm (1.20)	1-1825189-0

STV Series SIP Switch, THT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- 2 SIP switches take up less board space than 1 DIP switch
- Shipped in the OFF position



DIP Switches

Typical performance characteristics

Contact configuration	SPST
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	10mA @ 5 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 100 MOhm
Dielectric strength	300 VAC for 1 min
Actuation force	2.45 N (245 gf) average
Actuator travel	33°

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/8s wave

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon
Terminals	copper alloy gold finish
Base	pps
Cover	pbt
RoHS Directive 2002/95/EC	compliant

Product key

Typical product key

STV 08

Type

STV SIP switch

Positions

02	2 positions	08	8 positions
04	4 positions	10	10 positions
06	6 positions		

STV Series SIP Switch, THT (Continued)

DIP Switches

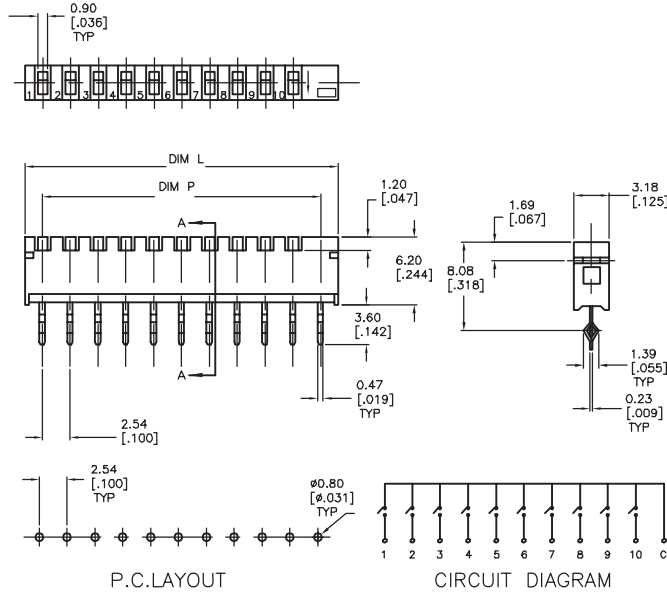
Positions



Codes 02 - 10 2 to 10 positions



STV08



Code	Poles	Dim L	Dim P
02	2	8.28mm (.326)	5.08mm (.200)
04	4	13.36mm (.526)	10.16mm (.400)
06	6	18.44mm (.726)	15.24mm (.600)
08	8	23.52mm (.926)	20.32mm (.800)
10	10	28.60mm (1.126)	25.40mm (1.00)

Product key	Positions	Part Number
STV02	2 positions	1977104-1
STV04	4 positions	1977104-2
STV06	6 positions	1977104-3
STV08	8 positions	1977104-4
STV10	10 positions	1977104-5

Preferred parts in bold print

STR Series SIP Switch, Right Angle, THT

Features

- Extremely high contact pressure system allows aqueous or solvent cleaning without tape seal
- Gas tight contacts
- Shipped in the OFF position



DIP Switches

Typical performance characteristics

Contact configuration	spst
Contact rating, non-switching (max)	1 Amp @ 5 VDC
Contact rating, switching (max)	10 mA @ 5 VDC
Contact rating, switching (min)	0.1 μ A @ 1 mV
Electrical life	1,000 cycles
Mechanical life	1,000 cycles
Contact resistance	max 50 mOhm
Insulation resistance	min 100 MOhm
Dielectric strength	300 VAC for 1 min
Actuation force	2.45 N (245 gf) average
Actuator travel	33°

Environmental specification

Operating temperature	-30 to +85°C
Storage temperature	-45 to +100°C
Solder heat resistance	265°C/8s wave

Material specifications

Contacts	copper alloy gold finish
Actuator	nylon
Terminals	copper alloy gold finish
Base	pps
Cover	pbt
RoHS Directive 2002/95/EC	compliant

Product key

Typical product key

STR 08

Type

STR SIP switch, right angle

Positions

02	2 positions	08	8 positions
04	4 positions	10	10 positions
06	6 positions		

STR Series SIP Switch, Right Angle, THT (Continued)

DIP Switches

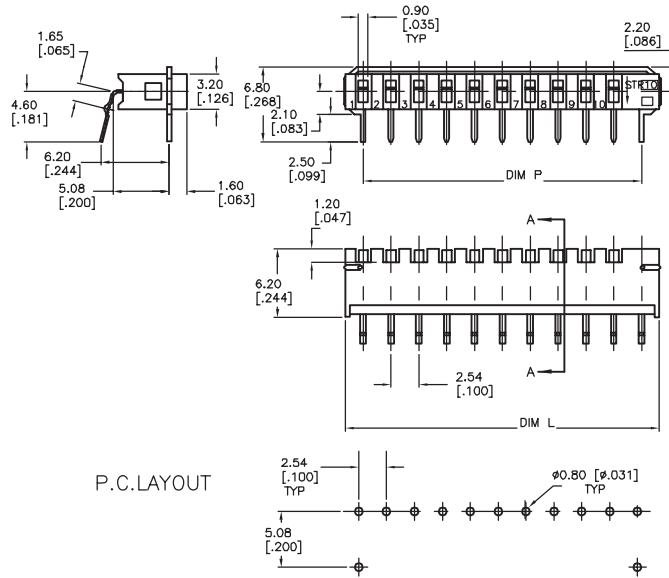
Positions



Codes 02 - 10 2 to 10 positions



STR08



Code	Poles	Dim L	Dim P
02	2	8.28mm (.326)	5.08mm (.200)
04	4	13.36mm (.526)	10.16mm (.400)
06	6	18.44mm (.726)	15.24mm (.600)
08	8	23.52mm (.926)	20.32mm (.800)
10	10	28.60mm (1.126)	25.40mm (1.00)

Product key	Positions	Part Number
STR02	2 positions	1977105-1
STR04	4 positions	1977105-2
STR06	6 positions	1977105-3
STR08	8 positions	1977105-4
STR10	10 positions	1977105-5

Preferred parts in bold print

Dip Switches, THT & Action Pins

Features

- Up to 30 poles
- Action pins up to 9 poles
- Terminals with standard pitch 2.54 x 7.62 mm



DIP Switches

Typical performance characteristics

Number of poles	1-30 poles
Contact configuration	SPST
Contact rating	0.5 VA max 50 VDC
Contact rating max, non switching	15 A
Electrical life	min 2,000 cycles
Contact resistance, initial	max 20 mOhm
Insulation resistance	min 1,000 MOhm @ 100 VDC
Standards and specs	108-19336

Environmental specification

Operating temperature	-25 to +70°C
Storage temperature	-55 to 100°C
Solder heat resistance	265°C for 10 sec

Material specifications

Contacts	phosphor bronze, tin plated
Terminals	phosphor bronze, tin plated
Actuator	polyester, glass filled UL94-0 rated
Housing	nylon, glass filled UL94-0 rated
RoHS compliance	compliant

Product key

Typical product key

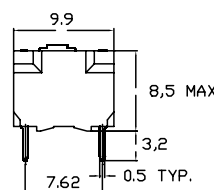
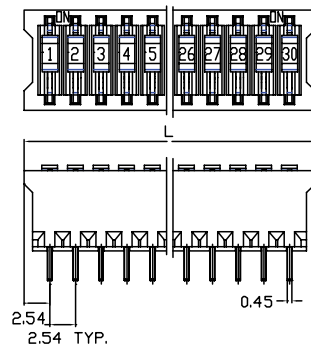
DIP 04

Type	
DIP	Multi pole Dip switches, through hole & action pins
Number of poles	
	configurable from
01	1 pole
...	to
30	30 poles
Terminals	
blank	through hole
A	action pin version

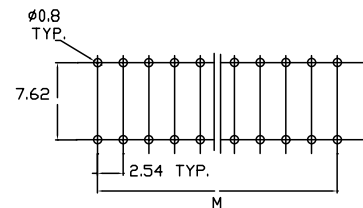
Terminals



blank through hole

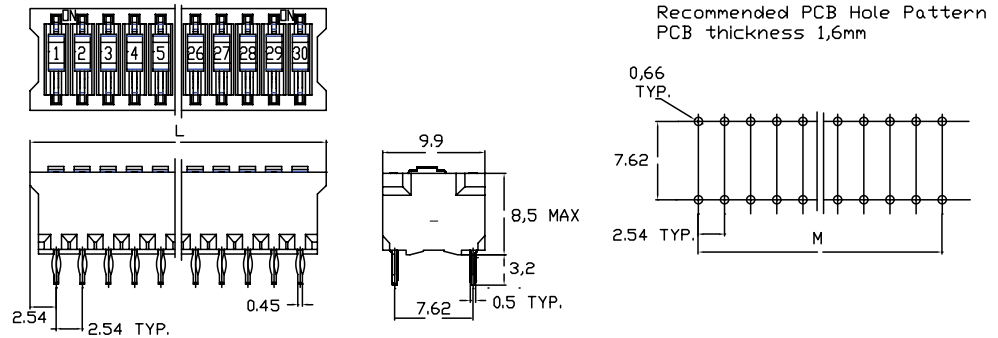


Recommended PCB Hole Pattern
PCB thickness 1,6mm



Dip Switches, THT & Action Pins (Continued)

A action pin



Code/Poles	Dim L	Dim M	Code/Poles	Dim L	Dim M	Code/Poles	Dim L	Dim M
01	5.08 mm	2.54 mm	11	30.48 mm	25.40 mm	21	55.88 mm	50.80 mm
02	7.62 mm	2.54 mm	12	33.02 mm	27.94 mm	22	58.42 mm	53.34 mm
03	10.16 mm	7.62 mm	13	35.56 mm	30.48 mm	23	60.96 mm	55.88 mm
04	12.70 mm	10.16 mm	14	38.10 mm	33.02 mm	24	63.50 mm	58.42 mm
05	15.24 mm	12.70 mm	15	40.64 mm	35.56 mm	25	66.04 mm	60.96 mm
06	17.78 mm	15.24 mm	16	43.18 mm	38.10 mm	26	68.58 mm	63.50 mm
07	20.32 mm	15.24 mm	17	45.72 mm	40.64 mm	27	71.12 mm	66.04 mm
08	22.86 mm	17.78 mm	18	48.26 mm	43.18 mm	28	73.66 mm	68.58 mm
09	25.40 mm	20.32 mm	19	50.80 mm	45.72 mm	29	76.20 mm	71.12 mm
10	27.94 mm	22.86 mm	20	53.34 mm	48.26 mm	30	78.74 mm	73.66 mm

Product key	Number of poles	Terminals	Part Number
DIP01	1 pole	THT terminals	5161390-1
DIP02	2 poles		5161390-2
DIP03	3 poles		5161390-3
DIP04	4 poles		5161390-4
DIP05	5 poles		5161390-5
DIP06	6 poles		5161390-6
DIP07	7 poles		5161390-7
DIP08	8 poles		5161390-8
DIP09	9 poles		5161390-9
DIP10	10 poles		1-5161390-0
DIP11	11 poles		1-5161390-1
DIP12	12 poles		1-5161390-2
DIP13	13 poles		1-5161390-3
DIP14	14 poles		1-5161390-4
DIP15	15 poles		1-5161390-5
DIP16	16 poles		1-5161390-6
DIP17	17 poles		1-5161390-7
DIP18	18 poles		1-5161390-8
DIP19	19 poles		1-5161390-9
DIP20	20 poles		2-5161390-0
DIP21	21 poles		2-5161390-1
DIP22	22 poles		2-5161390-2
DIP23	23 poles		2-5161390-3
DIP24	24 poles		2-5161390-4
DIP25	25 poles		2-5161390-5
DIP26	26 poles		2-5161390-6
DIP27	27 poles		2-5161390-7
DIP28	28 poles		2-5161390-8
DIP29	29 poles		2-5161390-9
DIP30	30 poles		3-5161390-0
DIP01A	1 pole	action pin version	5338048-1
DIP02A	2 poles		5338048-2
DIP03A	3 poles		5338048-3
DIP04A	4 poles		5338048-4
DIP05A	5 poles		5338048-5
DIP06A	6 poles		5338048-6
DIP07A	7 poles		5338048-7
DIP08A	8 poles		5338048-8
DIP09A	9 poles		5338048-9

Preferred parts in bold print

DIP-FIX Switches, Highly Simplified, THT

Features

- Up to 24 poles
- Change-over contacts up to 12 poles
- Predetermined breaking points, detachable for individual connections
- End to end stackable
- Terminals with standard pitch 2,54 x 7,62mm
- Low-cost alternative to DIP-Switches



DIP Switches

Typical performance characteristics

Number of poles	1 to 24 poles
Contact configuration	SPST, SPDT
Contact rating	5 W max 60 VDC; max 0,5 A
Electrical life	50 cycles
Contact resistance	max 200 mOhm
Insulation resistance	min 1,000 MOhm @ 100 VDC

Environmental specification

Operating temperature	-40 to +85°C
Solder heat resistance	260°C for 10 sec

Material specifications

Contacts	steel, tin plated
Terminals	steel, tin plated
Housing	pbtp-GF30, blue
RoHS compliance	compliant

Product key

Typical product key

DIP-FIX A1 01

Type
DIP-FIX highly simplified DIP switch, THT (C42315-A1347)

Function
A1 normally open
A2 change over

Number of poles			
01	1 pole	06	6 poles
02	2 poles	07	7 poles
03	3 poles	08	8 poles
04	4 poles	09	9 poles
05	5 poles	10	10 poles
		12	12 poles
		16	16 poles
		24	24 poles

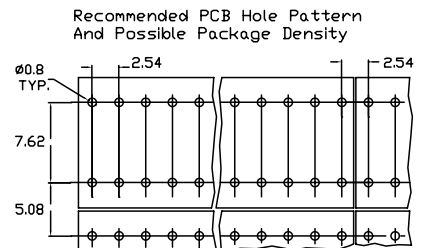
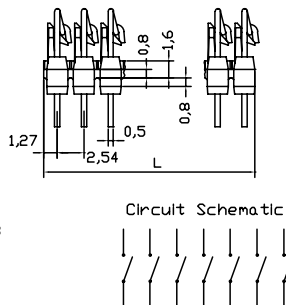
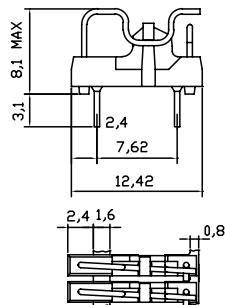
Function



A1 normally open



DIP-FIX-A108



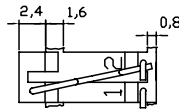
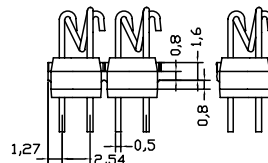
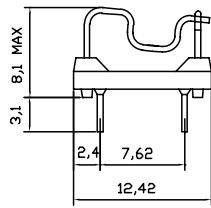
A2 change over

DIP-FIX Switches, Highly Simplified, THT (Continued)

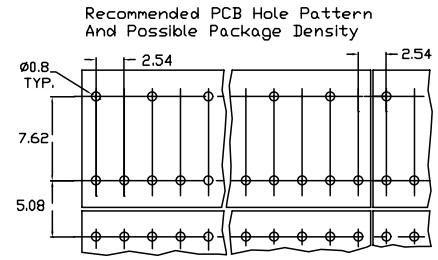
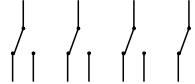
DIP Switches



DIP-FIX-A204



Circuit Schematic



Function A1, Normally Open

Code/Poles	Dim L
01	2.54 mm
02	5.08 mm
03	7.62 mm
04	10.16 mm
05	12.70 mm
06	15.24 mm
07	17.78 mm
08	20.32 mm
09	22.86 mm
10	25.40 mm
12	30.48 mm
16	40.64 mm
24	60.96 mm

Function A2, Change Over

Code/Poles	Dim L
01	5.08 mm
02	10.16 mm
03	15.24 mm
04	20.32 mm
05	25.40 mm
08	40.64 mm
12	60.96 mm

Product key	Function	Number of poles	Part Number	
DIP-FIX-A101	normally open	1 pole	1393546-1	
DIP-FIX-A102		2 poles	1393546-2	
DIP-FIX-A103		3 poles	1393546-3	
DIP-FIX-A104		4 poles	1393546-4	
DIP-FIX-A105		5 poles	1393546-5	
DIP-FIX-A106		6 poles	1393546-6	
DIP-FIX-A107		7 poles	1393546-7	
DIP-FIX-A108		8 poles	1393546-8	
DIP-FIX-A109		9 poles	1393546-9	
DIP-FIX-A110		10 poles	1-1393546-0	
DIP-FIX-A112		12 poles	1-1393546-1	
DIP-FIX-A116		16 poles	1-1393546-2	
DIP-FIX-A124		24 poles	1-1393546-3	
DIP-FIX-A201		change over	1 pole	1-1393546-4
DIP-FIX-A202			2 poles	1-1393546-5
DIP-FIX-A203			3 poles	1-1393546-6
DIP-FIX-A204	4 poles		1-1393546-7	
DIP-FIX-A205	5 poles		1-1393546-8	
DIP-FIX-A208	8 poles		1-1393546-9	
DIP-FIX-A212	12 poles		2-1393546-0	

Preferred parts in bold print