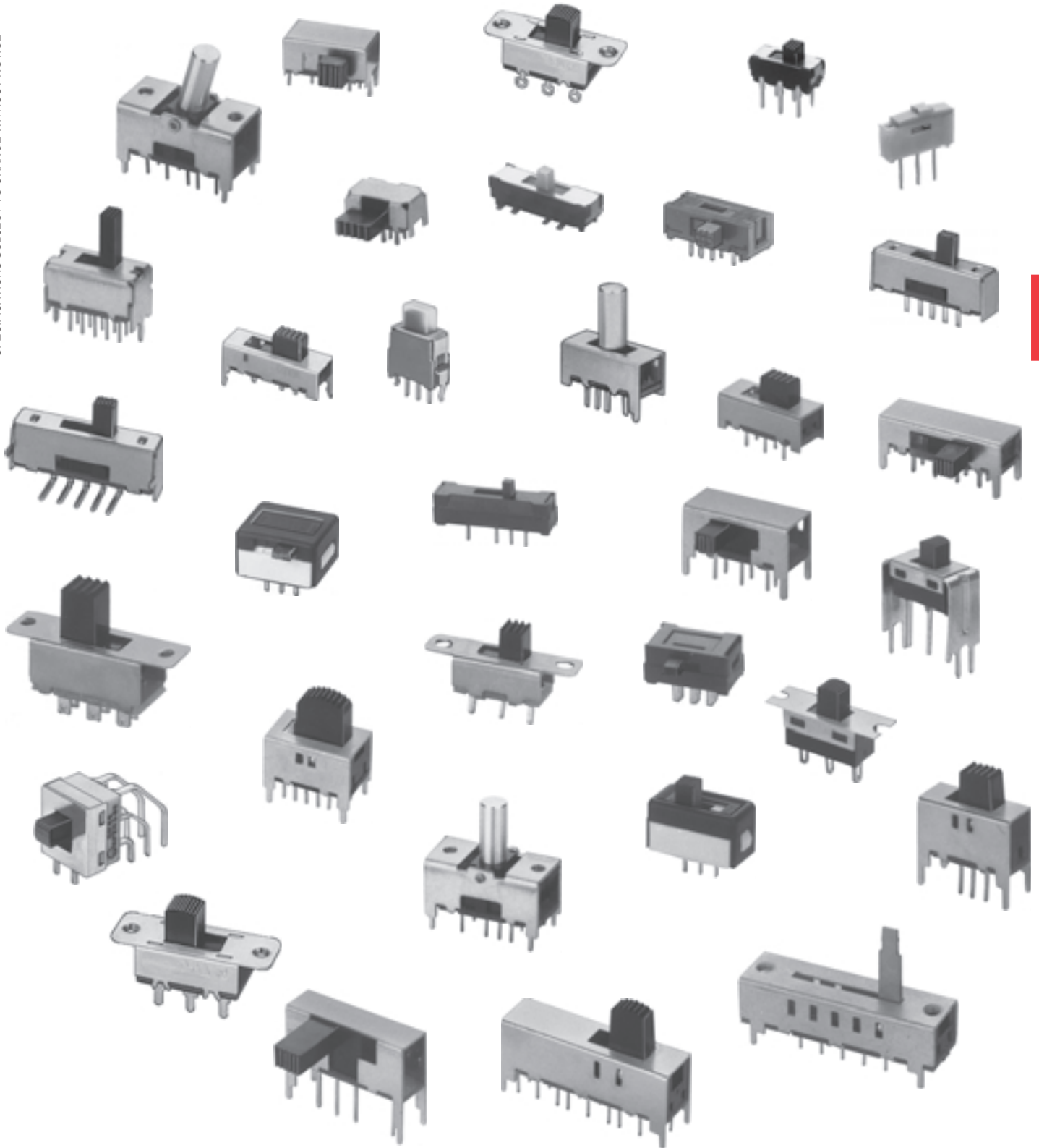


SLIDE SWITCHES

SEE PUSHBUTTON SWITCH SELECTION GUIDE ON NEXT PAGE

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



SLIDE SWITCHES

SLIDE SWITCH SELECTION GUIDE: This catalog contains an extensive variety of slide switches with numerous options and accessories. To facilitate easy selection of the desired switch for your application, the guide on pages E2 & E3 lists the various Series with some key selection parameters.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

E

MICROMINIATURE SLIDE SWITCHES								
SERIES	POLES	POS-ITIONS	RATINGS	WASH-ABLE	LIFE CYCLES	MOUNTING	ACTUATION	PAGE(S)
TG (SMT)	1	2&3	0.4 VA @ 20V	Yes	60,000	Surface	Vertical	E4-E7
MJS	1&2	2&3	100 ma @ 12VDC	No	10,000	P.C. thru-hole	Vert. & rt. angle	E8-E9
MSSA & MSSB	2	2	100 ma @ 30VDC or 125VAC & dry circuit	No	10,000	P.C. thru-hole	Vert. & rt. angle	E10
MA	1	2&3	300 ma @ 4VDC	No	10,000	Surface	Rt. angle	E11
MHSS	1&2	2	300 ma @ 6VDC	No	5000	P.C. thru-hole	Vert. & rt. angle	E12
MS	1,2&4	2&3	300 ma @ 6VDC	No	10,000	P.C. thru-hole & surface	Vert. & rt. angle	E13-E15
MMPS <i>New!</i>	1	2&3	300 ma @ 4VDC	No	10,000	Surface	Right angle	E15
MMS	1,2,4&6	2&3	300 ma @ 30VDC	No	10,000	P.C. thru-hole	Vert. & rt. angle	E16-E17
TG	1	2&3	500 ma @ 48V (AC or DC) & dry circuit	Some	30,000 & 60,000	P.C. thru-hole	Vert. & rt. angle	E18-E20
NK	1	2	500 ma @ 12V	No	1000	P.C. thru-hole	Vertical	E21
MINIATURE SLIDE SWITCHES								
SERIES	POLES	POS-ITIONS	RATINGS	WASH-ABLE	LIFE CYCLES	MOUNTING	ACTUATION	PAGE(S)
MSTS	1&2	3	300 ma @ 28VDC	Yes	10,000	P.C. thru-hole	Vertical	E22
MHS <i>New!</i>	1&2	2&3	300 ma @ 30VDC	Yes	10,000	P.C. thru-hole	Vertical	E23-E26
SLB	1&2	2,3,4&5	300 ma @ 30VDC or 125 VAC	Yes	10,000	P.C. thru-hole	Vert. & rt. angle	E27-E34
SLC	1&2	2	300 ma @ 30VDC or 125 VAC	Yes	10,000	Panel	Vertical	E35
SLG	1	2	300 ma @ 30VDC or 125 VAC	Yes	10,000	P.C. thru-hole & panel	Vertical	E36
SLA	1&2	2	500 ma @ 125VAC	Yes	10,000	P.C. thru-hole & panel	Vertical	E37-E38
SLE	1&2	2	500 ma @ 125VAC	Yes	10,000	P.C. thru-hole & panel	Vertical	E38-E39
G	1&2	2&3	4 amps @ 125VAC, 2 amps @ 250 VAC or 3 amps @ 30 VDC & dry circuit	No	20,000 - 60,000	P.C. thru-hole & panel	Vert. & rt. angle	E40-E44
25000N	1&2	2&3	4 amps @ 125 VAC, 2 amps @ 250 VAC or 3 amps @ 30 VDC & dry circuit	No	10,000 - 20,000	P.C. thru-hole	Vert. & rt. angle	E45-E49
STANDARD SIZE SLIDE SWITCHES								
SERIES	POLES	POS-ITIONS	RATINGS	WASH-ABLE	LIFE CYCLES	MOUNTING	ACTUATION	PAGE(S)
MSS	1,2&4	2,3&4	300 ma @ 30VDC or 125 VAC & dry circuit	Yes	10,000	P.C. thru-hole	Vert. & rt. angle	E50-E52
M	1,2,4, 6&8	2&3	300 ma @30VDC or 125 VAC	Yes	10,000	P.C. thru-hole	Vert. & rt. angle	E53-E57
PM	1&2	2	6 amps @ 125 VAC or 3 amps @ 250 VAC	Yes	10,000	Panel	Vertical	E58

SLIDE SWITCHES

SLIDE SWITCH SELECTION GUIDE (CONT'D.)

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MINIATURE PUSHBUTTON STYLE SLIDE SWITCHES									
SERIES	POLES	POS- ITIONS	RATINGS	WASH- ABLE	LIFE CYCLES	MOUNTING	ACTUATION	PAGE(S)	
MPS	PB-1 SL-1	PB-1 SL-3	PB - 0.4 VA @ 20 V max. Slide - 300 ma @ 30VDC/125VAC	No	100,000	P.C. thru-hole	Rt. angle	E59	
SINGLE POLE MULTI-POSITION SLIDE SWITCHES									
SERIES	POLES	POS- ITIONS	RATINGS	WASH- ABLE	LIFE CYCLES	MOUNTING	ACTUATION	PAGE(S)	
MSL	1	3,5&6	200 ma @ 30VDC/125VAC	Yes	10,000	P.C. thru-hole	Vertical	E60	
BATON TOGGLE STYLE SLIDE SWITCHES									
SERIES	POLES	POS- ITIONS	RATINGS	WASH- ABLE	LIFE CYCLES	MOUNTING	ACTUATION	PAGE(S)	
MBT	2,4&6	2,3&4	300 ma @ 30VDC/125VAC	Yes	10,000	P.C. thru-hole	Toggle	E61-E63	

E

ALPHA-NUMERIC INDEX BY SERIES

<u>SERIES</u>	<u>Page (s)</u>	<u>SERIES</u>	<u>Page (s)</u>
G	E40 - E44	MSSA	E10
M	E53 - E57	MSSB	E10
MA	E11	MSTS	E22
MBT	E61 - E63	NK	E21
MHS	E23 - E26	PM	E58
MHSS	E12	SLA	E37 - E38
MMPS	E15	SLB	E27 - E34
MJS	E8 - E9	SLC	E35
MMS	E16 - E17	SLE	E38 - E39
MPS	E59	SLG	E36
MS	E13 - E15	25000N	E45 - E49
MSL	E60	TG	E18 - E20
MSS	E50 - E52	TG (SMT)	E4 - E7

TG SERIES - SMT WASHABLE TINY SLIDE SWITCHES

DESIGNED EXCLUSIVELY FOR SURFACE MOUNTING

SMT TG Series switches incorporate many desirable features that include:

● **Tape & reel packaging**

This type of packaging is recommended for:

- economy
- suitability for automated placement
- handling of large quantities of components per packaging unit
- positive component positioning
- protection of terminals against damage during handling
- high static resistance

● **Reflow solderable**

- High temperature plastic materials
- Tin plated grounding brackets
- Tin-lead alloy over nickel terminal plating
- Terminals turned outward to prevent the shadow effect in infrared soldering and to permit visual inspection of the solder joints
- .021" (0.55mm) air gap between p.c. board and switch case
- End stackable with .400" (10.16mm) pitch
- Available with positioning pins to assure correct switch orientation during the reflow process and provide additional mechanical integrity

● **Washable**

Switches are designed to withstand cleaning processes, including hot water under pressure.

Surface mount devices (SMD) are subject to more stringent constraints of temperature, solderability, sealing and space savings than through-hole components.

To meet these requirements, APEM has designed a family of tiny surface mount switches that include TL Series toggle switches, TP Series pushbutton switches, TR Series rocker switches & TG Series slide switches. See toggle, pushbutton & rocker switch sections of catalog for TL, TP & TR Series respectively.



TG SERIES - SMT WASHABLE TINY SLIDE SWITCHES

ELECTRICAL SPECIFICATIONS

Contact ratings (resistive lds.):	0.4 VA at 20 V max. (AC or DC)
Minimum load:	10 mA at 50 mV or 10µA at 5 VD
Initial contact resistance:	20 milliohms maximum
Insulation resistance:	1000 MΩ min. at 500 VDC
Dielectric strength:	1000 V rms between terminals & frame. 500 V rms between terminals
Electrical life (at full load):	2 position switches: 60,000 cycles 3 position switches: 30,000 cycles
Static resistance:	10 KV (Schaffner equipment)

GENERAL SPECIFICATIONS

Travel:	.102" (2.60mm)
Operating temperature range:	-40°C to +85°C
Moisture resistance:	21 days per IEC 512-6 test 11c
Vibration resistance:	10-500 Hz/10g per IEC 512-4 test 6d
Shock resistance:	50 g per IEC 512-4 test 6c

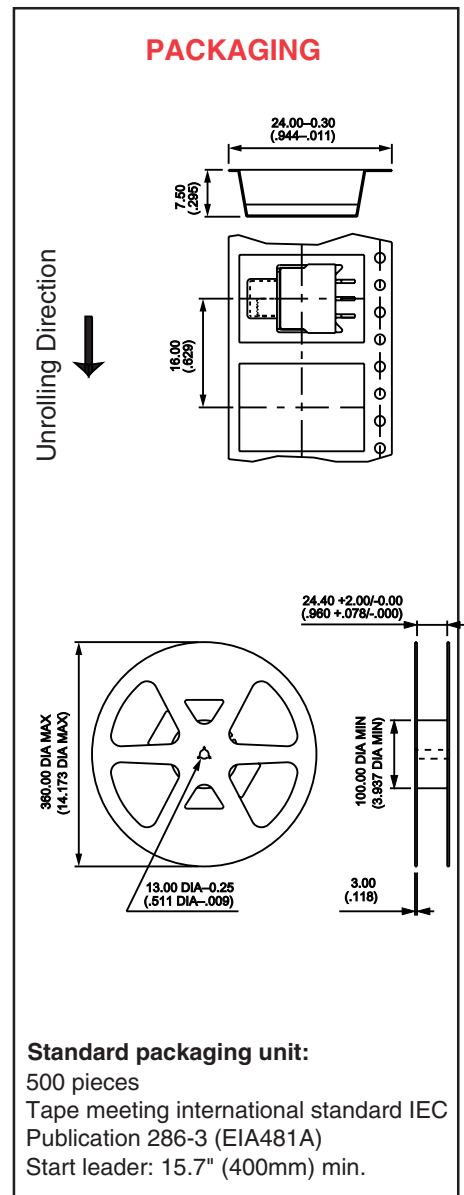
MATERIALS

Case:	High temperature plastic UL94V-0
Actuator:	High temperature plastic UL94V-0
Grounding brackets:	Tin plated steel (includes positioning pins)
Contacts:	Gold plated brass
Terminals:	Brass with tin-lead alloy over nickel plate
Terminal seal:	Epoxy

SOLDERING AND CLEANING

Reflow soldering:	Infrared, vapor phase and infrared convection
Washable:	Per IEA-RS448-2: water and detergent - preferred. Solvents.

PACKAGING



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

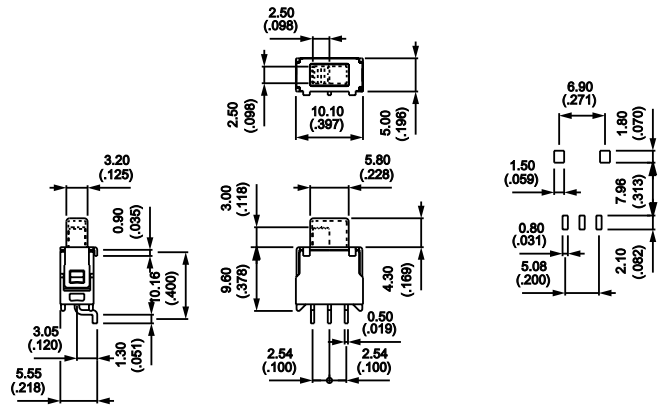
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TG SERIES - SMT WASHABLE TINY SLIDE SWITCHES

Single pole slide switches



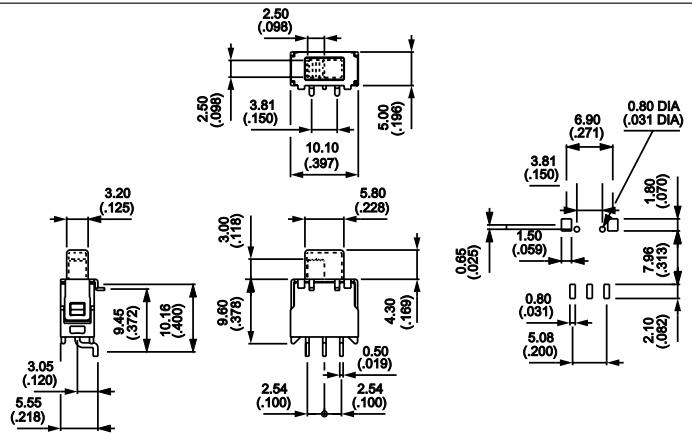
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TG36WS80050	ON - ON
TG39WS80050	ON OFF ON



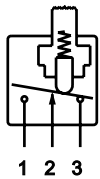
Single pole slide switches with positioning pins



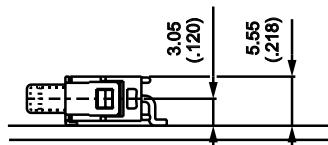
MODEL NO.	CIRCUIT
TG36WS80065	ON - ON
TG39WS80065	ON OFF ON



SWITCH ACTION



P.C. BOARD DIMENSIONS



LED INDICATOR IN TINY PACKAGE

ELECTRICAL SPECIFICATIONS

Forward voltage: Red; 3.0 volts at 10 milliamps (2V typical)
Green; 3.0 volts at 20 milliamps (2.2V typical)
Yellow; 3.0 volts at 10 milliamps (2.1V typical)

Reverse voltage: 5.0 volts minimum

Viewing angle (total): 90°

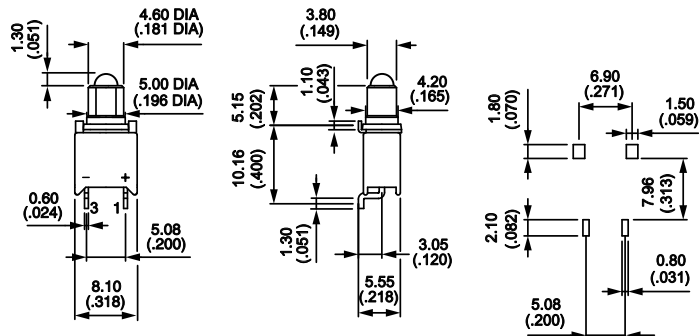
Wavelength: Red; 635 nm
Green; 565 nm
Yellow; 585 nm

PACKAGING

Tape & reel



MODEL NO.	COLOR
TV01WS00100	Red
TV02WS00100	Green
TV03WS00100	Yellow



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

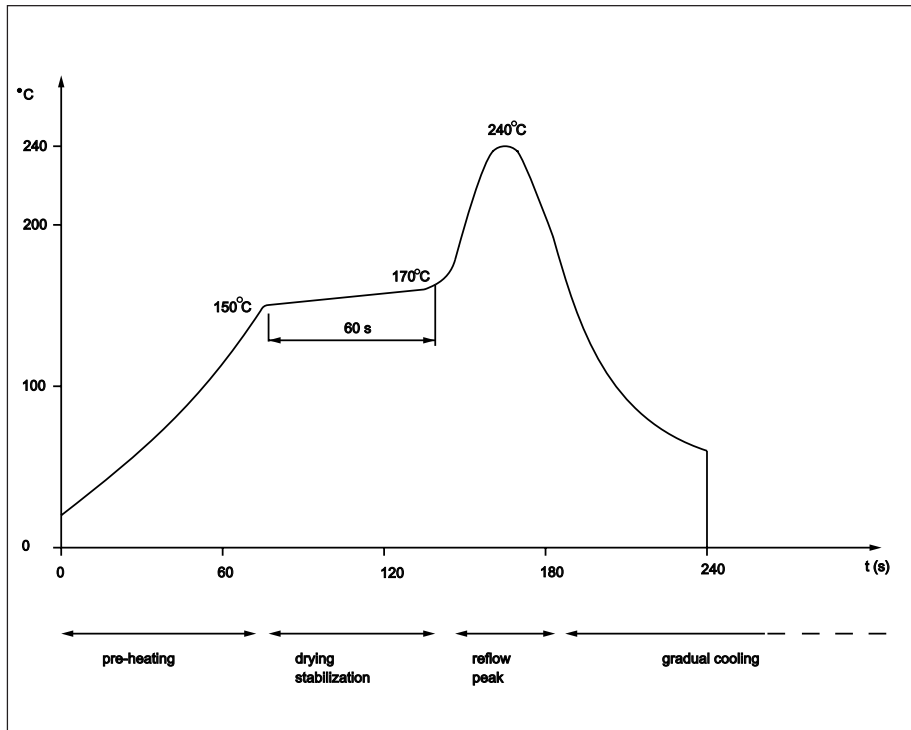
TG SERIES - SMT WASHABLE TINY SLIDE SWITCHES

REFLOW SOLDERING - STANDARD PROFILE

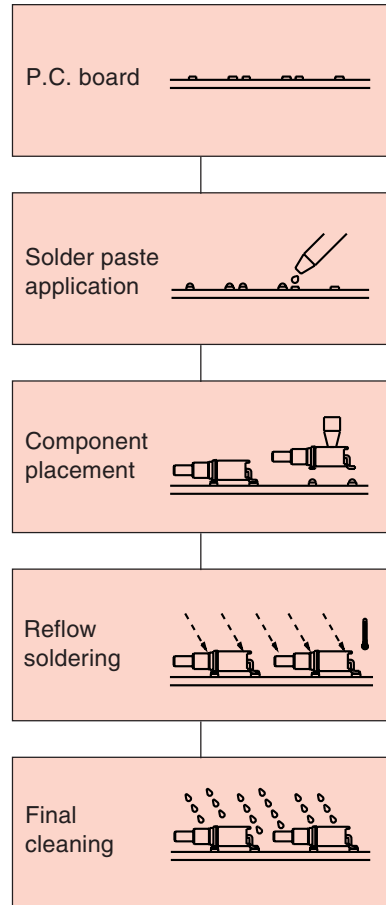
The printed circuit board, carried by a conveyor belt, travels through the reflow soldering oven and experiences the following programmed cycles:

- pre-heat to a maximum of 200°C for 30 seconds
- reflow at a maximum of 245°C for 10 seconds
- final cleaning

TEMPERATURE/TIME PROFILE (typical)



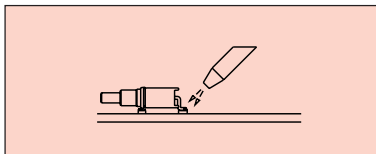
PROCESSING STEPS



E

P.C. BOARD REWORK RECOMMENDATIONS

Hot air reflow technique is preferred. Avoid the use of a soldering iron.





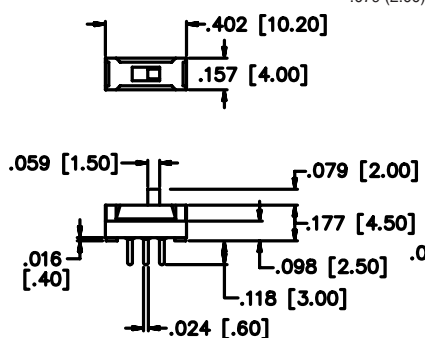
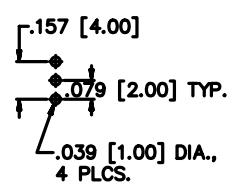
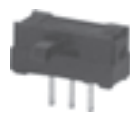
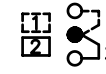
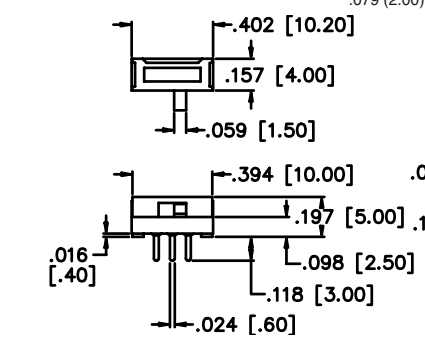
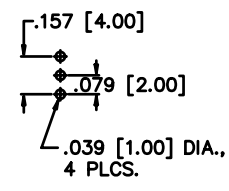
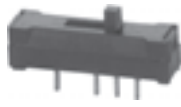
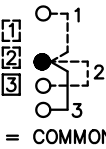
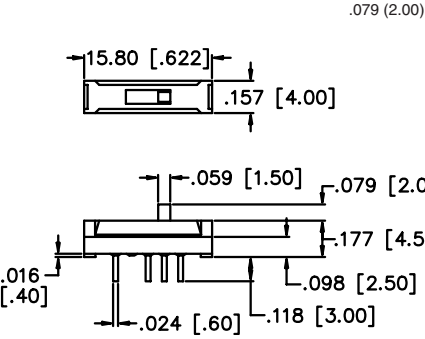
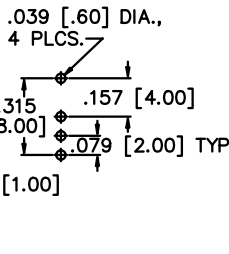
Caution: Excessive and/or repeated high temperature exposure may affect switch performance & reliability.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MJS Series

Microminiature Slide Switches

SPECIFICATIONS	FEATURES
Contact rating: 100 mA at 12 VDC Initial contact resistance: 20 milliohms max. Insulation resistance: 100 megohms min. at 500 VDC Dielectric strength: 500 volts RMS at sea level Electrical life: 10,000 cycles min. Operating temperature range: -10°C to +60°C Actuation force: 225g (average) Solder heat resistance: 260°C max. for 5 seconds Washing not recommended	<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Molded-in terminals minimize flux or solder entry. ● Molded-in high temperature phenolic base. ● Low Profile.
	MATERIALS
	Contacts & terminals: Silver plated Case & actuator: Thermoplastic Terminal seal: Molded-in


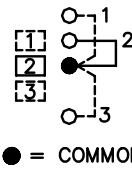

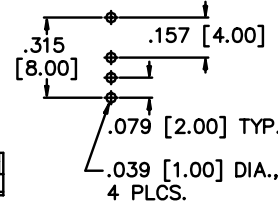

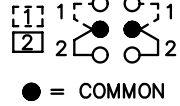
MODEL NO.			
MJS12			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
MJS12R			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
MJS13			
	1P3T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MJS Series

Microminiature Slide Switches


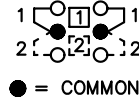
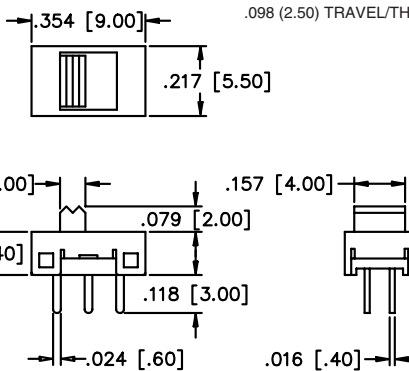
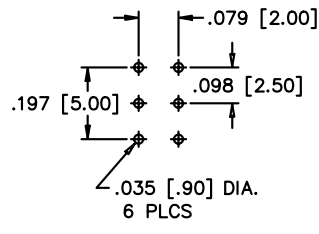
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


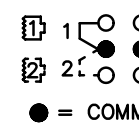
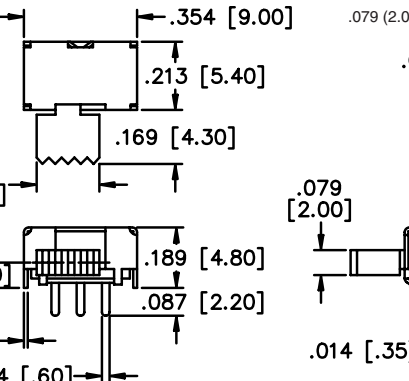
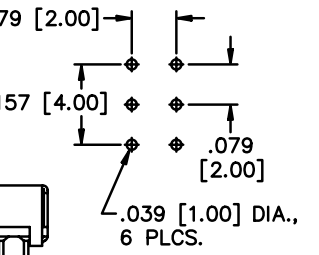
<p>MODEL NO.</p> <p>MJS13R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <p>1P3T</p>  <p>● = COMMON</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>MJS22</p>  <p>VERTICAL ACTUATOR</p>	<p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <p>2P2T</p>  <p>● = COMMON</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>MJS22R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <p>2P2T</p>  <p>● = COMMON</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>

E

MSSA & MSSB Series

Microminiature Slide Switches

SPECIFICATIONS		FEATURES		
<p>Contact ratings: Gold; 0.4 Volt-Amps (VA) max. at 20 V max. (AC or DC) Silver; 100 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 30 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 250 VDC</p> <p>Dielectric strength: 250 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Actuation force: 250g ± 150g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Washing not recommended</p>		<ul style="list-style-type: none"> ● Low Profile. ● Epoxy sealed terminals. ● Cosmetic molded case. 		
MODEL NO. PLATING		MATERIALS		
MSSA22	SILVER	Contacts & terminals: Gold or silver available (see contact ratings)		
MSSA22G	GOLD	Housing and Actuator: Thermoplastic		
		Base: High temperature thermoplastic		
		Terminal seal: Epoxy		
<p>2P2T</p>  <p>VERTICAL ACTUATOR</p>		 <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

SPECIFICATIONS		FEATURES		
<p>Contact ratings: Gold; 0.4 Volt-Amps (VA) max. at 20 V max. (AC or DC) Silver; 100 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 250 VDC</p> <p>Dielectric strength: 250 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Actuation force: 200g ± 150g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Washing not recommended</p>		<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Low Profile. ● Epoxy sealed terminals. 		
MODEL NO. PLATING		MATERIALS		
MSSB22R	SILVER	Contacts & terminals: Gold or silver available (see contact ratings)		
MSSB22RG	GOLD	Housing: Tin plated steel		
		Actuator: Thermoplastic		
		Base: Phenolic laminated sheet		
		Terminal seal: Epoxy		
<p>2P2T</p>  <p>RIGHT ANGLE ACTUATOR</p>		 <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>


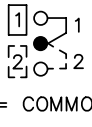
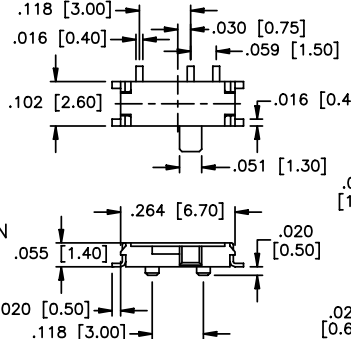
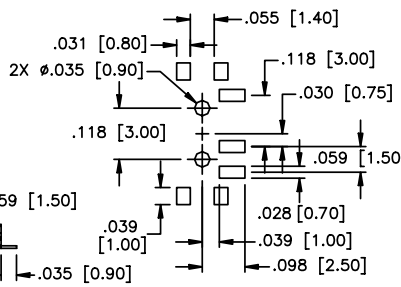
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


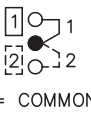
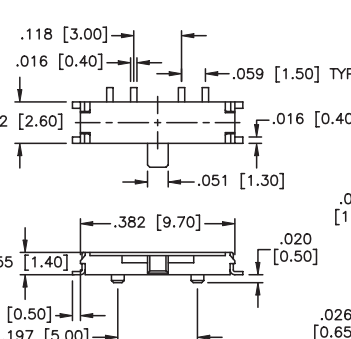
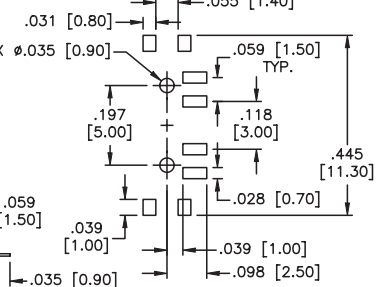
MA Series

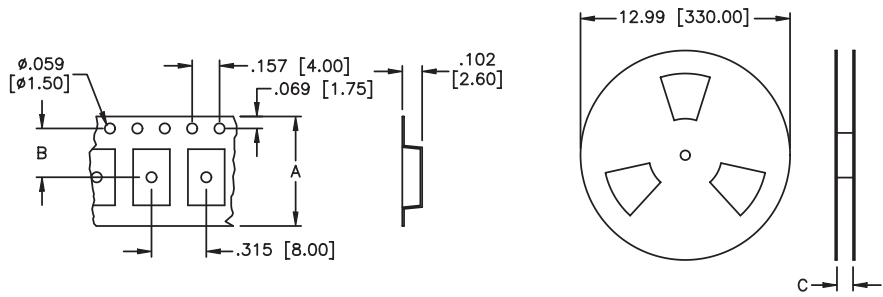
Microminiature Memory Card Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 4 VDC</p> <p>Initial contact resistance: 70 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 100 VDC</p> <p>Dielectric strength: 100 VAC for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Actuation force: 200g ± 100g</p> <p>Solder heat resistance: Reflow - 260°C max. for 1 min. Manual - iron temperature 305 °C max. for 6 seconds.</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Ultra-compact size. ● Low Profile. ● Surface mounting with restraining bosses. ● Reflow or hand solderable.
MATERIALS	
<p>Contacts: Silver plated beryllium copper</p> <p>Terminals: Silver plated brass</p> <p>Base: Liquid crystal polymer Cover: Tin plated steel</p> <p>Actuator: Liquid crystal polymer</p>	

MODEL NO.	.059 (1.50) TRAVEL/THROW		
MA12R			
 RIGHT ANGLE ACTUATOR	1P2T  SCHEMATIC	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT

MODEL NO.	.059 (1.50) TRAVEL/THROW		
MA13R			
 RIGHT ANGLE ACTUATOR	1P3T  SCHEMATIC	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT


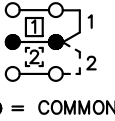
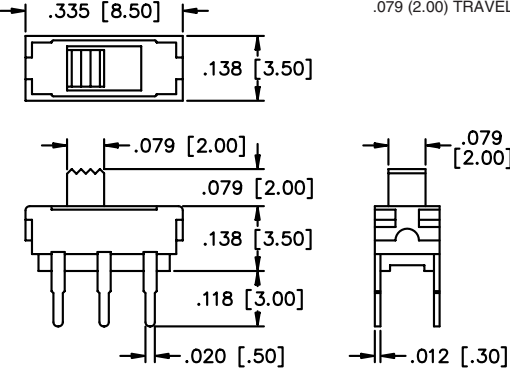
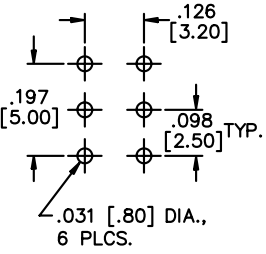

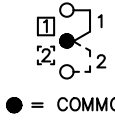
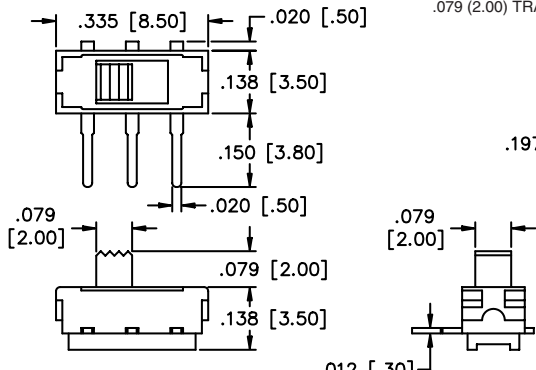
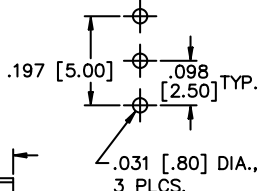

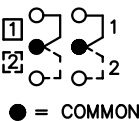
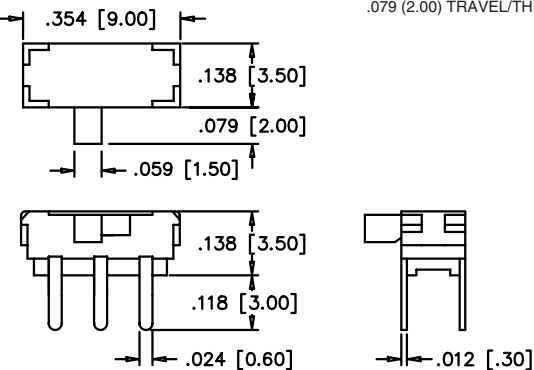
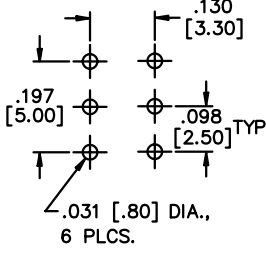
MODEL NO.															
MA12R/TR MA13R/TR															
Same as above models except supplied on tape & reel as shown.															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Model No.</th> <th>Dim. A</th> <th>Dim. B</th> <th>Dim. C</th> </tr> </thead> <tbody> <tr> <td>MA12R/TR</td> <td>.630 (16.0)</td> <td>.217 (5.5)</td> <td>.646 (16.4)</td> </tr> <tr> <td>MA13R/TR</td> <td>.945 (24.0)</td> <td>.453 (11.5)</td> <td>.960 (24.4)</td> </tr> </tbody> </table>	Model No.	Dim. A	Dim. B	Dim. C	MA12R/TR	.630 (16.0)	.217 (5.5)	.646 (16.4)	MA13R/TR	.945 (24.0)	.453 (11.5)	.960 (24.4)	CARRIER TAPE REEL DIMENSIONS		
Model No.	Dim. A	Dim. B	Dim. C												
MA12R/TR	.630 (16.0)	.217 (5.5)	.646 (16.4)												
MA13R/TR	.945 (24.0)	.453 (11.5)	.960 (24.4)												

MHSS Series

Microminiature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: 300 mA at 6 VDC</p> <p>Initial contact resistance: 60 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 100 VDC</p> <p>Dielectric strength: 100 VAC for 1 minute</p> <p>Electrical life: 5000 cycles min.</p> <p>Operating temperature range: -20°C to +70°C</p> <p>Solder heat resistance: 350°C max. for 3 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Excellent tactile feed-back (detent action). ● Molded-in terminals minimize flux or solder entry. ● Ultra-compact case size. ● Low profile.
	MATERIALS
	<p>Contacts & terminals: Silver plated</p> <p>Case: 30% Glass filled nylon, type 6/6, black</p> <p>Actuator: Nylon, type 6/6, black (blue for MHSS2220 only)</p>

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MODEL NO.			
MHSS1104			
	<p>1P2T</p>  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	<p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p>
VERTICAL ACTUATOR	SCHEMATIC		
MHSS1105			
	<p>1P2T</p>  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	<p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p>
RIGHT ANGLE ACTUATOR	SCHEMATIC		
MHSS2220			
	<p>2P2T</p>  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	<p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p>
RIGHT ANGLE ACTUATOR	SCHEMATIC		


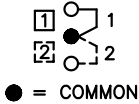
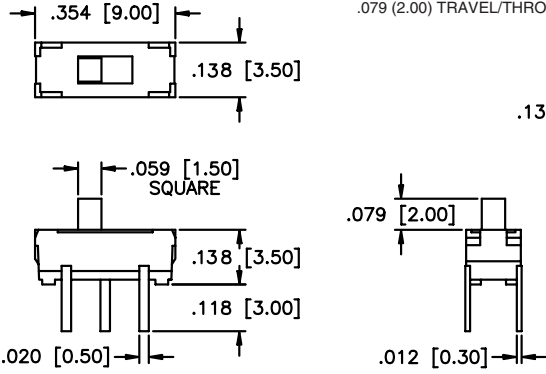
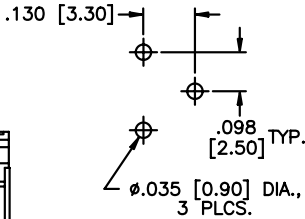

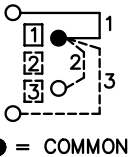
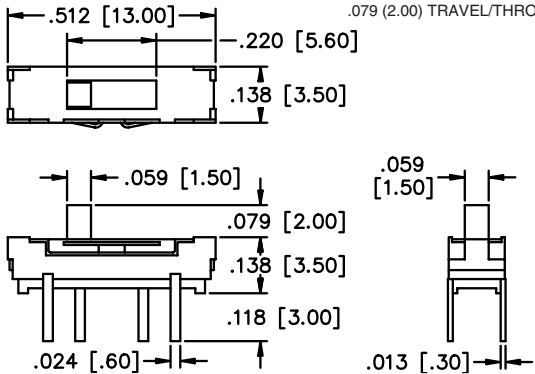
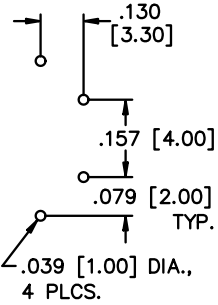

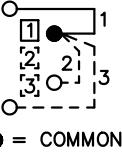
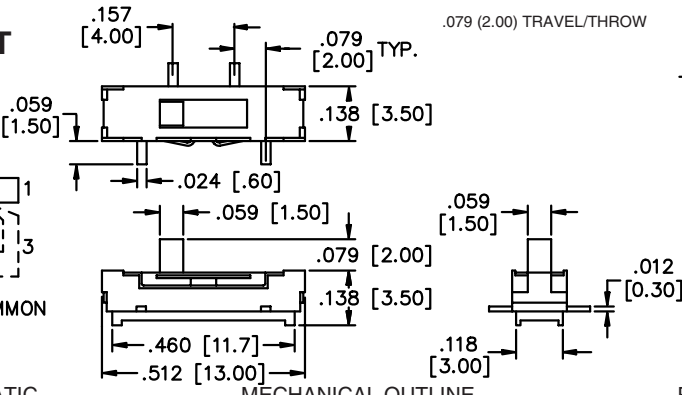
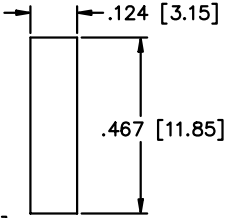
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MS Series

Microminiature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


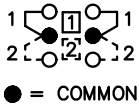
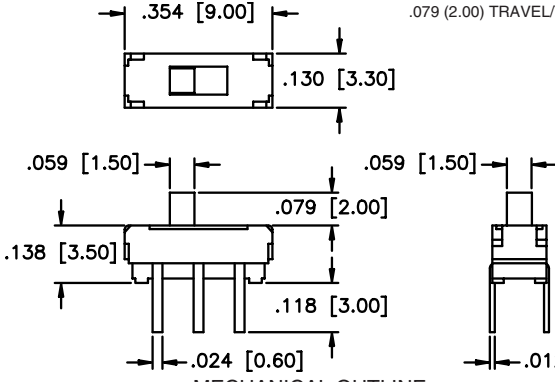
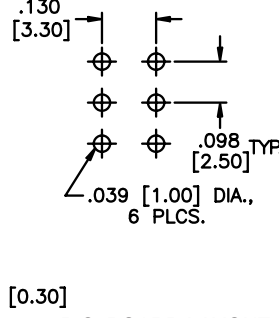

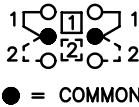
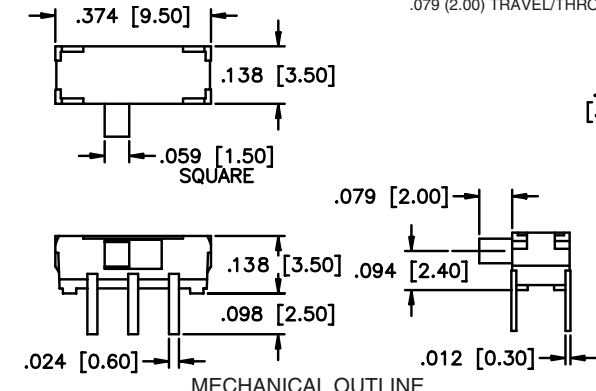
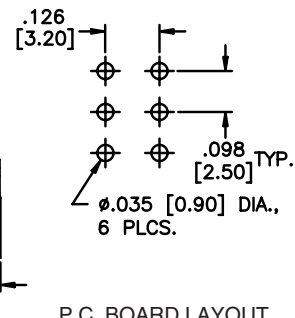

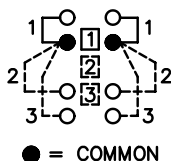
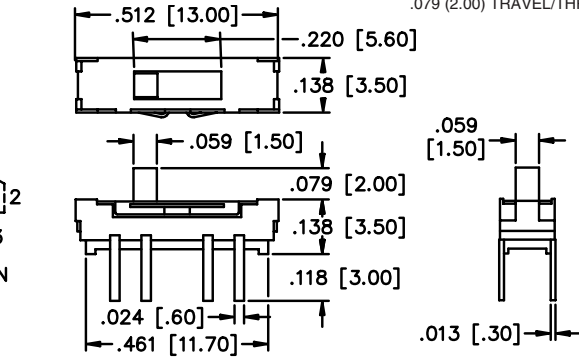
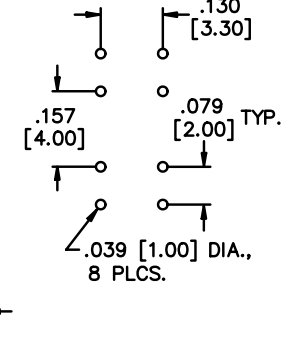

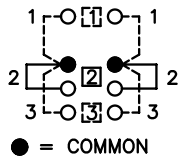
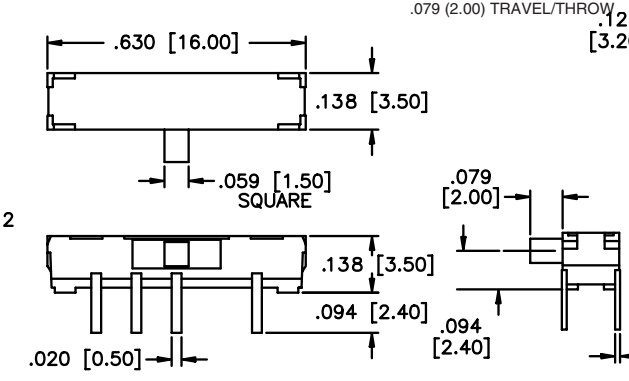
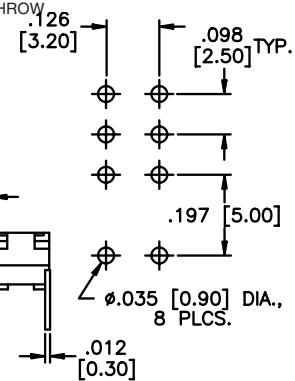
SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 6 VDC</p> <p>Initial contact resistance: 70 milliohms max.</p> <p>Insulation resistance: 100 megohms max. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Low profile. ● Insert molded terminals. ● Stainless steel cover.
MATERIALS	
<p>Contacts & terminals: Silver plated</p> <p>Cover: Stainless steel</p> <p>Actuator: Thermoplastic</p> <p>Base: High temperature thermoplastic Terminal seal: Insert molded</p>	

MODEL NO.			
MS12	1P2T	.079 (2.00) TRAVEL/THROW	
 <p>VERTICAL ACTUATOR</p>	 <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
MS13	1P3T	.079 (2.00) TRAVEL/THROW	
 <p>VERTICAL ACTUATOR</p>	 <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD CUTOUT</p>
MS13S	1P3T	.079 (2.00) TRAVEL/THROW	
 <p>VERTICAL ACTUATOR</p>	 <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

MS Series

Microminiature Slide Switches

E

<p>MODEL NO. MS22</p>  <p>VERTICAL ACTUATOR</p>	<p>2P2T</p>  <p>● = COMMON</p>  <p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO. MS22R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P2T</p>  <p>● = COMMON</p>  <p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO. MS23</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T</p>  <p>● = COMMON</p>  <p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO. MS23R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P3T</p>  <p>● = COMMON</p>  <p>.079 (2.00) TRAVEL/THROW</p>  <p>P.C. BOARD CUTOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	<p>2P3T</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD CUTOUT</p>
MS23S			
VERTICAL ACTUATOR			
MODEL NO.	<p>4P2T</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MS42R			
RIGHT ANGLE ACTUATOR			



New!

MMPS Series

Microminiature Pushbutton Style Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 4 VDC</p> <p>Initial contact resistance: 70 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 100 VDC</p> <p>Dielectric strength: 100 VAC for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Actuation force: Pushbutton; 200g average Slide; 275g average</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Surface mounting configuration. ● Combination momentary pushbutton & slide switch mechanism. ● Ultra-low profile & ultra-compact case. ● Molded-in terminal seal.
	MATERIALS
	<p>Contacts: Gold plated copper alloy</p> <p>Frame: Stainless steel Actuator: 6/6 Nylon or PA</p> <p>Base: High temperature PPS</p> <p>Terminal seal: Molded-in</p>

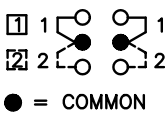
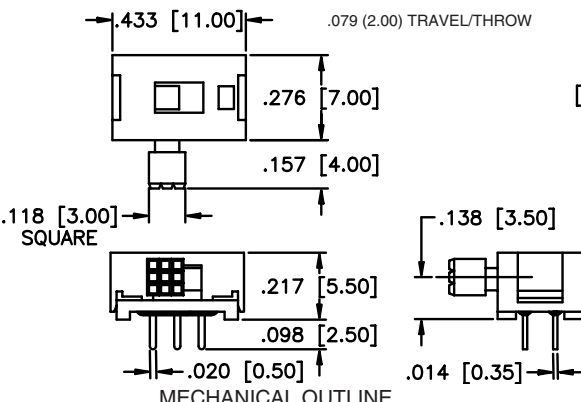
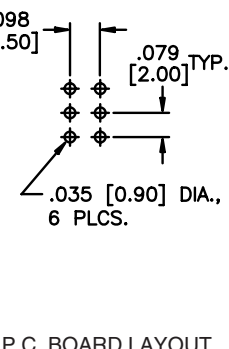
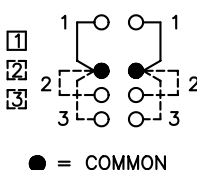
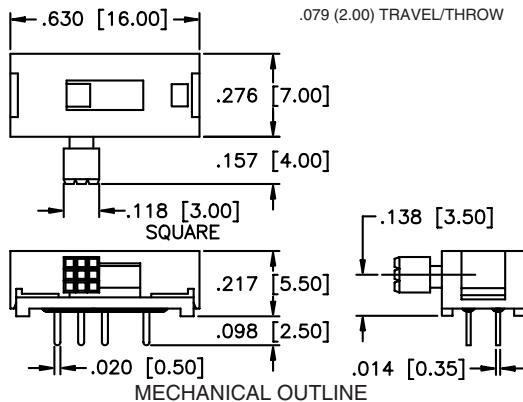
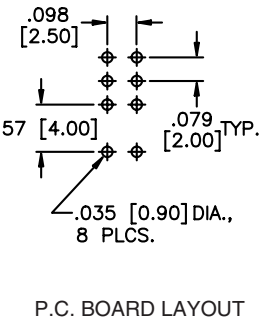
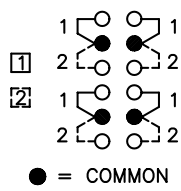
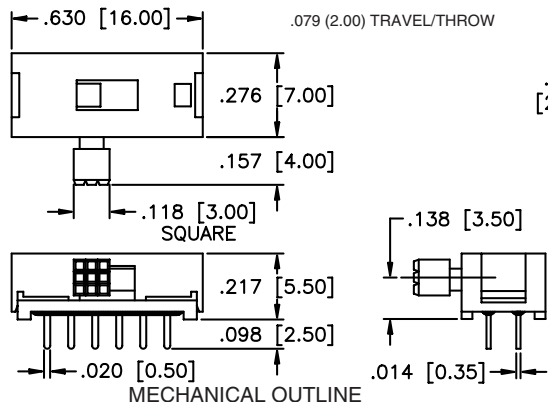
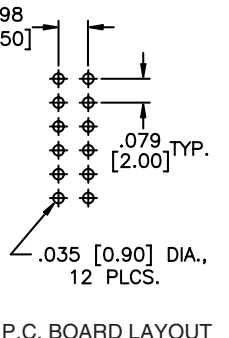
MODEL NO.	<p>1P2T, (PB) 1P3T, (Slide)</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MMPS101			
RIGHT ANGLE ACTUATOR			

MMS Series

Microminiature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: 300 mA at 30 VDC</p> <p>Initial contact resistance: 25 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +70°C</p> <p>Solder heat resistance: 255°C max. for 5 seconds max.</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Low Profile. ● Epoxy sealed terminals. ● Cosmetic molded case.
MATERIALS	
<p>Contacts & terminals: Silver plated</p> <p>Case: Polyacetal</p> <p>Actuator: PBT Base: Glass filled PBT</p> <p>Terminal seal: Epoxy or phenol resin</p>	

E


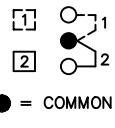
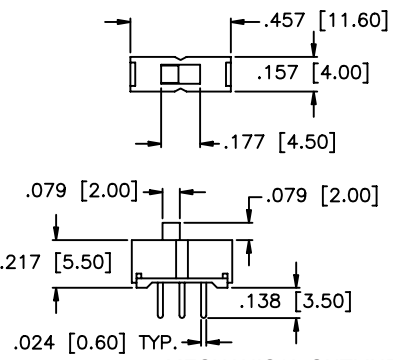
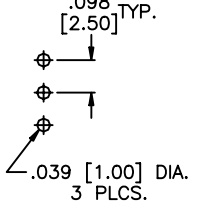

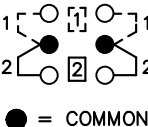
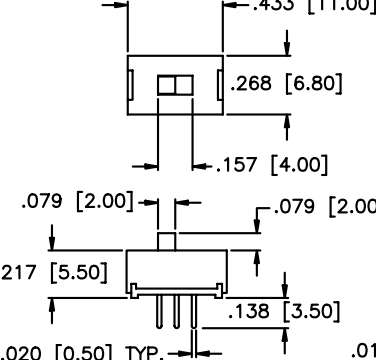
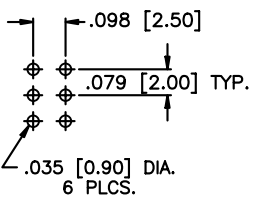

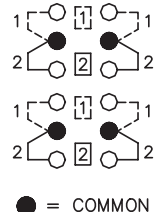
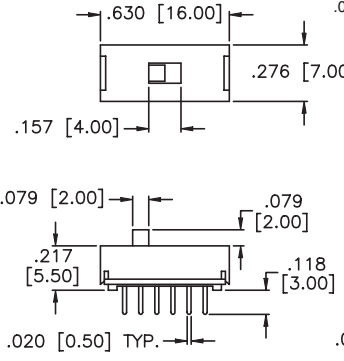
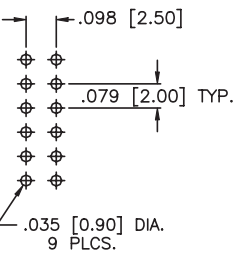

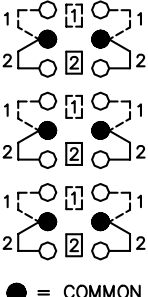
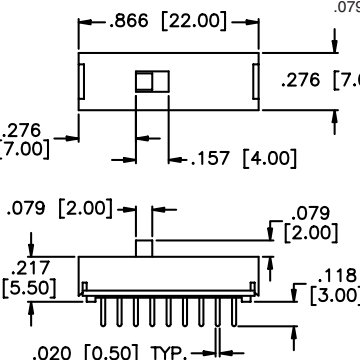
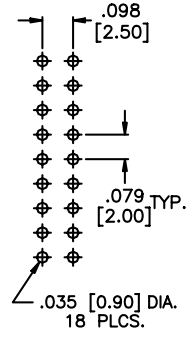
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<p>MODEL NO.</p> <p style="color: red; font-weight: bold;">MMS23R</p>	<p style="font-size: 1.2em; font-weight: bold;">2P3T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p style="color: red; font-weight: bold;">MMS42R</p>	<p style="font-size: 1.2em; font-weight: bold;">4P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MMS Series

Microminiature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

<p>MODEL NO.</p> <p>MMS1208</p> <div style="text-align: center;">  </div> <p>VERTICAL ACTUATOR</p>	<p>1P2T</p> <p style="text-align: right;">.098 (2.50) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
<p>MODEL NO.</p> <p>MMS2214</p> <div style="text-align: center;">  </div> <p>VERTICAL ACTUATOR</p>	<p>2P2T</p> <p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
<p>MODEL NO.</p> <p>MMS42</p> <p style="color: red; font-weight: bold; font-size: 1.2em;">New!</p> <div style="text-align: center;">  </div> <p>VERTICAL ACTUATOR</p>	<p>4P2T</p> <p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
<p>MODEL NO.</p> <p>MMS6202</p> <div style="text-align: center;">  </div> <p>VERTICAL ACTUATOR</p>	<p>6P2T</p> <p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>

E

TG Series

Microminiature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: Gold; 0.4 Volt-Amps max. at 20 V max. Silver; 500 mA at 48 V max. (AC or DC)</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 1000 megohms min. at 500 VDC</p> <p>Dielectric strength: 1000 V rms min. between terms. and ground plate (and bracket)</p> <p>Electrical life: 2 position switches-60,000 cycles min. 3 position switches-30,000 cycles min.</p> <p>Operating temperature range: -30°C to +85°C</p> <p>Solder heat resistance: 260°C for 5 seconds max.</p> <p>Washing: Permissible (with model option 50)</p>	<ul style="list-style-type: none"> ● Ultra-compact case size. ● Washable models. ● SPDT maintained action with long electrical life. ● See additional options on pg. E20.
MATERIALS	
<p>Contacts & terminals: Gold or silver available (see contact ratings)</p> <p>Actuator: Thermoplastic</p> <p>Ground plate & bracket: Tin plated steel</p> <p>Case: Flame retardant thermoplastic Terminal seal: Epoxy</p> <p>Washable seal: Translucent silicone rubber (with model option 50)</p>	

E

MODEL NO.	PLATING	ACTION	STRAIGHT P.C. TERMINALS - STANDARD MODELS	TRAVEL/THROW; .102 (2.60)	
TG36P000000	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	
TG39P000000	Gold	on off on			<p>P.C. BOARD LAYOUT</p>
TG36P010000	Silver	on - on			
TG39P010000	Silver	on off on			
MODEL NO.	PLATING	ACTION	STRAIGHT P.C. TERMINALS - WASHABLE MODELS	TRAVEL/THROW; .102 (2.60)	
TG36P000050	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	
TG39P000050	Gold	on off on			<p>P.C. BOARD LAYOUT</p>
TG36P010050	Silver	on - on			
TG39P010050	Silver	on off on			
<p style="text-align: center;">PROCESS COMPATIBLE</p>					
MODEL NO.	PLATING	ACTION	STRAIGHT P.C. TERMINALS - BRACKET MTG. - STANDARD MODELS	TRAVEL/THROW; .102 (2.60)	
TG36Y000000	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	
TG39Y000000	Gold	on off on			<p>P.C. BOARD LAYOUT</p>
TG36Y010000	Silver	on - on			
TG39Y010000	Silver	on off on			

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

TG Series

Microminiature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	PLATING	ACTION	STRAIGHT P.C. TERMINALS - BRACKET MTG. - WASHABLE MODELS	TRAVEL/THROW; .102 (2.60)	
TG36Y000050	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	
TG39Y000050	Gold	on off on			<p>P.C. BOARD LAYOUT</p>
TG36Y010050	Silver	on - on			
TG39Y010050	Silver	on off on			
<p>PROCESS COMPATIBLE</p>					
MODEL NO.	PLATING	ACTION	RIGHT ANGLE TERMINALS - HORIZONTAL MTG. - STANDARD MODELS	TRAVEL/THROW; .102 (2.60)	
TG36W000000	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	
TG39W000000	Gold	on off on			<p>P.C. BOARD LAYOUT</p>
TG36W010000	Silver	on - on			
TG39W010000	Silver	on off on			
<p>PROCESS COMPATIBLE</p>					
MODEL NO.	PLATING	ACTION	RIGHT ANGLE TERMINALS - HORIZONTAL MTG. - WASHABLE MODELS	TRAVEL/THROW; .102 (2.60)	
TG36W000050	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	
TG39W000050	Gold	on off on			<p>P.C. BOARD LAYOUT</p>
TG36W010050	Silver	on - on			
TG39W010050	Silver	on off on			
<p>PROCESS COMPATIBLE</p>					

General tolerances for all TG Series drawings - ± .012" (0.3 mm)

TG Series

Microminiature Slide Switches

Additional ordering information: Commonly ordered models are shown on preceeding pages with complete model numbers and specifications. Below is an order format that enables you to 'build your own switch' and specify the correct switch model number by simply selecting from all available options shown and filling in the boxes.

'BUILD YOUR OWN SWITCH' ORDER FORMAT

Fill in boxes shown with options selected from below.
Allowable options for each box are shown under each respective box.

Series	Poles	Function	Terms.	Contact & Term. Mat'l.	Actuator	Model
<input type="text" value="T"/> <input type="text" value="G"/>	<input type="text" value="3"/>	<input type="text" value="6"/>	<input type="text" value="P"/> <input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/>	<input type="text" value="0"/> <input type="text" value="0"/>
		<input type="text" value="9"/>	<input type="text" value="Y"/> <input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="1"/> <input type="text" value="0"/>	<input type="text" value="5"/> <input type="text" value="0"/>
			<input type="text" value="W"/> <input type="text" value="0"/>	<input type="text" value="3"/>		
			<input type="text" value="M"/> <input type="text" value="W"/>	<input type="text" value="8"/>		
				<input type="text" value="9"/>		

Poles: 3 = Single Pole

Functions: 6 = ON - ON 9 = ON OFF ON

Terminals: P 0 = Straight printed circuit terminals
 Y 0 = Straight printed circuit terminals, bracket mtg.
 W 0 = Right angle printed circuit terminals, horizontal mtg. with bracket
 M W = Wirewrap terminals

Contact & terminal materials: 0 = Brass, gold plated (standard)
 1 = Brass, silver plated
 3 = Brass, gold plated (1.27 microns gold)
 8 = Brass contacts, gold plated and tin plated terminals
 9 = Brass contacts, gold plated (1.27 microns gold) and tin plated terminals

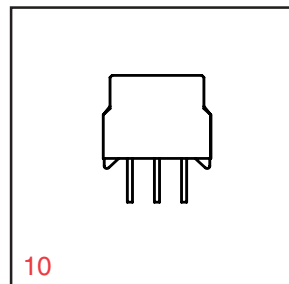
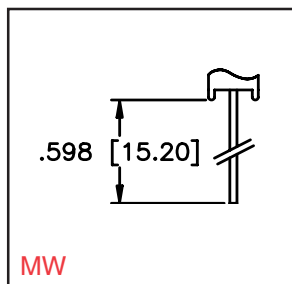
Actuators: 0 0 = High (standard)
 1 0 = Flush

Model: 0 0 = Standard
 5 0 = Washable

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

E

Options MW (wirewrap terminals) and 10 (flush actuator)




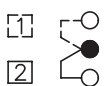
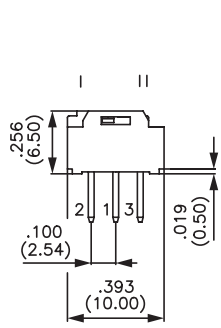
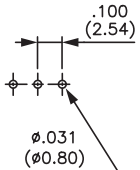
New!
Raised actuator


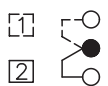
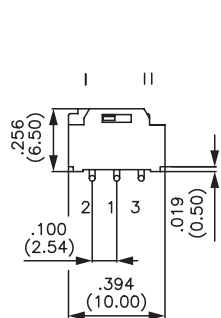
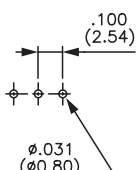
NK Series

Microminiature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

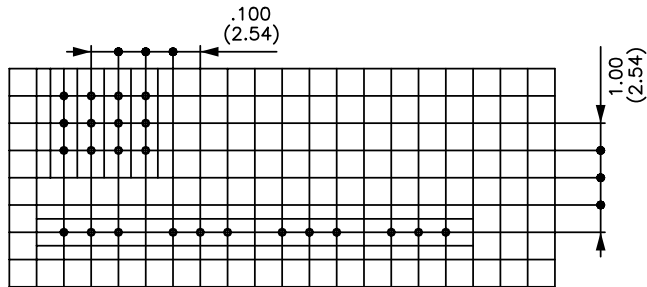
SPECIFICATIONS	FEATURES
<p>Contact rating: 500 mA 12V max. - 1mA 10 mV min.</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 10,000 MΩ min. at 500VDC</p> <p>Dielectric strength: 250 Vrms between terminals 2000 Vrms between adjacent poles placed side by side</p> <p>Electrical life: 2,000 cycles min.</p> <p>Operating temperature range: -40°C to +85°C</p> <p>Solder heat resistance: 250°C max. for 5 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Cost effective. ● Flush or raised actuator. ● Wave solderable, flux sealed. ● Through-hole round terminals, straight or right angle. ● Stackable in X & Y directions (with straight terminals).
	MATERIALS
	<p>Contacts & terminals: Gold over nickel plated</p> <p>Case: PBT, glass filled (UL94V-0)</p> <p>Actuator: PBT, glass filled (UL94V-0)</p>

MODEL NO.			
NK236 Flush actuator (shown) NK236H Raised actuator			
 <p>VERTICAL ACTUATOR</p>	<p>1P2T</p>  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

MODEL NO.			
NK236W Flush actuator NK236WH Raised actuator (shown)			
 <p>RIGHT ANGLE TERMINALS</p>	<p>1P2T</p>  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

EXAMPLE OF PRINTED CIRCUIT BOARD LAYOUT FOR STACKING UNITS

Pitch = .100" (2.54mm)




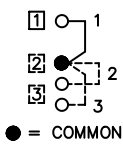
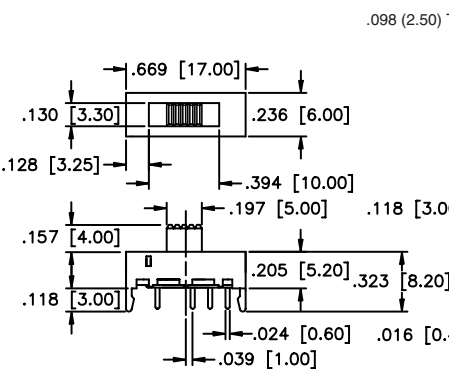
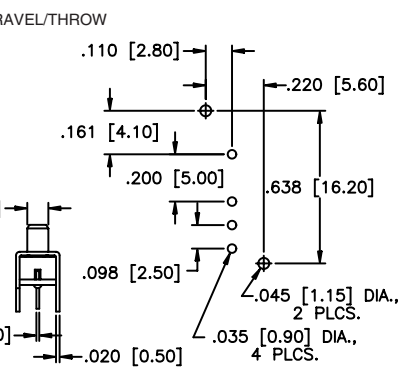

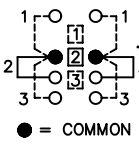
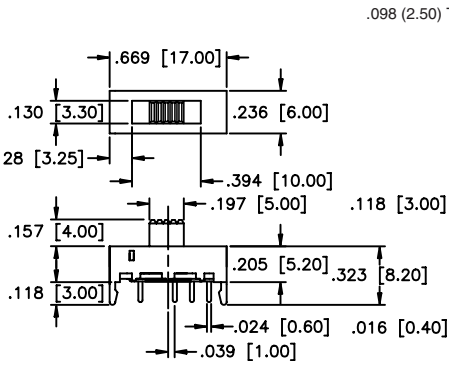
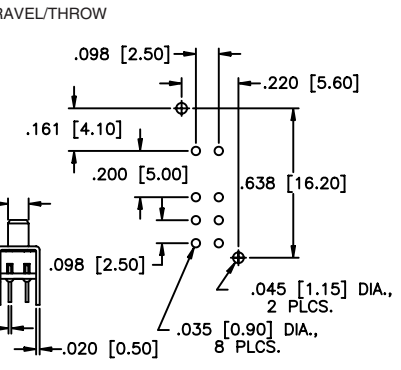
E

MSTS Series

Miniature Slide Switches

SPECIFICATIONS	FEATURES
Contact rating: 300 mA at 28 VDC Initial contact resistance: 20 milliohms max. Insulation resistance: 100 megohms min. at 500 VDC Dielectric strength: 500 VAC for 1 minute Electrical life: 10,000 cycles min. Operating temperature range: -20°C to +85°C Solder heat resistance: 250°C max. for 5 seconds Actuation force: 200-600 grams Solvent washing permissible	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Snap-in p.c. mounting bracket design. ● Positive spring loaded ball detent mechanism. ● Epoxy sealed terminals. ● Gold plated contacts available - consult factory.
	MATERIALS
	Contacts & terminals: Silver plated brass Housing: Zinc plated steel Actuator: Polyacetal, color black Base: Phenolic laminated sheet Terminal seal: Epoxy

E

MODEL NO.			
MSTS1332K			
 <p>VERTICAL ACTUATOR</p>	1P3T  <p>SCHMATIC</p>	<p style="font-size: small;">.098 (2.50) TRAVEL/THROW</p>  <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
MODEL NO.			
MSTS2332K			
 <p>VERTICAL ACTUATOR</p>	2P3T  <p>SCHMATIC</p>	<p style="font-size: small;">.098 (2.50) TRAVEL/THROW</p>  <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MHS Series

Miniature Slide Switches

with aluminum actuator

SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 VAC for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Actuation force: 250 ±150 grams</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Positive spring loaded ball detent mechanism. ● Epoxy sealed terminals.
MATERIALS	
<p>Contacts & terminals: Silver plated brass</p> <p>Housing: Tin plated steel</p> <p>Actuator: Aluminum alloy</p> <p>Base: Phenolic laminated sheet</p>	<p>Terminal seal: Epoxy</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


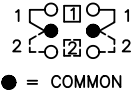
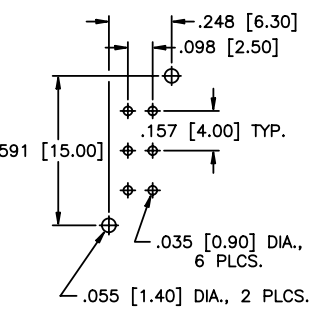
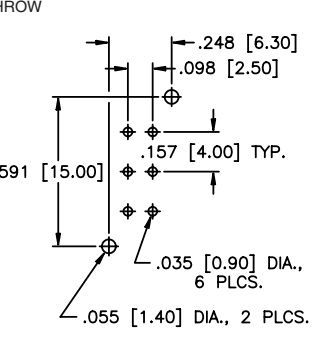

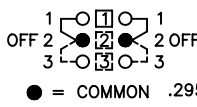
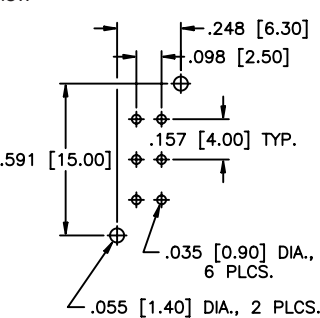
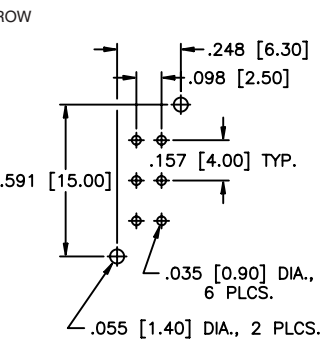

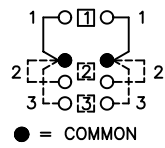
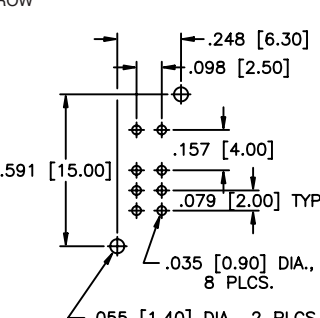
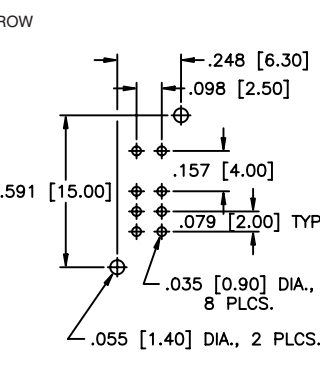
E

MODEL NO.				
MHS122K	1P2T	<p>● = COMMON</p>		
	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	
MHS123K	1P2T w/center OFF	<p>● = COMMON</p>		
	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	
MHS133K	1P3T	<p>● = COMMON</p>		
	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	

MHS Series

Miniature Slide Switches

with aluminum actuator

<p>MODEL NO.</p> <p>MHS222K</p>	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: right;">.157 (4.00) TRAVEL/THROW</p>	
<p>VERTICAL ACTUATOR</p> 	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>MHS223K</p>	<p>2P2T w/center OFF</p>  <p>● = COMMON</p>	 <p style="text-align: right;">.079 (2.0) TRAVEL/THROW</p>	
<p>VERTICAL ACTUATOR</p> 	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>MHS233K</p>	<p>2P3T</p>  <p>● = COMMON</p>	 <p style="text-align: right;">.079 (2.0) TRAVEL/THROW</p>	
<p>VERTICAL ACTUATOR</p> 	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

New!

MHS Series Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 VAC for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Actuation force: 250 ±150 grams</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Positive spring loaded ball detent mechanism. ● Epoxy sealed terminals.
	MATERIALS
	<p>Contacts & terminals: Silver plated brass</p> <p>Housing: Tin plated steel</p> <p>Actuator: Polyacetal</p> <p>Base: Phenolic laminated sheet</p> <p style="text-align: right;">Terminal seal: Epoxy</p>


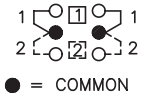
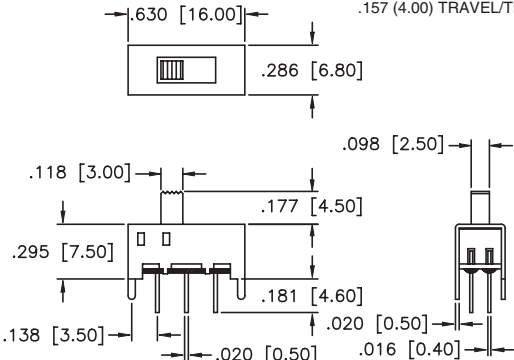
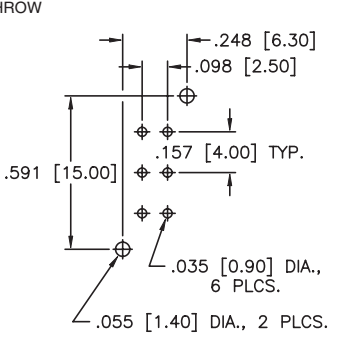

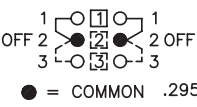
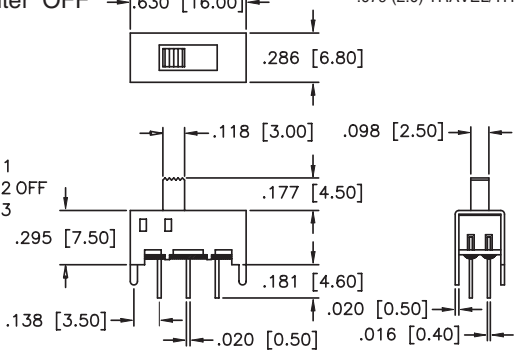
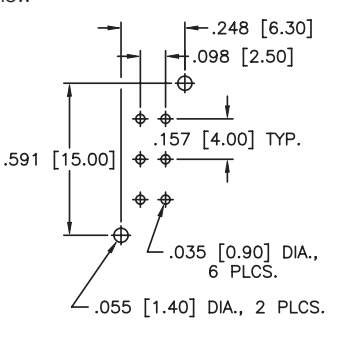

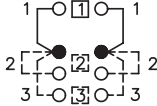
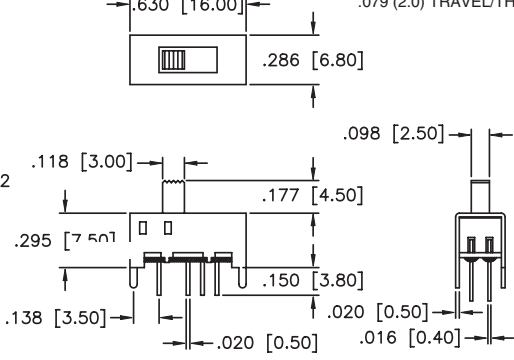
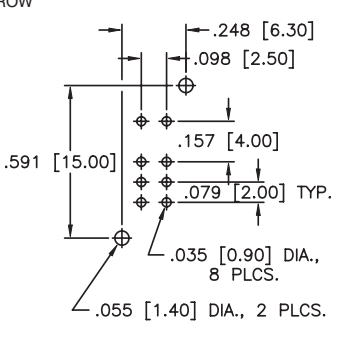
MODEL NO. MHS122	1P2T		
<p>VERTICAL ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MODEL NO. MHS123	1P2T w/center OFF		
<p>VERTICAL ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MODEL NO. MHS133	1P3T		
<p>VERTICAL ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>

E

MHS Series

Miniature Slide Switches

New!

<p>MODEL NO. MHS222</p>  <p>VERTICAL ACTUATOR</p>	<p>2P2T</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO. MHS223</p>  <p>VERTICAL ACTUATOR</p>	<p>2P2T w/center OFF</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO. MHS233</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


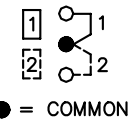
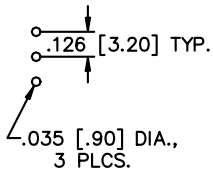
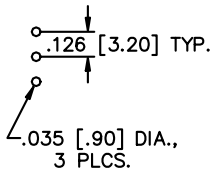

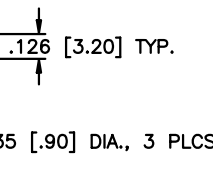
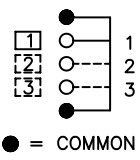
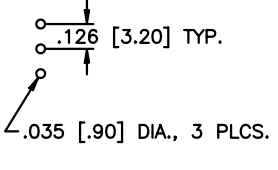
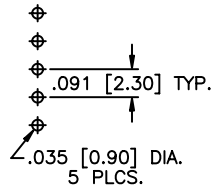
SLB Series

(with p.c. board stand-off bracket)

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

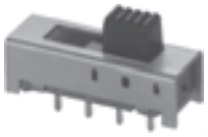
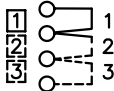
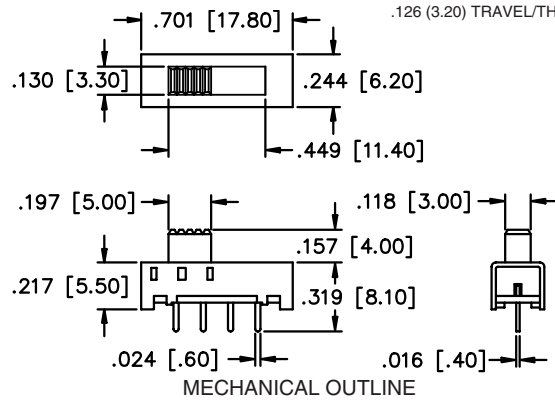
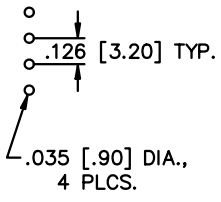

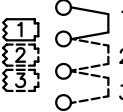
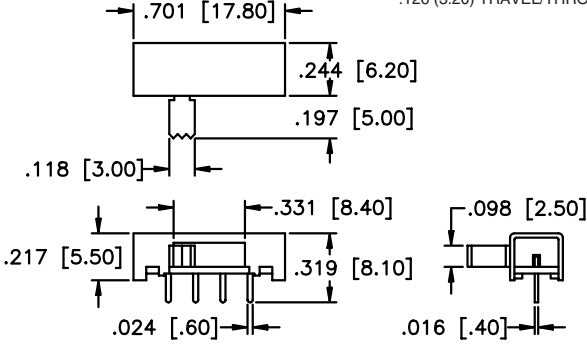
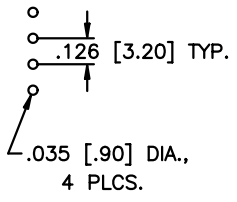
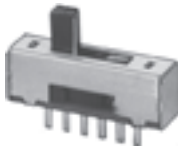
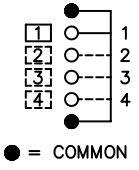
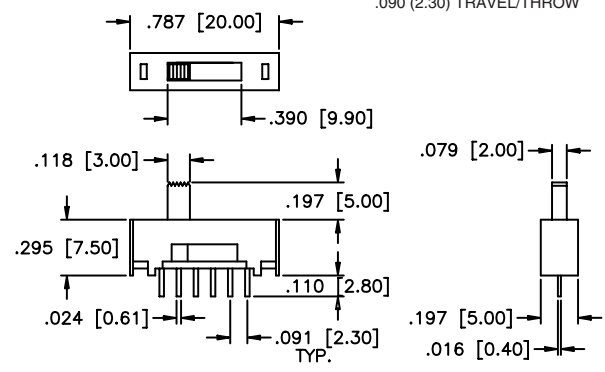
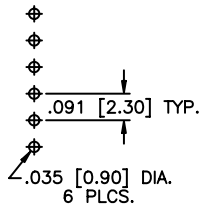

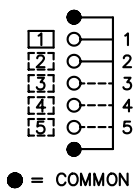
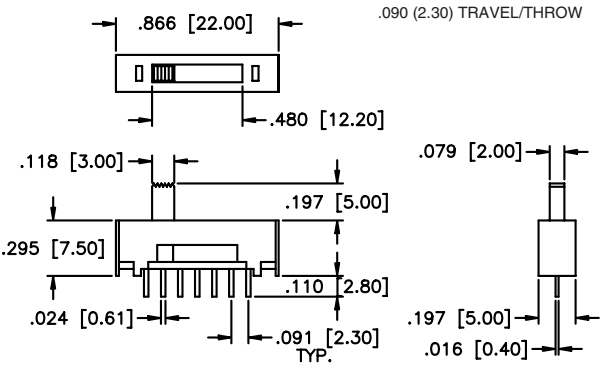
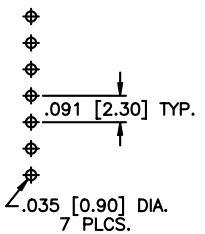
SPECIFICATIONS	FEATURES
<p>Contact ratings: 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Actuation force: 220g ± 100g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Positive spring loaded ball detent mechanism. ● Epoxy sealed terminals.
MATERIALS	
<p>Contacts & terminals: Silver plated</p> <p>Frame: Zinc plated steel</p> <p>Actuator: Thermoplastic</p> <p>Base: Phenolic laminated sheet</p>	<p>Terminal seal: Epoxy</p>

<p>MODEL NO.</p> <p>SLB12814</p>	<p>1P2T</p>  <p>● = COMMON</p>	 <p style="text-align: right;">.126 (3.20) TRAVEL/THROW</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>SLB1281R5</p>	<p>1P2T</p>  <p>● = COMMON</p>	 <p style="text-align: right;">.126 (3.20) TRAVEL/THROW</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>SLB1370</p>	<p>1P3T</p>  <p>● = COMMON</p>	 <p style="text-align: right;">.090 (2.30) TRAVEL/THROW</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>

SLB Series

(with p.c. board stand-off bracket)

Miniature Slide Switches

MODEL NO.			
SLB13814			
	1P3T 		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
SLB1381R5			
	1P3T 		
RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
SLB1470			
	1P4T  <p>● = COMMON</p>		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
SLB1570			
	1P5T  <p>● = COMMON</p>		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT


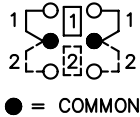
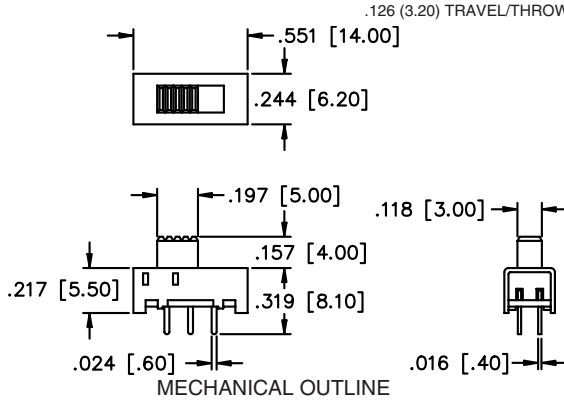
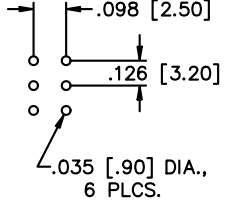

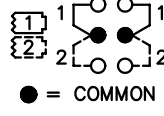
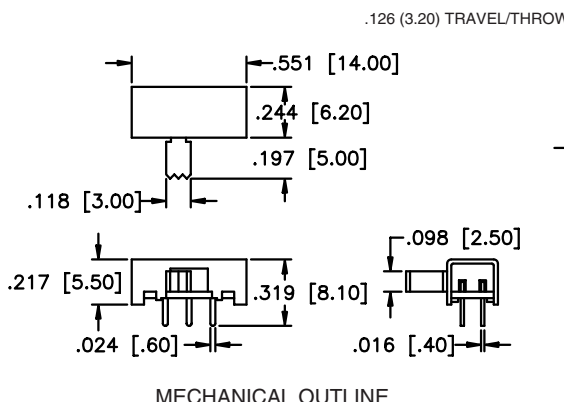
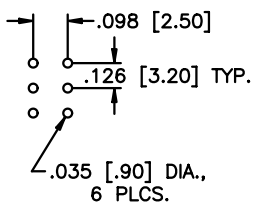

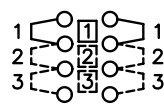
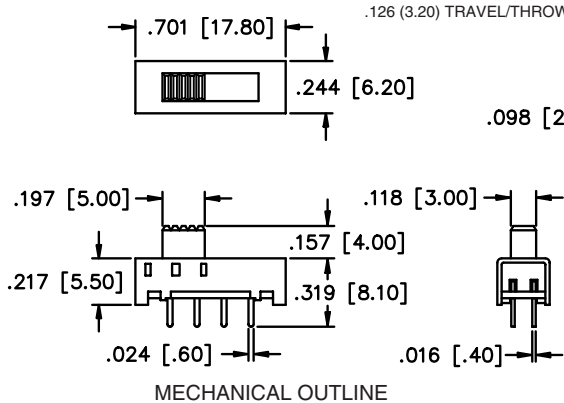
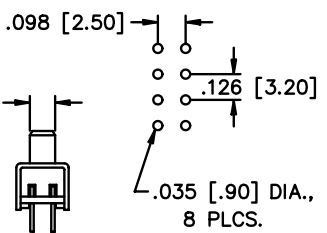

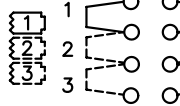
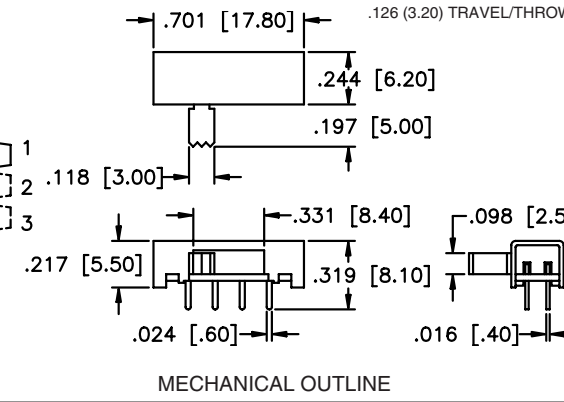
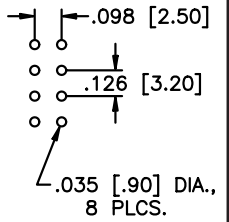
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLB Series

(with p.c. board stand-off bracket)

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.			
SLB22814			
	2P2T  ● = COMMON		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
SLB2281R5			
	2P2T  ● = COMMON		
RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
SLB23814			
	2P3T  ● = COMMON		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
SLB2381R5			
	2P3T  ● = COMMON		
RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

E

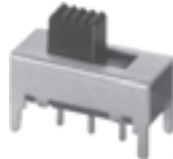
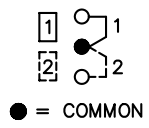
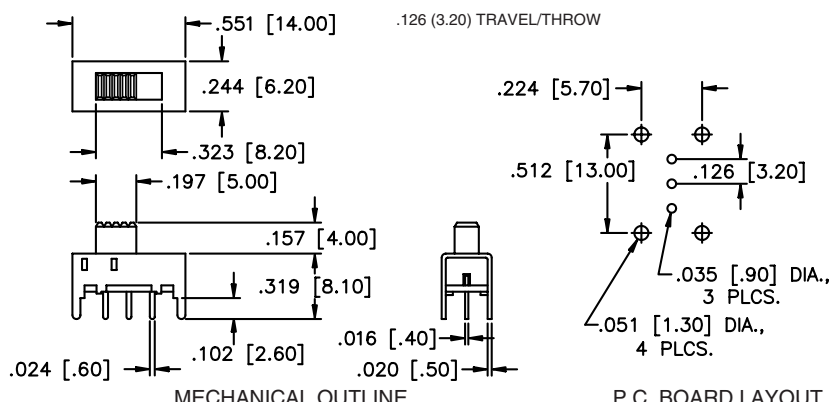
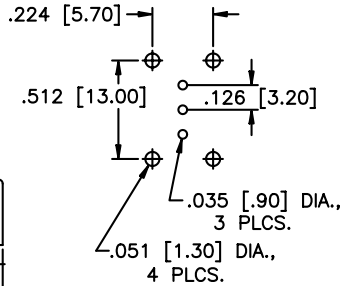
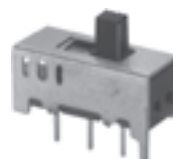
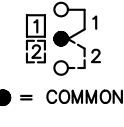

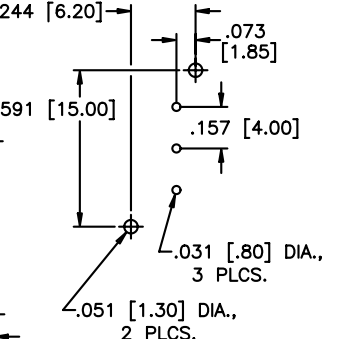

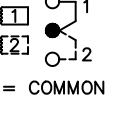
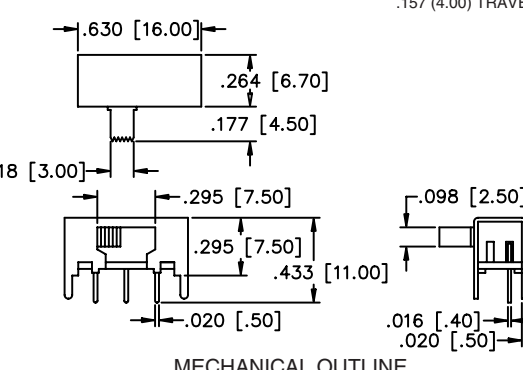
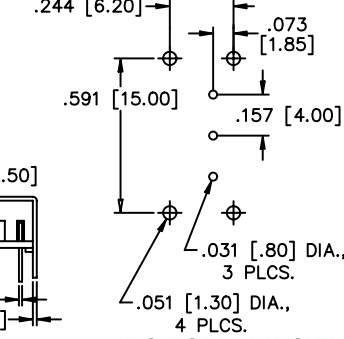
SLB Series

(with thru- p.c. board hole mounting bracket)

Miniature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Actuation force: 220g ± 100g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Positive spring loaded ball detent mechanism. ● Epoxy sealed terminals.
	MATERIALS
	<p>Contacts & terminals: Silver plated</p> <p>Frame: Zinc plated steel</p> <p>Actuator: Thermoplastic</p> <p>Base: Phenolic laminated sheet</p> <p style="text-align: right;">Terminal seal: Epoxy</p>

E

MODEL NO.			
SLB12804			
	<p>1P2T</p>  <p>● = COMMON</p>	<p>.126 (3.20) TRAVEL/THROW</p>  <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
SLB124145			
	<p>1P2T</p>  <p>● = COMMON</p>	<p>.157 (4.00) TRAVEL/THROW</p>  <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
SLB1240R45			
	<p>1P2T</p>  <p>● = COMMON</p>	<p>.157 (4.00) TRAVEL/THROW</p>  <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLB Series

(with thru-p.c. board hole mounting bracket)

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

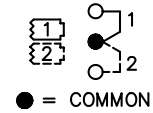
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SLB1280R5

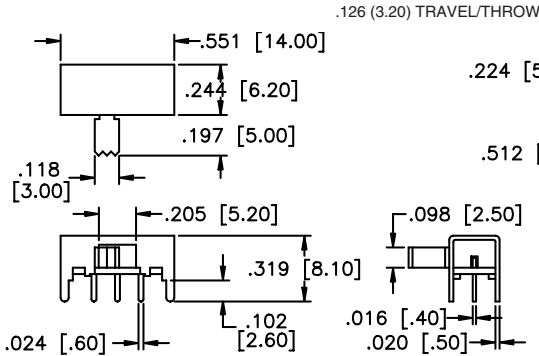


RIGHT ANGLE ACTUATOR

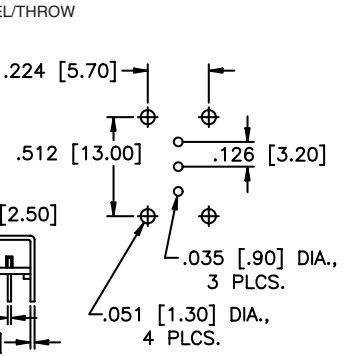
1P2T



SCHMATIC



MECHANICAL OUTLINE



P.C. BOARD LAYOUT

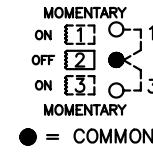
MODEL NO.

SLB1250R8

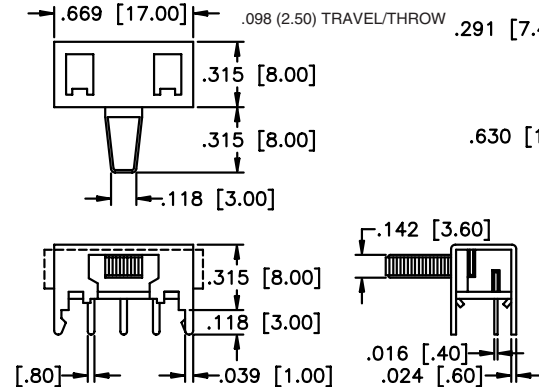


RIGHT ANGLE ACTUATOR

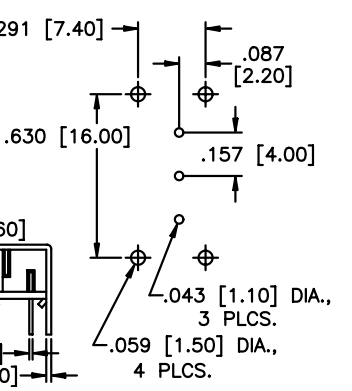
1P2T



SCHMATIC



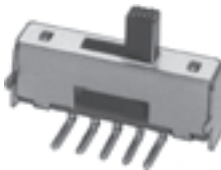
MECHANICAL OUTLINE



P.C. BOARD LAYOUT

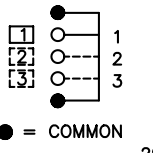
MODEL NO.

SLB1370R

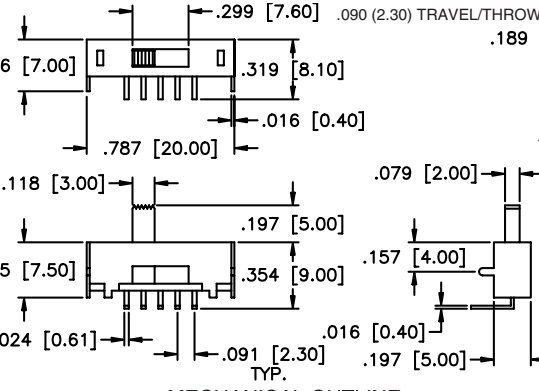


RIGHT ANGLE ACTUATOR

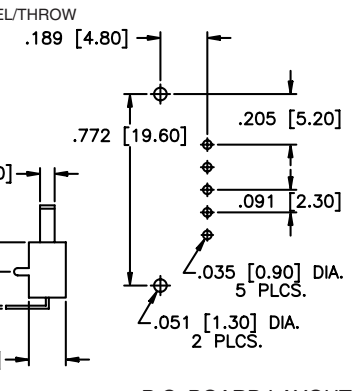
1P3T



SCHMATIC



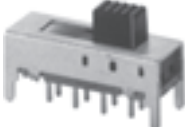
MECHANICAL OUTLINE



P.C. BOARD LAYOUT

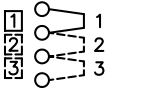
MODEL NO.

SLB13804

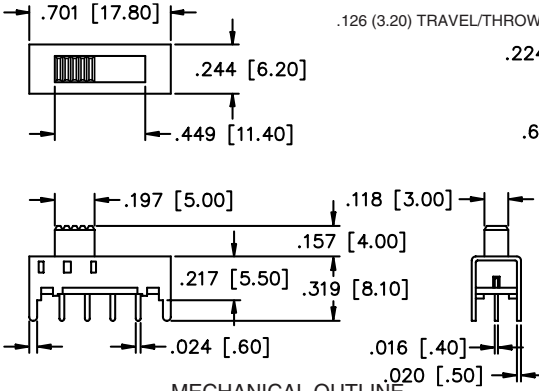


VERTICAL ACTUATOR

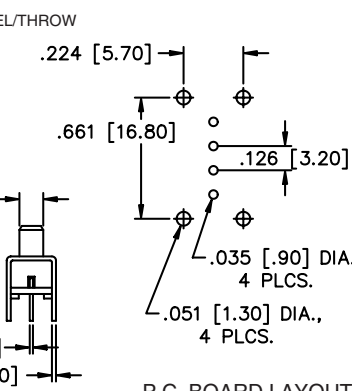
1P3T



SCHMATIC



MECHANICAL OUTLINE

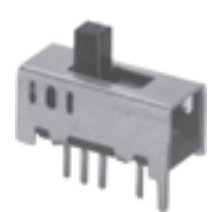


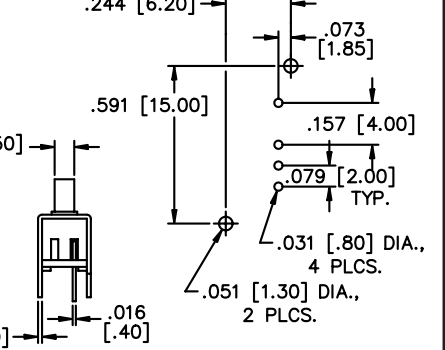


P.C. BOARD LAYOUT

SLB Series

(with thru-p.c. board hole mounting bracket)
Miniature Slide Switches

E

<p>MODEL NO. SLB134145</p>	<p>1P3T</p>  <p>VERTICAL ACTUATOR</p> <p>Schematic: 1P3T, 1 terminal common, 2 terminals normally open. ● = COMMON</p> <p>Mechanical Outline: .630 [16.00] total width, .079 [2.00] TRAVEL/THROW, .244 [6.20] actuator height, .264 [6.70] body height, .315 [8.00] body width, .118 [3.00] terminal spacing, .177 [4.50] terminal height, .098 [2.50] terminal width, .295 [7.50] terminal height, .433 [11.00] terminal length, .020 [.50] terminal thickness.</p> <p>P.C. BOARD LAYOUT: .244 [6.20] mounting hole spacing, .073 [1.85] hole diameter, .157 [4.00] hole diameter, .079 [2.00] TYP. hole diameter, .031 [.80] DIA., 4 PLCS. hole diameter, .051 [1.30] DIA., 2 PLCS. hole diameter, .591 [15.00] mounting hole diameter.</p>
<p>MODEL NO. SLB1340R45</p>	<p>1P3T</p>  <p>RIGHT ANGLE ACTUATOR</p> <p>Schematic: 1P3T, 1 terminal common, 2 terminals normally open. ● = COMMON</p> <p>Mechanical Outline: .630 [16.00] total width, .079 [2.00] TRAVEL/THROW, .244 [6.20] actuator height, .264 [6.70] body height, .177 [4.50] body width, .118 [3.00] terminal spacing, .295 [7.50] terminal height, .433 [11.00] terminal length, .039 [1.00] terminal thickness, .020 [.50] terminal thickness.</p> <p>P.C. BOARD LAYOUT: .244 [6.20] mounting hole spacing, .073 [1.85] hole diameter, .157 [4.00] hole diameter, .079 [2.00] TYP. hole diameter, .031 [.80] DIA., 4 PLCS. hole diameter, .051 [1.30] DIA., 4 PLCS. hole diameter, .591 [15.00] mounting hole diameter, .098 [2.50] terminal width, .016 [.40] terminal thickness, .020 [.50] terminal thickness.</p>
<p>MODEL NO. SLB1380R5</p>	<p>1P3T</p>  <p>RIGHT ANGLE ACTUATOR</p> <p>Schematic: 1P3T, 1 terminal common, 2 terminals normally open. ● = COMMON</p> <p>Mechanical Outline: .701 [17.80] total width, .126 [3.20] TRAVEL/THROW, .244 [6.20] actuator height, .197 [5.00] body height, .118 [3.00] terminal spacing, .217 [5.50] terminal height, .331 [8.40] terminal length, .319 [8.10] terminal length, .102 [2.60] terminal length, .039 [1.00] terminal thickness, .024 [.60] terminal thickness.</p> <p>P.C. BOARD LAYOUT: .224 [5.70] mounting hole spacing, .661 [16.80] mounting hole diameter, .126 [3.20] hole diameter, .035 [.90] DIA., 4 PLCS. hole diameter, .051 [1.30] DIA., 4 PLCS. hole diameter, .098 [2.50] terminal width, .016 [.40] terminal thickness, .020 [.50] terminal thickness.</p>
<p>MODEL NO. SLB1470R</p>	<p>1P4T</p>  <p>RIGHT ANGLE ACTUATOR</p> <p>Schematic: 1P4T, 1 terminal common, 3 terminals normally open. ● = COMMON</p> <p>Mechanical Outline: .390 [9.90] total width, .090 [2.30] TRAVEL/THROW, .276 [7.00] actuator height, .319 [8.10] body height, .118 [3.00] terminal spacing, .197 [5.00] terminal height, .787 [20.00] terminal length, .016 [0.40] terminal length, .079 [2.00] terminal width, .295 [7.50] terminal height, .354 [9.00] terminal length, .157 [4.00] terminal length, .024 [0.61] terminal thickness, .091 [2.30] TYP. terminal thickness, .016 [0.40] terminal thickness, .197 [5.00] terminal thickness.</p> <p>P.C. BOARD LAYOUT: .189 [4.80] mounting hole spacing, .772 [19.60] mounting hole diameter, .159 [4.05] hole diameter, .091 [2.30] TYP. hole diameter, .035 [0.90] DIA., 6 PLCS. hole diameter, .051 [1.30] DIA., 2 PLCS. hole diameter, .079 [2.00] terminal width, .016 [0.40] terminal thickness, .197 [5.00] terminal thickness.</p>

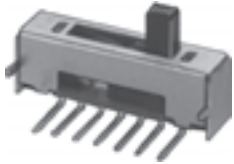
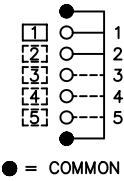

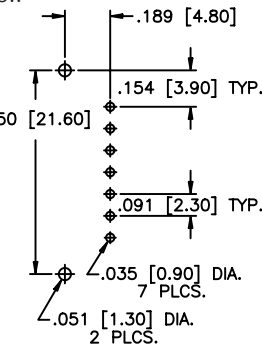
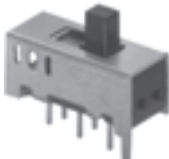
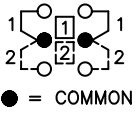
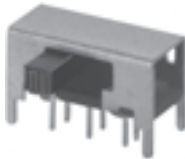
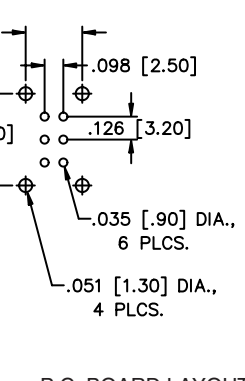
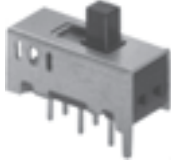
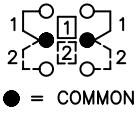
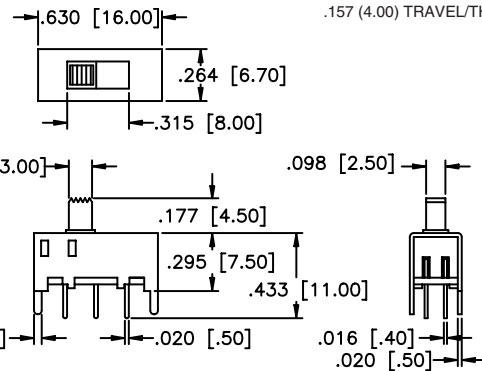
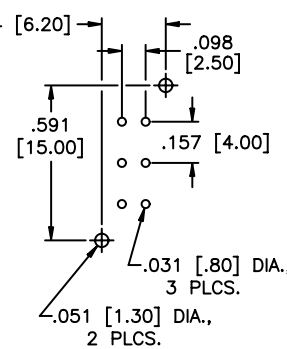
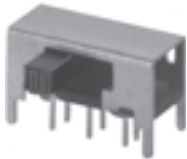
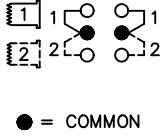
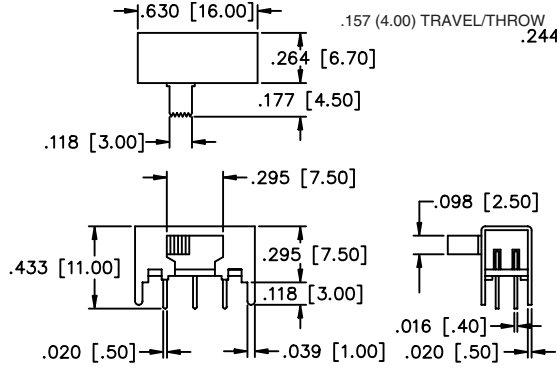
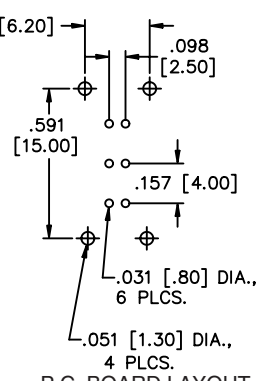
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLB Series

(with thru-p.c. board hole mounting bracket)

Miniature Slide Switches


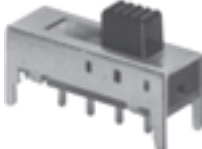
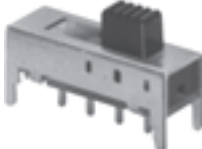
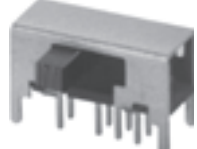
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

<p>MODEL NO.</p> <p>SLB1570R</p> <div style="text-align: center;">  </div> <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>1P5T</p> <div style="text-align: center;">  <p>● = COMMON</p> </div>	<div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div>	<div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div>
<p>MODEL NO.</p> <p>SLB22804</p> <div style="text-align: center;">  </div> <p style="text-align: center;">VERTICAL ACTUATOR</p>	<p>2P2T</p> <div style="text-align: center;">  <p>● = COMMON</p> </div>	<div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div>	<div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div>
<p>MODEL NO.</p> <p>SLB224145</p> <div style="text-align: center;">  </div> <p style="text-align: center;">VERTICAL ACTUATOR</p>	<p>2P2T</p> <div style="text-align: center;">  <p>● = COMMON</p> </div>	<div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div>	<div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div>
<p>MODEL NO.</p> <p>SLB2240R45</p> <div style="text-align: center;">  </div> <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>2P2T</p> <div style="text-align: center;">  <p>● = COMMON</p> </div>	<div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div>	<div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div>

E

SLB Series

(with thru-p.c. board hole mounting bracket)
Miniature Slide Switches

<p>MODEL NO. SLB2280R5</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P2T .126 (3.20) TRAVEL/THROW</p> <p>Schematic: 2P2T, 2 commons, 2 terminals. ● = COMMON</p> <p>Mechanical Outline: Dimensions include .551 [14.00], .244 [6.20], .197 [5.00], .118 [3.00], .024 [.60], .102 [2.60], .319 [8.10], .098 [2.50], .016 [.40], .020 [.50]</p> <p>P.C. Board Layout: Dimensions include .224 [5.70], .098 [2.50], .512 [13.00], .126 [3.20], .035 [.90] DIA., 6 PLCS., .051 [1.30] DIA., 4 PLCS.</p>
<p>MODEL NO. SLB23804</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T .126 (3.20) TRAVEL/THROW</p> <p>Schematic: 2P3T, 2 commons, 3 terminals</p> <p>Mechanical Outline: Dimensions include .701 [17.80], .244 [6.20], .197 [5.00], .157 [4.00], .319 [8.10], .039 [1.00], .024 [.60], .118 [3.00], .116 [3.00], .016 [.40], .020 [.50]</p> <p>P.C. Board Layout: Dimensions include .224 [5.70], .098 [2.50], .661 [16.80], .126 [3.20], .035 [.90] DIA., 8 PLCS., .051 [1.30] DIA., 4 PLCS.</p>
<p>MODEL NO. SLB234145</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T .126 (3.20) TRAVEL/THROW</p> <p>Schematic: 2P3T, 2 commons, 3 terminals. ● = COMMON</p> <p>Mechanical Outline: Dimensions include .630 [16.00], .264 [6.70], .315 [8.00], .118 [3.00], .177 [4.50], .295 [7.50], .433 [11.00], .039 [1.00], .020 [.50], .098 [2.50], .020 [.50], .016 [.40]</p> <p>P.C. Board Layout: Dimensions include .244 [6.20], .098 [2.50], .591 [15.00], .157 [4.00], .079 [2.00], .031 [.80] DIA., 8 PLCS., .051 [1.30] DIA., 2 PLCS.</p>
<p>MODEL NO. SLB2340R45</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P3T .079 (2.00) TRAVEL/THROW</p> <p>Schematic: 2P3T, 2 commons, 3 terminals. ● = COMMON</p> <p>Mechanical Outline: Dimensions include .630 [16.00], .264 [6.70], .177 [4.50], .118 [3.00], .295 [7.50], .433 [11.00], .118 [3.00], .020 [.50], .098 [2.50], .020 [.50], .016 [.40]</p> <p>P.C. Board Layout: Dimensions include .244 [6.20], .098 [2.50], .591 [15.00], .157 [4.00], .079 [2.00], .031 [.80] DIA., 8 PLCS., .051 [1.30] DIA., 4 PLCS.</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLC Series

Miniature Slide Switches

SPECIFICATIONS

Contact ratings: 300 mA at 125 VAC or 30 VDC
Initial contact resistance: 20 milliohms max.
Insulation resistance: 100 megohms min. at 500 VDC
Dielectric strength: 500 volts RMS for 1 minute
Electrical life: 10,000 cycles min.
Operating temperature range: -20°C to +85°C
Actuation force: 220g ± 100g
Solder heat resistance: 260°C max. for 3 seconds
Solvent washing permissible

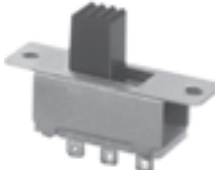
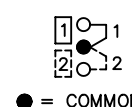
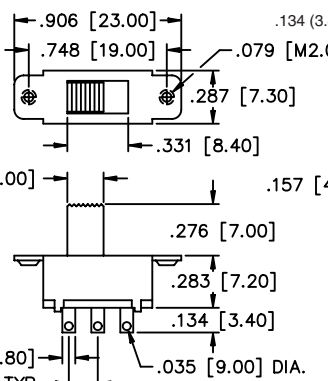
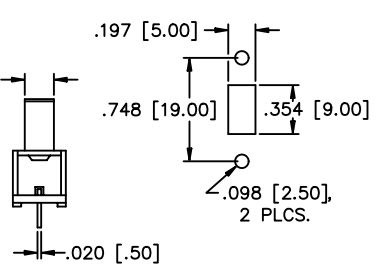

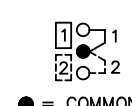
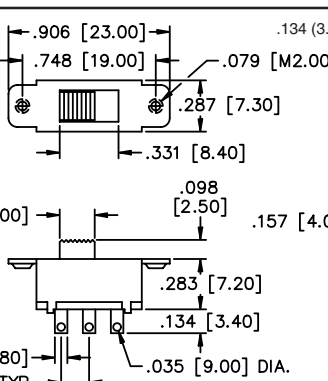
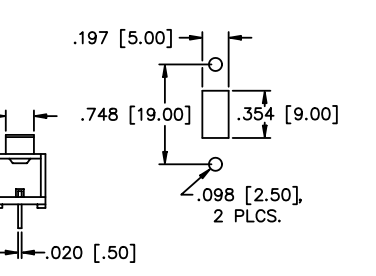
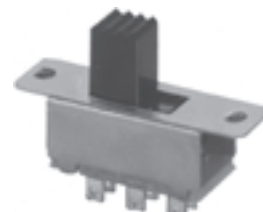
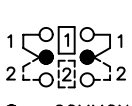
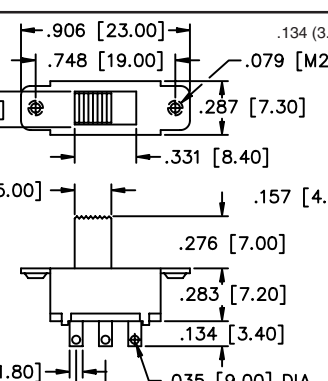
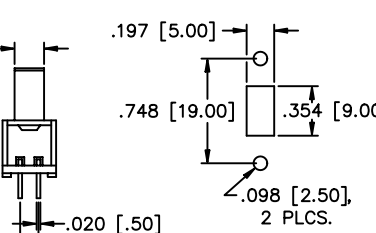
FEATURES

- Panel mounting with solder lug terminals.
- Wash-through open frame construction.
- Positive spring loaded ball detent mechanism.

MATERIALS

Contacts & terminals: Silver plated
Frame: Zinc plated steel
Actuator: Thermoplastic
Base: Phenolic laminated sheet

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


<p>MODEL NO. SLC12007</p> 	<p>1P2T</p>  <p>● = COMMON</p>  <p>SCHMATIC MECHANICAL OUTLINE</p>  <p>PANEL CUTOUT</p>
<p>MODEL NO. SLC120025</p> <p style="color: red; font-weight: bold; font-size: 1.2em;">New!</p> 	<p>1P2T</p>  <p>● = COMMON</p>  <p>SCHMATIC MECHANICAL OUTLINE</p>  <p>PANEL CUTOUT</p>
<p>MODEL NO. SLC22007</p> 	<p>2P2T</p>  <p>● = COMMON</p>  <p>SCHMATIC MECHANICAL OUTLINE</p>  <p>PANEL CUTOUT</p>

SLG Series


Miniature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Actuation force: 200g ± 75g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Wash-through open frame construction. ● Panel and p.c. mounting models. ● Positive spring loaded ball detent mechanism.
	MATERIALS
	<p>Contacts & terminals: Silver plated</p> <p>Frame: Zinc plated steel</p> <p>Actuator: Thermoplastic</p> <p>Base: Phenolic laminated sheet</p>

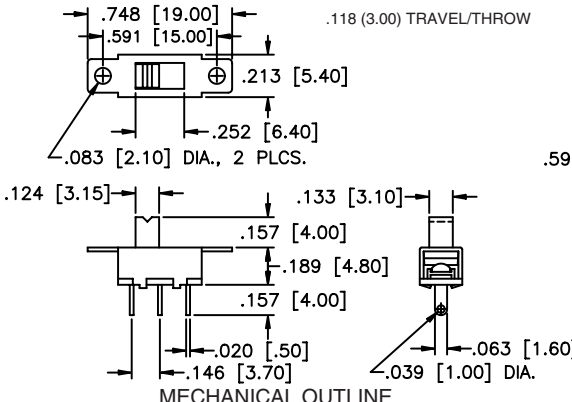
E

MODEL NO.
SLG12004


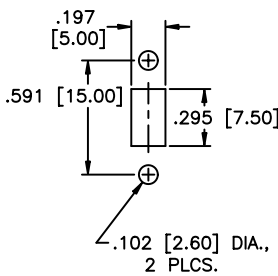
1P2T



● = COMMON




MECHANICAL OUTLINE

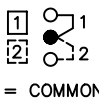


PANEL CUTOUT

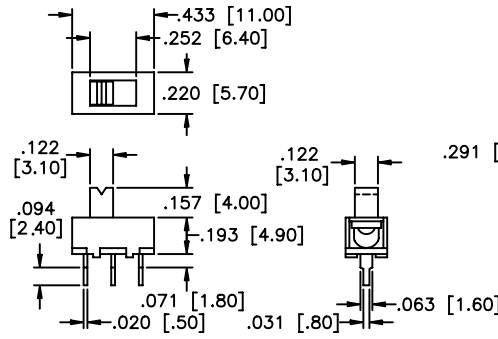
.118 (3.00) TRAVEL/THROW

MODEL NO.
SLG12014

VERTICAL MOUNTING

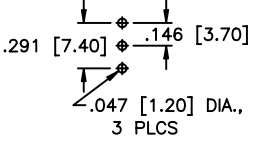
1P2T



● = COMMON



MECHANICAL OUTLINE



P.C. BOARD LAYOUT

.118 (3.00) TRAVEL/THROW

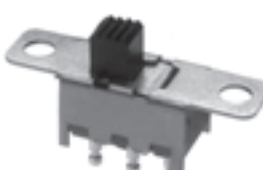
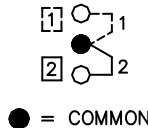
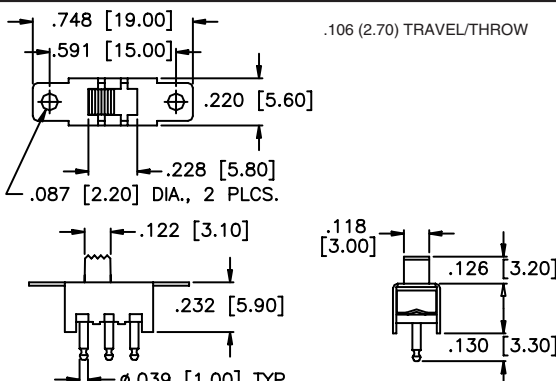
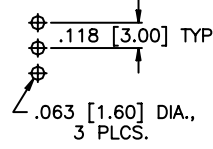

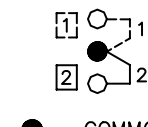
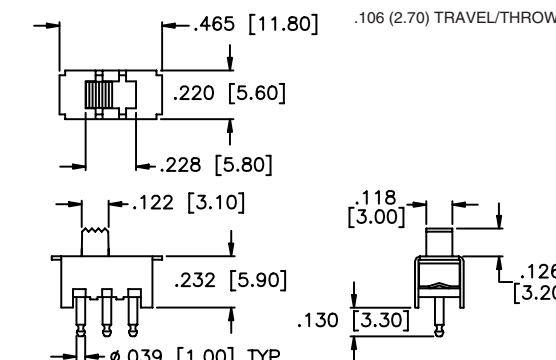
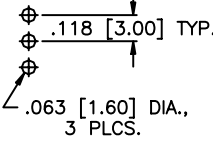

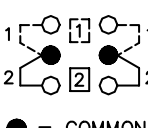
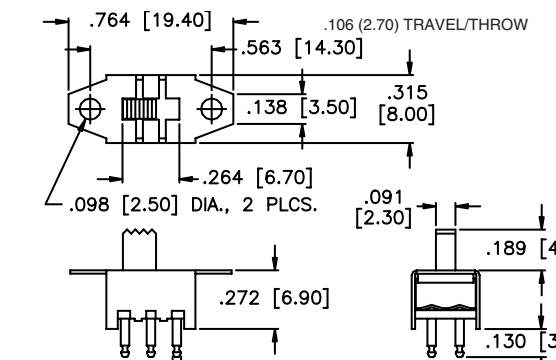
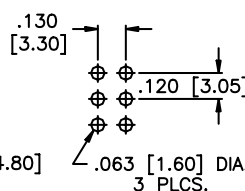
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

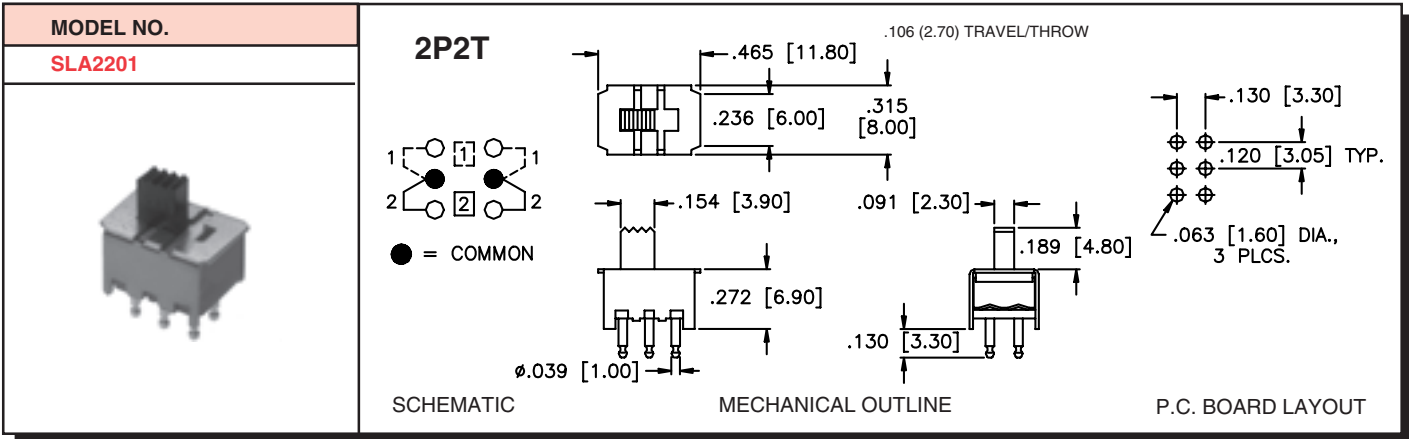
SLA Series

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact ratings: 500 mA at 125 VAC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Actuation force: 350g ± 200g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Panel and p.c. mounting models.
MATERIALS	
<p>Contacts & terminals: Silver plated brass</p> <p>Frame: Zinc plated steel</p> <p>Actuator: PBT Thermoplastic</p> <p>Base: Phenolic laminated sheet</p>	

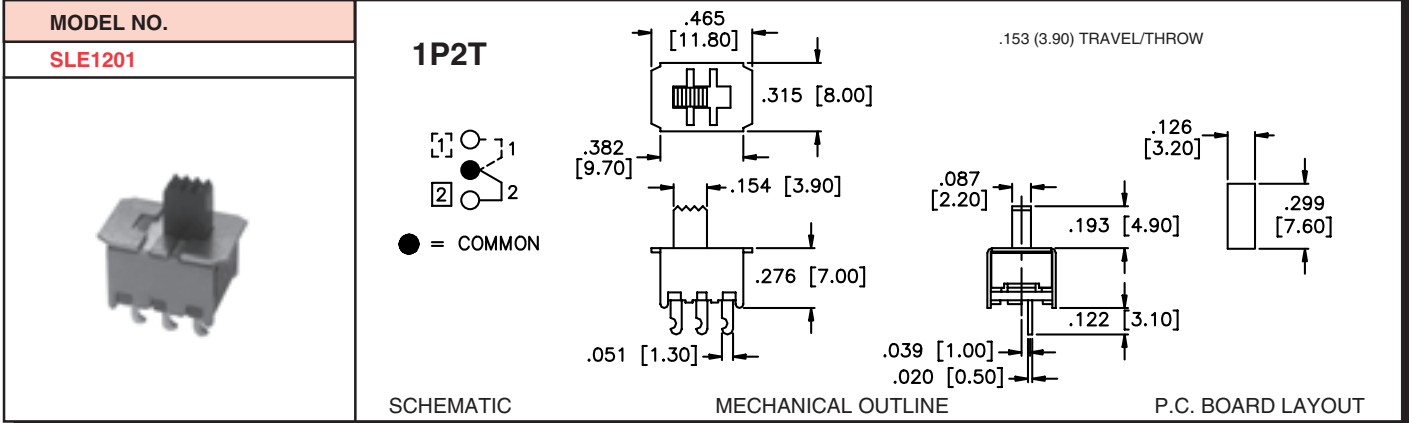
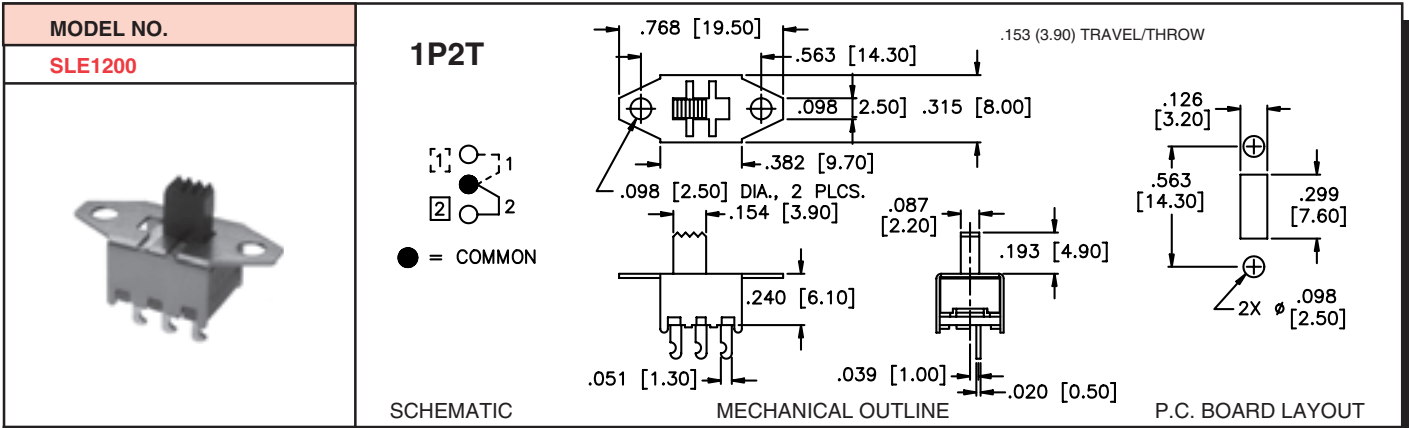
MODEL NO.			
SLA1200			
	<p>1P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
SLA1201			
	<p>1P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
SLA2200			
	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>



SLE Series

Miniature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: 500 mA at 125 VAC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +85°C</p> <p>Actuation force: 350g ± 200g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Panel and p.c. mounting models.
	MATERIALS
	<p>Contacts & terminals: Silver plated brass</p> <p>Frame: Zinc plated steel</p> <p>Actuator: PBT Thermoplastic</p> <p>Base: Phenolic laminated sheet</p>


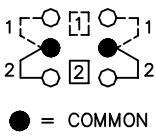
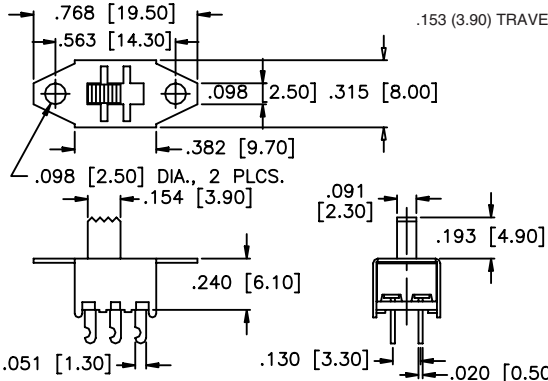
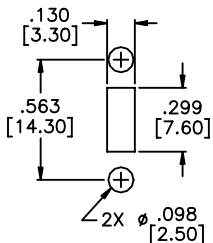

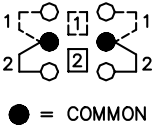
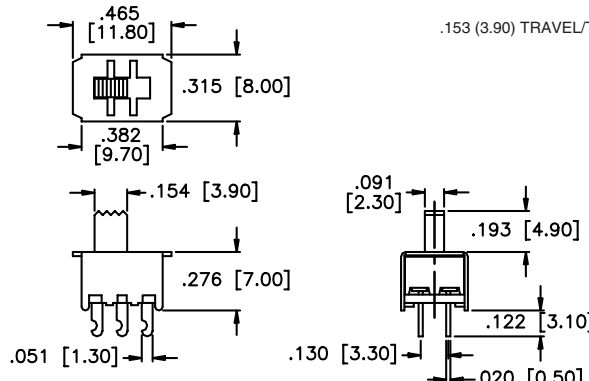
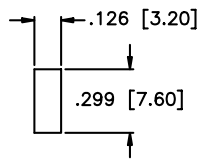


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLE Series

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO. SLE2200	2P2T				
MODEL NO. SLE2201	2P2T				

E

G Series

Instrument Grade Miniature Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: Gold; 0.4 Volt-Amps (VA) max. at 20 V max. (AC or DC) Silver; 4 A at 125 VAC, 2 A at 250 VAC or 3 A at 30 VDC Initial contact resistance: 10 milliohms max. Insulation resistance: 1000 megohms min. Dielectric strength: 1000 V rms min. Electrical life w/resistive load: Gold; 60,000 cycles min. Silver; 2 pos. - 40,000 cycles, 3 pos. - 20,000 cycles Operating temperature range: -30°C to +85°C Solder heat resistance: 300°C max. for 5 seconds Washing not recommended</p>	<ul style="list-style-type: none"> ● Epoxy sealed terminals. ● Break-before-make contact action. ● SPDT and DPDT models with long electrical life. ● Many additional models & options available (see page E44).
MATERIALS	
<p>Contacts & terminals: Gold or silver available (see contact ratings) Cover: Stainless steel Actuator: Glass filled polyamide Case: PES high temp. thermoplastic Terminal seal: Epoxy</p>	

E

MODEL NO.	PLATING	ACTION	SPDT	MECHANICAL OUTLINE	PANEL CUTOUT															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f2f2f2;"> <th>MODEL NO.</th> <th>PLATING</th> <th>ACTION</th> </tr> </thead> <tbody> <tr><td style="color: red;">GH36S000001</td><td>Gold</td><td>on - on</td></tr> <tr><td style="color: red;">GH39S000001</td><td>Gold</td><td>on off on</td></tr> <tr><td style="color: red;">GH36S010001</td><td>Silver</td><td>on - on</td></tr> <tr><td style="color: red;">GH39S010001</td><td>Silver</td><td>on off on</td></tr> </tbody> </table>	MODEL NO.	PLATING	ACTION	GH36S000001	Gold	on - on	GH39S000001	Gold	on off on	GH36S010001	Silver	on - on	GH39S010001	Silver	on off on			<p>Function (see pg. E46)</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>.086 (2.20) TRAVEL/THROW .094 [2.40] DIA., 2 PLCS.</p> <p>PANEL CUTOUT</p>
MODEL NO.	PLATING	ACTION																		
GH36S000001	Gold	on - on																		
GH39S000001	Gold	on off on																		
GH36S010001	Silver	on - on																		
GH39S010001	Silver	on off on																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f2f2f2;"> <th>MODEL NO.</th> <th>PLATING</th> <th>ACTION</th> </tr> </thead> <tbody> <tr><td style="color: red;">GH36P000001</td><td>Gold</td><td>on - on</td></tr> <tr><td style="color: red;">GH39P000001</td><td>Gold</td><td>on off on</td></tr> <tr><td style="color: red;">GH36P010001</td><td>Silver</td><td>on - on</td></tr> <tr><td style="color: red;">GH39P010001</td><td>Silver</td><td>on off on</td></tr> </tbody> </table>	MODEL NO.	PLATING	ACTION	GH36P000001	Gold	on - on	GH39P000001	Gold	on off on	GH36P010001	Silver	on - on	GH39P010001	Silver	on off on			<p>Function (see pg. E46)</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>.086 (2.20) TRAVEL/THROW</p> <p>P.C. BOARD LAYOUT</p>
MODEL NO.	PLATING	ACTION																		
GH36P000001	Gold	on - on																		
GH39P000001	Gold	on off on																		
GH36P010001	Silver	on - on																		
GH39P010001	Silver	on off on																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f2f2f2;"> <th>MODEL NO.</th> <th>PLATING</th> <th>ACTION</th> </tr> </thead> <tbody> <tr><td style="color: red;">GH36W000001</td><td>Gold</td><td>on - on</td></tr> <tr><td style="color: red;">GH39W000001</td><td>Gold</td><td>on off on</td></tr> <tr><td style="color: red;">GH36W010001</td><td>Silver</td><td>on - on</td></tr> <tr><td style="color: red;">GH39W010001</td><td>Silver</td><td>on off on</td></tr> </tbody> </table>	MODEL NO.	PLATING	ACTION	GH36W000001	Gold	on - on	GH39W000001	Gold	on off on	GH36W010001	Silver	on - on	GH39W010001	Silver	on off on			<p>Function (see pg. E46)</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>.086 (2.20) TRAVEL/THROW</p> <p>P.C. BOARD LAYOUT</p>
MODEL NO.	PLATING	ACTION																		
GH36W000001	Gold	on - on																		
GH39W000001	Gold	on off on																		
GH36W010001	Silver	on - on																		
GH39W010001	Silver	on off on																		

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

G Series

Instrument Grade Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

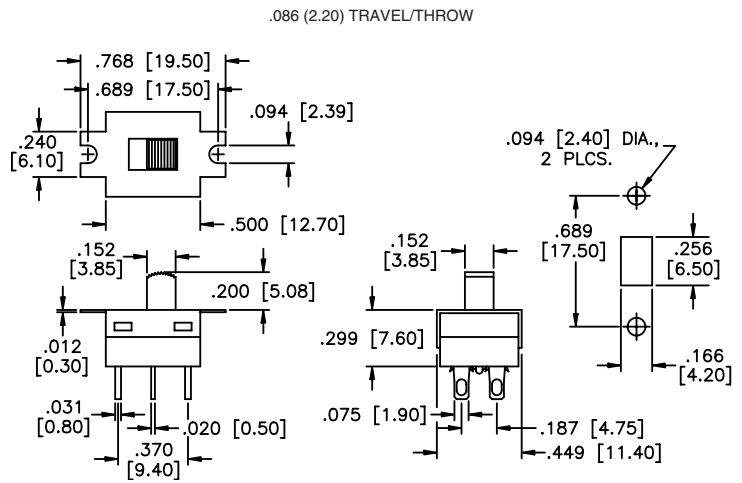
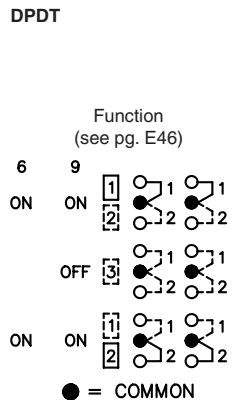
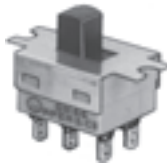
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GH36WW00001	Gold	on - on	Function (see pg. E46) 6 9 ON ON [1] [2] 1 2 OFF [3] 1 2 ON ON [1] [2] 1 2 ● = COMMON			
GH39WW00001	Gold	on off on				
GH36WW10001	Silver	on - on				
GH39WW10001	Silver	on off on				
GH36Y000001	Gold	on - on	Function (see pg. E46) 6 9 ON ON [1] [2] 1 2 OFF [3] 1 2 ON ON [1] [2] 1 2 ● = COMMON			
GH39Y000001	Gold	on off on				
GH36Y010001	Silver	on - on				
GH39Y010001	Silver	on off on				
GH36Y400001	Gold	on - on	Function (see pg. E46) 6 9 ON ON [1] [2] 1 2 OFF [3] 1 2 ON ON [1] [2] 1 2 ● = COMMON			
GH39Y400001	Gold	on off on				
GH36Y410001	Silver	on - on				
GH39Y410001	Silver	on off on				
ACTUATOR POSITION AND CONNECTIONS (FOR BOTH SP & DP MODELS)				SOLDER LUG TERMINAL		P.C. TERMINAL
Function 6	ON	NONE	ON			
Function 9	ON	OFF	ON			

E

G Series

Instrument Grade Miniature Slide Switches

MODEL NO.	PLATING	ACTION
GH46S000001	Gold	on - on
GH49S000001	Gold	on off on
GH46S010001	Silver	on - on
GH49S010001	Silver	on off on

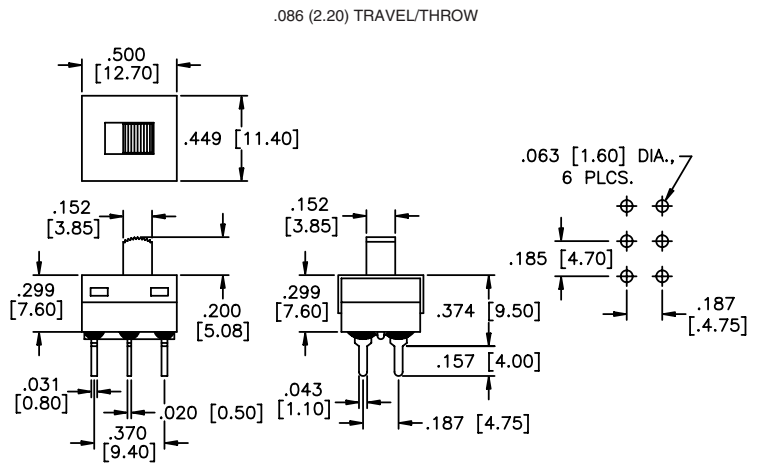
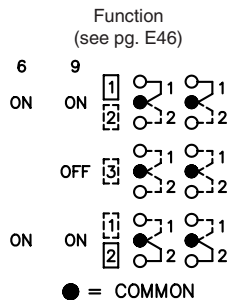


SCHMATIC

MECHANICAL OUTLINE

P.C. BOARD LAYOUT

MODEL NO.	PLATING	ACTION
GH46P000001	Gold	on - on
GH49P000001	Gold	on off on
GH46P010001	Silver	on - on
GH49P010001	Silver	on off on

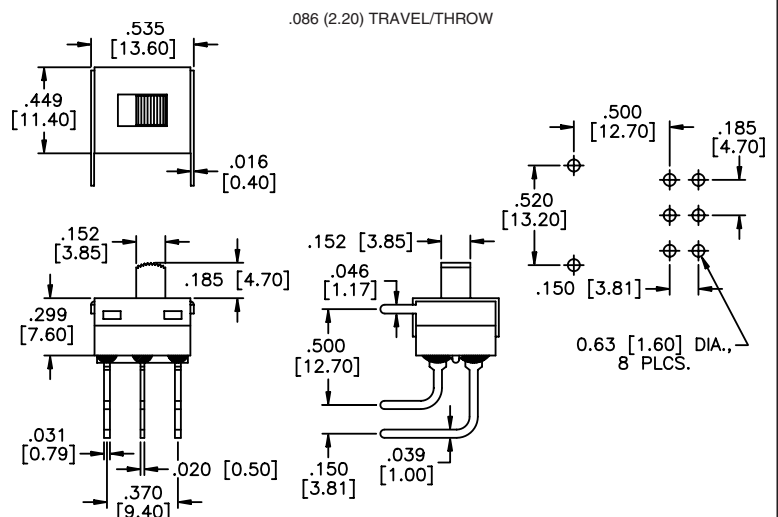
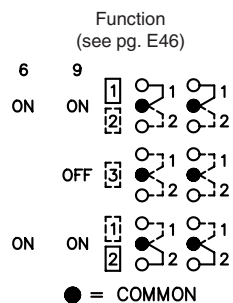


SCHMATIC

MECHANICAL OUTLINE

P.C. BOARD LAYOUT

MODEL NO.	PLATING	ACTION
GH46W000001	Gold	on - on
GH49W000001	Gold	on off on
GH46W010001	Silver	on - on
GH49W010001	Silver	on off on



SCHMATIC

MECHANICAL OUTLINE

P.C. BOARD LAYOUT

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

E

G Series

Instrument Grade Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	PLATING	ACTION	DPDT	
<b style="color: red;">GH46WW00001 <b style="color: red;">GH49WW00001 <b style="color: red;">GH46WW10001 <b style="color: red;">GH49WW10001	Gold Gold Silver Silver	on - on on off on on - on on off on	DPDT Function (see pg. E46) ON ON [1] [2] OFF [3] ON ON [1] [2]	.086 (2.20) TRAVEL/THROW
<b style="color: red;">GH46Y000001 <b style="color: red;">GH49Y000001 <b style="color: red;">GH46Y010001 <b style="color: red;">GH49Y010001	Gold Gold Silver Silver	on - on on off on on - on on off on	DPDT Function (see pg. E46) ON ON [1] [2] OFF [3] ON ON [1] [2]	.086 (2.20) TRAVEL/THROW
<b style="color: red;">GH46Y400001 <b style="color: red;">GH49Y400001 <b style="color: red;">GH46Y410001 <b style="color: red;">GH49Y410001	Gold Gold Silver Silver	on - on on off on on - on on off on	DPDT Function (see pg. E46) ON ON [1] [2] OFF [3] ON ON [1] [2]	.086 (2.20) TRAVEL/THROW

E

G Series

Instrument Grade Miniature Slide Switches

Additional ordering information: Commonly ordered models are shown on pgs. E40 thru E43 with complete specifications. Below is an ordering format that enables you to 'build your own switch' by simply selecting from all available options shown and filling in the boxes.

'BUILD YOUR OWN SWITCH' ORDER FORMAT

Fill in all boxes shown with options selected from below.
Allowable options for each box are shown under each respective box.

Series	Actuator Height	Poles	Function	Terminals	Contact & Term. Mat'l.	Special Option 1	Special Option 2
G							
	B*	3	6	S 0	0	0 0	0 0
	C	4	9	P 0	1	1 0	0 1
	E*			W 0	2	1 1	1 0
	H			WW	5	1 2	1 1
	L*			Y 0	8		
	N			Y 4			

* indicates Actuator options B, E & L are available for single pole models only .

Actuators heights: Dimensions in inches and millimeters. **H** is standard.

B = .301" (7.65mm) **C** = .137" (3.50mm) **E** = .358" (9.10mm)
H = .200" (5.10mm) for S0 & P0 and .185" (4.70mm) for Y, Y4, W0 & WW
L = .251" (6.40mm) **N** = .374" (9.50mm)

Poles: 3 = Single Pole 4 = Double Pole
Functions: 6 = ON - ON 9 = ON OFF ON

Terminals: See completely specified models in prior section for configurations and dimensions.

S0 = Solder lugs
P0 = .250" (6.35mm) long Printed circuit terminals
W0 = Right angle horizontal p.c. terminals with mounting bracket
WW = Right angle vertical p.c. terminals with mounting bracket
Y0 = P.C. terminals with short bracket
Y4 = P.C. terminals with tall bracket

Contact & terminal materials: See contact ratings under "specifications".

0 = Gold plated brass

1 = Silver
2 = Gold plated silver
5 = Special contact with lower rating
8 = Gold plated brass contacts with tin plated terminals (not available w/SO)

Special options 1:

00 = Standard model
10 = Switch without ground plate
11 = .407" (10.35mm) long printed circuit terminals
12 = Same as 11 except without ground plate

Special options 2:

00 = No epoxy seal (for printed circuit terminals only as S0 (solder lug) terminals are always sealed)
01 = Epoxy sealed terminals (standard on solder lug models)
10 = Extended terminals for WW models (see figure 1)
11 = Same as 10 above except with epoxy sealed terminals

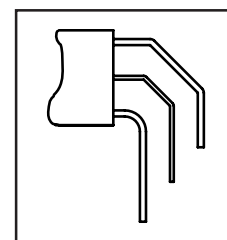


figure 1

E

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

25000N Series

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact ratings: Gold; 0.4 Volt-Amps (VA) max. at 20 V max. (AC or DC) Silver; 4 A at 125 VAC, 2 A at 250 VAC or 3 A at 30 VDC</p> <p>Initial contact resistance: Gold; 50 milliohms max. Silver; 10 milliohms max.</p> <p>Insulation resistance: 1000 megohms min. at 500 VDC</p> <p>Dielectric strength: 1000 V rms min. between terms.</p> <p>Electrical life: Gold; 20,000 cycles, Silver; 10,000 cycles</p> <p>Operating temperature range: -40°C to +85°C</p> <p>Solder heat resistance: 300°C max. for 5 seconds</p> <p>Washing not recommended.</p>	<ul style="list-style-type: none"> ● Molded-in terminals. ● .100" (2,54mm) and .200" (5,08mm) terminal spacing. ● Many additional models & options available (see page E49). ● Optional UL recognized & marked models available .
MATERIALS	
<p>Contacts & terminals: Gold or silver available (see contact ratings)</p> <p>Actuator and Cover: Glass filled polyamide</p> <p>Case: PBT high temp. thermoplastic Terminal seal: Epoxy</p>	

MODEL NO.	PLATING	ACTION	SINGLE POLE FLUSH ACTUATOR	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
<p>25136NLDB Gold on - on</p> <p>25139NLDB Gold on off on</p> <p>25136NAB Silver on - on</p> <p>25139NAB Silver on off on</p>			<p>Function (see pg. E51)</p> <p>6 9</p> <p>ON ON </p> <p>OFF </p> <p>ON ON </p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>TRAVEL/THROW: 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>VERTICAL ACTUATOR</p>					
<p>25336NLD Gold on - on</p> <p>25339NLD Gold on off on</p> <p>25336NA Silver on - on</p> <p>25339NA Silver on off on</p>			<p>Function (see pg. E51)</p> <p>6 9</p> <p>ON ON </p> <p>OFF </p> <p>ON ON </p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>TRAVEL/THROW: 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>RIGHT ANGLE ACTUATOR</p>					
<p>25146NLDB Gold on - on</p> <p>25149NLDB Gold on off on</p> <p>25146NAB Silver on - on</p> <p>25149NAB Silver on off on</p>			<p>Function (see pg. E51)</p> <p>6 9</p> <p>ON ON </p> <p>OFF </p> <p>ON ON </p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>TRAVEL/THROW: 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>VERTICAL ACTUATOR</p>					



25000N Series

Miniature Slide Switches

MODEL NO.	PLATING	ACTION	DOUBLE POLE	TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)
25346NLD 25349NLD 25346NA 25349NA	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
25436NLDB 25439NLDB 25436NAB 25439NAB	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
25536NLD 25539NLD 25536NA 25539NA	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
25446NLDB 25449NLDB 25446NAB 25449NAB	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>

E

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

25000N Series Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	PLATING	ACTION	DOUBLE POLE			
25546NLD	Gold	on - on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>			
25549NLD	Gold	on off on				
25546NA	Silver	on - on				
25549NA	Silver	on off on				
<p>RIGHT ANGLE ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	
25136NLDH	Gold	on - on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>			
25139NLDH	Gold	on off on				
25136NAH	Silver	on - on				
25139NAH	Silver	on off on				
<p>VERTICAL ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	
25336NLD6	Gold	on - on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>			
25339NLD6	Gold	on off on				
25336NA6	Silver	on - on				
25339NA6	Silver	on off on				
<p>RIGHT ANGLE ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	
25146NLDH	Gold	on - on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>			
25149NLDH	Gold	on off on				
25146NAH	Silver	on - on				
25149NAH	Silver	on off on				
<p>VERTICAL ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT	



25000N Series

Miniature Slide Switches

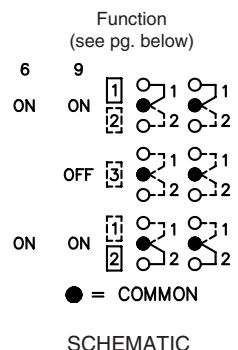
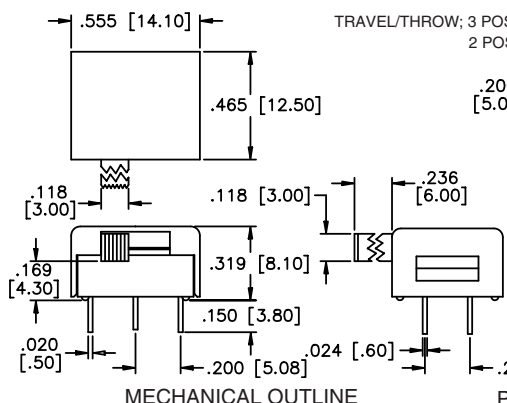
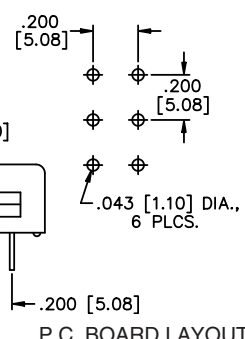
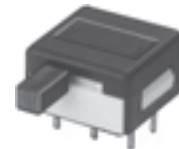
E

MODEL NO.	PLATING	ACTION	DOUBLE POLE		
25346NLD6 25349NLD6 25346NA6 25349NA6	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150</p>	
			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
RIGHT ANGLE ACTUATOR					
25436NLDH 25439NLDH 25436NAH 25439NAH	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150</p>	
			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
VERTICAL ACTUATOR					
25536NLD6 25539NLD6 25536NA6 25539NA6	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p>	
			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
RIGHT ANGLE ACTUATOR					
25446NLDH 25449NLDH 25446NAH 25449NAH	Gold Gold Silver Silver	on - on on off on on - on on off on	<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p>	
			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
VERTICAL ACTUATOR					

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

25000N Series Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	PLATING	ACTION	DOUBLE POLE		
25546NLD6	Gold	on - on	<p>Function (see pg. below)</p> 		<p>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> 
25549NLD6	Gold	on off on			
25546NA6	Silver	on - on			
25549NA6	Silver	on off on			
			RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE

Additional ordering information: Commonly ordered models are shown above and on preceding pages with complete model numbers and specifications. Below is an order format that enables you to 'build your own switch' and specify the correct switch model number by simply selecting from all available options shown and filling in the boxes.

'BUILD YOUR OWN SWITCH' ORDER FORMAT

Fill in boxes shown with options selected from below.
Allowable options for each box are shown under each respective box.

Series	Actuator/ Term. Spacing	Poles	Functions	Version	*Contact & Term. Mat'l.	*Actuators	Approvals
2 5							
	1 4 3 5	3 4	6 9	N	A L D	B H H 6 6	(NONE) X 6 9 3 U L
	<p>* If a single suffix selection is chosen from the Contact & Term. Mat'l. or Actuator categories above, eliminate the extra box.</p>						

Actuator/terminal spacing: Dimensions in inches and millimeters.
 1 = Vertical actuator and .100" (2.54mm) terminal spacing
 4 = Vertical actuator and .200" (5.08mm) terminal spacing
 3 = Side actuator and .100" (2.54mm) terminal spacing
 5 = Side actuator and .200" (5.08mm) terminal spacing

Poles: 3 = Single Pole 4 = Double Pole

Functions: 6 = ON - ON 9 = ON OFF ON

Version: N = Version specification (Specify for all models)

Contact & terminal materials: See contact ratings under "specifications". A = Silver LD = Gold plated brass

Actuators: Dimensions in inches and millimeters.
 B = Flush vertical actuator
 H = Vertical actuator .110" (2.80mm) high
 H6 = Vertical actuator .236" (6.00mm) high
 6 = Side actuator .236" (6.00mm) long
Note: If **Actuator** boxes are not used, a side actuator .090" (2.30mm) long will be supplied.

Approvals: X693UL = Switches recognized and marked UL - silver (A) contacts only.

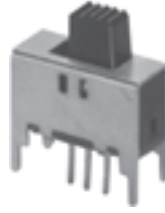

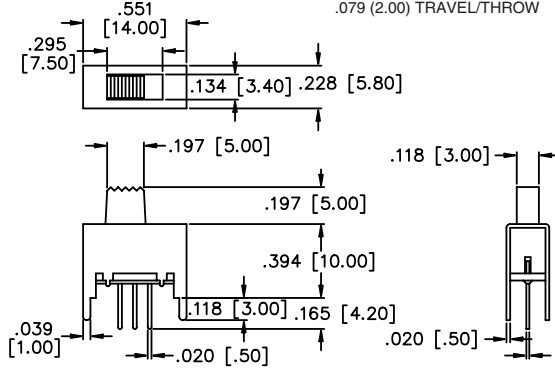
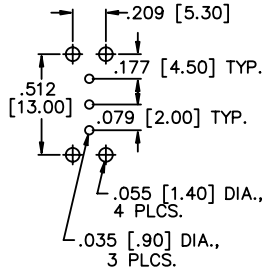

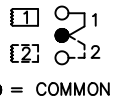
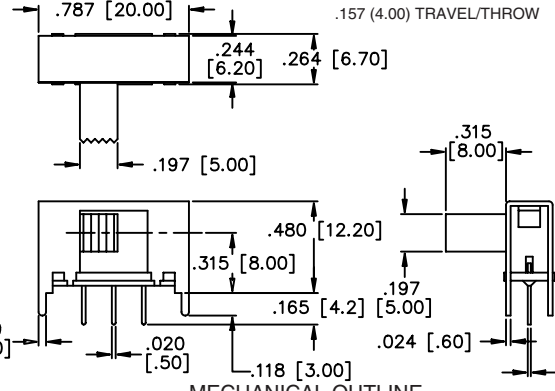
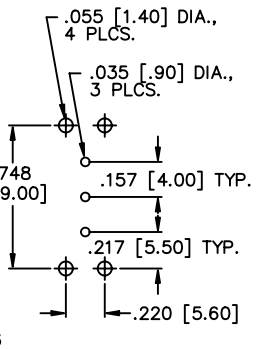
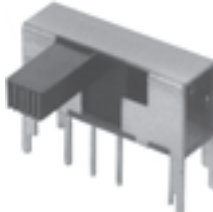
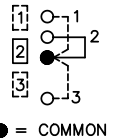
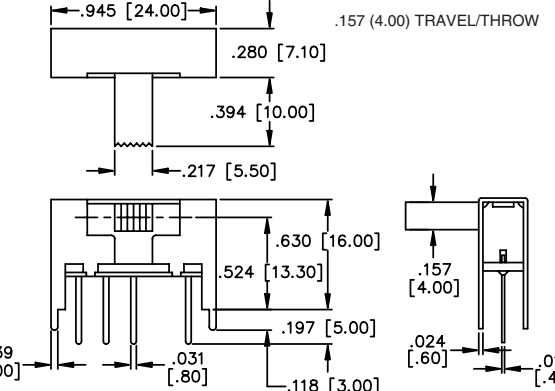
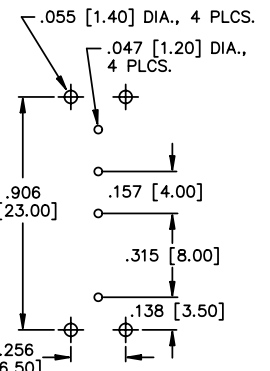


MSS Series

Standard Size Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact ratings: Gold; 0.4 Volt-Amps (VA) max. at 20 V max. (AC or DC) Silver; 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Epoxy sealed terminals. ● Wash-through open frame construction. ● Reinforcing mounting legs.
MATERIALS	
<p>Contacts & terminals: Gold or silver available (see contact ratings)</p> <p>Housing: Tin/lead plated steel</p> <p>Base: Phenolic laminated sheet</p>	<p>Actuator: Thermoplastic</p> <p>Terminal seal: Epoxy</p>

E

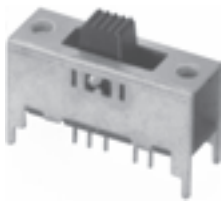
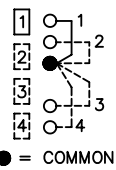
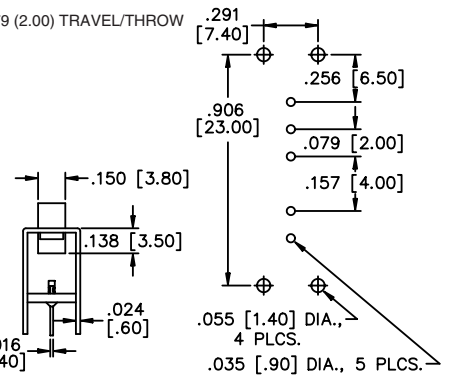
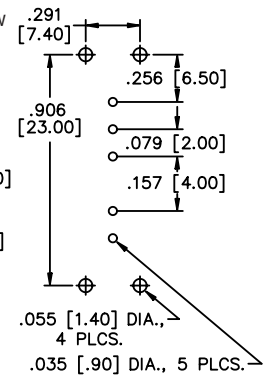
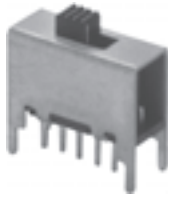
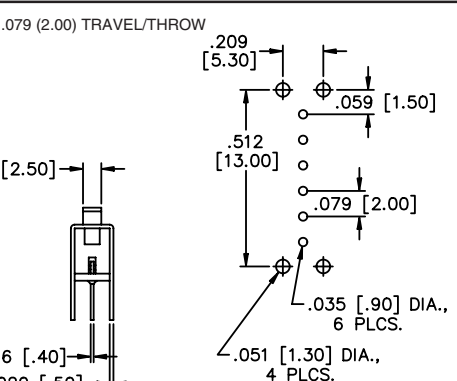
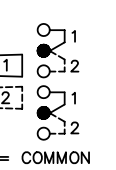
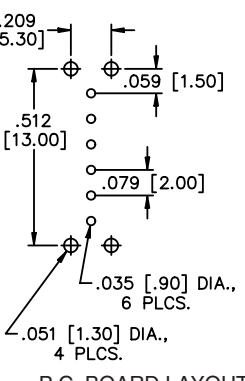
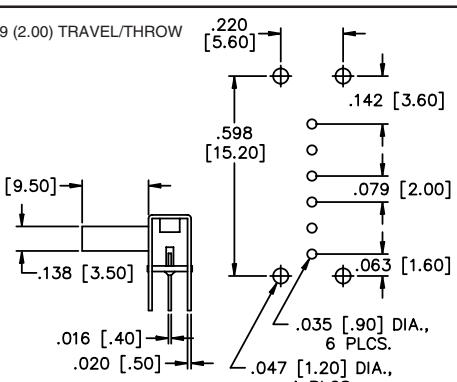
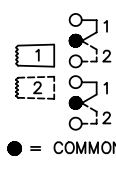
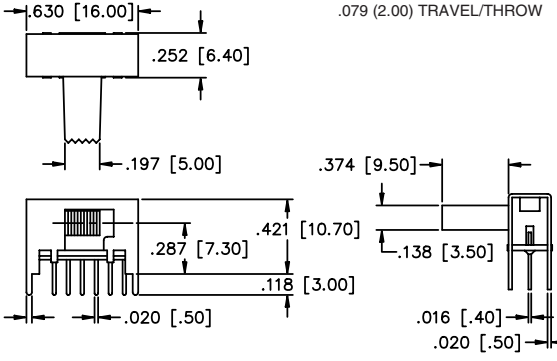
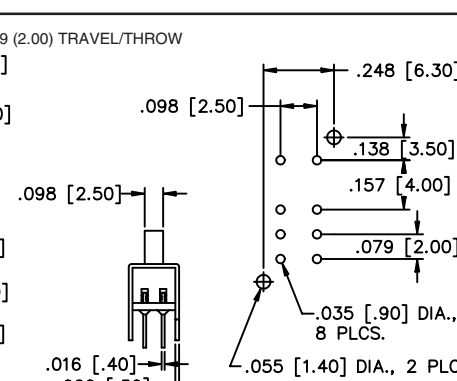
MODEL NO.	PLATING	ACTUATOR	DIMENSIONS & DIAGRAMS
<p>MSS12A SILVER</p> <p>MSS12AG GOLD</p>		 <p>VERTICAL ACTUATOR</p>	<p>1P2T</p> <p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
<p>MSS12AR SILVER</p> <p>MSS12ARG GOLD</p>		 <p>RIGHT ANGLE ACTUATOR</p>	<p>1P2T</p> <p style="text-align: right;">.157 (4.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
<p>MSS13AR SILVER</p>		 <p>RIGHT ANGLE ACTUATOR</p>	<p>1P3T</p> <p style="text-align: right;">.157 (4.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>● = COMMON</p> </div> <div style="text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MSS Series

Standard Size Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


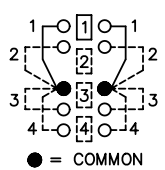
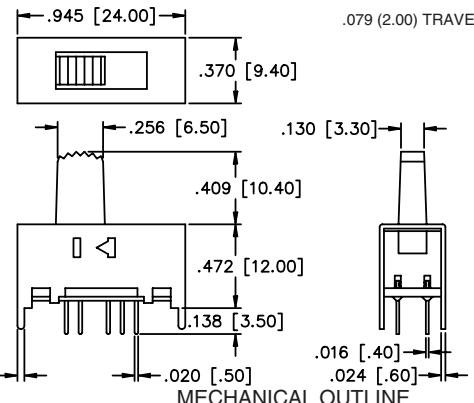
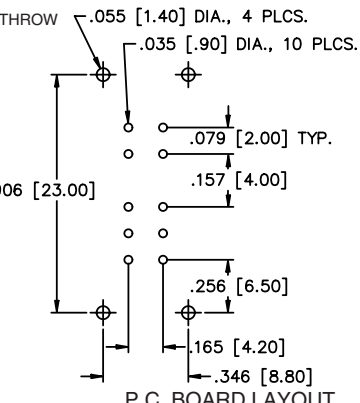

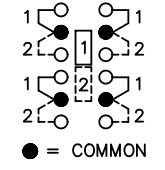

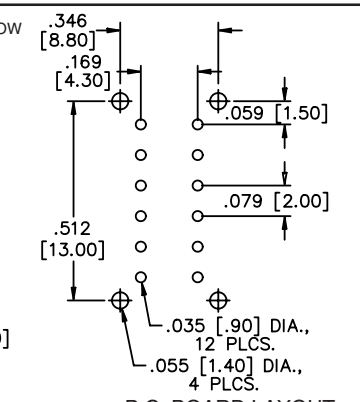


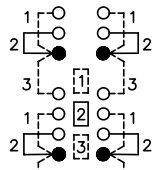
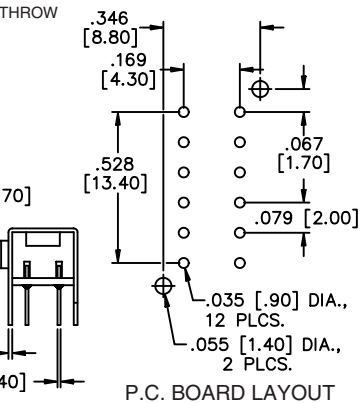
MODEL NO. PLATING MSS14 SILVER MSS14G GOLD	1P4T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
MODEL NO. PLATING MSS22 SILVER MSS22G GOLD	2P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
MODEL NO. PLATING MSS225R SILVER MSS225RG GOLD	2P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
MODEL NO. PLATING MSS23 SILVER MSS23G GOLD	2P3T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT



MSS Series

Standard Size Slide Switches

E

MODEL NO.	PLATING			
MSS24A	SILVER		2P4T	 <p>● = COMMON</p>
MSS24AG	GOLD			
		VERTICAL ACTUATOR	 <p style="text-align: center;">MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>	
MSS42	SILVER		4P2T	 <p>● = COMMON</p>
MSS42G	GOLD			
		VERTICAL ACTUATOR	 <p style="text-align: center;">MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>	
MSS42R	SILVER		4P2T	 <p>● = COMMON</p>
MSS42RG	GOLD			
		RIGHT ANGLE ACTUATOR	 <p style="text-align: center;">MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>	
MSS43	SILVER		4P3T	 <p>● = COMMON</p>
MSS43G	GOLD			
		VERTICAL ACTUATOR	 <p style="text-align: center;">MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>	


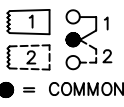
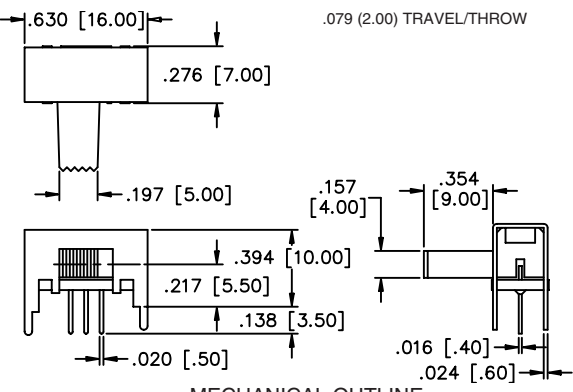
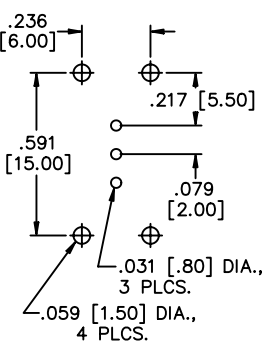

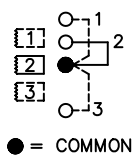
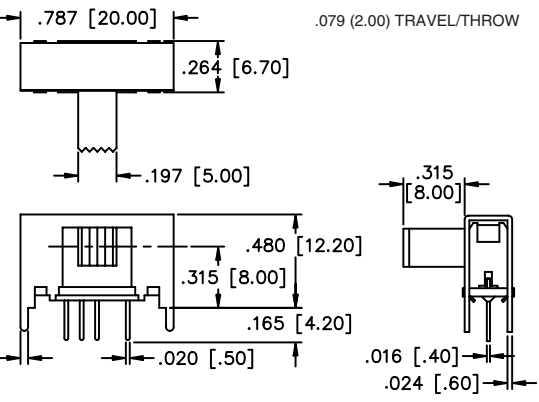
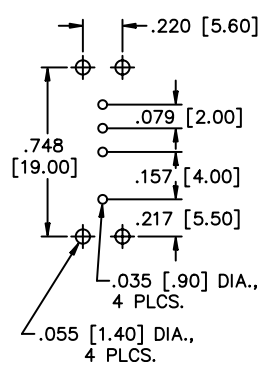
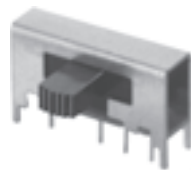
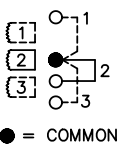
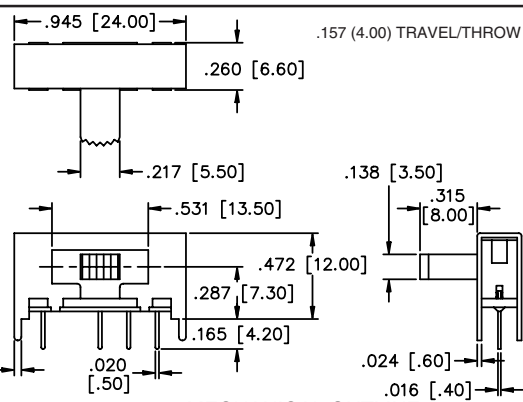
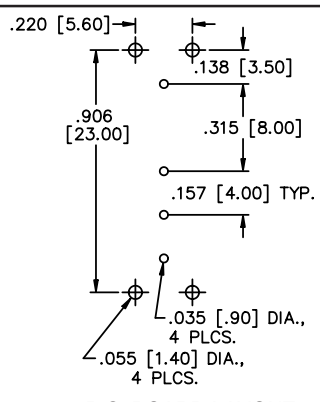
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

M Series

Standard Size Slide Switches

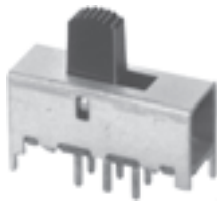
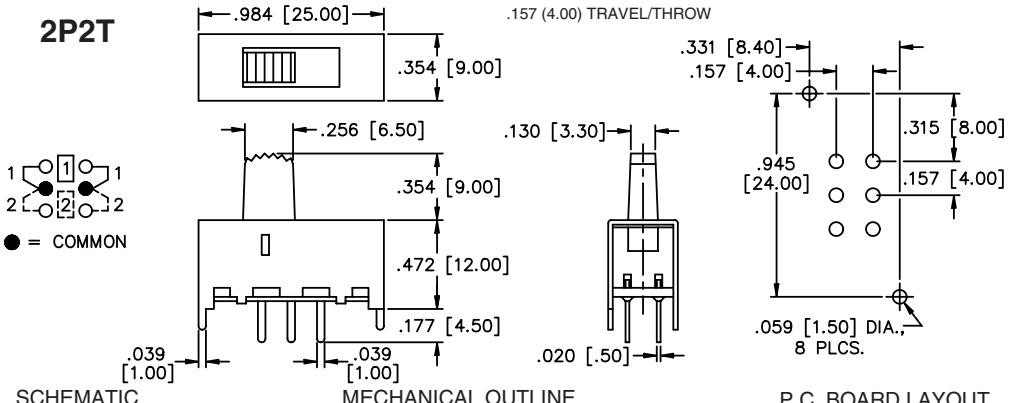

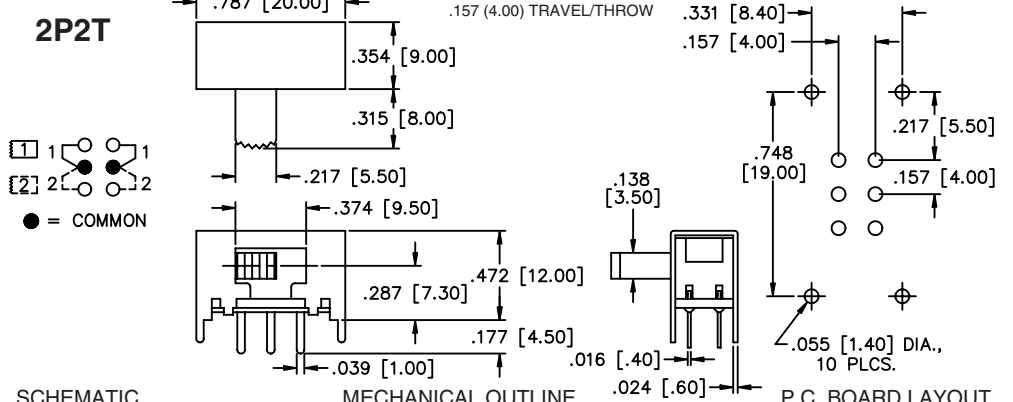
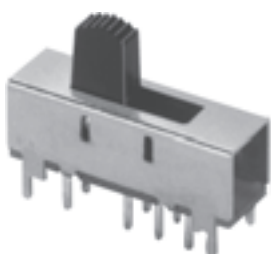
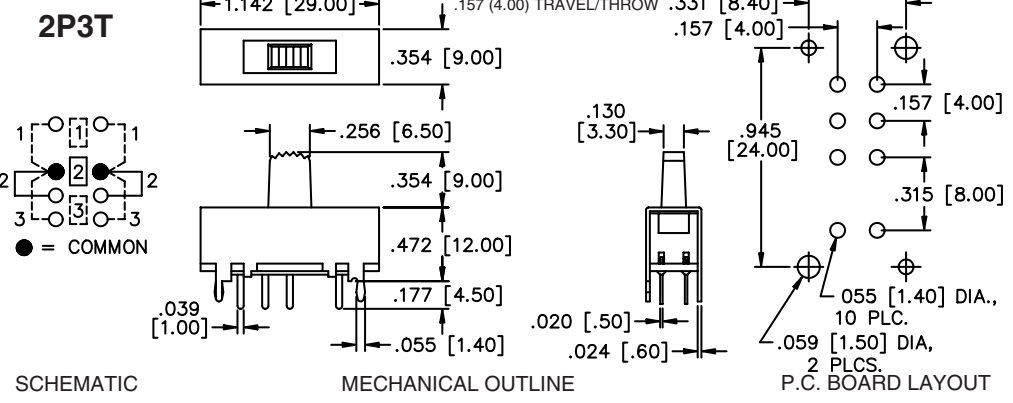

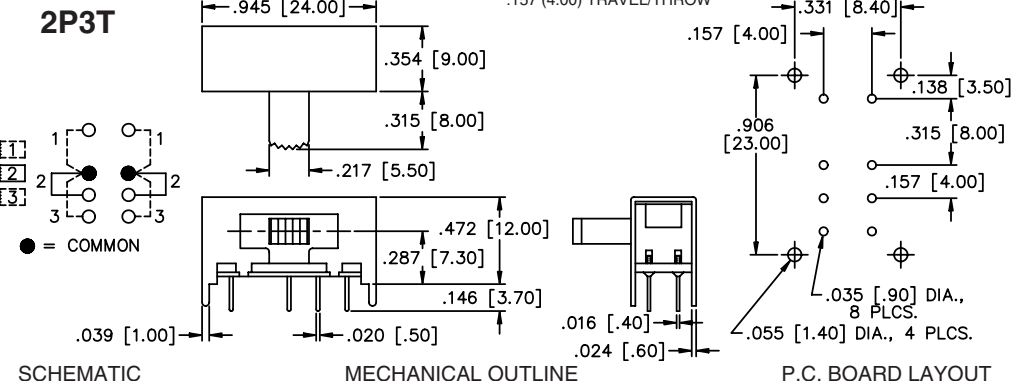
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Epoxy sealed terminals. ● Wash-through open frame construction. ● Reinforcing mounting legs. ● Many actuator styles and lengths available on request.
MATERIALS	
<p>Contacts & terminals: Silver plated</p> <p>Housing: Tin plated steel</p> <p>Actuator: Thermoplastic</p> <p>Base: Phenolic laminated sheet</p>	<p>Terminal seal: Epoxy</p>

<p>MODEL NO.</p> <p>M12R</p>  <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>1P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M13R</p>  <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>1P3T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M13AR</p>  <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>1P3T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>

M Series

Standard Size Slide Switches


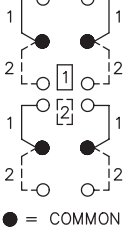
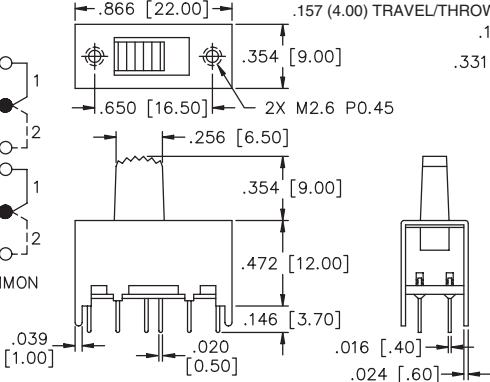
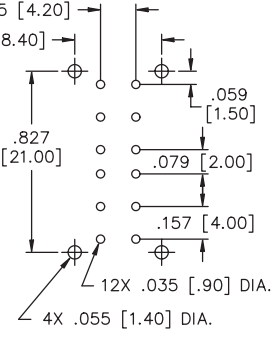
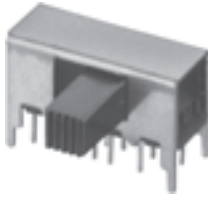
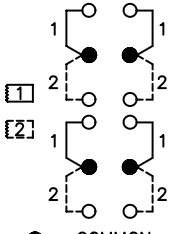
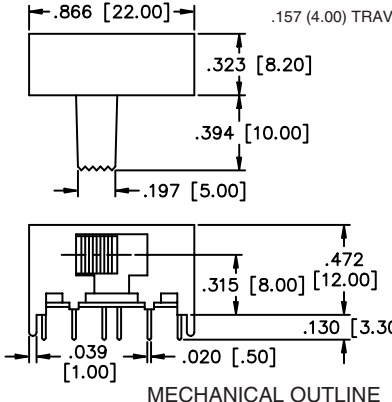
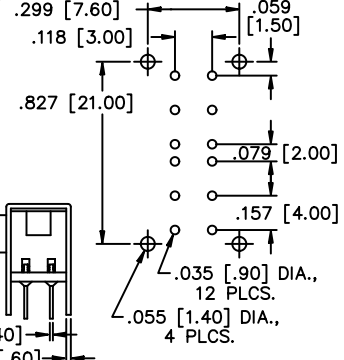

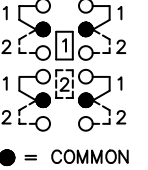
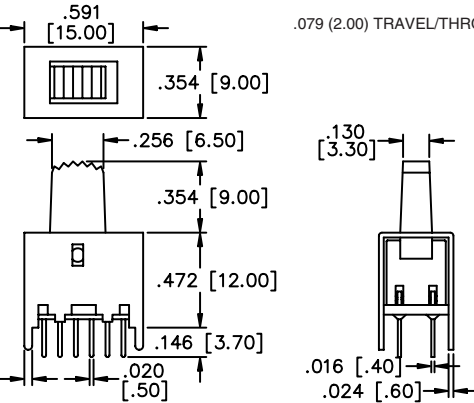
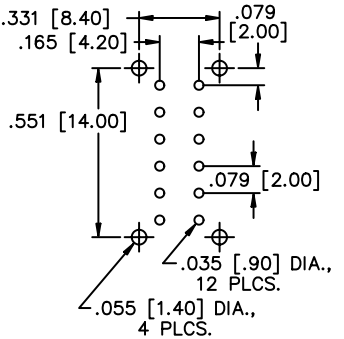
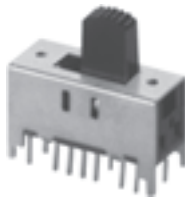
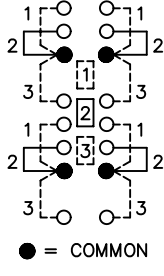
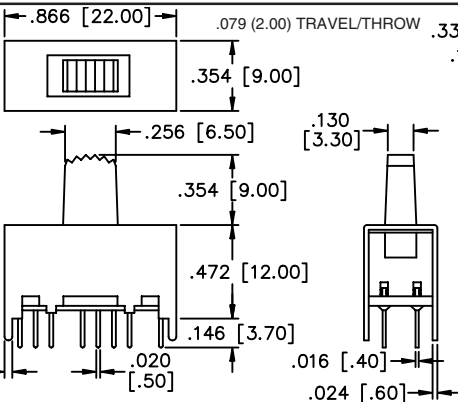
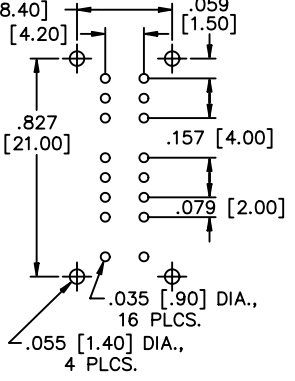
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<p>MODEL NO.</p> <p>M22R</p>	 <p>RIGHT ANGLE ACTUATOR</p>	<p>2P2T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M23</p>	 <p>VERTICAL ACTUATOR</p>	<p>2P3T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M23R</p>	 <p>RIGHT ANGLE ACTUATOR</p>	<p>2P3T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

M Series

Standard Size Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

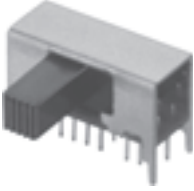
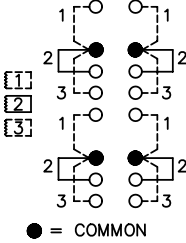
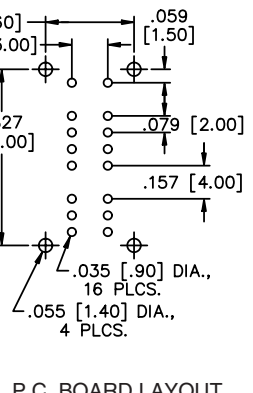
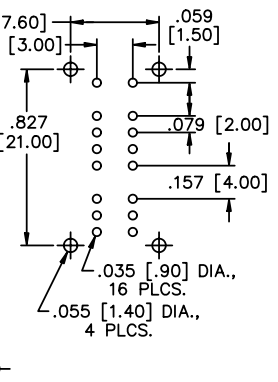
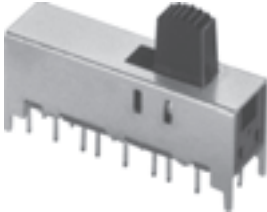
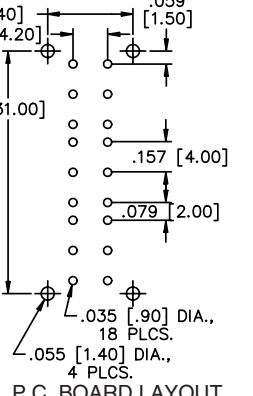
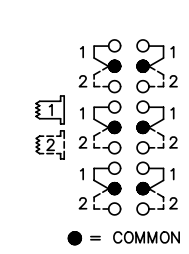
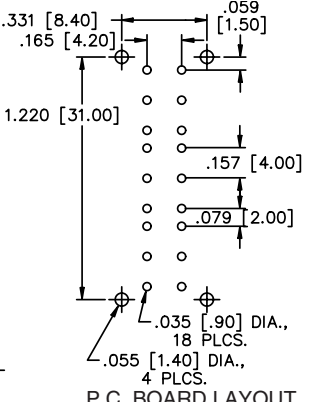
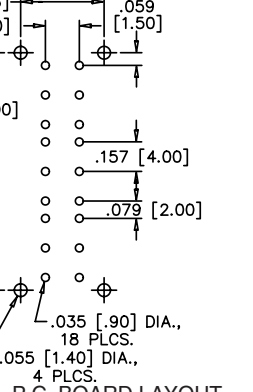
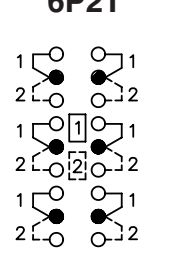
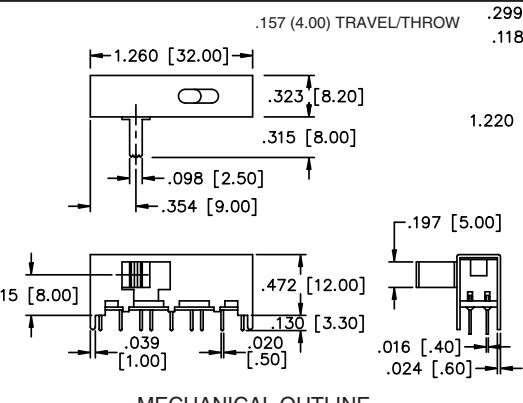
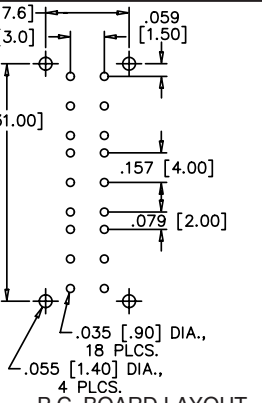
MODEL NO.			
M42			
	<p>4P2T</p> 		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
M42R			
	<p>4P2T</p> 		
RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
M42A			
	<p>4P2T</p> 		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
M43			
	<p>4P3T</p> 		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

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M Series

Standard Size Slide Switches

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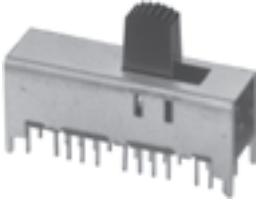
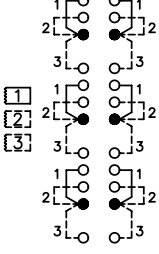
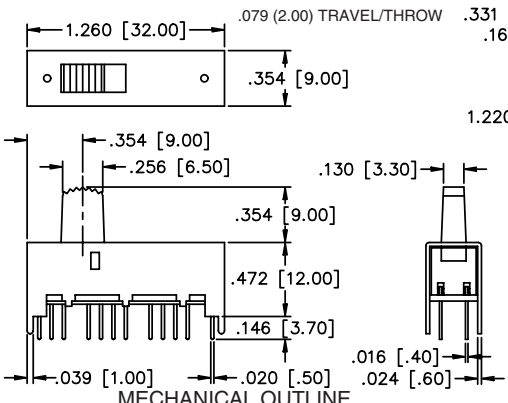
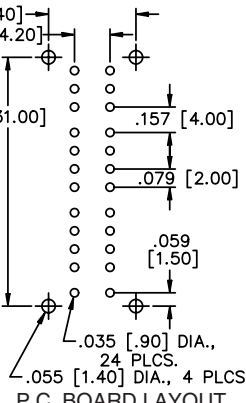

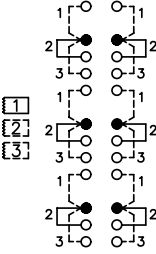
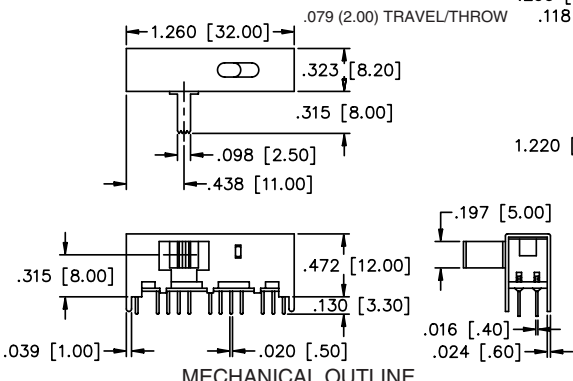
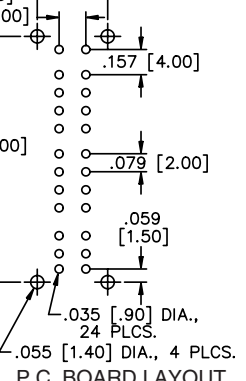

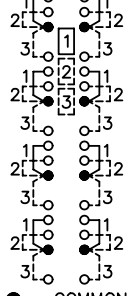
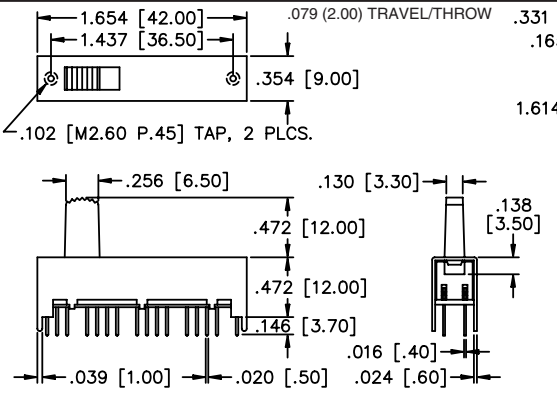
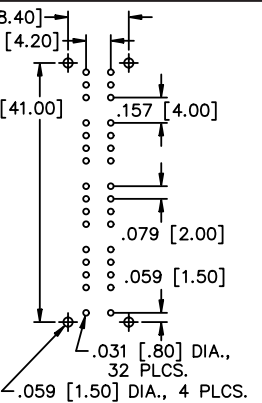

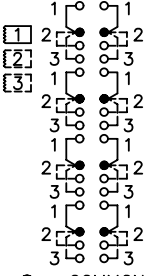
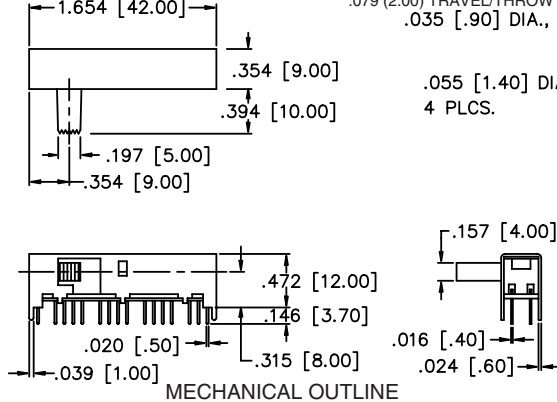
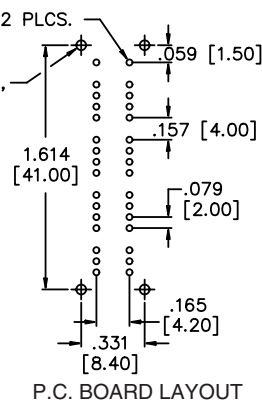
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<p>MODEL NO.</p> <p>M62</p>	<p>6P2T</p>  <p>● = COMMON</p> <p>VERTICAL ACTUATOR</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M62R</p>	<p>6P2T</p>  <p>● = COMMON</p> <p>RIGHT ANGLE ACTUATOR</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M62A</p>	<p>6P2T</p>  <p>● = COMMON</p> <p>VERTICAL ACTUATOR</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

M Series

Standard Size Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO. M63	 <p style="text-align: center;">VERTICAL ACTUATOR</p>	<p>6P3T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>  <p style="text-align: center;">MECHANICAL OUTLINE</p>  <p style="text-align: center;">P.C. BOARD LAYOUT</p>
MODEL NO. M63R	 <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>6P3T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>  <p style="text-align: center;">MECHANICAL OUTLINE</p>  <p style="text-align: center;">P.C. BOARD LAYOUT</p>
MODEL NO. M83	 <p style="text-align: center;">VERTICAL ACTUATOR</p>	<p>8P3T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>  <p style="text-align: center;">MECHANICAL OUTLINE</p>  <p style="text-align: center;">P.C. BOARD LAYOUT</p>
MODEL NO. M83R	 <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<p>8P3T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>  <p style="text-align: center;">MECHANICAL OUTLINE</p>  <p style="text-align: center;">P.C. BOARD LAYOUT</p>

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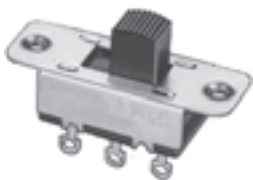
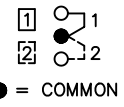
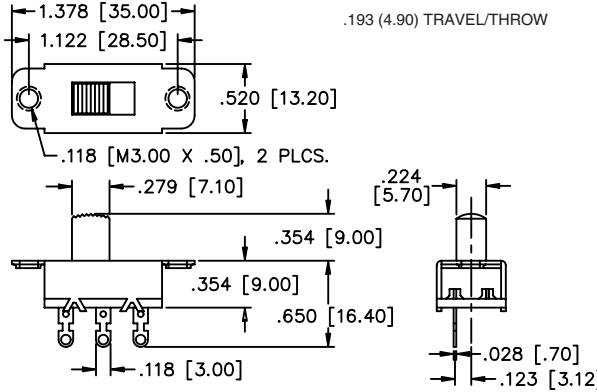
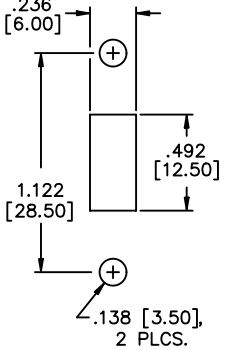

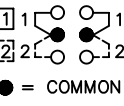
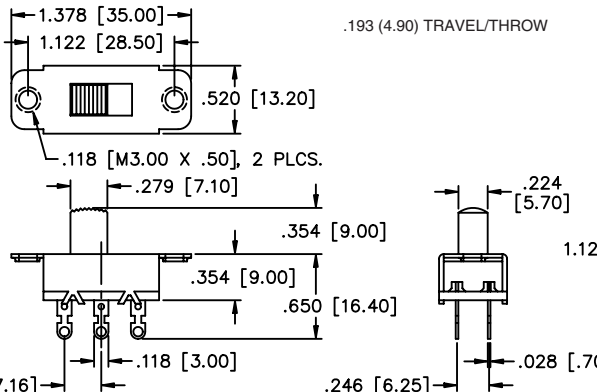
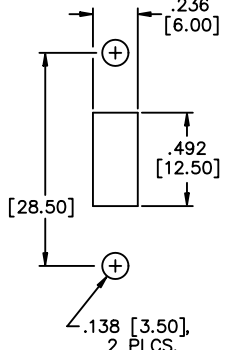
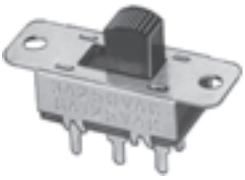
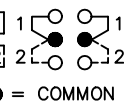
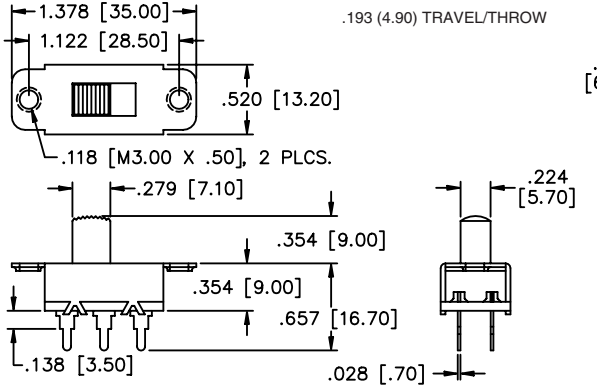
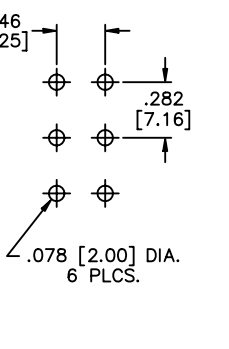
PM Series

Standard Size Slide Switches

SPECIFICATIONS	FEATURES
<p>Contact rating: 6 Amps at 125 VAC, 3 Amps at 250 VAC</p> <p>Initial contact resistance: 30 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 1000 VAC for 1 minute (min.)</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C to +60°C</p> <p>Actuation force: 500g ± 200g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Wash-through open frame construction. ● UL & CSA recognized. ● Threaded mounting holes standard - M3X0.5. ● Panel mounting.
MATERIALS	
<p>Contacts: Silver plated phosphor bronze</p> <p>Terminals: Tin plated brass</p> <p>Base: Phenolic laminated sheet</p>	<p>Actuator: Nylon, type 6/6</p> <p>Frame: Zinc plated steel</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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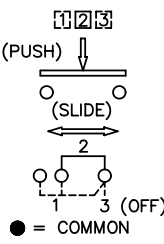
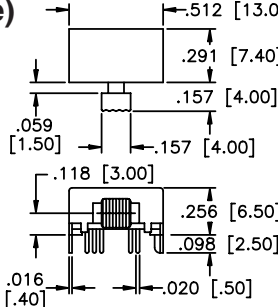
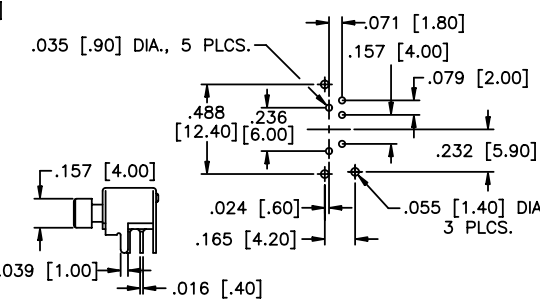

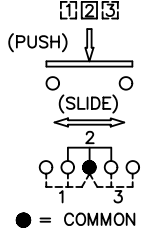
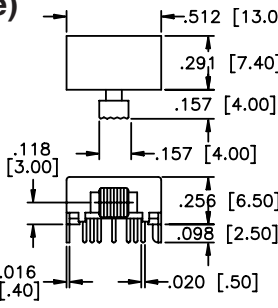
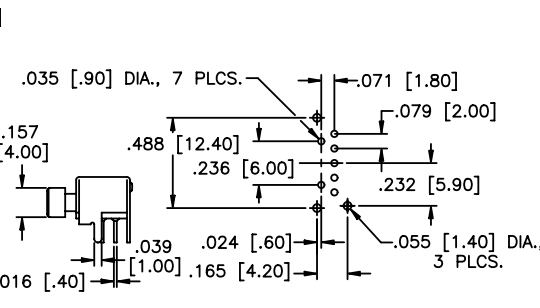

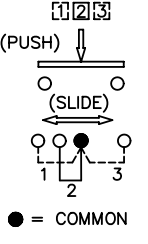
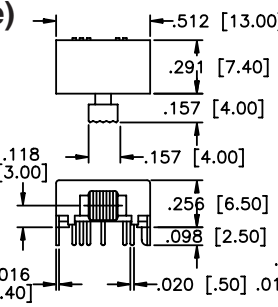
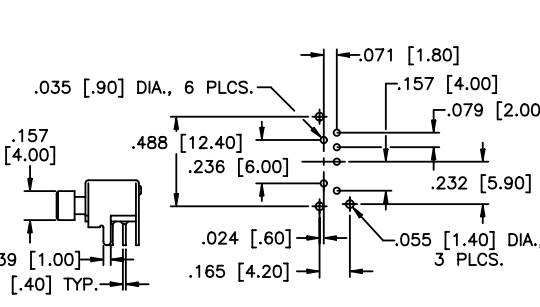
MODEL NO.	1P2T
PM13B012	 <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>1P2T</p>  <p>● = COMMON</p> </div> <div style="text-align: center;"> <p>MECHANICAL OUTLINE</p>  </div> <div style="text-align: center;"> <p>PANEL CUTOUT</p>  </div> </div>
PM13B022	 <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>1P2T</p>  <p>● = COMMON</p> </div> <div style="text-align: center;"> <p>MECHANICAL OUTLINE</p>  </div> <div style="text-align: center;"> <p>P. C. BOARD LAYOUT</p>  </div> </div>
PM13B022P	 <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>2P2T</p>  <p>● = COMMON</p> </div> <div style="text-align: center;"> <p>MECHANICAL OUTLINE</p>  </div> <div style="text-align: center;"> <p>PANEL CUTOUT</p>  </div> </div>

MPS Series

Miniature Pushbutton Style Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact ratings: Pushbutton contacts; 0.4 Volt-Amps max. at 20 V max. (AC or DC) Slide contacts; 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms max. at 250 VDC</p> <p>Dielectric strength: 250 volts RMS at sea level</p> <p>Electrical life: 100,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Actuation force: Pushbutton; 200g ± 100g Slide; 100g to 450g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Washing not recommended</p>	<ul style="list-style-type: none"> ● Combination momentary pushbutton switch and slide switch mechanism. ● Bifurcated wiping contact design. ● Epoxy sealed terminals. ● Reinforcing mounting legs.
MATERIALS	
<p>Contacts & terminals: Gold plating for pushbutton. Silver plating for slide (see contact ratings).</p> <p>Housing: Nickel plated brass Actuator: Thermoplastic</p> <p>Base: Phenolic laminated sheet Terminal seal: Epoxy</p>	

MODEL NO.	1P1T, (PB) 1P3T, (Slide)
<p style="color: red; font-weight: bold;">MPS101</p>  <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  <p style="text-align: center;">SCHEMATIC</p> </div> <div style="width: 30%;">  <p style="text-align: center;">MECHANICAL OUTLINE</p> </div> <div style="width: 45%;">  <p style="text-align: center;">P.C. BOARD LAYOUT</p> </div> </div>
<p style="color: red; font-weight: bold;">MPS101A</p>  <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  <p style="text-align: center;">SCHEMATIC</p> </div> <div style="width: 30%;">  <p style="text-align: center;">MECHANICAL OUTLINE</p> </div> <div style="width: 45%;">  <p style="text-align: center;">P.C. BOARD LAYOUT</p> </div> </div>
<p style="color: red; font-weight: bold;">MPS101B</p>  <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  <p style="text-align: center;">SCHEMATIC</p> </div> <div style="width: 30%;">  <p style="text-align: center;">MECHANICAL OUTLINE</p> </div> <div style="width: 45%;">  <p style="text-align: center;">P.C. BOARD LAYOUT</p> </div> </div>




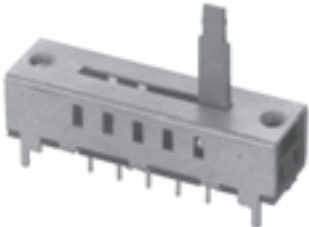
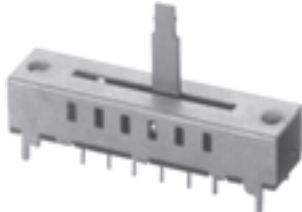
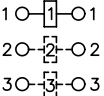
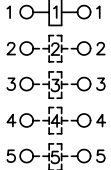
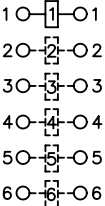
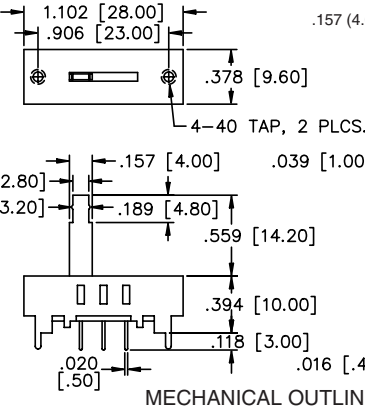
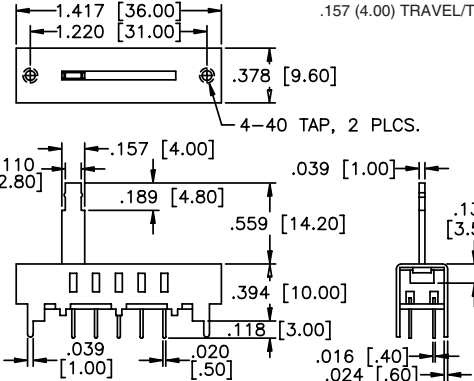
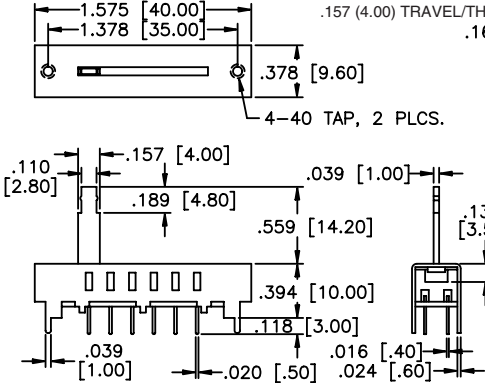
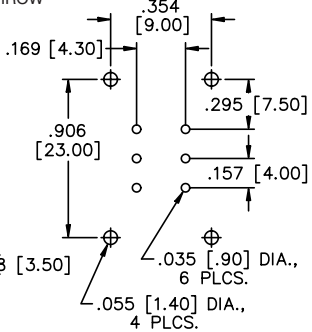
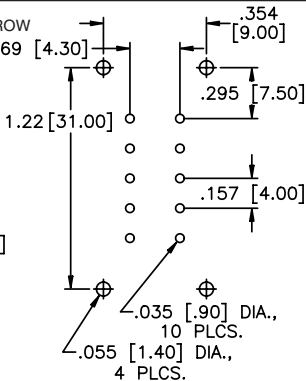
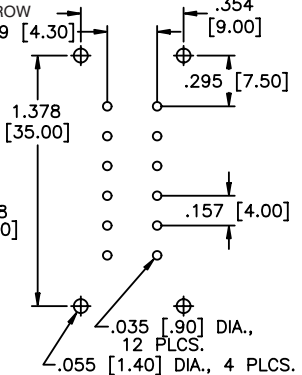
MSL Series

Single Pole Multi-Position Slide Switches

Note: up to 10 positions available - contact factory.
Minimum quantities may apply.
Optional color cap available for these models - see
Hardware section.

SPECIFICATIONS	FEATURES
Contact rating: 200 mA at 125 VAC or 30 VDC Initial contact resistance: 30 milliohms max. Contact timing: Non-shorting Insulation resistance: 100 megohms max. at 500 VDC Dielectric strength: 500 volts RMS at sea level Electrical life: 10,000 cycles min. Operating temperature range: -10°C to +60°C Actuation force: 250g ± 100g Solder heat resistance: 260°C max. for 3 seconds Solvent washing permissible	<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Epoxy sealed terminals. ● Wash-through open frame construction. ● Reinforcing mounting legs. ● Threaded mounting holes standard - 4-40NC-2B.
MATERIALS	Contacts & terminals: Silver plated Housing: Tin/lead plated steel Base: Phenolic laminated sheet Slider: High temperature thermoplastic Actuator: Steel Terminal seal: Epoxy

E

MODEL NO.			
MSL33			
			
VERTICAL ACTUATOR			
MODEL NO.			
MSL55			
			
VERTICAL ACTUATOR			
MODEL NO.			
MSL66			
			
VERTICAL ACTUATOR			
	1P3T	1P5T	1P6T
	 SCHEMATIC	 SCHEMATIC	 SCHEMATIC
	 MECHANICAL OUTLINE	 MECHANICAL OUTLINE	 MECHANICAL OUTLINE
			 P.C. BOARD LAYOUT
			 P.C. BOARD LAYOUT
			 P.C. BOARD LAYOUT

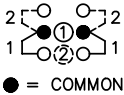
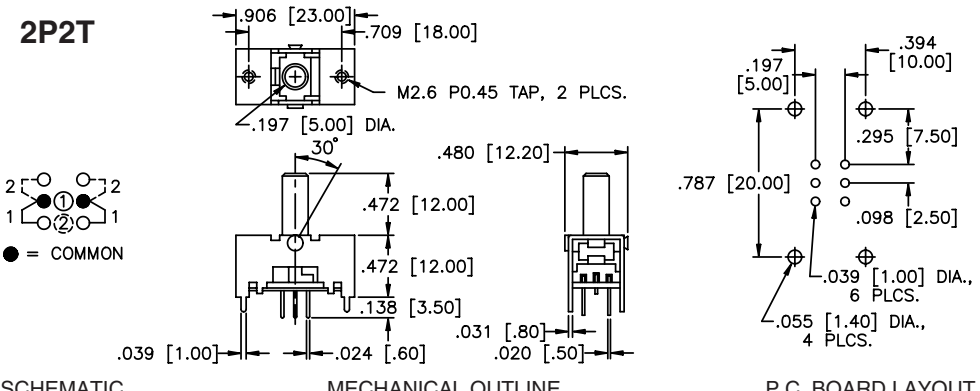
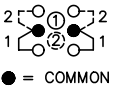
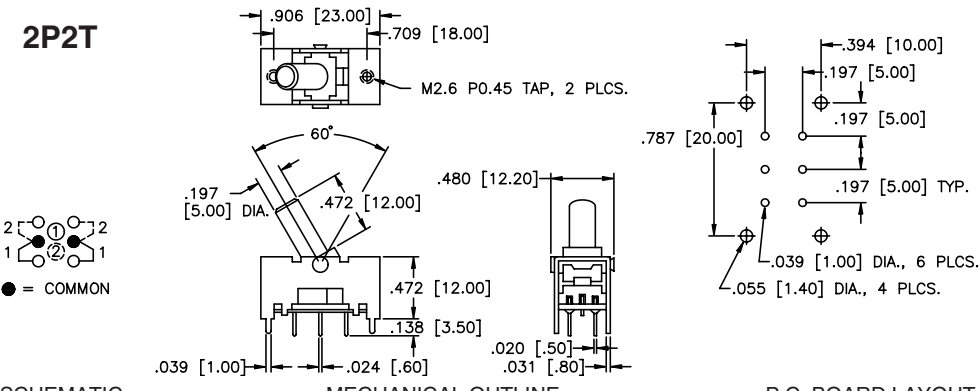
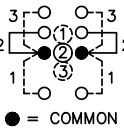
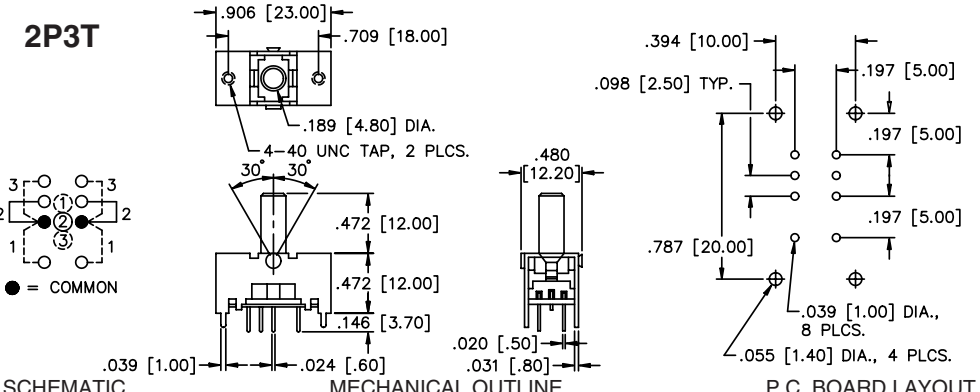
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MBT Series

Baton Toggle Style Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms max. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C to +60°C</p> <p>Actuation force: 400g ± 200g</p> <p>Solder heat resistance: 260°C max. for 3 seconds</p> <p>Solvent washing permissible</p>	<ul style="list-style-type: none"> ● Bifurcated wiping contact design. ● Epoxy sealed terminals. ● Wash-through open frame construction. ● Reinforcing mounting legs. ● Threaded mounting holes standard.
MATERIALS	
<p>Contacts & terminals: Silver plated</p> <p>Housing: Tin plated steel</p> <p>Actuator: Thermoplastic</p> <p>Base: Phenolic laminated sheet</p>	
<p>Terminal seal: Epoxy</p>	

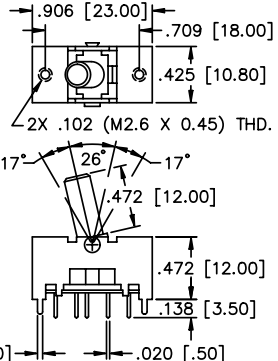
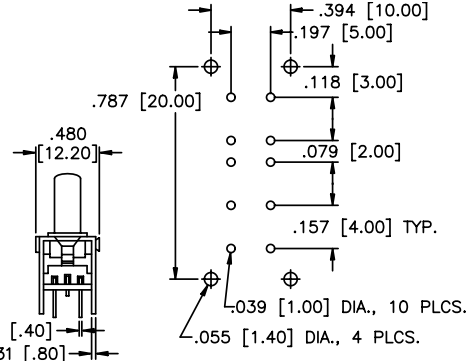
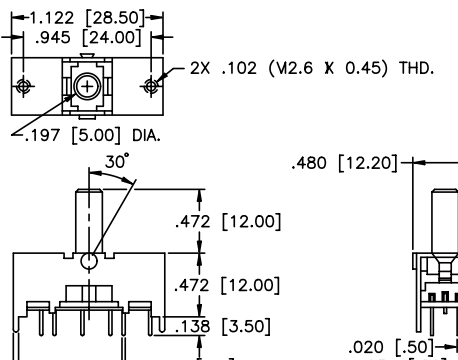
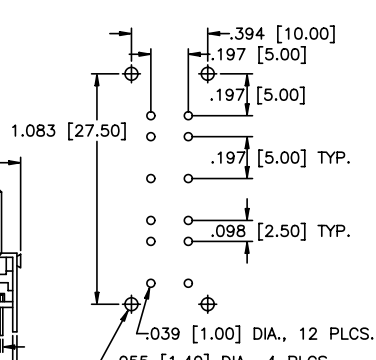
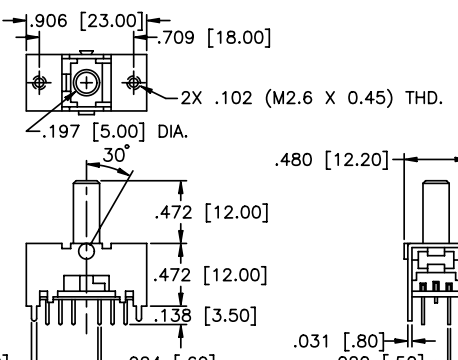
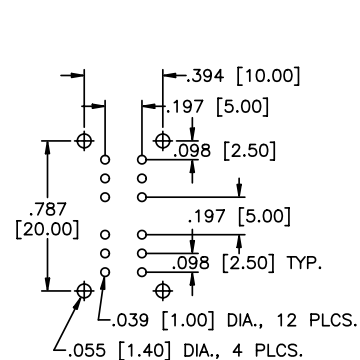
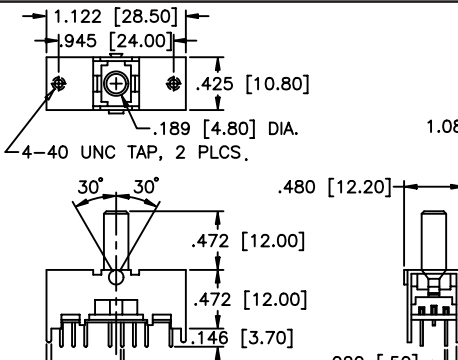
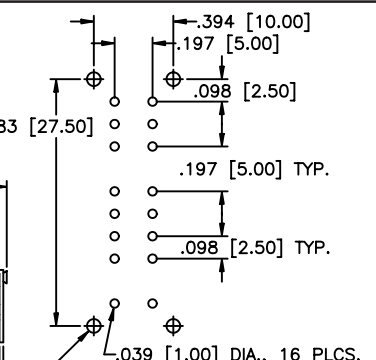
MODEL NO. CONTACTS			
MBT22N	NON-SHORTING	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
MBT22S	SHORTING	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
MBT23N	NON-SHORTING	<p>2P3T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>



MBT Series

Baton Toggle Style Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	CONTACTS				
MBT24	UNSPECIFIED	2P4T	 <p> .906 [23.00] .709 [18.00] .425 [10.80] 2X .102 (M2.6 X 0.45) THD. 17° 26° 17° .472 [12.00] .472 [12.00] .138 [3.50] .039 [1.00] .020 [.50] </p>	 <p> .394 [10.00] .197 [5.00] .118 [3.00] .787 [20.00] .480 [12.20] .079 [2.00] .157 [4.00] TYP. .039 [1.00] DIA., 10 PLCS. .055 [1.40] DIA., 4 PLCS. </p>	SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT
MBT42N	NON-SHORTING	4P2T	 <p> 1.122 [28.50] .945 [24.00] 2X .102 (M2.6 X 0.45) THD. .197 [5.00] DIA. 30° .472 [12.00] .472 [12.00] .138 [3.50] .039 [1.00] .024 [.60] </p>	 <p> .394 [10.00] .197 [5.00] .197 [5.00] TYP. 1.083 [27.50] .480 [12.20] .098 [2.50] TYP. .039 [1.00] DIA., 12 PLCS. .055 [1.40] DIA., 4 PLCS. </p>	SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT
MBT42S	SHORTING	4P2T	 <p> .906 [23.00] .709 [18.00] 2X .102 (M2.6 X 0.45) THD. .197 [5.00] DIA. 30° .472 [12.00] .472 [12.00] .138 [3.50] .039 [1.00] .024 [.60] </p>	 <p> .394 [10.00] .197 [5.00] .098 [2.50] .197 [5.00] .098 [2.50] TYP. .787 [20.00] .039 [1.00] DIA., 12 PLCS. .055 [1.40] DIA., 4 PLCS. </p>	SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT
MBT43N	NON-SHORTING	4P3T	 <p> 1.122 [28.50] .945 [24.00] .425 [10.80] .189 [4.80] DIA. 4-40 UNC TAP, 2 PLCS. 30° 30° .472 [12.00] .472 [12.00] .146 [3.70] .039 [1.00] .024 [.60] </p>	 <p> .394 [10.00] .197 [5.00] .098 [2.50] .197 [5.00] TYP. .098 [2.50] TYP. 1.083 [27.50] .039 [1.00] DIA., 16 PLCS. .055 [1.40] DIA., 4 PLCS. </p>	SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT

MBT Series

Baton Toggle Style Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	CONTACTS			
<p>MBT62N NON-SHORTING</p> <p>MBT62S SHORTING</p>	<p>6P2T</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>	
<p>MBT63 UNSPECIFIED</p>	<p>6P3T</p> <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>	

