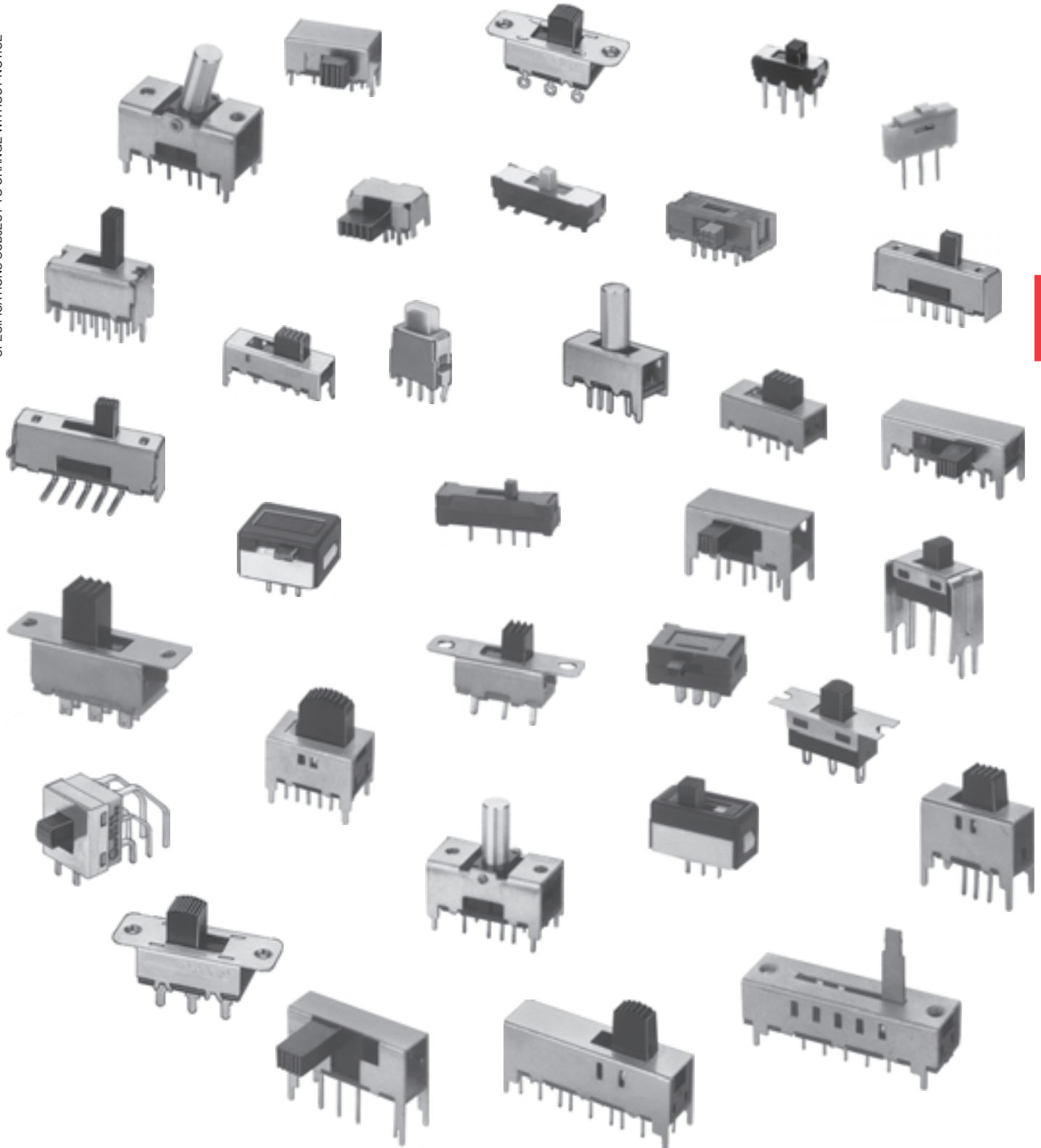


SLIDE SWITCHES

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.



E

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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 10 μ A at 5 VD
Initial contact resistance:	20 milliohms maximum
Insulation resistance:	1000 M Ω 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

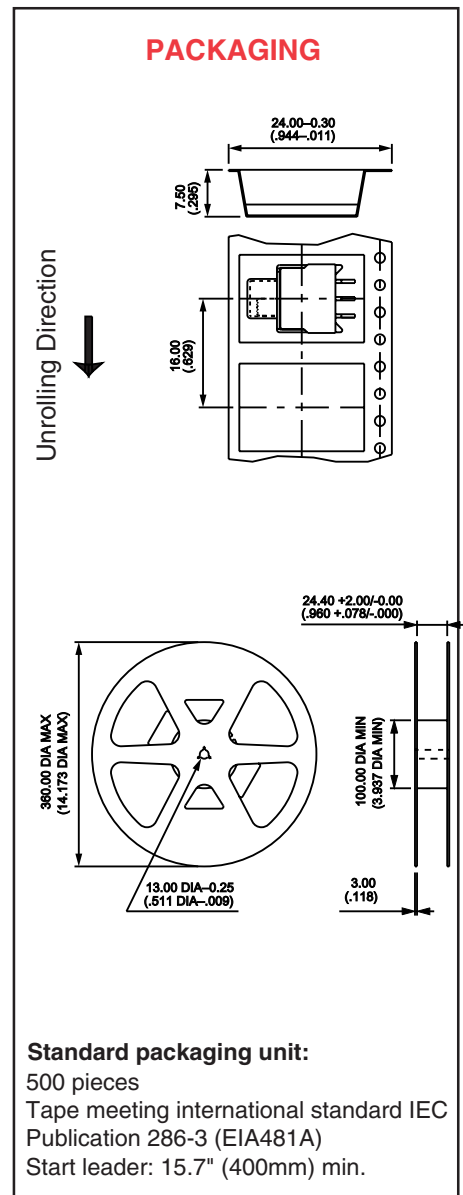
MATERIALS

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

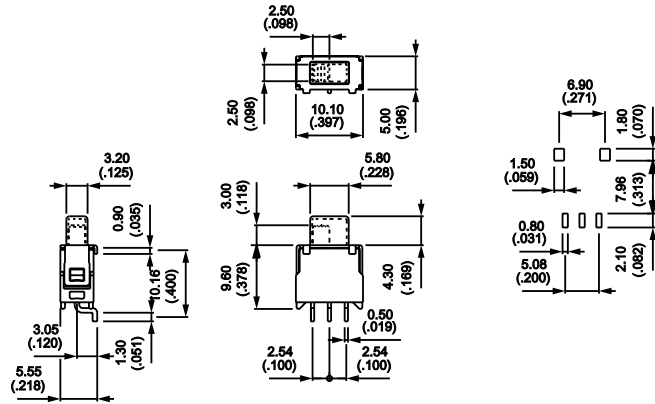
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TG SERIES - SMT WASHABLE TINY SLIDE SWITCHES

Single pole slide switches



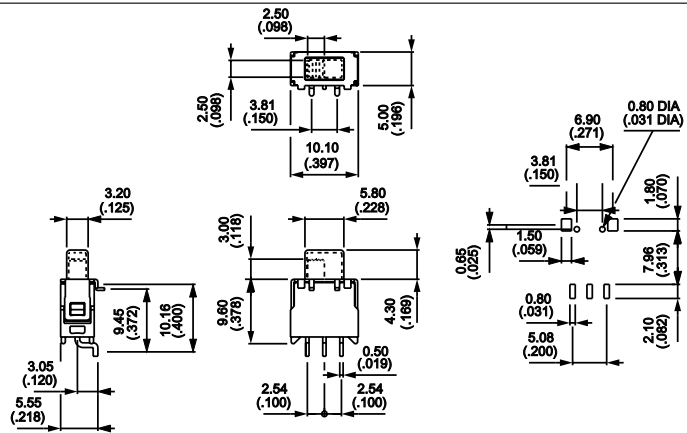
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TG36WS80050	ON - ON
TG39WS80050	ON OFF ON



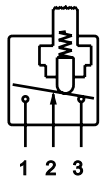
Single pole slide switches with positioning pins



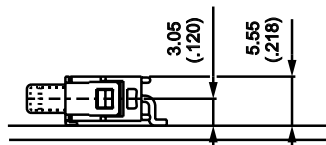
MODEL NO.	CIRCUIT
TG36WS80065	ON - ON
TG39WS80065	ON OFF ON



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°

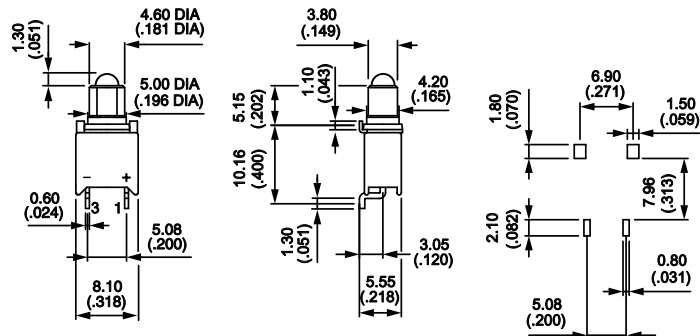
Wavelength: Red; 635 nm
 Green; 565 nm
 Yellow; 585 nm

PACKAGING

Tape & reel



MODEL NO.	COLOR
TV01WS00100	Red
TV02WS00100	Green
TV03WS00100	Yellow



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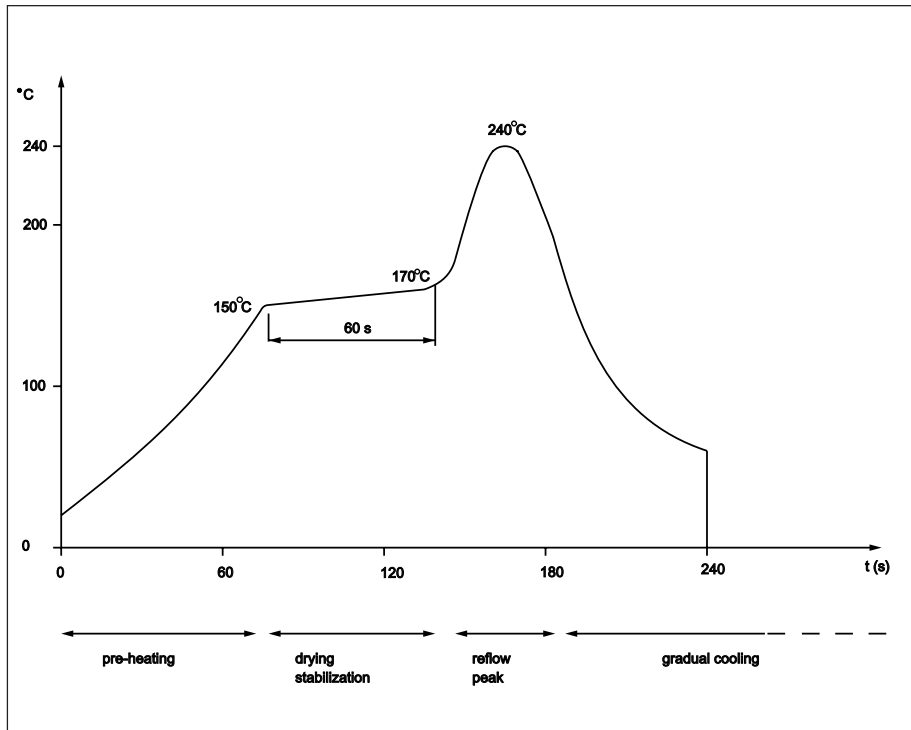
TG SERIES - SMT WASHABLE TINY SLIDE SWITCHES

REFLOW SOLDERING - STANDARD PROFILE

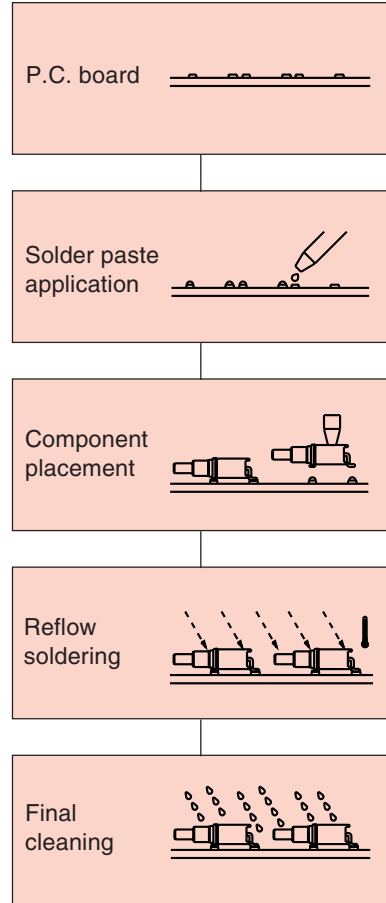
The printed circuit board, carried by a conveyor belt, travels through the reflow soldering oven and experiences the following programmed cycles:

- 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)



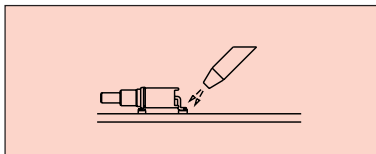
PROCESSING STEPS



E

P.C. BOARD REWORK RECOMMENDATIONS

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




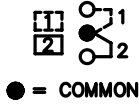
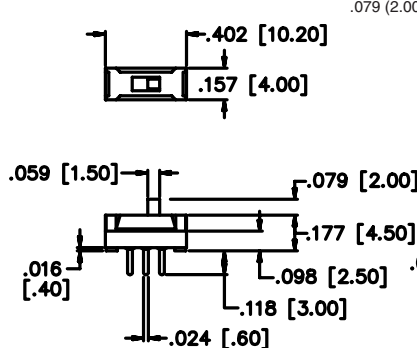
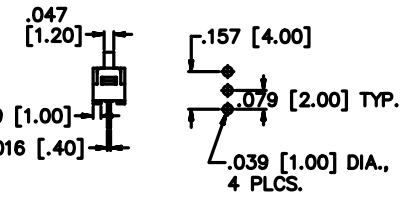
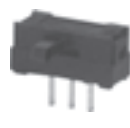
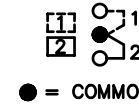
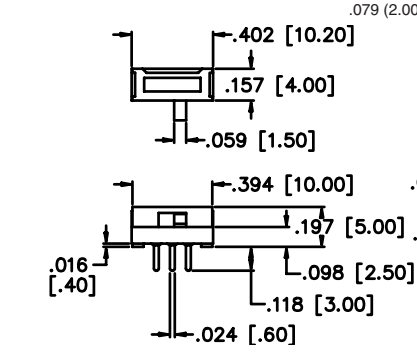
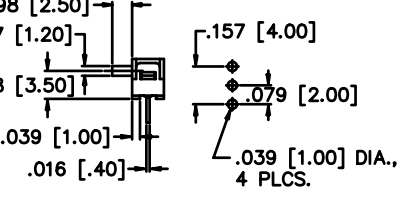
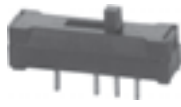
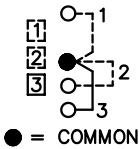
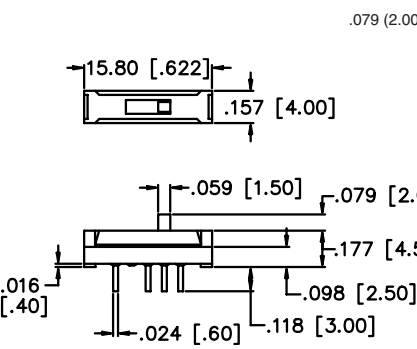
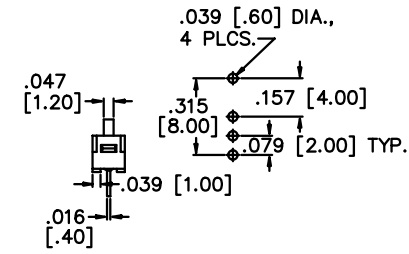
Caution: Excessive and/or repeated high temperature exposure may affect switch performance & reliability.

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




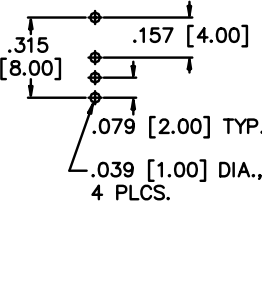

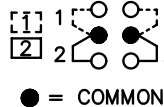
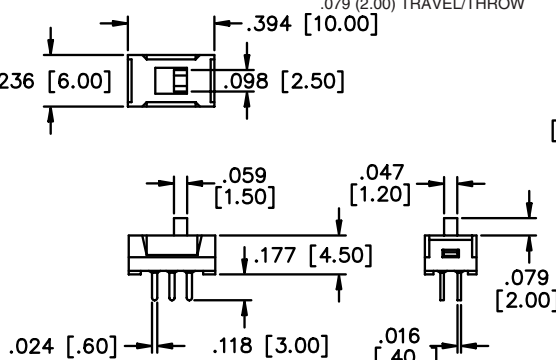
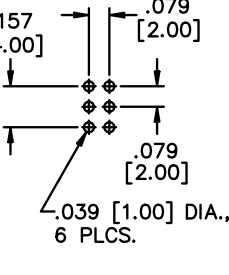

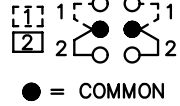
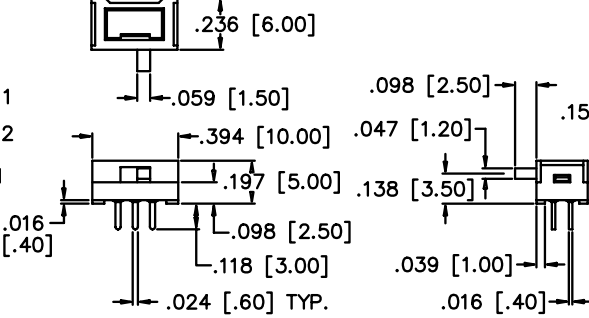
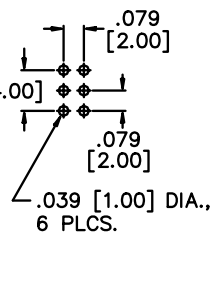
MODEL NO.			
MJS12			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.			
MJS12R			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
RIGHT ANGLE ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.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


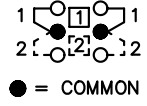
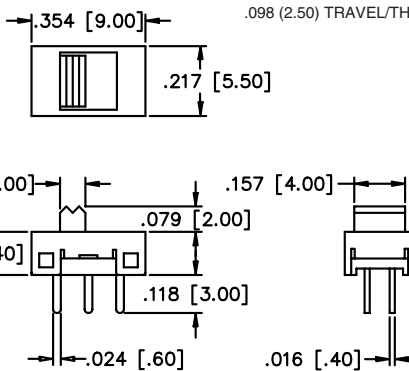
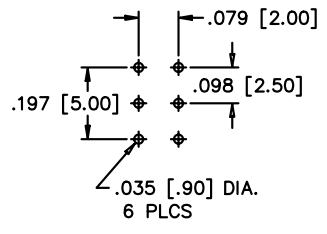
<p>MODEL NO.</p> <p>MJS13R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <p>1P3T</p>  <p>● = COMMON</p>  <p style="text-align: center;">MECHANICAL OUTLINE</p>  <p style="text-align: right;">P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>MJS22</p>  <p>VERTICAL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


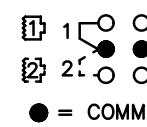
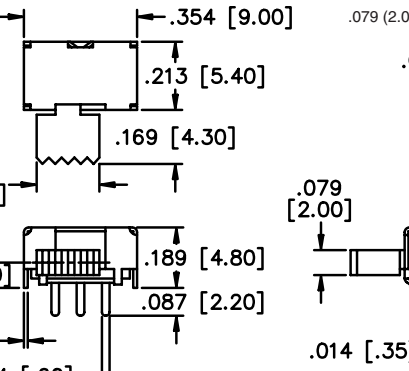
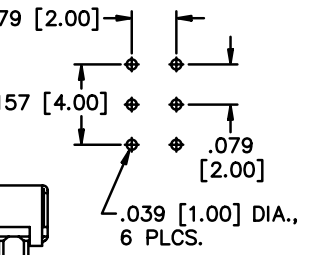
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MSSA & MSSB Series

Microminiature Slide Switches

E

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>VERTICAL ACTUATOR</p>		<p>2P2T</p>  <p>● = COMMON</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>RIGHT ANGLE ACTUATOR</p>		<p>2P2T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p>


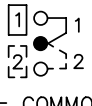
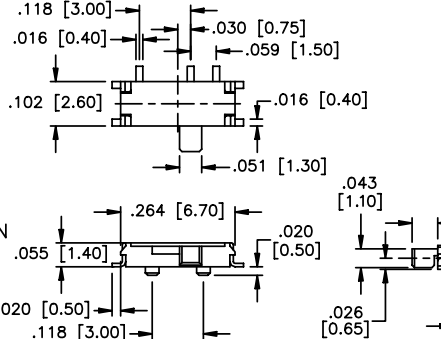
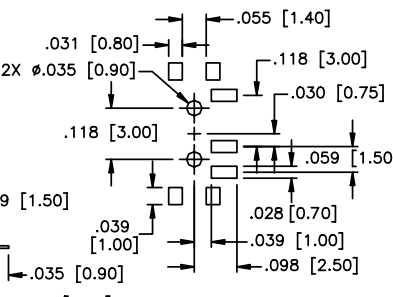
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



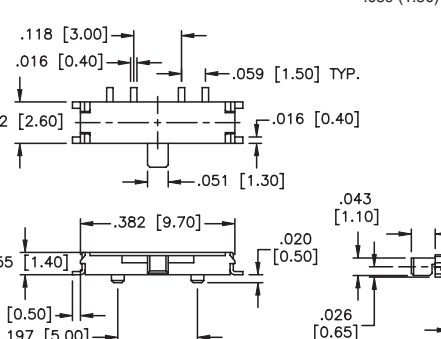
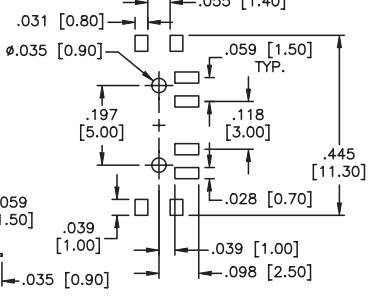
MA Series

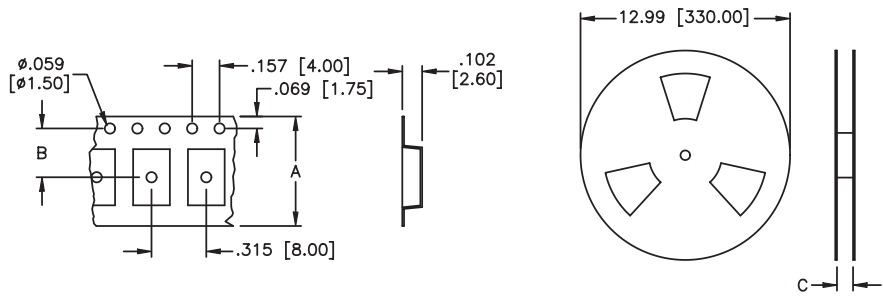
Microminiature Memory Card Slide Switches

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			
 <p>RIGHT ANGLE ACTUATOR</p>	<p>1P2T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

MODEL NO.	.059 (1.50) TRAVEL/THROW		
MA13R			
<p style="color: red; font-weight: bold;">New!</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>1P3T</p>  <p>● = COMMON</p> <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>


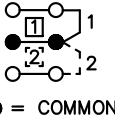
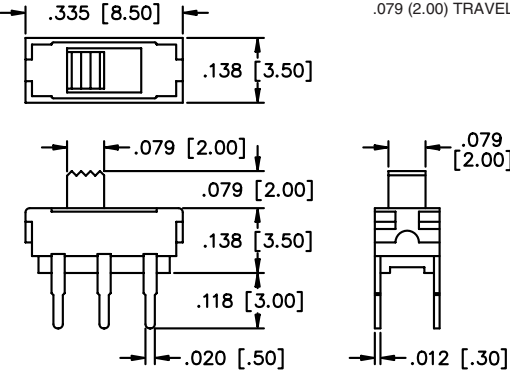
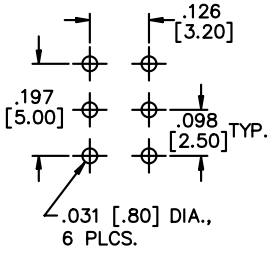

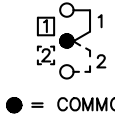
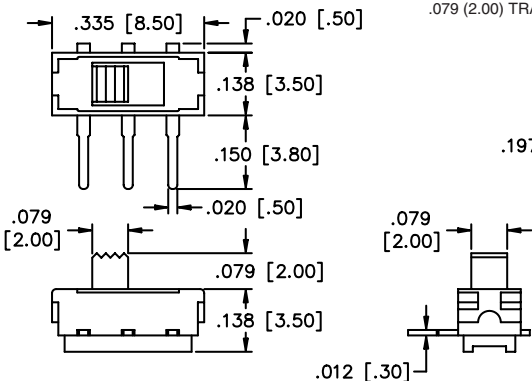
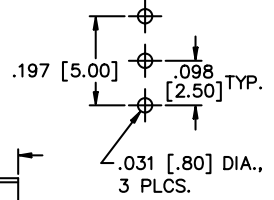

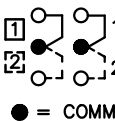
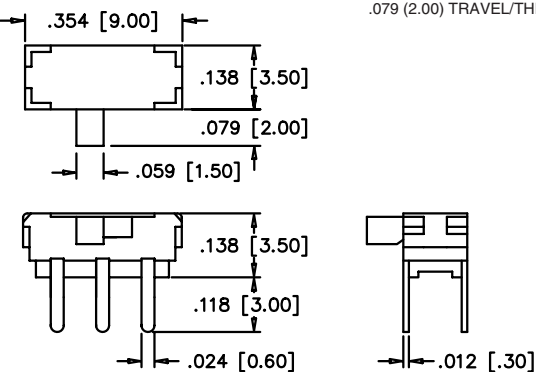
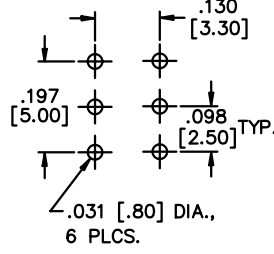
MODEL NO.	CARRIER TAPE														
MA12R/TR MA13R/TR			 <p style="text-align: center;">CARRIER TAPE REEL DIMENSIONS</p>												
Same as above models except supplied on tape & reel as shown.															
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <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)			
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>

E

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		
MODEL NO.			
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		
MODEL NO.			
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		


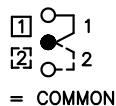
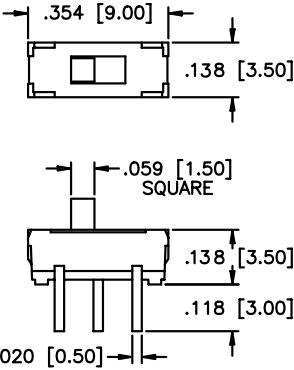
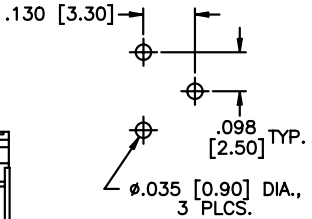

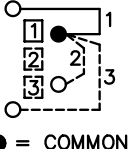
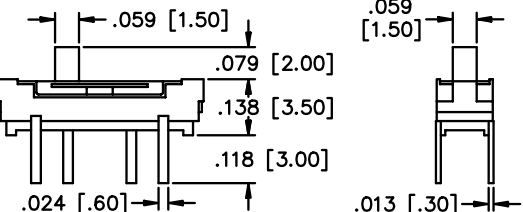
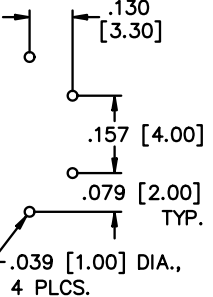

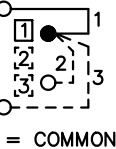
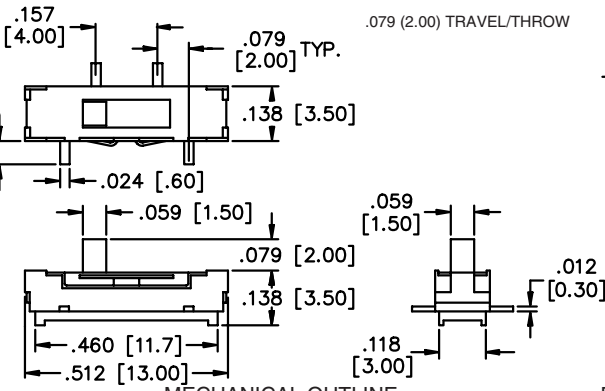
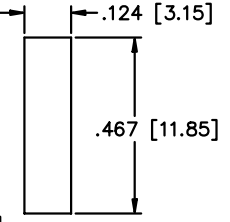
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MS Series

Microminiature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


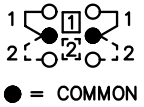
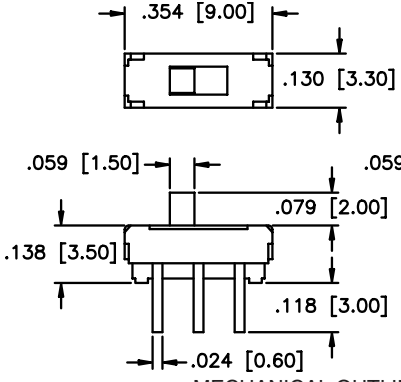
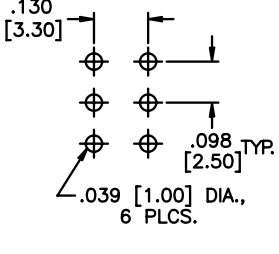

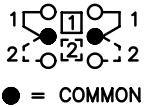
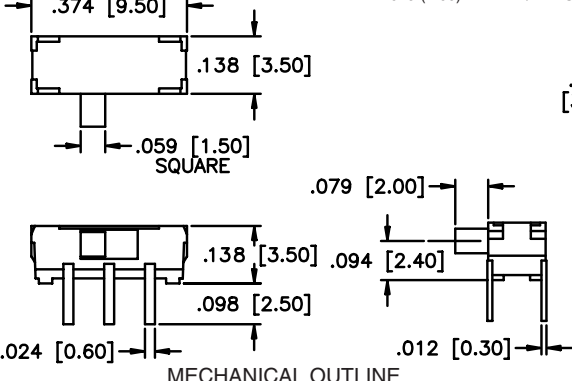
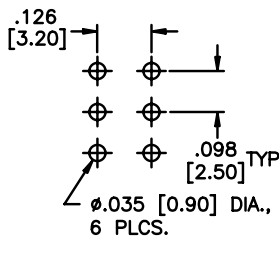

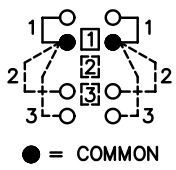
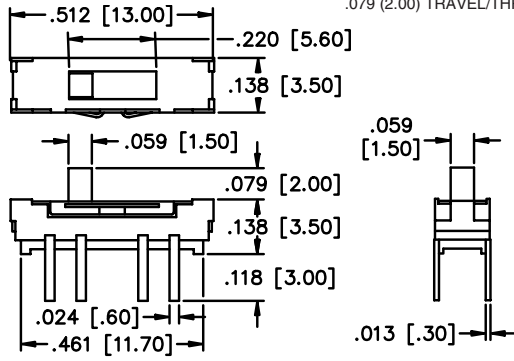
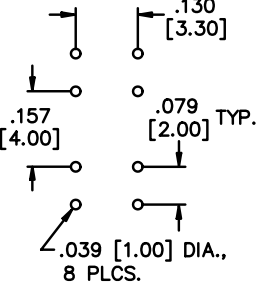

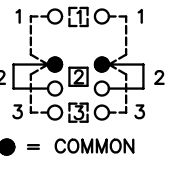
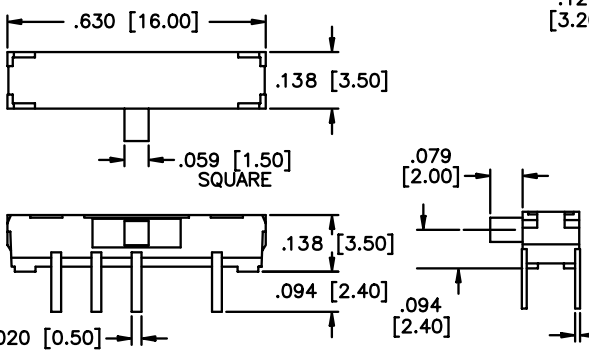
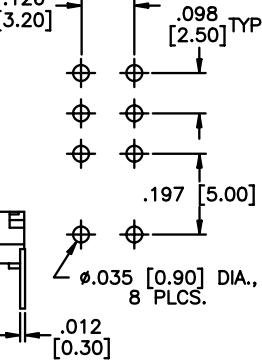
SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 6 VDC</p> <p>Initial contact resistance: 70 milliohms max.</p> <p>Insulation resistance: 100 megohms max. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -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>

E

MS Series

Microminiature Slide Switches

<p>MODEL NO. MS22</p>  <p>VERTICAL ACTUATOR</p>	<p>2P2T</p>  <p>● = COMMON</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p> <p>.354 [9.00] .079 (2.00) TRAVEL/THROW .130 [3.30] .059 [1.50] .059 [1.50] .138 [3.50] .079 [2.00] .118 [3.00] .024 [0.60] .130 [3.30] .098 TYP. [2.50] .039 [1.00] DIA., 6 PLCS.</p>
<p>MODEL NO. MS22R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P2T</p>  <p>● = COMMON</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p> <p>.374 [9.50] .079 (2.00) TRAVEL/THROW .138 [3.50] .059 [1.50] SQUARE .079 [2.00] .138 [3.50] .094 [2.40] .098 [2.50] .024 [0.60] .012 [0.30] .126 [3.20] .098 TYP. [2.50] ø.035 [0.90] DIA., 6 PLCS.</p>
<p>MODEL NO. MS23</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T</p>  <p>● = COMMON</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD LAYOUT</p> <p>.512 [13.00] .079 (2.00) TRAVEL/THROW .220 [5.60] .138 [3.50] .059 [1.50] .079 [2.00] .138 [3.50] .118 [3.00] .024 [.60] .013 [.30] .461 [11.70] .130 [3.30] .079 TYP. [2.00] .157 [4.00] .039 [1.00] DIA., 8 PLCS.</p>
<p>MODEL NO. MS23R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P3T</p>  <p>● = COMMON</p>  <p>MECHANICAL OUTLINE</p>  <p>P.C. BOARD CUTOUT</p> <p>.630 [16.00] .079 (2.00) TRAVEL/THROW .138 [3.50] .059 [1.50] SQUARE .079 [2.00] .138 [3.50] .094 [2.40] .094 [2.40] .020 [0.50] .012 [0.30] .126 [3.20] .098 TYP. [2.50] .197 [5.00] ø.035 [0.90] DIA., 8 PLCS.</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	2P3T			
MS23S				<p>● = COMMON</p>
<p>VERTICAL ACTUATOR</p>	MODEL NO.	4P2T		
MS42R	<p>● = COMMON</p>			
<p>RIGHT ANGLE ACTUATOR</p>				



New!

MMPS Series

Microminiature Pushbutton Style Slide Switches


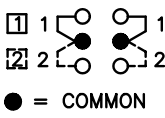
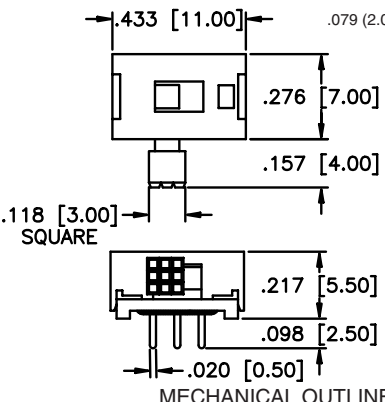
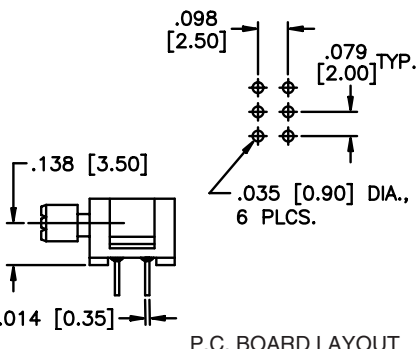

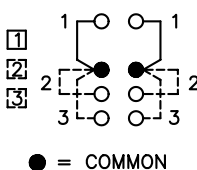
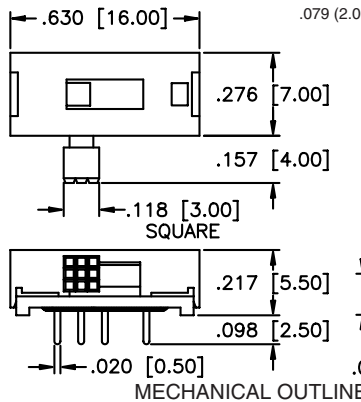
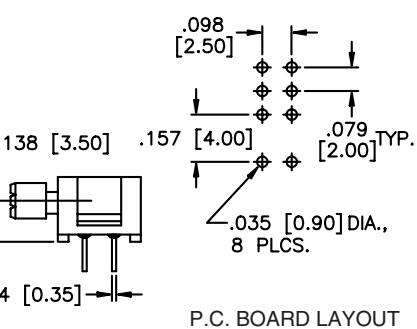

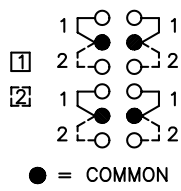
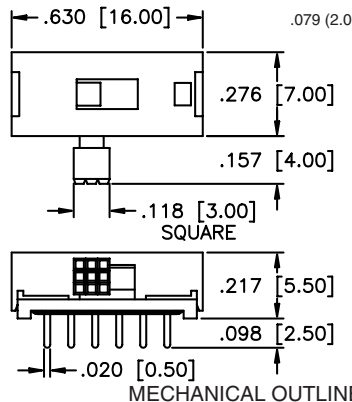
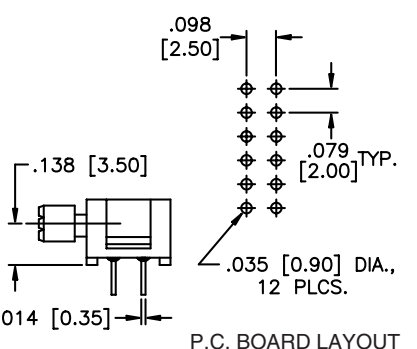
SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 4 VDC</p> <p>Initial contact resistance: 70 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 100 VDC</p> <p>Dielectric strength: 100 VAC for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -10°C 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.	1P2T, (PB) 1P3T, (Slide)		
MMPS101			
<p>RIGHT ANGLE ACTUATOR</p>			

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>	


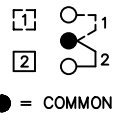
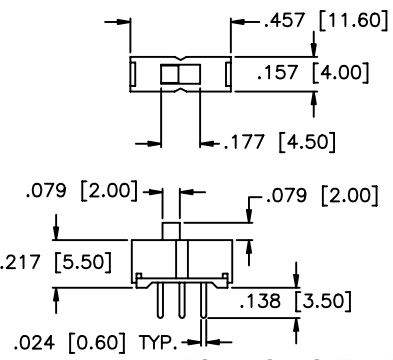
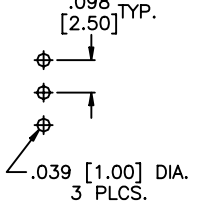

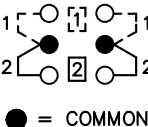
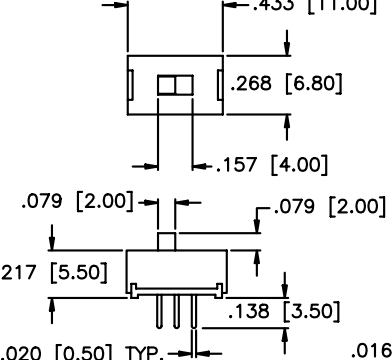
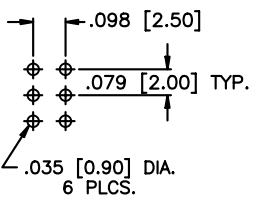

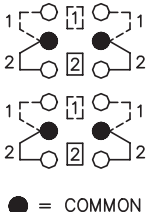
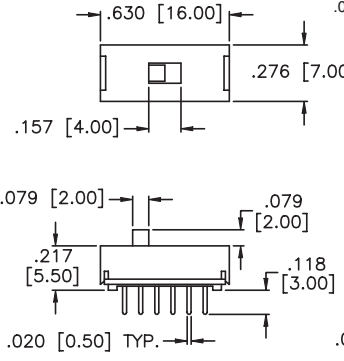
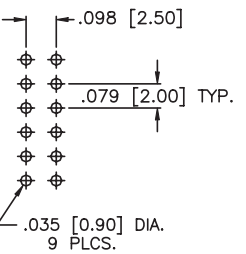

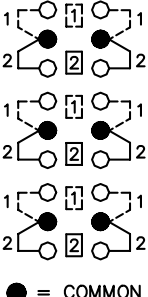
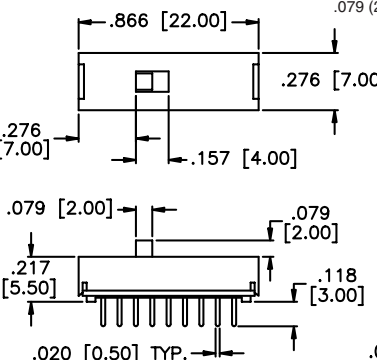
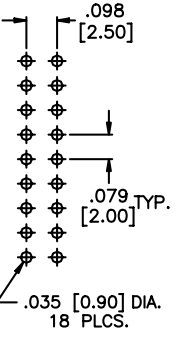
MODEL NO.	SPECIFICATIONS
MMS22R	
 <p>RIGHT ANGLE ACTUATOR</p>	<p style="text-align: center;">2P2T</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  <p>● = COMMON</p> </div> <div style="width: 40%; text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="width: 30%; text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
MMS23R	
 <p>RIGHT ANGLE ACTUATOR</p>	<p style="text-align: center;">2P3T</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  <p>● = COMMON</p> </div> <div style="width: 40%; text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="width: 30%; text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>
MMS42R	
 <p>RIGHT ANGLE ACTUATOR</p>	<p style="text-align: center;">4P2T</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">  <p>● = COMMON</p> </div> <div style="width: 40%; text-align: center;">  <p>MECHANICAL OUTLINE</p> </div> <div style="width: 30%; text-align: center;">  <p>P.C. BOARD LAYOUT</p> </div> </div>

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>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>		
TG39P000000	Gold	on off on			<p>P.C. BOARD LAYOUT</p>	
TG36P010000	Silver	on - on				<p>MECHANICAL OUTLINE</p>
TG39P010050	Silver	on off on				
TG36P000050	Gold	on - on	<p>FUNCTION (see page e 20)</p> <p>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>		
TG39P000050	Gold	on off on			<p>P.C. BOARD LAYOUT</p>	
TG36P010050	Silver	on - on				<p>MECHANICAL OUTLINE</p>
TG39P010050	Silver	on off on				
PROCESS COMPATIBLE						
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>● = COMMON</p> <p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>		
TG39Y000000	Gold	on off on			<p>P.C. BOARD LAYOUT</p>	
TG36Y010000	Silver	on - on				<p>MECHANICAL OUTLINE</p>
TG39Y010000	Silver	on off on				
PROCESS COMPATIBLE						

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>	
TG39Y000050	Gold	on off on		
TG36Y010050	Silver	on - on		
TG39Y010050	Silver	on off on		
<p>PROCESS COMPATIBLE</p>			<p>P.C. BOARD LAYOUT</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>	
TG39W000000	Gold	on off on		
TG36W010000	Silver	on - on		
TG39W010000	Silver	on off on		
<p>PROCESS COMPATIBLE</p>			<p>P.C. BOARD LAYOUT</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>	
TG39W000050	Gold	on off on		
TG36W010050	Silver	on - on		
TG39W010050	Silver	on off on		
<p>PROCESS COMPATIBLE</p>			<p>P.C. BOARD LAYOUT</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

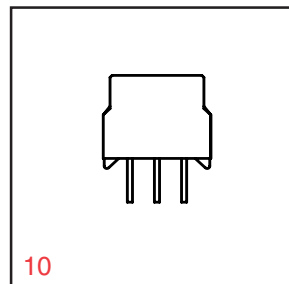
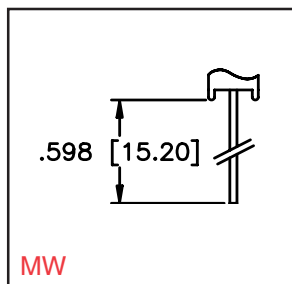
Actuators: 0 0 = High (standard)
 1 0 = Flush

Model: 0 0 = Standard
 5 0 = Washable

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

E

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


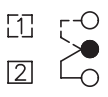
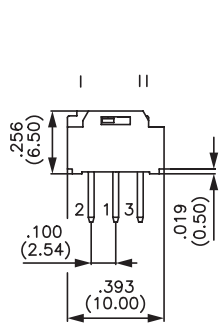
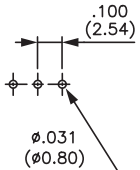



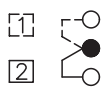
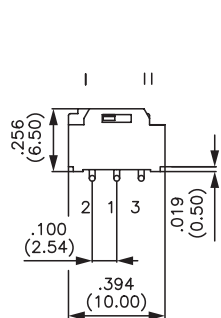
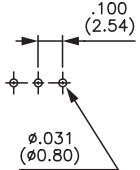
New!
Raised actuator

NK Series Microminiature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

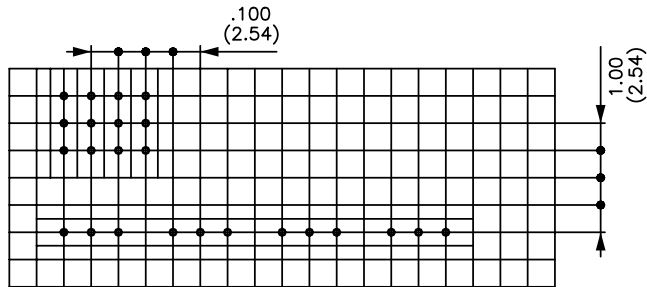
SPECIFICATIONS	FEATURES
<p>Contact rating: 500 mA 12V max. - 1mA 10 mV min.</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 10,000 MΩ min. at 500VDC</p> <p>Dielectric strength: 250 Vrms between terminals 2000 Vrms between adjacent poles placed side by side</p> <p>Electrical 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)




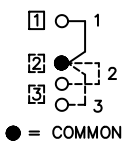
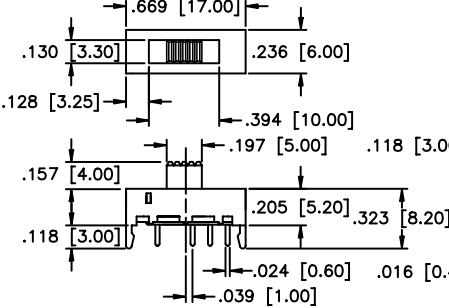
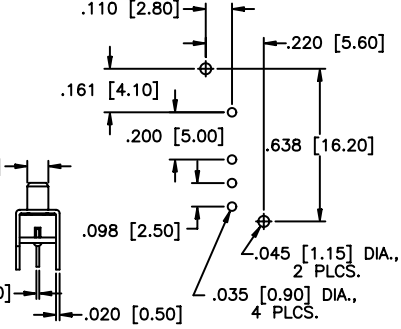

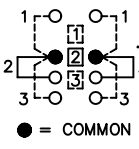
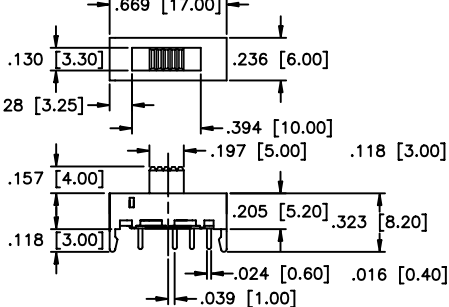
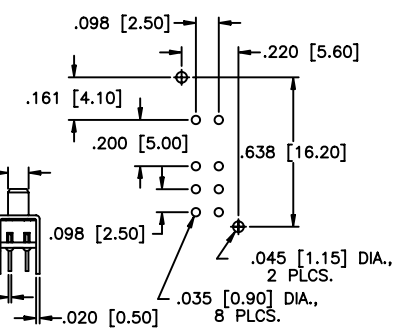
E

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.	.098 (2.50) TRAVEL/THROW		
MSTS1332K	1P3T		
	 <p>● = COMMON</p>		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MODEL NO.	.098 (2.50) TRAVEL/THROW		
MSTS2332K	2P3T		
	 <p>● = COMMON</p>		
VERTICAL ACTUATOR	SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MHS Series

Miniature Slide Switches

with aluminum actuator

SPECIFICATIONS

Contact rating: 300 mA at 30 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: 260°C max. for 3 seconds
Actuation force: 250 ±150 grams
Solvent washing permissible

FEATURES

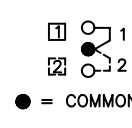
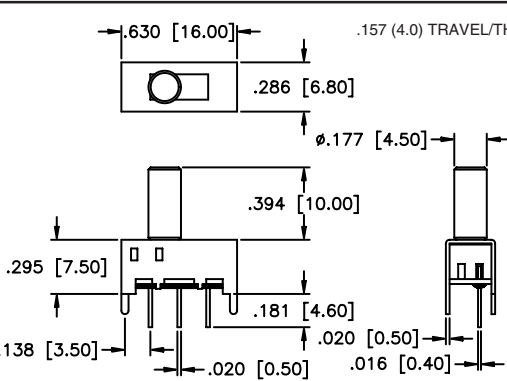
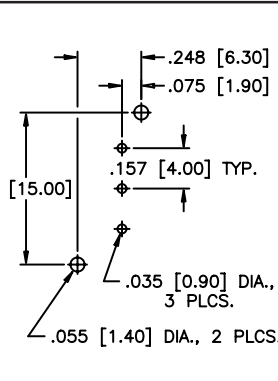

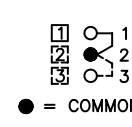
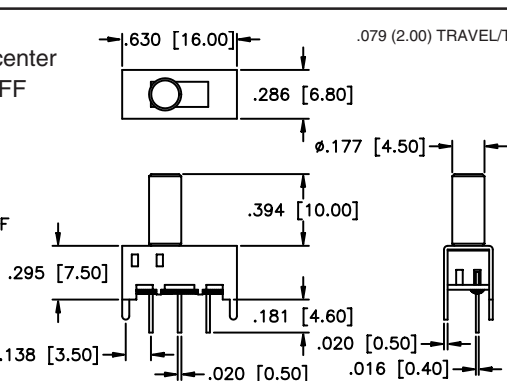
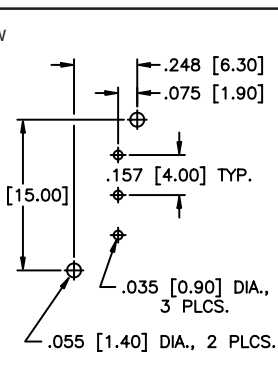

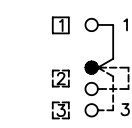
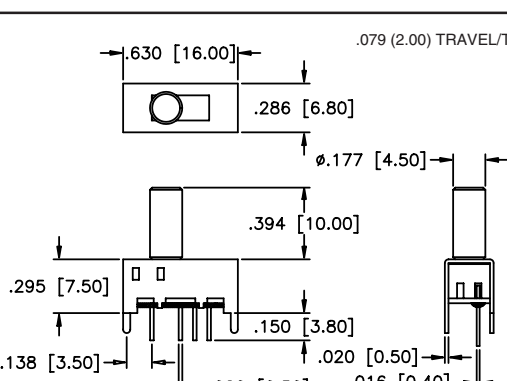
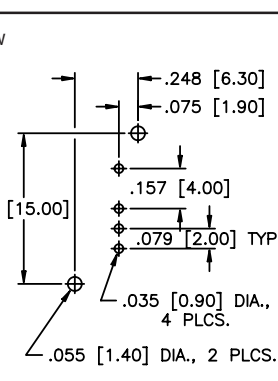

- Miniature compact size.
- Wash-through open frame construction.
- Positive spring loaded ball detent mechanism.
- Epoxy sealed terminals.

MATERIALS

Contacts & terminals: Silver plated brass
Housing: Tin plated steel
Actuator: Aluminum alloy
Base: Phenolic laminated sheet **Terminal seal:** Epoxy


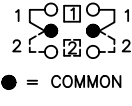

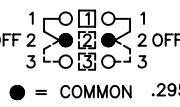

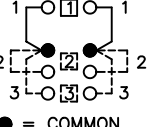
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

E

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

MHS Series Miniature Slide Switches

with aluminum actuator

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

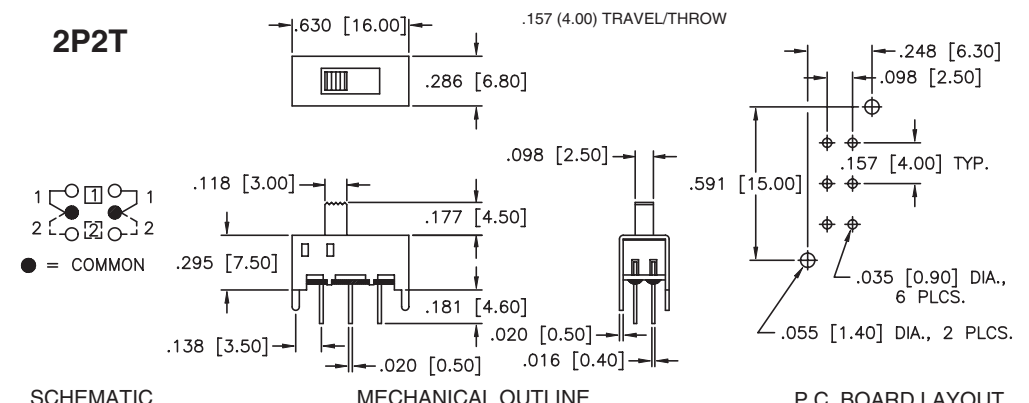
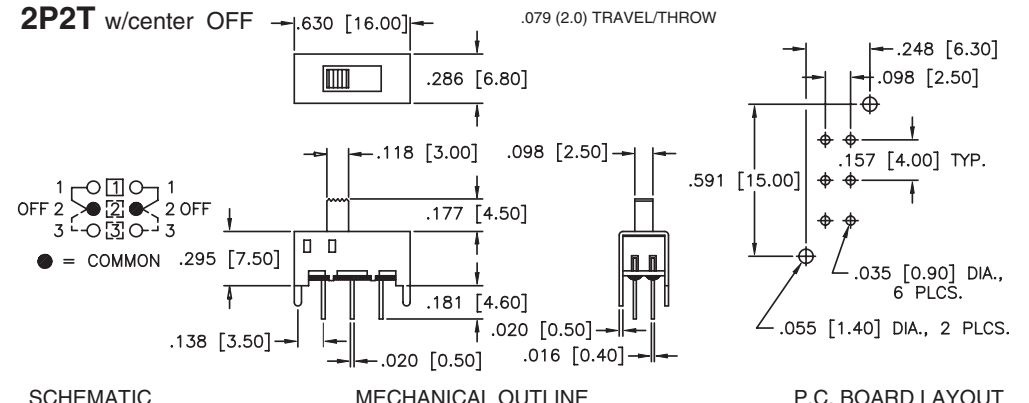
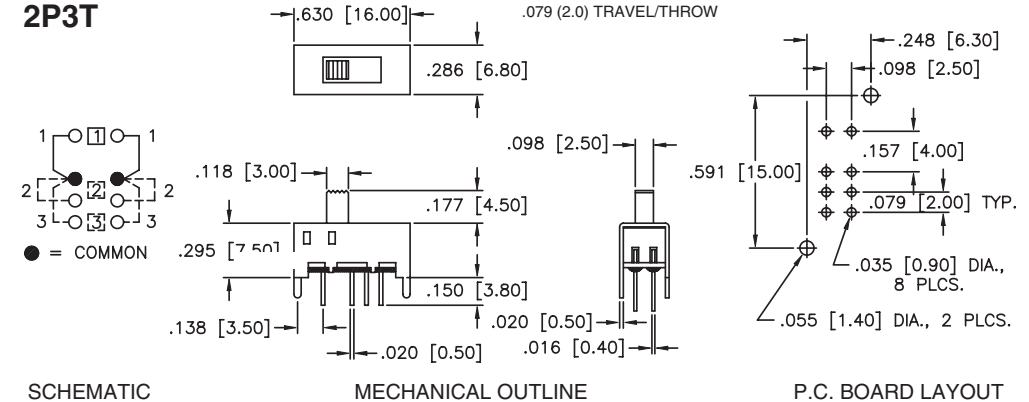
SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 VAC for 1 minute</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature range: -20°C 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>2P2T</p>  <p>Schematic: Shows a 2P2T configuration with two common terminals (1 and 2) and two normally open terminals (1 and 2). A dot indicates the common terminal.</p> <p>Mechanical Outline: Shows dimensions: .630 [16.00] total width, .157 (4.00) TRAVEL/THROW, .286 [6.80] body width, .118 [3.00] actuator height, .177 [4.50] body height, .098 [2.50] terminal height, .295 [7.50] terminal pitch, .138 [3.50] terminal width, .181 [4.60] body depth, .020 [0.50] lead length, .016 [0.40] lead diameter.</p> <p>P.C. BOARD LAYOUT: Shows dimensions: .591 [15.00] total length, .248 [6.30] terminal pitch, .098 [2.50] terminal diameter, .157 [4.00] TYP. terminal diameter, .035 [0.90] DIA., 6 PLCS. (6 plated contact surfaces), .055 [1.40] DIA., 2 PLCS. (2 plated contact surfaces).</p>
<p>MODEL NO. MHS223</p>	<p>2P2T w/center OFF</p>  <p>Schematic: Shows a 2P2T w/center OFF configuration with two common terminals (1 and 2) and two normally open terminals (1 and 2). A dot indicates the common terminal. The center position is labeled OFF.</p> <p>Mechanical Outline: Shows dimensions: .630 [16.00] total width, .079 (2.0) TRAVEL/THROW, .286 [6.80] body width, .118 [3.00] actuator height, .177 [4.50] body height, .098 [2.50] terminal height, .295 [7.50] terminal pitch, .138 [3.50] terminal width, .181 [4.60] body depth, .020 [0.50] lead length, .016 [0.40] lead diameter.</p> <p>P.C. BOARD LAYOUT: Shows dimensions: .591 [15.00] total length, .248 [6.30] terminal pitch, .098 [2.50] terminal diameter, .157 [4.00] TYP. terminal diameter, .035 [0.90] DIA., 6 PLCS. (6 plated contact surfaces), .055 [1.40] DIA., 2 PLCS. (2 plated contact surfaces).</p>
<p>MODEL NO. MHS233</p>	<p>2P3T</p>  <p>Schematic: Shows a 2P3T configuration with two common terminals (1 and 2) and three normally open terminals (1, 2, and 3). A dot indicates the common terminal.</p> <p>Mechanical Outline: Shows dimensions: .630 [16.00] total width, .079 (2.0) TRAVEL/THROW, .286 [6.80] body width, .118 [3.00] actuator height, .177 [4.50] body height, .098 [2.50] terminal height, .295 [7.50] terminal pitch, .138 [3.50] terminal width, .150 [3.80] body depth, .020 [0.50] lead length, .016 [0.40] lead diameter.</p> <p>P.C. BOARD LAYOUT: Shows dimensions: .591 [15.00] total length, .248 [6.30] terminal pitch, .098 [2.50] terminal diameter, .157 [4.00] terminal diameter, .079 [2.00] TYP. terminal diameter, .035 [0.90] DIA., 8 PLCS. (8 plated contact surfaces), .055 [1.40] DIA., 2 PLCS. (2 plated contact surfaces).</p>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


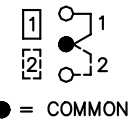
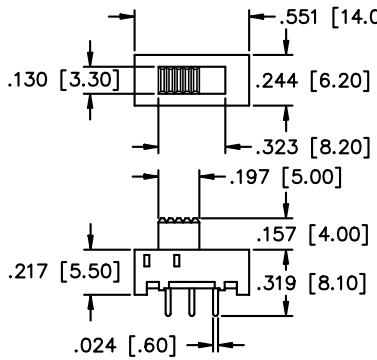
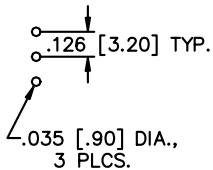

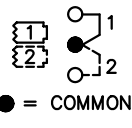
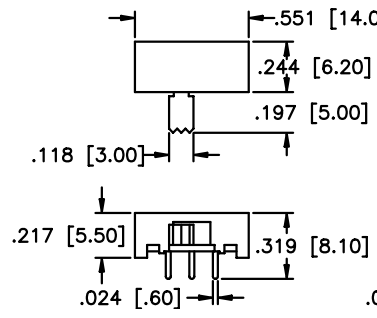
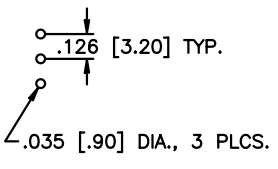
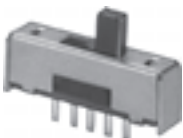
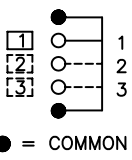
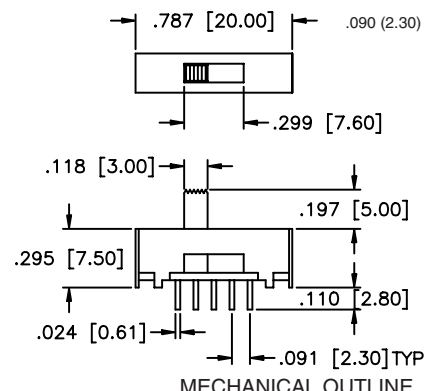
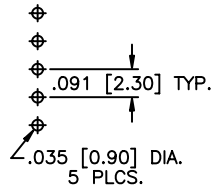
SLB Series

(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>

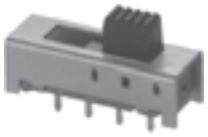
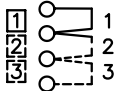
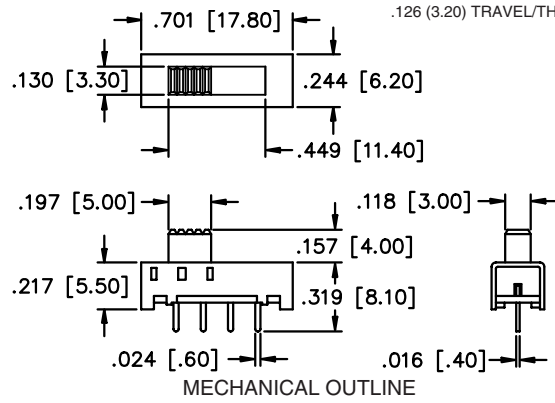
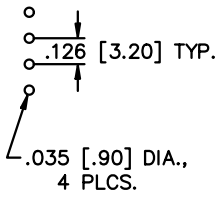

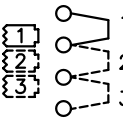
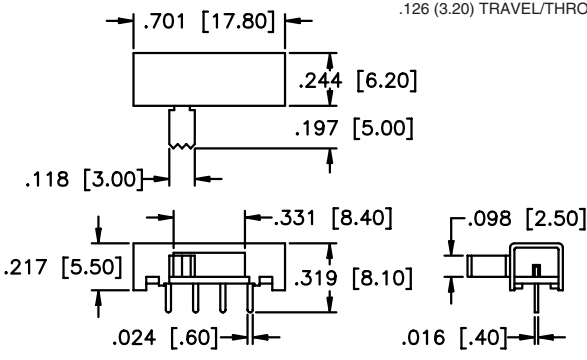
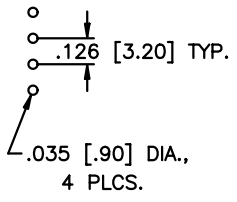
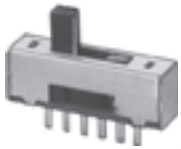
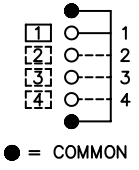
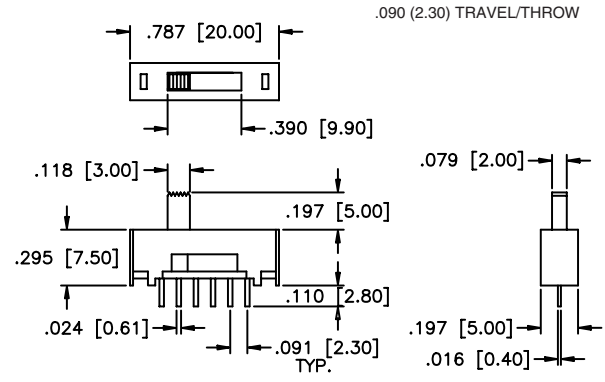
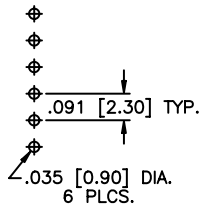

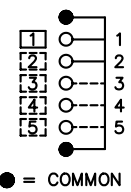
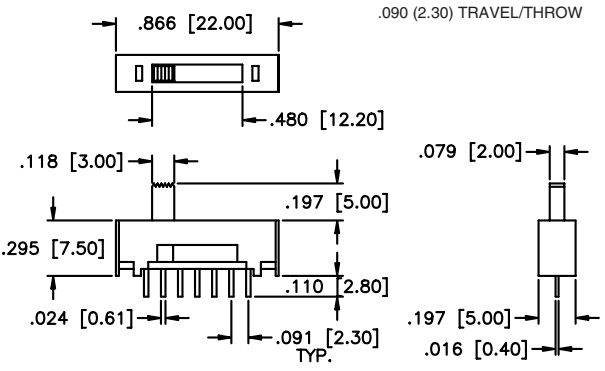
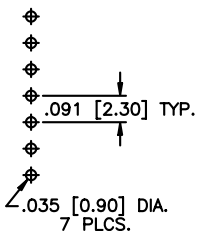
MODEL NO.			
SLB12814	1P2T	.126 (3.20) TRAVEL/THROW	
 <p>VERTICAL ACTUATOR</p>	 <p>SCHEMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
SLB1281R5	1P2T	.126 (3.20) TRAVEL/THROW	
 <p>RIGHT ANGLE ACTUATOR</p>	 <p>SCHEMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
SLB1370	1P3T	.090 (2.30) TRAVEL/THROW	
 <p>VERTICAL ACTUATOR</p>	 <p>SCHEMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>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


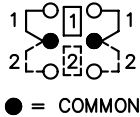

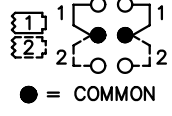

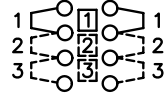

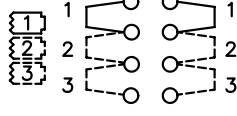
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLB Series

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

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.			
SLB22814			
	2P2T		
VERTICAL ACTUATOR	 <p>● = COMMON</p>	SCHEMATIC	P.C. BOARD LAYOUT
MODEL NO.			
SLB2281R5			
	2P2T		
RIGHT ANGLE ACTUATOR	 <p>● = COMMON</p>	SCHEMATIC	P.C. BOARD LAYOUT
MODEL NO.			
SLB23814			
	2P3T		
VERTICAL ACTUATOR		SCHEMATIC	P.C. BOARD LAYOUT
MODEL NO.			
SLB2381R5			
	2P3T		
RIGHT ANGLE ACTUATOR		SCHEMATIC	P.C. BOARD LAYOUT

E

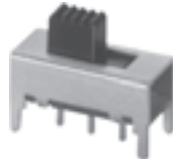
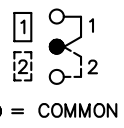
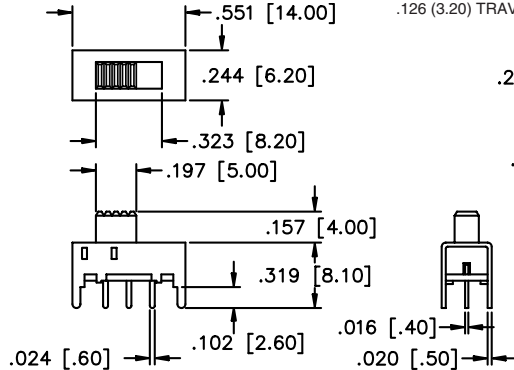
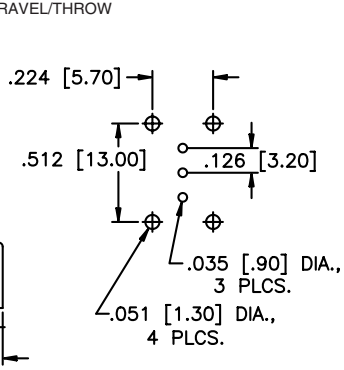
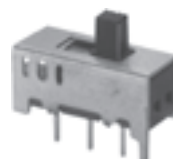
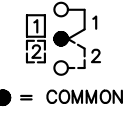
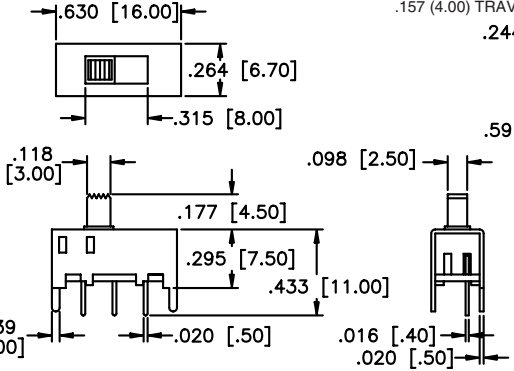
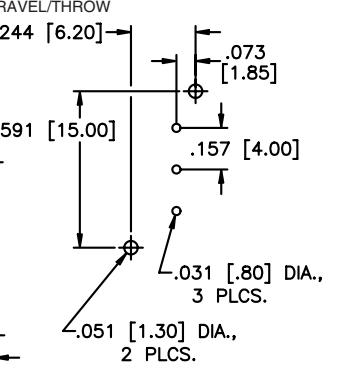

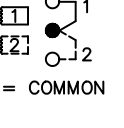
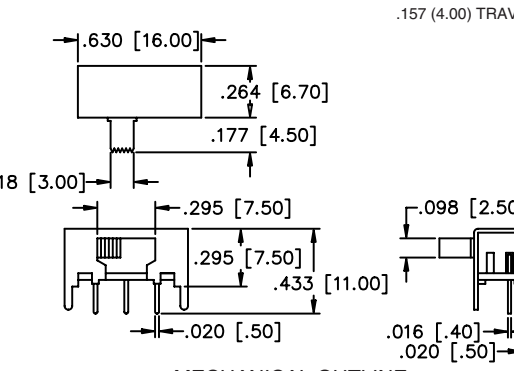
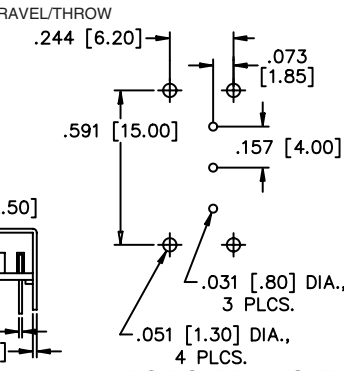
SLB Series

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

Miniature Slide Switches

SPECIFICATIONS	FEATURES
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	<ul style="list-style-type: none"> ● Miniature compact size. ● Wash-through open frame construction. ● Positive spring loaded ball detent mechanism. ● Epoxy sealed terminals.
	MATERIALS
	Contacts & terminals: Silver plated Frame: Zinc plated steel Actuator: Thermoplastic Base: Phenolic laminated sheet Terminal seal: Epoxy

E

MODEL NO.			
SLB12804			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
SLB124145			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT
SLB1240R45			
	1P2T  ● = COMMON	 MECHANICAL OUTLINE	 P.C. BOARD LAYOUT

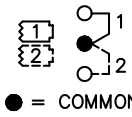
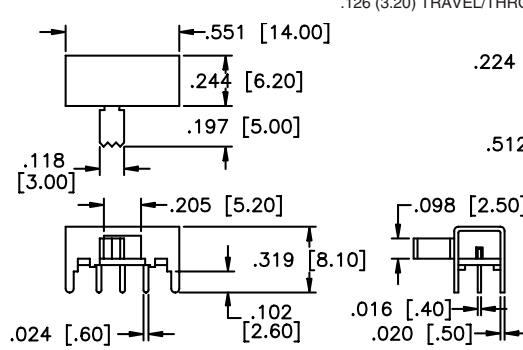
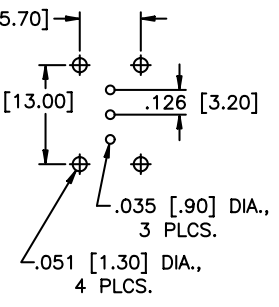
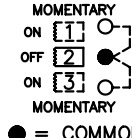
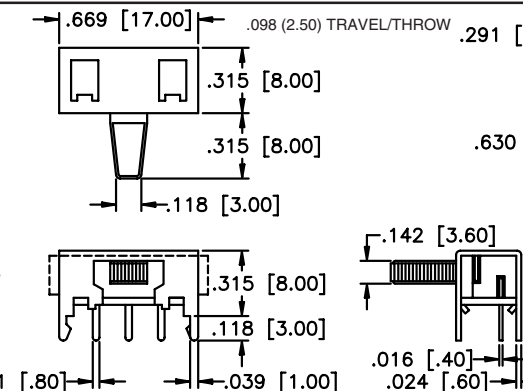
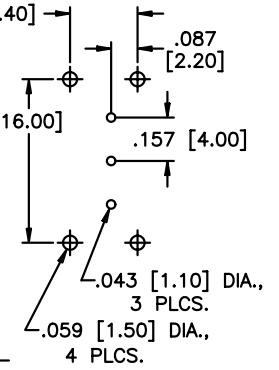
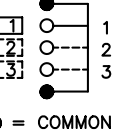
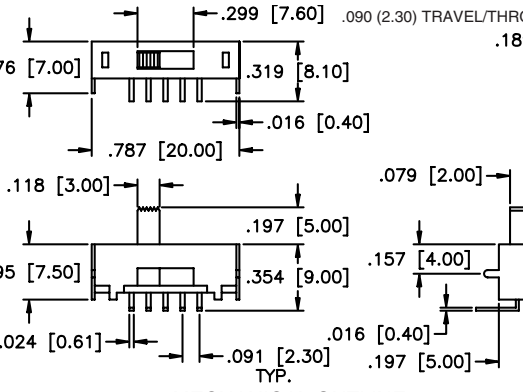
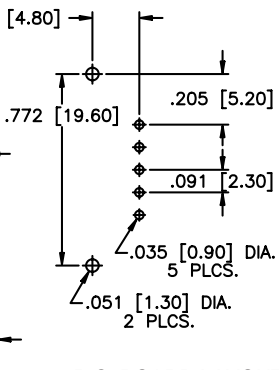
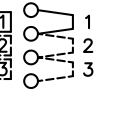
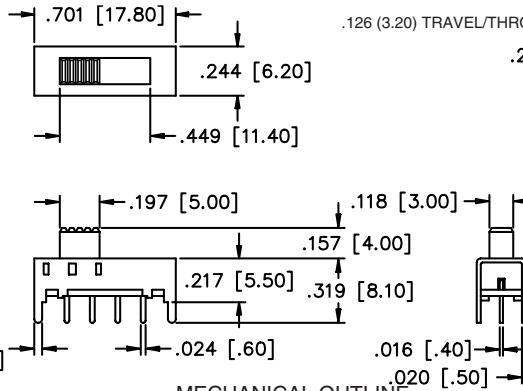
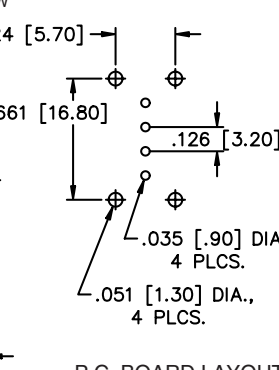
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLB Series

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

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

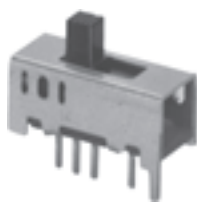
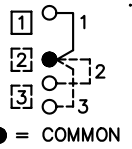

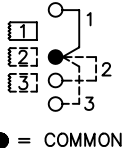

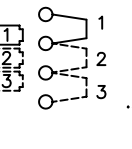
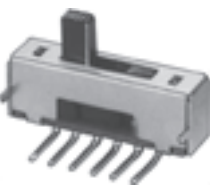
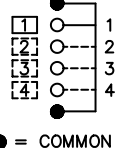
<p>MODEL NO.</p> <p>SLB1280R5</p>	<p>1P2T</p>  <p>● = COMMON</p>	<p style="text-align: right;">.126 (3.20) TRAVEL/THROW</p> 	
<p>RIGHT ANGLE ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>SLB1250R8</p>	<p>1P2T</p>  <p>MOMENTARY ON [1] 1 OFF [2] 2 ON [3] 3 MOMENTARY ● = COMMON</p>	<p style="text-align: right;">.098 (2.50) TRAVEL/THROW</p> 	
<p>RIGHT ANGLE ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>SLB1370R</p>	<p>1P3T</p>  <p>● = COMMON</p>	<p style="text-align: right;">.090 (2.30) TRAVEL/THROW</p> 	
<p>RIGHT ANGLE ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>SLB13804</p>	<p>1P3T</p>  <p>● = COMMON</p>	<p style="text-align: right;">.126 (3.20) TRAVEL/THROW</p> 	
<p>VERTICAL ACTUATOR</p>	<p>SCHMATIC</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>

E

SLB Series

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

E

MODEL NO.	1P3T		
SLB134145			
 <p>VERTICAL ACTUATOR</p>	 <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MODEL NO.	1P3T		
SLB1340R45			
 <p>RIGHT ANGLE ACTUATOR</p>	 <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MODEL NO.	1P3T		
SLB1380R5			
 <p>RIGHT ANGLE ACTUATOR</p>	 <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>
MODEL NO.	1P4T		
SLB1470R			
 <p>RIGHT ANGLE ACTUATOR</p>	 <p>● = COMMON</p>	<p>MECHANICAL OUTLINE</p>	<p>P.C. BOARD LAYOUT</p>

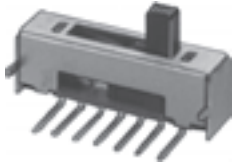
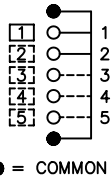
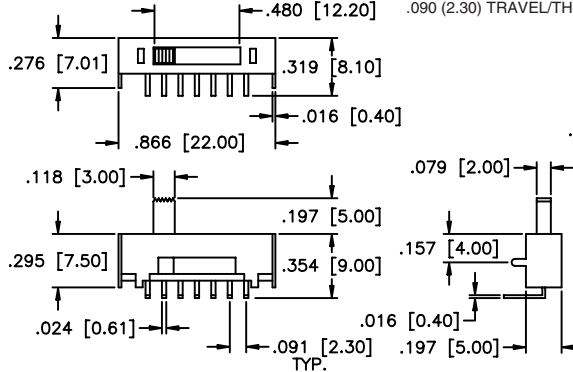
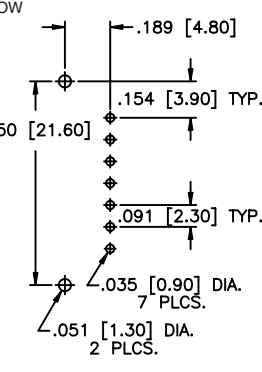

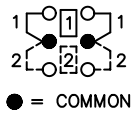
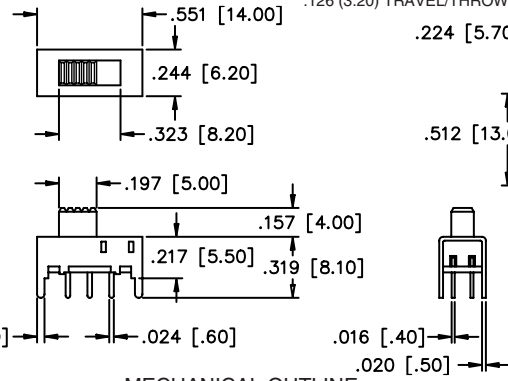
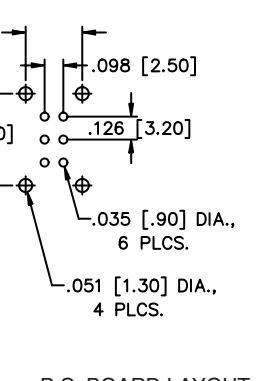
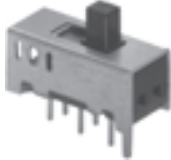
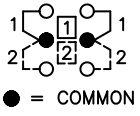
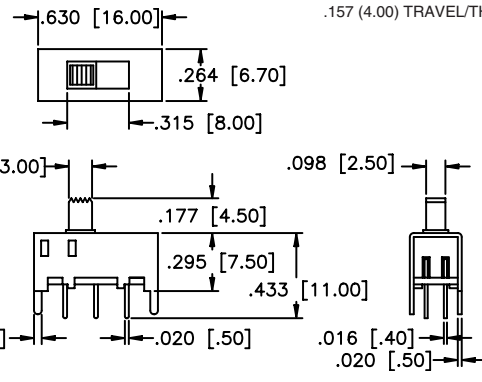
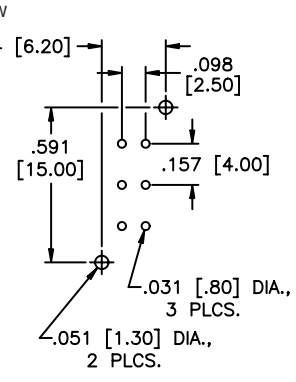
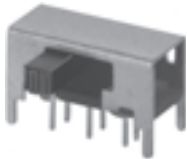
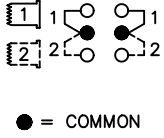
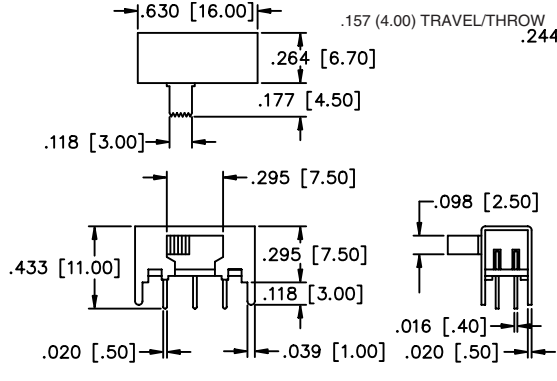
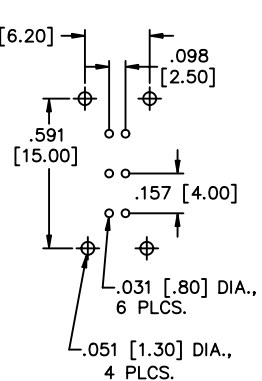
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLB Series

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

Miniature Slide Switches


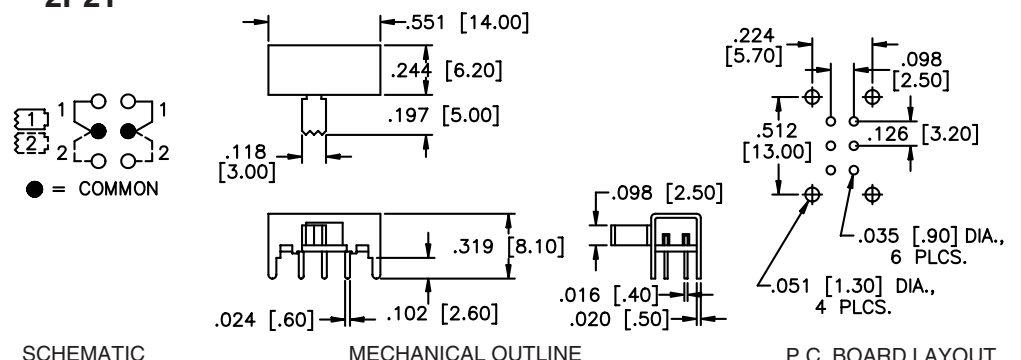
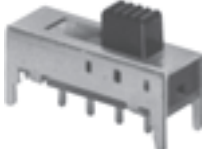
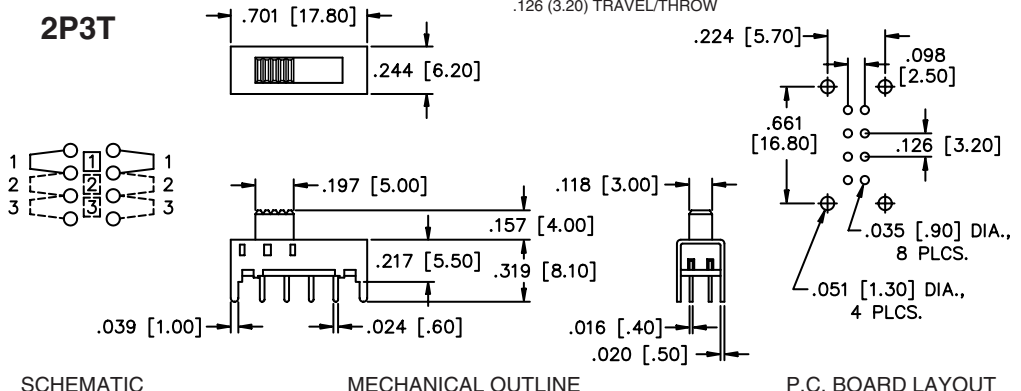
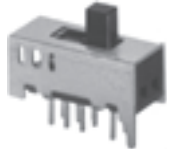
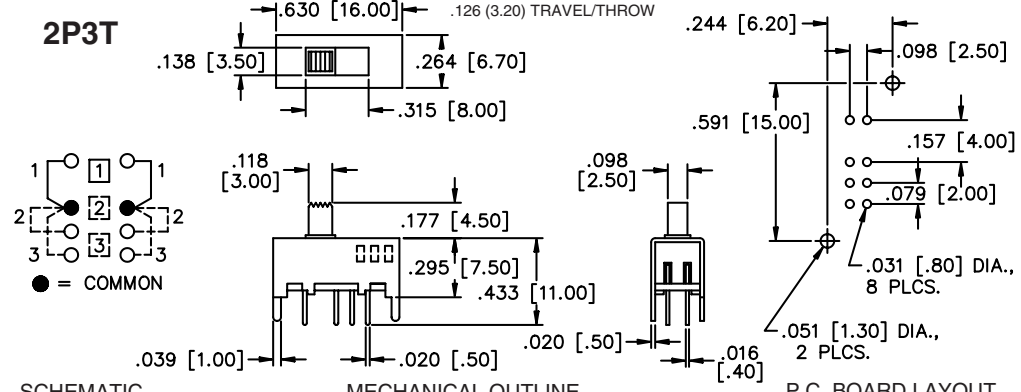
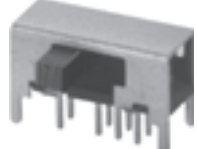
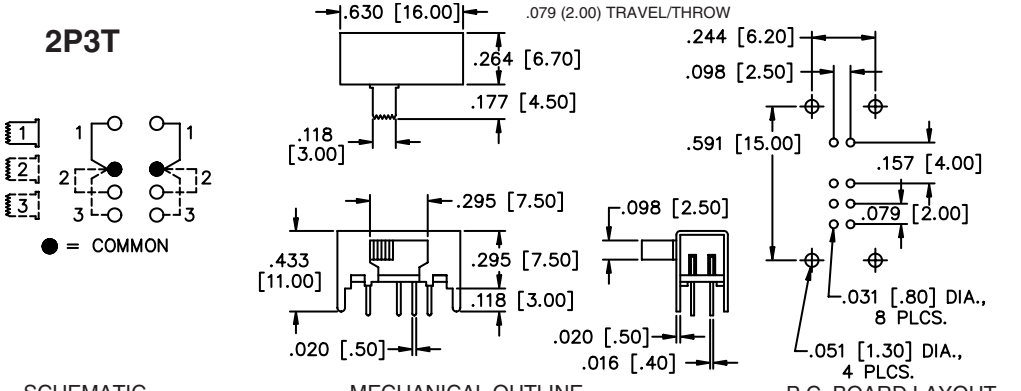
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

<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>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL NO. SLB23804</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T .126 (3.20) TRAVEL/THROW</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL NO. SLB234145</p>  <p>VERTICAL ACTUATOR</p>	<p>2P3T .126 (3.20) TRAVEL/THROW</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL NO. SLB2340R45</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>2P3T .079 (2.00) TRAVEL/THROW</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</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

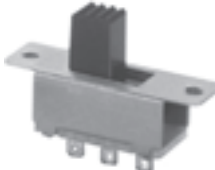
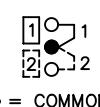
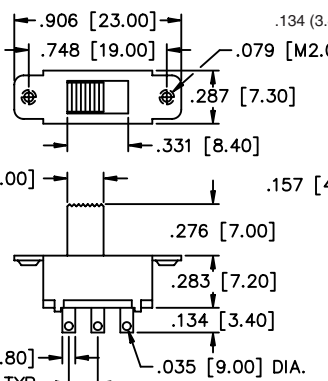
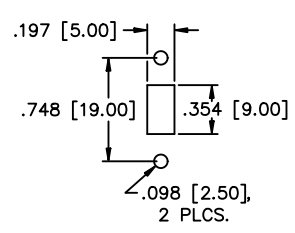

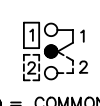
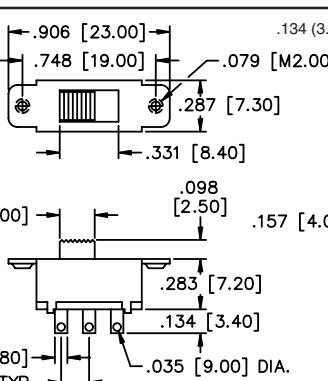
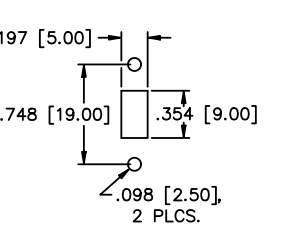
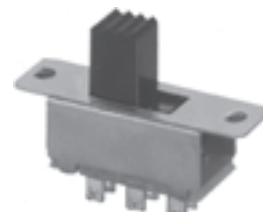
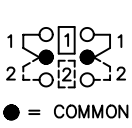
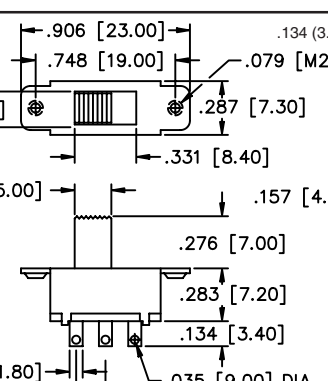
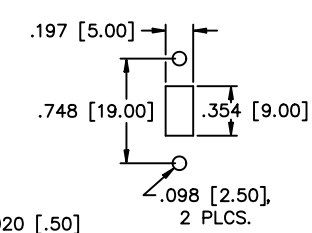
- Panel mounting with solder lug terminals.
- Wash-through open frame construction.
- Positive spring loaded ball detent mechanism.

MATERIALS

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

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

E


<div style="background-color: #f2f2f2; padding: 2px;">MODEL NO.</div> <div style="padding: 2px;">SLC12007</div> <div style="text-align: center; padding: 10px;">  </div>	<div style="text-align: center; font-weight: bold; font-size: 1.2em;">1P2T</div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <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>PANEL CUTOUT</p> </div> </div> <p style="font-size: 0.8em; margin-top: 5px;"> Dimensions: .906 [23.00] (total width), .748 [19.00] (actuator width), .134 [3.40] TRAVEL/THROW, .079 [M2.00] TAP, 2 PLCS., .287 [7.30] (terminal height), .331 [8.40] (terminal spacing), .197 [5.00] (terminal width), .157 [4.00] (terminal depth), .276 [7.00] (actuator height), .283 [7.20] (actuator base), .071 [1.80] (actuator base offset), .134 [3.40] (actuator base offset), .035 [9.00] DIA. (actuator base hole), .157 [4.00] TYP. (actuator base offset), .020 [.50] (actuator base hole diameter), .098 [2.50], 2 PLCS. (actuator base hole diameter) </p>
<div style="background-color: #f2f2f2; padding: 2px;">MODEL NO.</div> <div style="padding: 2px;">SLC120025</div> <div style="text-align: center; padding: 10px;">  <p style="color: red; font-weight: bold; font-size: 1.2em; margin-top: 5px;">New!</p> </div>	<div style="text-align: center; font-weight: bold; font-size: 1.2em;">1P2T</div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <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>PANEL CUTOUT</p> </div> </div> <p style="font-size: 0.8em; margin-top: 5px;"> Dimensions: .906 [23.00] (total width), .748 [19.00] (actuator width), .134 [3.40] TRAVEL/THROW, .079 [M2.00] TAP, 2 PLCS., .287 [7.30] (terminal height), .331 [8.40] (terminal spacing), .197 [5.00] (terminal width), .157 [4.00] (terminal depth), .283 [7.20] (actuator height), .098 [2.50] (actuator base offset), .071 [1.80] (actuator base offset), .134 [3.40] (actuator base offset), .035 [9.00] DIA. (actuator base hole), .157 [4.00] TYP. (actuator base offset), .020 [.50] (actuator base hole diameter), .098 [2.50], 2 PLCS. (actuator base hole diameter) </p>
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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>

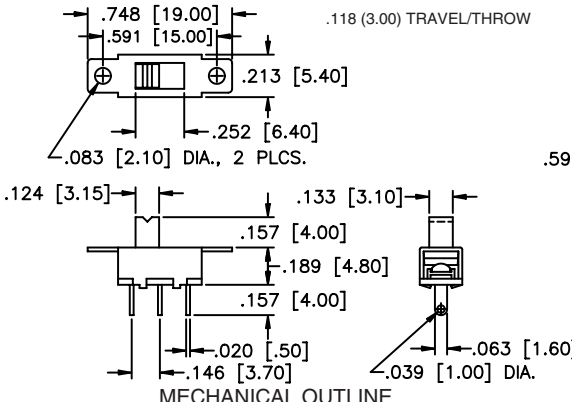
E

MODEL NO.
SLG12004


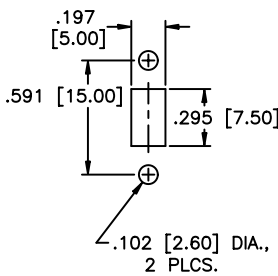
1P2T



● = COMMON




MECHANICAL OUTLINE

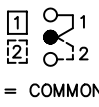


PANEL CUTOUT

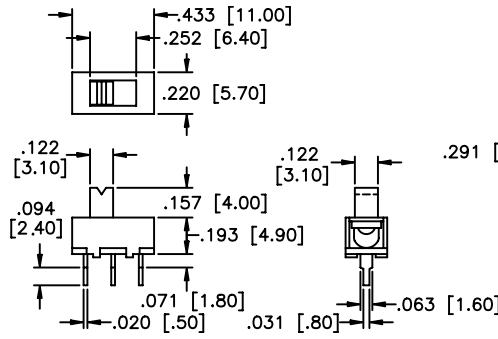
.118 (3.00) TRAVEL/THROW

MODEL NO.
SLG12014

VERTICAL MOUNTING

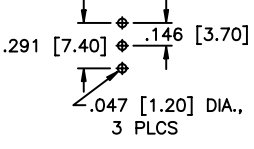
1P2T



● = COMMON



MECHANICAL OUTLINE



P.C. BOARD LAYOUT

.118 (3.00) TRAVEL/THROW

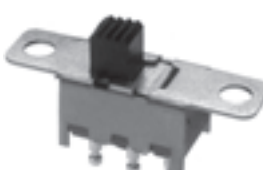
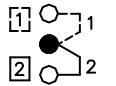
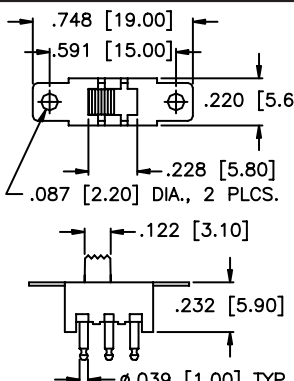
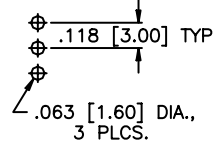


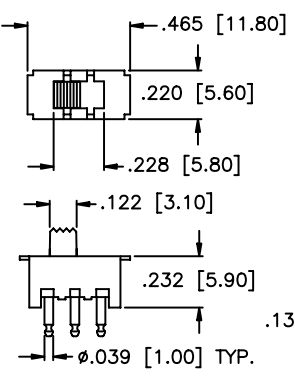
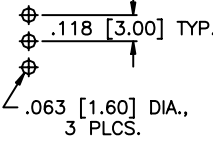

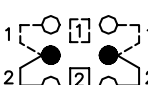
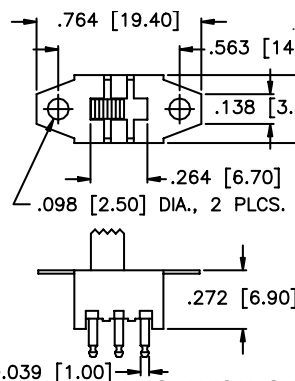
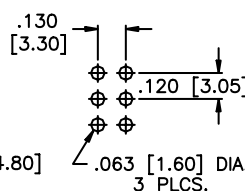
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLA Series

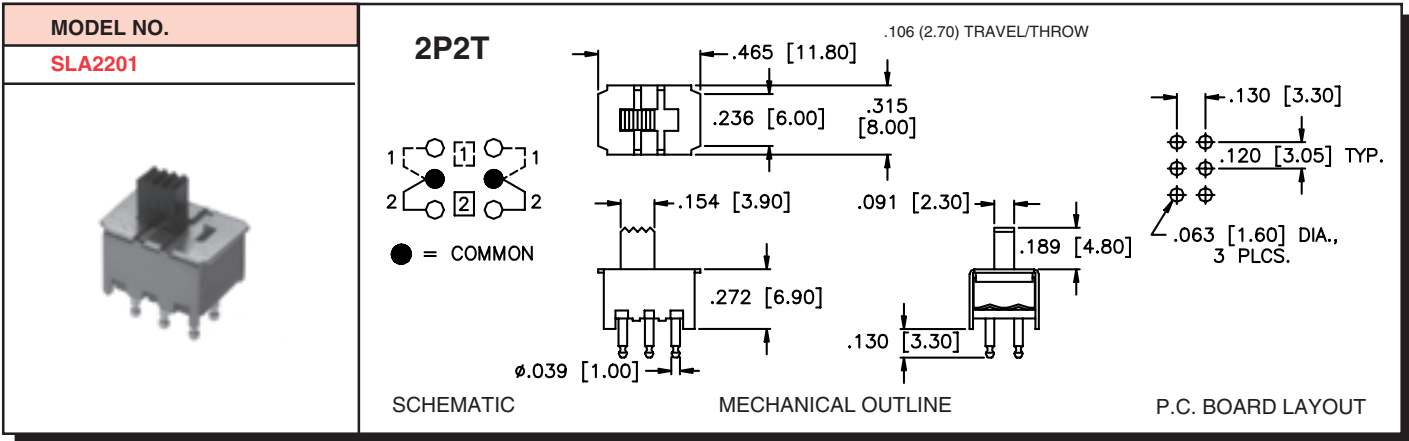
Miniature Slide Switches

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.	1P2T
SLA1200	 <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 20%;"> <p>1P2T</p>  <p>● = COMMON</p> <p>SCHMATIC</p> </div> <div style="width: 40%;">  <p>MECHANICAL OUTLINE</p> </div> <div style="width: 30%;"> <p>.106 (2.70) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p> </div> </div>
SLA1201	 <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 20%;"> <p>1P2T</p>  <p>● = COMMON</p> <p>SCHMATIC</p> </div> <div style="width: 40%;">  <p>MECHANICAL OUTLINE</p> </div> <div style="width: 30%;"> <p>.106 (2.70) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p> </div> </div>
SLA2200	 <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 20%;"> <p>2P2T</p>  <p>● = COMMON</p> <p>SCHMATIC</p> </div> <div style="width: 40%;">  <p>MECHANICAL OUTLINE</p> </div> <div style="width: 30%;"> <p>.106 (2.70) TRAVEL/THROW</p>  <p>P.C. BOARD LAYOUT</p> </div> </div>

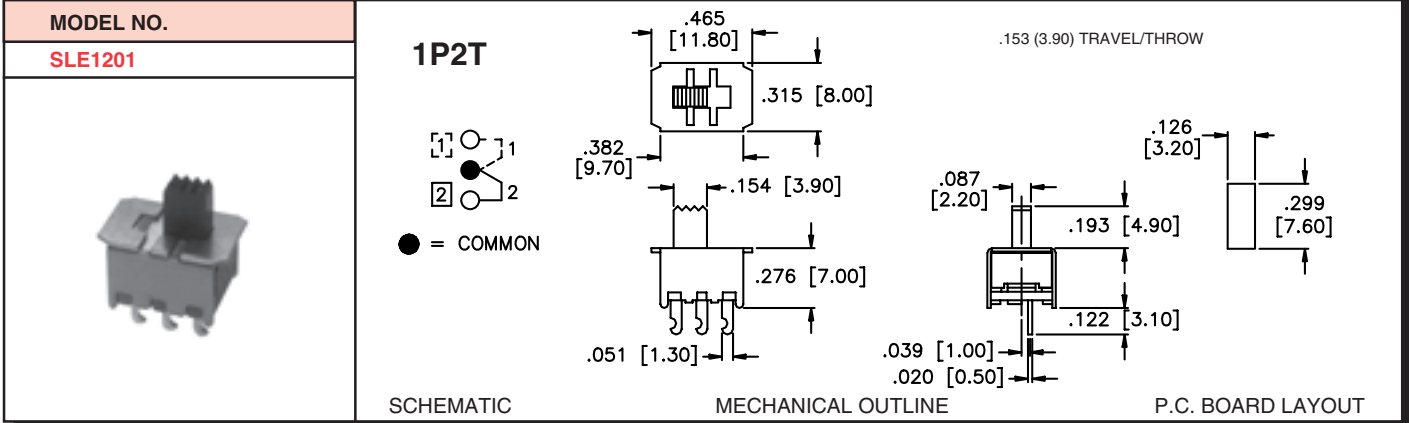
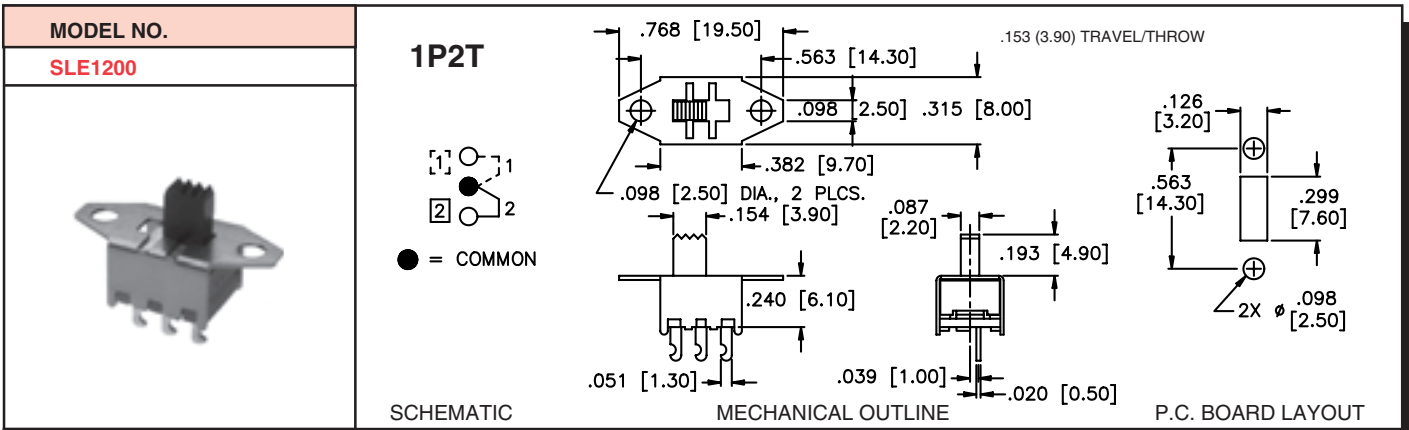
E



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>

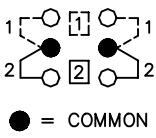
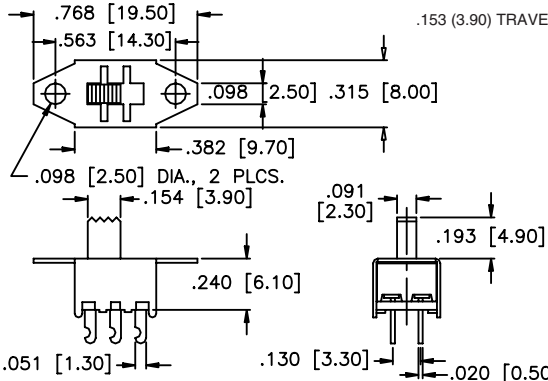
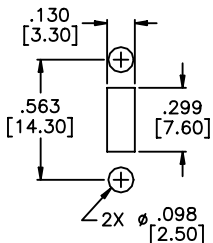
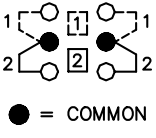
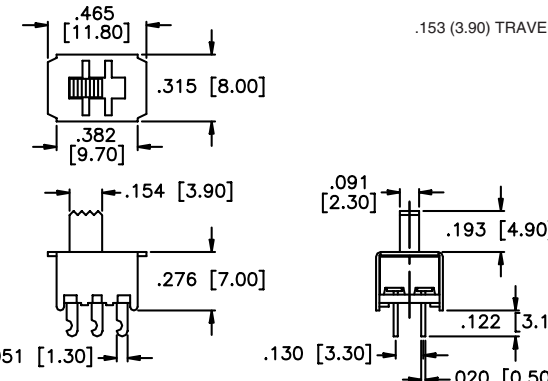
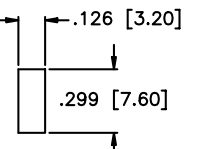


SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SLE Series

Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

<p>MODEL NO.</p> <p>SLE2200</p>	<p>2P2T</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>SLE2201</p>	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p>	 <p style="text-align: center;">P.C. BOARD LAYOUT</p>



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</p> <p>Initial contact resistance: 10 milliohms max.</p> <p>Insulation resistance: 1000 megohms min.</p> <p>Dielectric strength: 1000 V rms min.</p> <p>Electrical life w/resistive load: Gold; 60,000 cycles min. Silver; 2 pos. - 40,000 cycles, 3 pos. - 20,000 cycles</p> <p>Operating temperature range: -30°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"> ● 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)</p> <p>Cover: Stainless steel</p> <p>Actuator: Glass filled polyamide</p> <p>Case: PES high temp. thermoplastic</p> <p>Terminal seal: Epoxy</p>	

E

MODEL NO.	PLATING	ACTION	SPDT	MECHANICAL OUTLINE	PANEL CUTOUT
GH36S000001	Gold	on - on	<p>Function (see pg. E46)</p> <p>● = COMMON</p>		
GH39S000001	Gold	on off on			
GH36S010001	Silver	on - on			
GH39S010001	Silver	on off on			
			SCHEMATIC	MECHANICAL OUTLINE	PANEL CUTOUT

MODEL NO.	PLATING	ACTION	SPDT	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
GH36P000001	Gold	on - on	<p>Function (see pg. E46)</p> <p>● = COMMON</p>		
GH39P000001	Gold	on off on			
GH36P010001	Silver	on - on			
GH39P010001	Silver	on off on			
			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

MODEL NO.	PLATING	ACTION	SPDT	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
GH36W000001	Gold	on - on	<p>Function (see pg. E46)</p> <p>● = COMMON</p>		
GH39W000001	Gold	on off on			
GH36W010001	Silver	on - on			
GH39W010001	Silver	on off on			
			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

G Series

Instrument Grade Miniature Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO.	PLATING	ACTION	SPDT	Function (see pg. E46)	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
GH36WW00001	Gold	on - on	6 9	ON ON		
GH39WW00001	Gold	on off on		OFF		
GH36WW10001	Silver	on - on		ON ON		
GH39WW10001	Silver	on off on		OFF		
GH36Y000001	Gold	on - on	6 9	ON ON		
GH39Y000001	Gold	on off on		OFF		
GH36Y010001	Silver	on - on		ON ON		
GH39Y010001	Silver	on off on		OFF		
GH36Y400001	Gold	on - on	6 9	ON ON		
GH39Y400001	Gold	on off on		OFF		
GH36Y410001	Silver	on - on		ON ON		
GH39Y410001	Silver	on off on		OFF		
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

E

MODEL NO.	PLATING	ACTION	DPDT	
<b style="color: red;">GH46S000001 <b style="color: red;">GH49S000001 <b style="color: red;">GH46S010001 <b style="color: red;">GH49S010001	Gold Gold Silver Silver	on - on on off on on - on on off on	DPDT Function (see pg. E46) 6 ON ON 1 1 2 2 OFF 1 1 2 2 ON ON 1 1 2 2 ● = COMMON	<div style="text-align: right; font-size: small;">.086 (2.20) TRAVEL/THROW</div> <div style="display: flex; justify-content: space-around; font-size: x-small;"> SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT </div>
<b style="color: red;">GH46P000001 <b style="color: red;">GH49P000001 <b style="color: red;">GH46P010001 <b style="color: red;">GH49P010001	Gold Gold Silver Silver	on - on on off on on - on on off on	DPDT Function (see pg. E46) 6 ON ON 1 1 2 2 OFF 1 1 2 2 ON ON 1 1 2 2 ● = COMMON	<div style="text-align: right; font-size: small;">.086 (2.20) TRAVEL/THROW</div> <div style="display: flex; justify-content: space-around; font-size: x-small;"> SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT </div>
<b style="color: red;">GH46W000001 <b style="color: red;">GH49W000001 <b style="color: red;">GH46W010001 <b style="color: red;">GH49W010001	Gold Gold Silver Silver	on - on on off on on - on on off on	DPDT Function (see pg. E46) 6 ON ON 1 1 2 2 OFF 1 1 2 2 ON ON 1 1 2 2 ● = COMMON	<div style="text-align: right; font-size: small;">.086 (2.20) TRAVEL/THROW</div> <div style="display: flex; justify-content: space-around; font-size: x-small;"> SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT </div>

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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 	



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

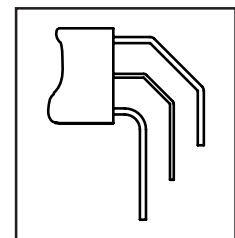


figure 1

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 25139NLDB Gold on off on 25136NAB Silver on - on 25139NAB Silver on off on</p>			<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW: 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p>	
<p>VERTICAL ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
<p>25336NLD Gold on - on 25339NLD Gold on off on 25336NA Silver on - on 25339NA Silver on off on</p>			<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW: 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p>	
<p>RIGHT ANGLE ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
<p>25146NLDB Gold on - on 25149NLDB Gold on off on 25146NAB Silver on - on 25149NAB Silver on off on</p>			<p>Function (see pg. E51)</p> <p>● = COMMON</p>	<p>TRAVEL/THROW: 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p>	
<p>VERTICAL ACTUATOR</p>			SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT

E

25000N Series

Miniature Slide Switches

MODEL NO.	PLATING	ACTION	DOUBLE POLE	
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>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
			SCHEMATIC	MECHANICAL OUTLINE
RIGHT ANGLE ACTUATOR				
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>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
			SCHEMATIC	MECHANICAL OUTLINE
VERTICAL ACTUATOR				
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>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
			SCHEMATIC	MECHANICAL OUTLINE
RIGHT ANGLE ACTUATOR				
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>TRAVEL/THROW; 3 POSITION - .078 (2.00) 2 POSITION - .150 (3.80)</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
			SCHEMATIC	MECHANICAL OUTLINE
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			
25546NLD 25549NLD 25546NA 25549NA	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>		<p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>
25136NLDH 25139NLDH 25136NAH 25139NAH	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>		<p style="text-align: center;">VERTICAL ACTUATOR</p>
25336NLD6 25339NLD6 25336NA6 25339NA6	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>		<p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>
25146NLDH 25149NLDH 25146NAH 25149NAH	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>		<p style="text-align: center;">VERTICAL ACTUATOR</p>

E

25000N Series

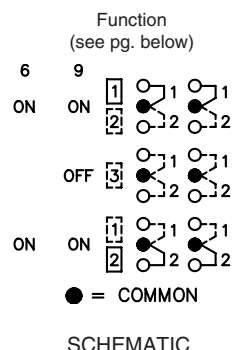
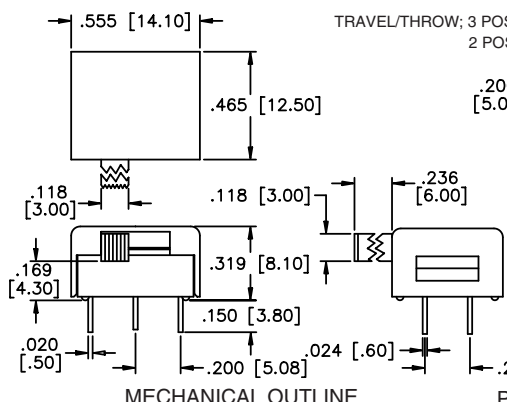
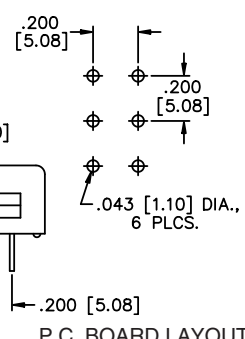
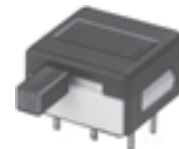
Miniature Slide Switches

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

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

2500N 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.

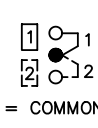
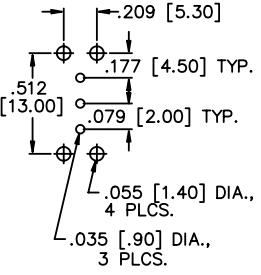
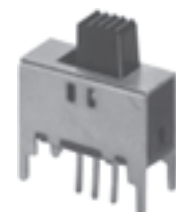
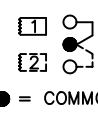

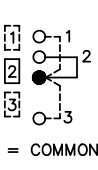
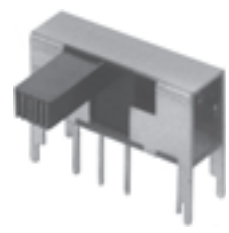


MSS Series

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	
<p>MSS12A SILVER</p> <p>MSS12AG GOLD</p>		<p style="text-align: center;">1P2T</p> <p style="text-align: right;">.079 (2.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p> </div>
 <p style="text-align: center;">VERTICAL ACTUATOR</p>		
<p>MSS12AR SILVER</p> <p>MSS12ARG GOLD</p>		<p style="text-align: center;">1P2T</p> <p style="text-align: right;">.157 (4.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;">  </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p> </div>
 <p style="text-align: center;">RIGHT ANGLE ACTUATOR</p>		
<p>MSS13AR SILVER</p>		<p style="text-align: center;">1P3T</p> <p style="text-align: right;">.157 (4.00) TRAVEL/THROW</p> <div style="display: flex; justify-content: space-around;">  </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p> </div>
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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MSS Series

Standard Size Slide Switches


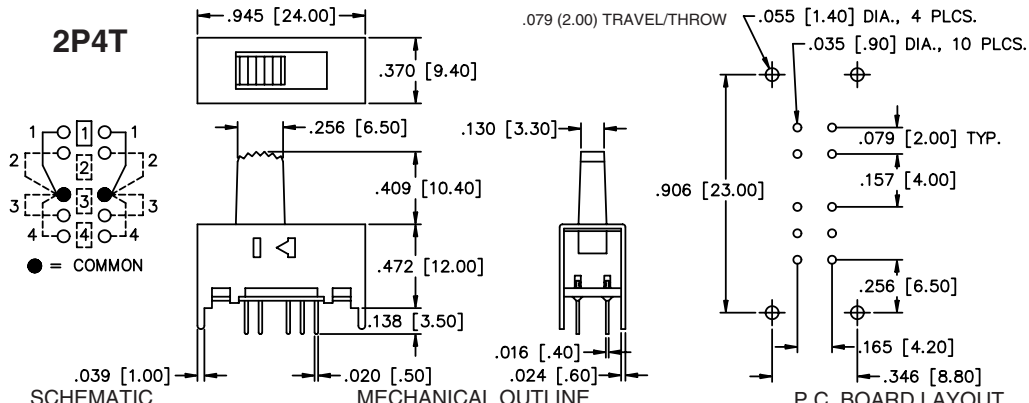

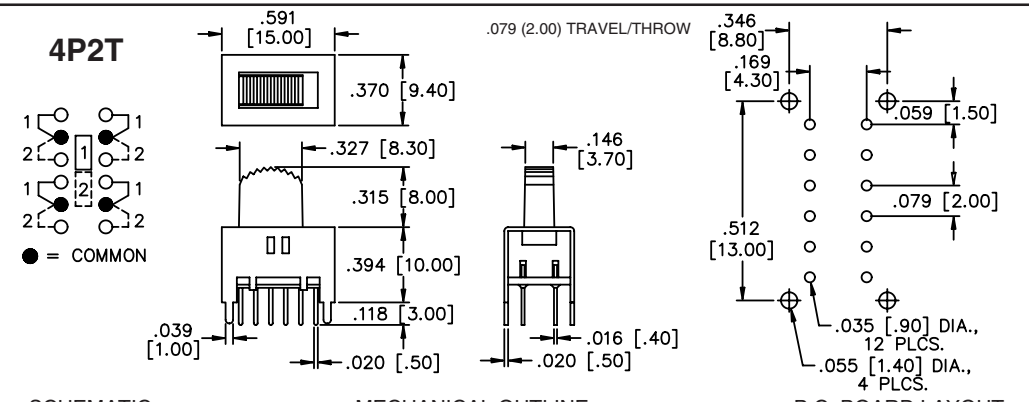

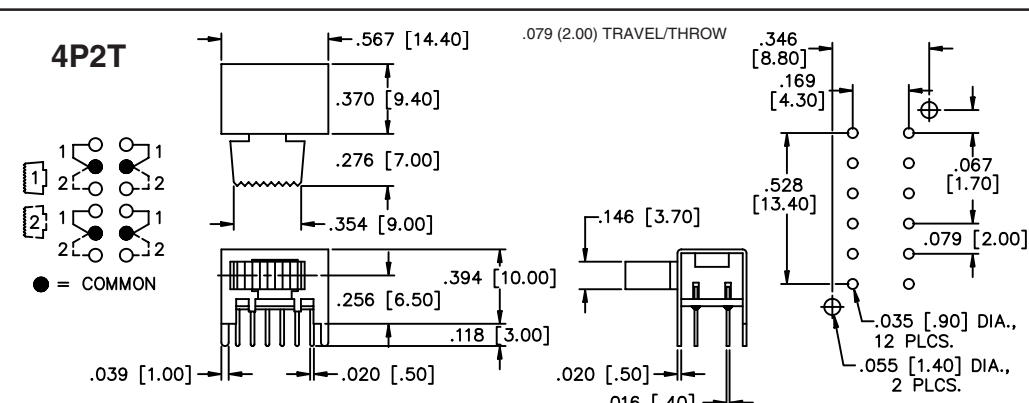

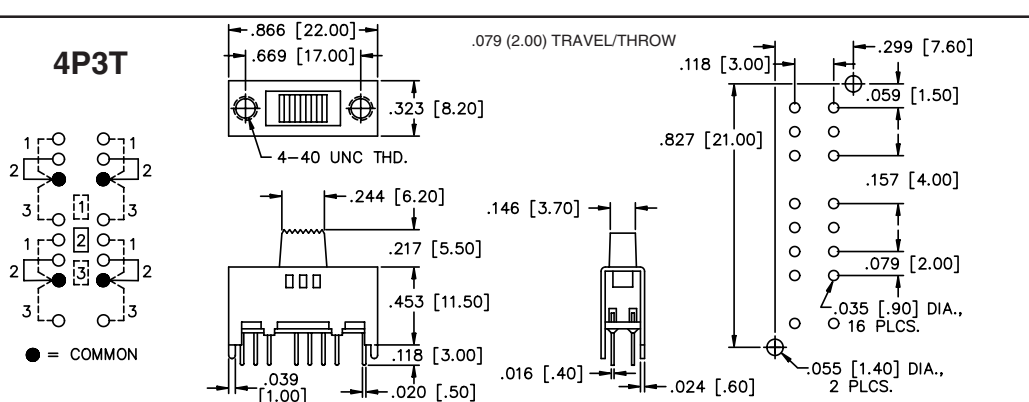
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

MODEL NO. PLATING MSS14 SILVER MSS14G GOLD	1P4T	<p>● = COMMON</p>	<p>4-40 UNC-2B THD, 2 PLCS</p>		SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT
MODEL NO. PLATING MSS22 SILVER MSS22G GOLD	2P2T	<p>● = COMMON</p>			SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT
MODEL NO. PLATING MSS225R SILVER MSS225RG GOLD	2P2T	<p>● = COMMON</p>			SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT
MODEL NO. PLATING MSS23 SILVER MSS23G GOLD	2P3T	<p>● = COMMON</p>			SCHEMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT



MSS Series

Standard Size Slide Switches

MODEL NO.	PLATING			
MSS24A	SILVER			
MSS24AG	GOLD			
 <p>VERTICAL ACTUATOR</p>		<p>2P4T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>		
MSS42	SILVER			
MSS42G	GOLD			
 <p>VERTICAL ACTUATOR</p>		<p>4P2T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>		
MSS42R	SILVER			
MSS42RG	GOLD			
 <p>RIGHT ANGLE ACTUATOR</p>		<p>4P2T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>		
MSS43	SILVER			
MSS43G	GOLD			
 <p>VERTICAL ACTUATOR</p>		<p>4P3T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>		


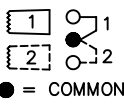
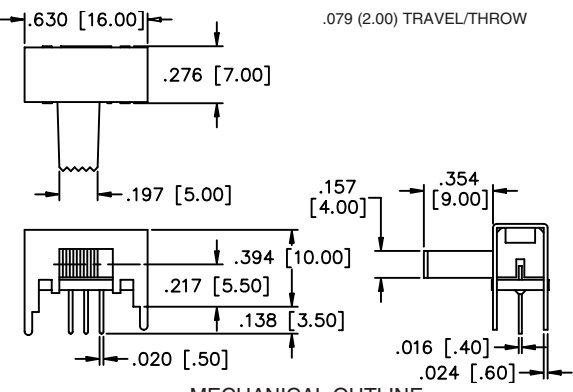
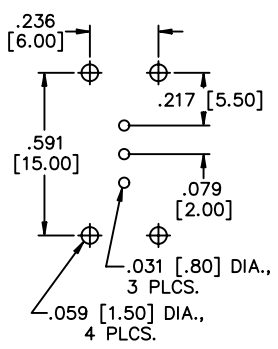

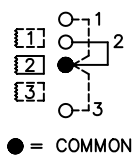
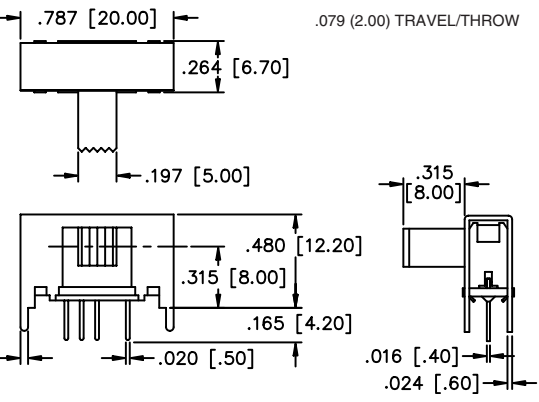
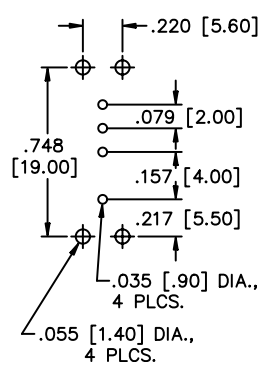
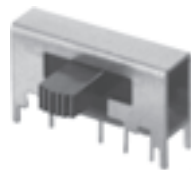
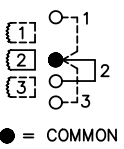
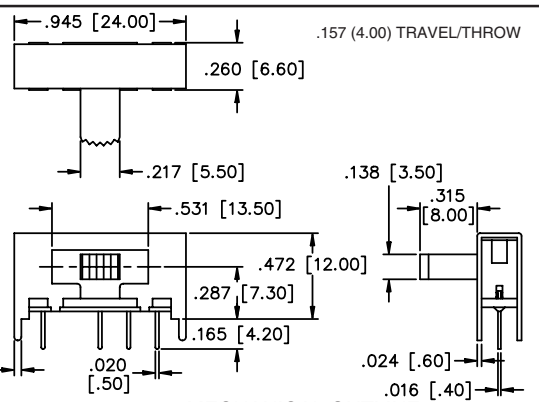
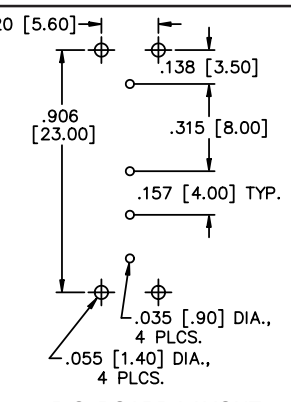
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

M Series

Standard Size Slide Switches

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

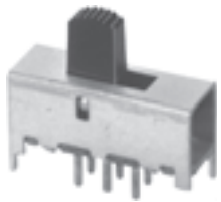
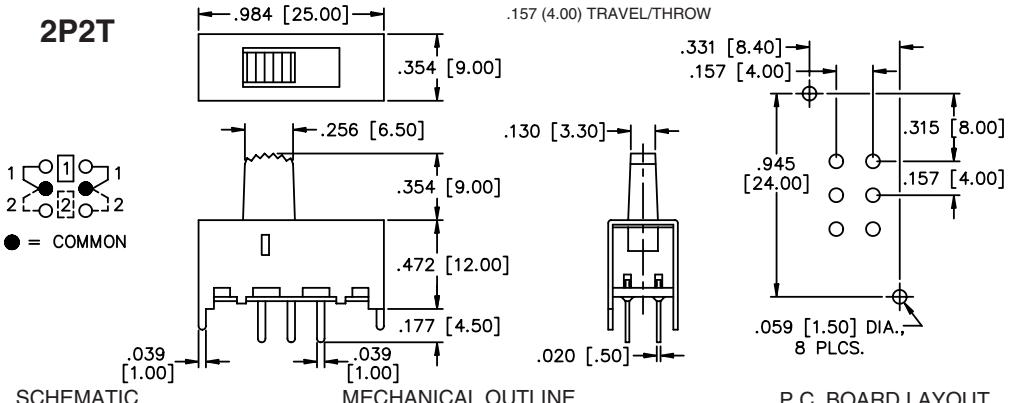
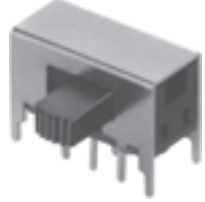
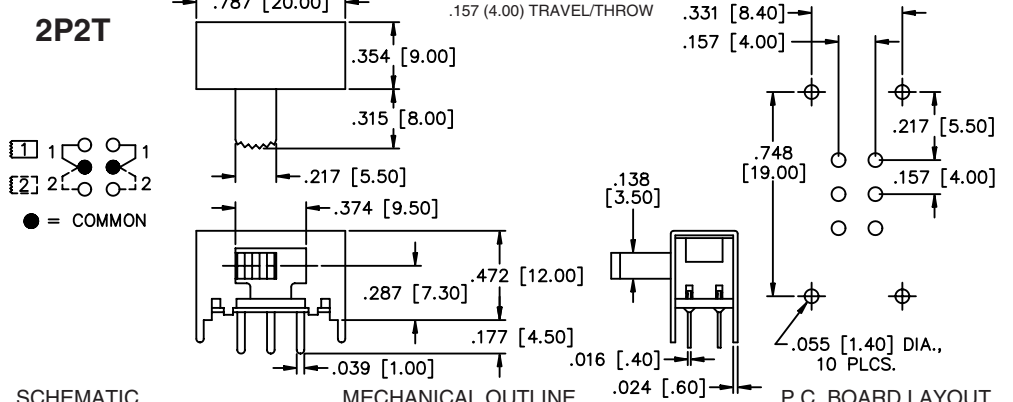
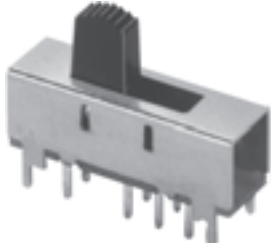
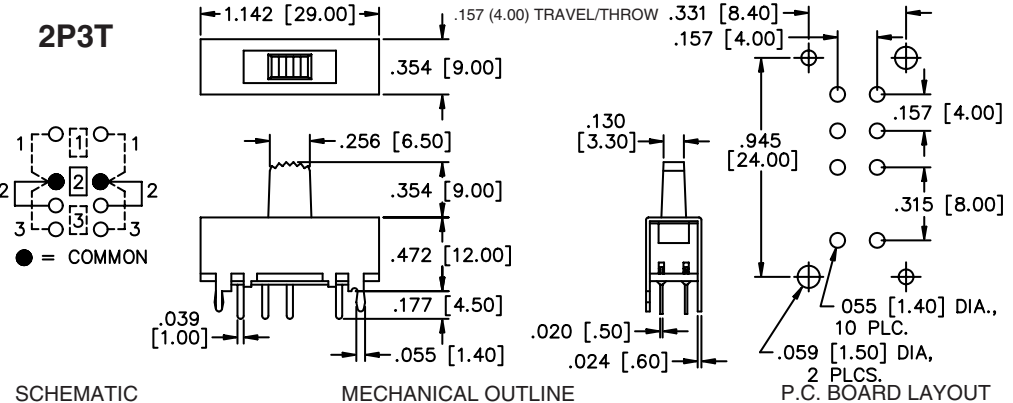
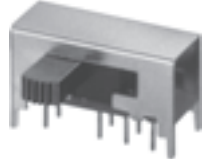
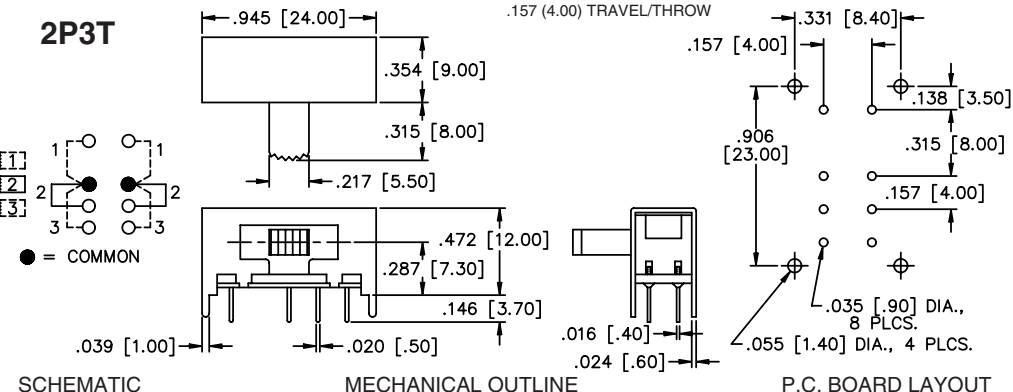
SPECIFICATIONS	FEATURES
<p>Contact rating: 300 mA at 125 VAC or 30 VDC</p> <p>Initial contact resistance: 20 milliohms max.</p> <p>Insulation resistance: 100 megohms min. at 500 VDC</p> <p>Dielectric strength: 500 volts RMS at sea level</p> <p>Electrical life: 10,000 cycles min.</p> <p>Operating temperature 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>

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



M Series

Standard Size Slide Switches


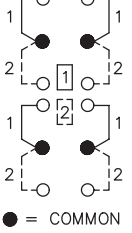
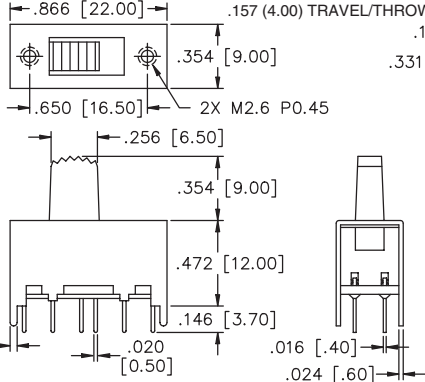
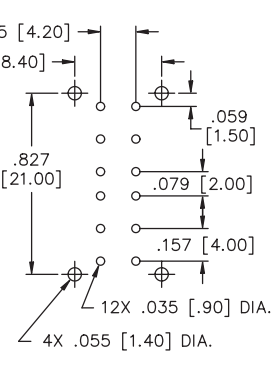
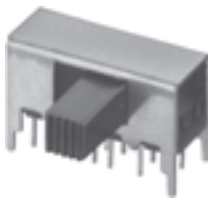
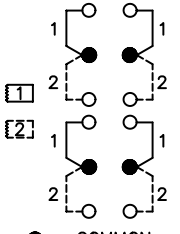
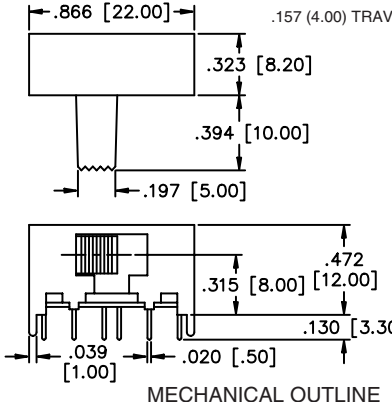
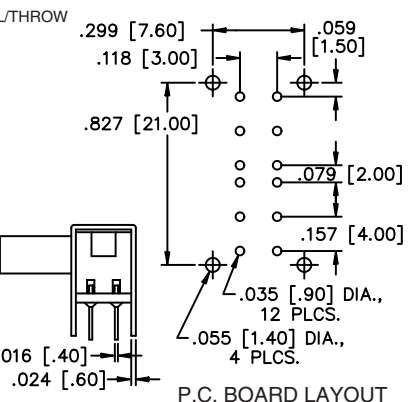

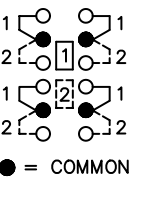
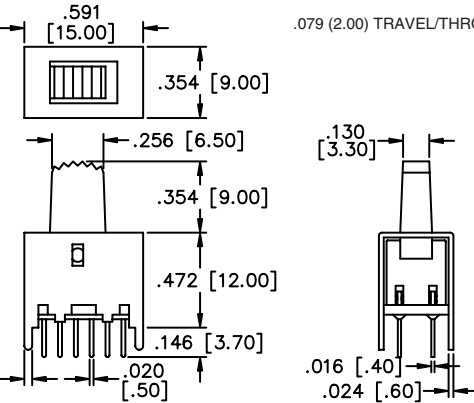
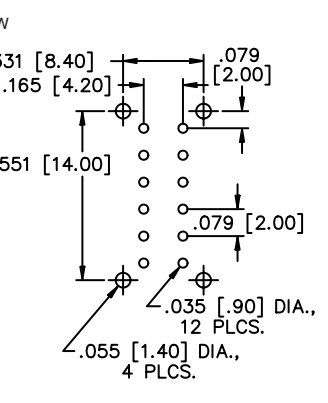

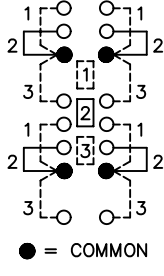
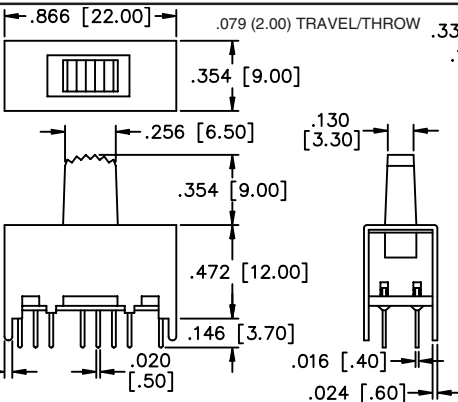
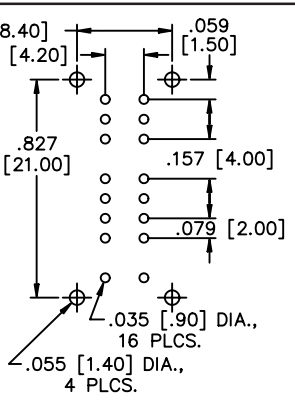
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<p>MODEL NO.</p> <p>M22R</p>	 <p>RIGHT ANGLE ACTUATOR</p>	<p>2P2T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M23</p>	 <p>VERTICAL ACTUATOR</p>	<p>2P3T</p>  <p>SCHMATIC MECHANICAL OUTLINE P.C. BOARD LAYOUT</p>
<p>MODEL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

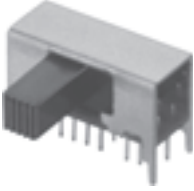
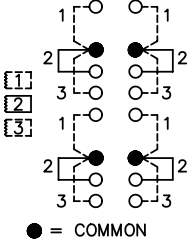
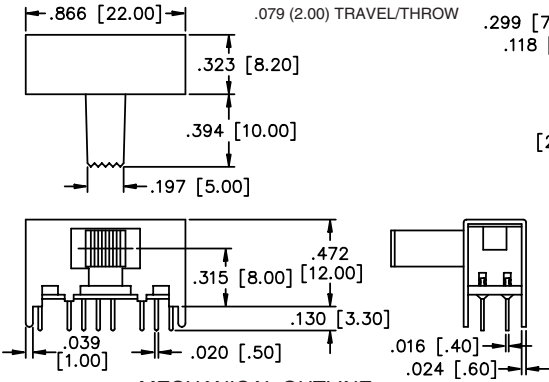
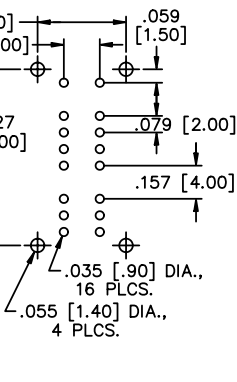
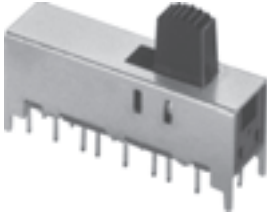
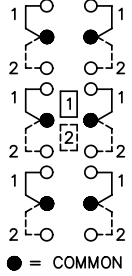
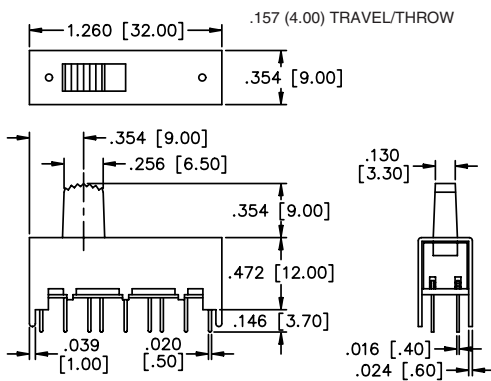
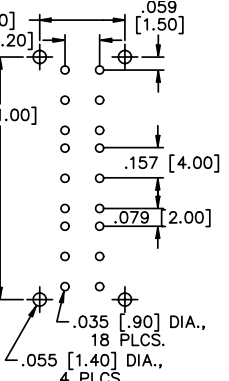

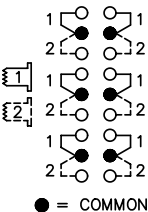
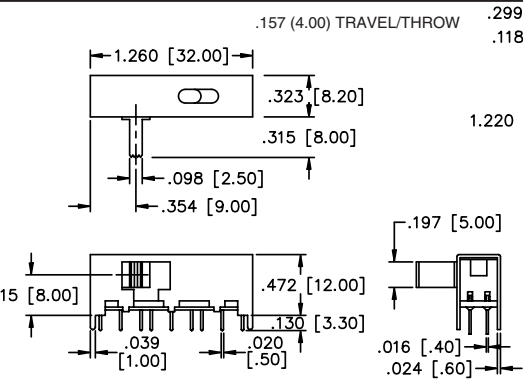
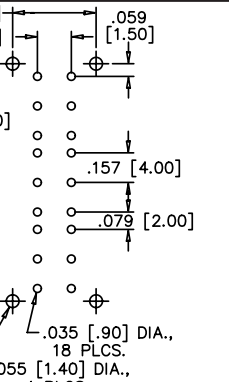
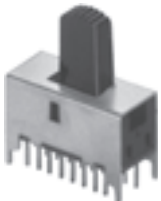
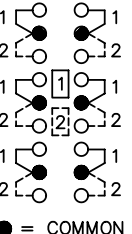
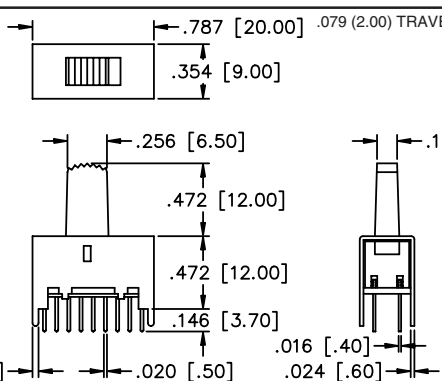
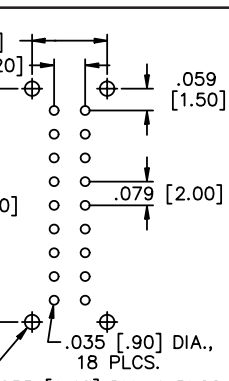
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MODEL NO. M42R		4P2T  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
MODEL NO. M42A		4P2T  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
MODEL NO. M43		4P3T  <p>● = COMMON</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>

E

M Series

Standard Size Slide Switches

E

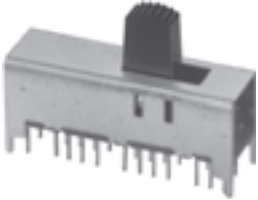
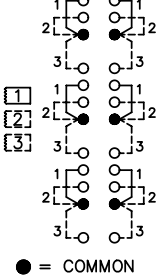
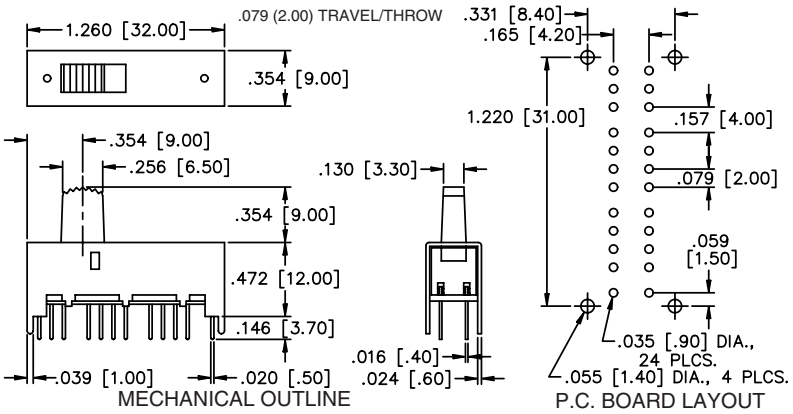

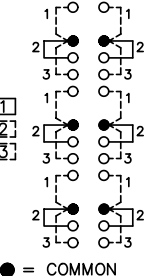
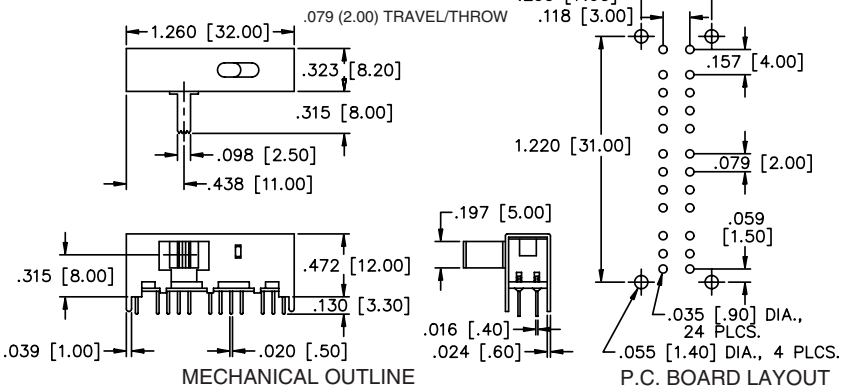

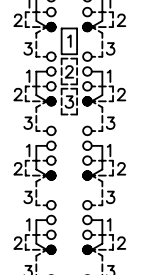
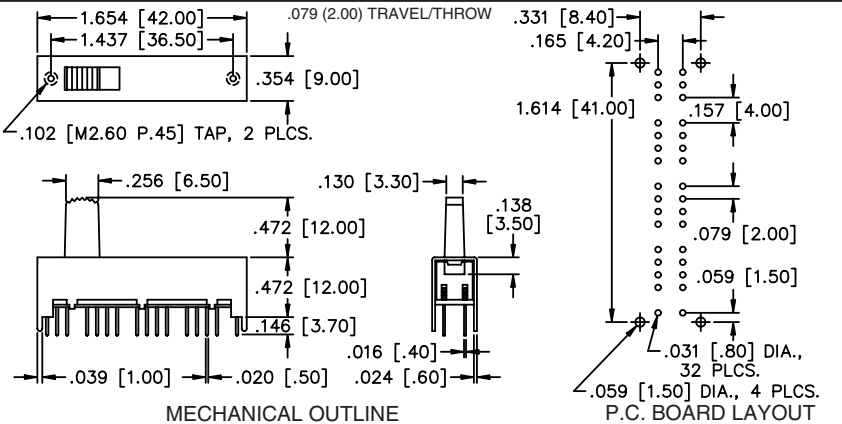

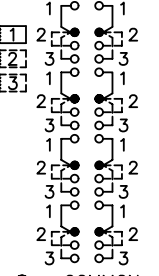
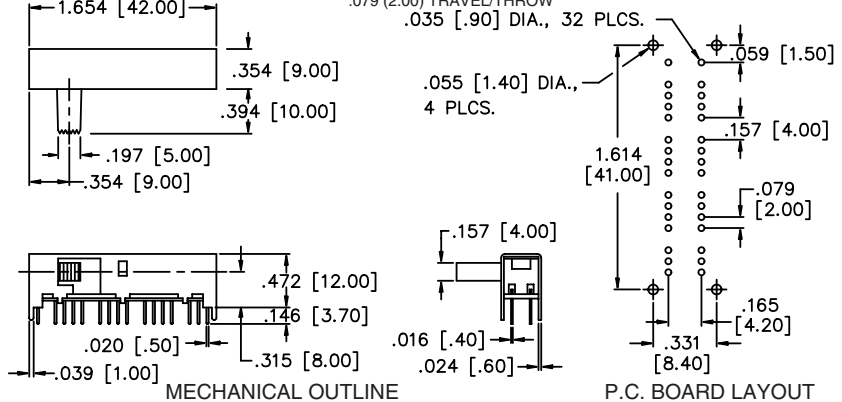
<p>MODEL NO.</p> <p>M43R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>4P3T</p>  <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M62</p>  <p>VERTICAL ACTUATOR</p>	<p>6P2T</p>  <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M62R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>6P2T</p>  <p>SCHMATIC</p>	 <p>MECHANICAL OUTLINE</p>	 <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M62A</p>  <p>VERTICAL ACTUATOR</p>	<p>6P2T</p>  <p>SCHMATIC</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

<p>MODEL NO.</p> <p>M63</p>  <p>VERTICAL ACTUATOR</p>	<p>6P3T</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M63R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>6P3T</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M83</p>  <p>VERTICAL ACTUATOR</p>	<p>8P3T</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>
<p>MODEL NO.</p> <p>M83R</p>  <p>RIGHT ANGLE ACTUATOR</p>	<p>8P3T</p>  <p>● = COMMON</p>  <p>SCHMATIC</p> <p>MECHANICAL OUTLINE</p> <p>P.C. BOARD LAYOUT</p>

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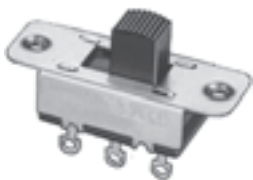
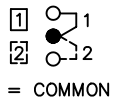
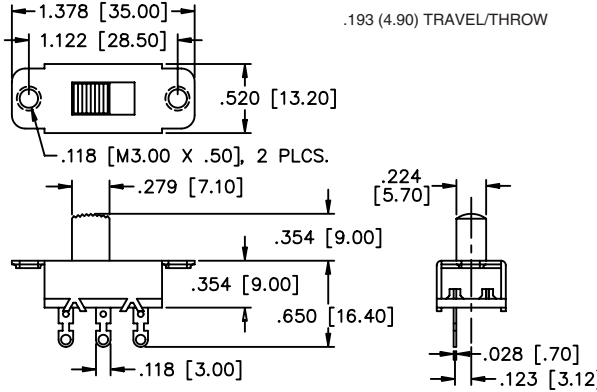
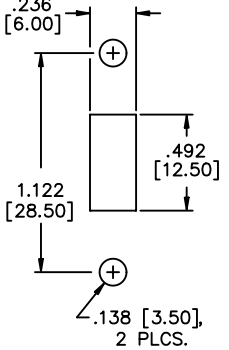

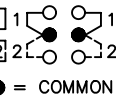
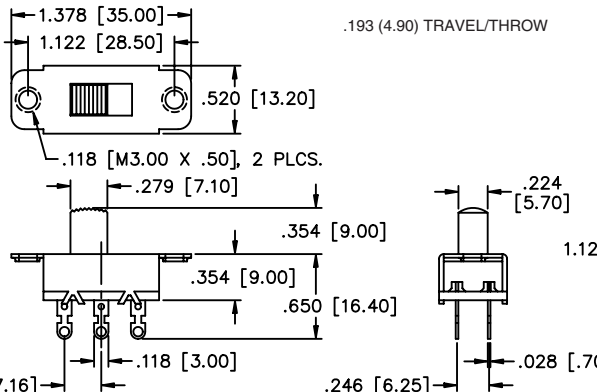
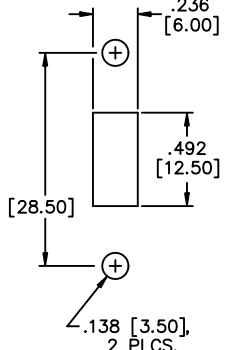
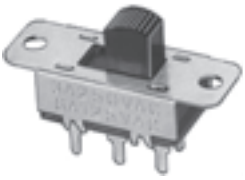
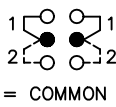
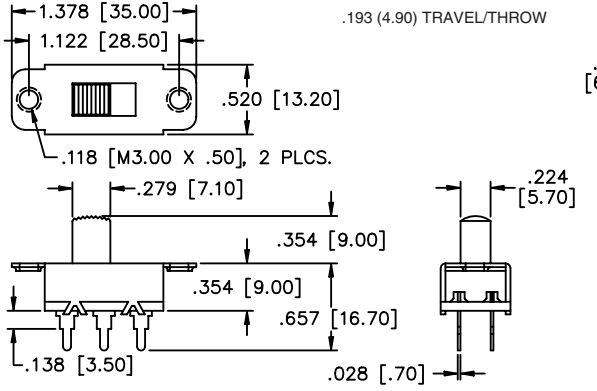
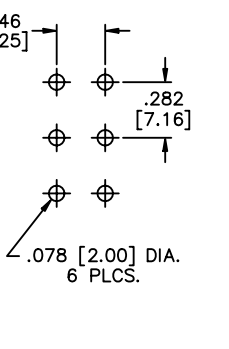
PM Series

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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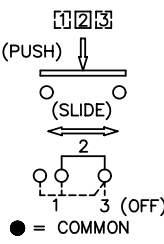
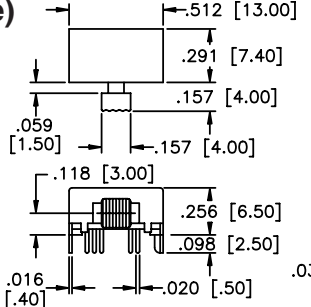
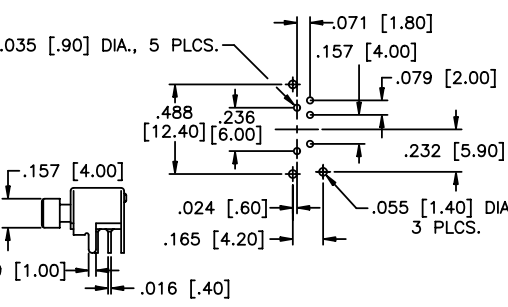

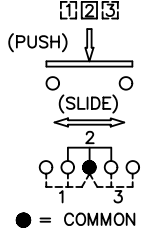
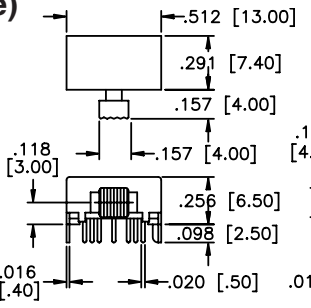
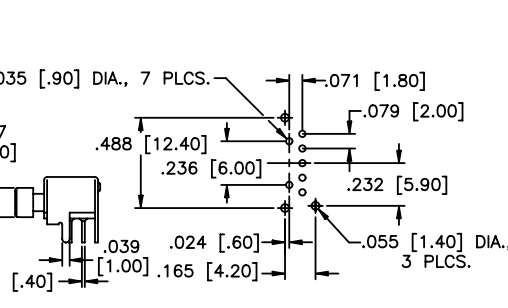

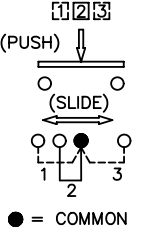
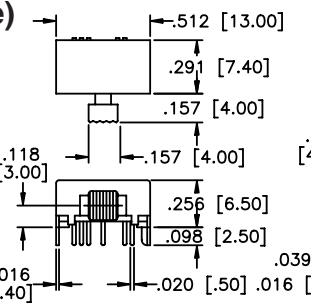
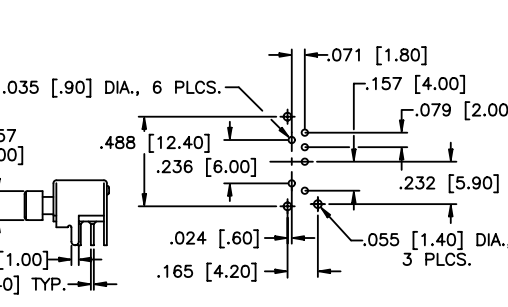
MODEL NO.	1P2T
PM13B012	 <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>1P2T</p>  <p>● = COMMON</p> </div> <div style="text-align: center;"> <p>MECHANICAL OUTLINE</p>  </div> <div style="text-align: center;"> <p>PANEL CUTOUT</p>  </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: 40%;">  <p style="text-align: center;">MECHANICAL OUTLINE</p> </div> <div style="width: 35%;">  <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: 40%;">  <p style="text-align: center;">MECHANICAL OUTLINE</p> </div> <div style="width: 35%;">  <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: 40%;">  <p style="text-align: center;">MECHANICAL OUTLINE</p> </div> <div style="width: 35%;">  <p style="text-align: center;">P.C. BOARD LAYOUT</p> </div> </div>

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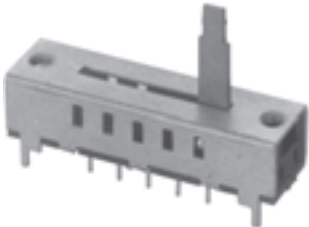
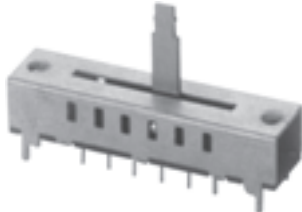
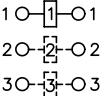
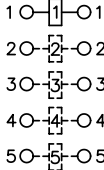
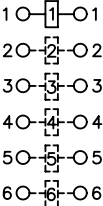
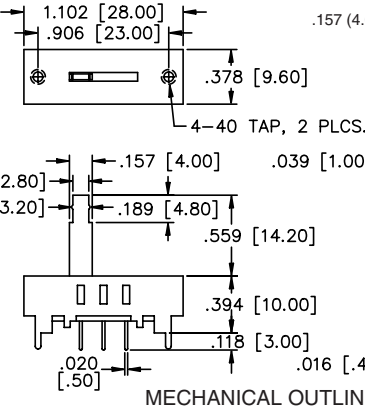
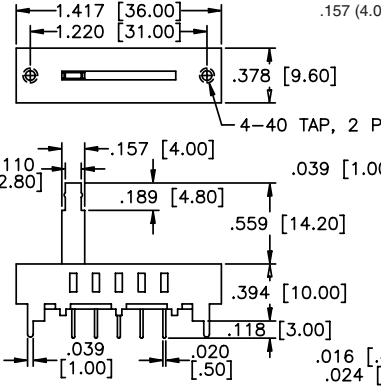
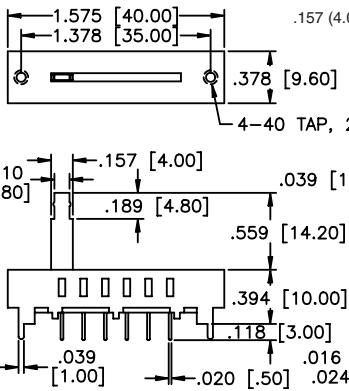
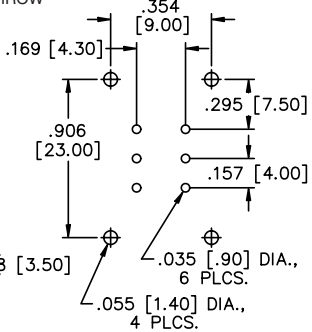
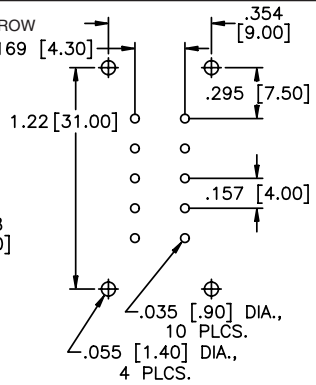
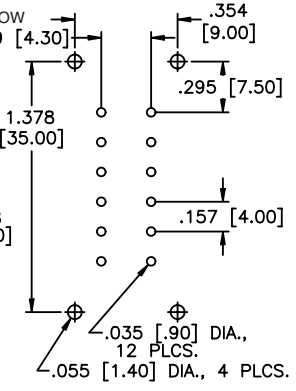
MSL Series

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
	 1 1-1-1 2 2-2-2 3 3-3-3	 1 1-1-1 2 2-2-2 3 3-3-3 4 4-4-4 5 5-5-5	 1 1-1-1 2 2-2-2 3 3-3-3 4 4-4-4 5 5-5-5 6 6-6-6
	SCHEMATIC	SCHEMATIC	SCHEMATIC
	 4-40 TAP, 2 PLCS.	 4-40 TAP, 2 PLCS.	 4-40 TAP, 2 PLCS.
	MECHANICAL OUTLINE	MECHANICAL OUTLINE	MECHANICAL OUTLINE
	 .157 (4.00) TRAVEL/THROW .354 [9.00] .169 [4.30] .295 [7.50] .157 [4.00] .035 [.90] DIA., 6 PLCS. .055 [1.40] DIA., 4 PLCS.	 .157 (4.00) TRAVEL/THROW .354 [9.00] .169 [4.30] .295 [7.50] .157 [4.00] .035 [.90] DIA., 10 PLCS. .055 [1.40] DIA., 4 PLCS.	 .157 (4.00) TRAVEL/THROW .354 [9.00] .169 [4.30] .295 [7.50] .157 [4.00] .035 [.90] DIA., 12 PLCS. .055 [1.40] DIA., 4 PLCS.
	P.C. BOARD LAYOUT	P.C. BOARD LAYOUT	P.C. BOARD LAYOUT

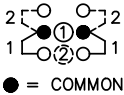
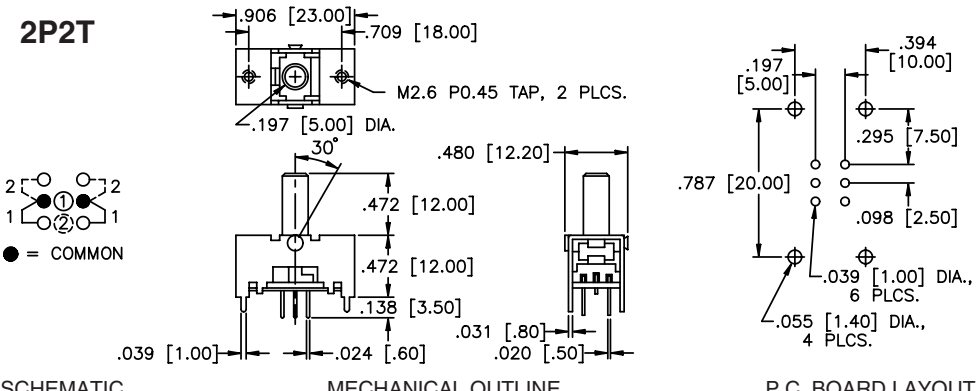
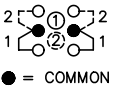
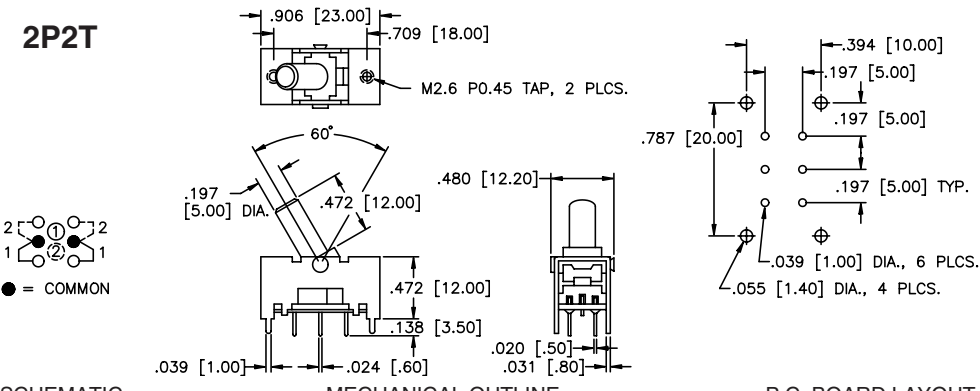
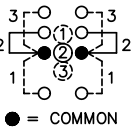
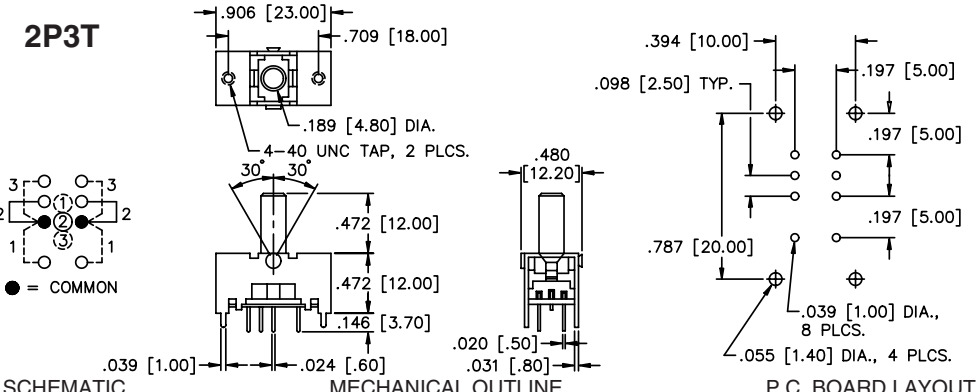
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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>	
	Terminal seal: Epoxy

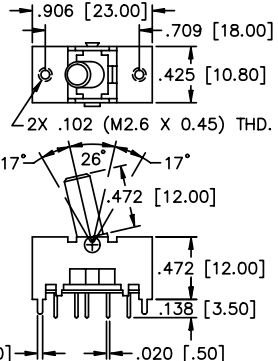
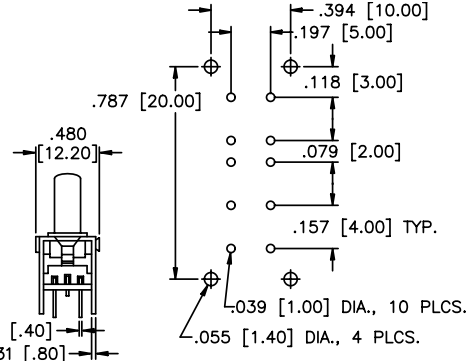
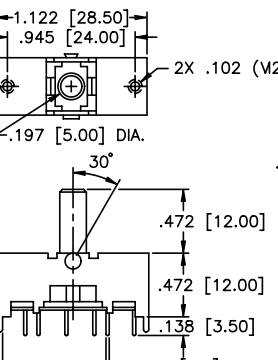
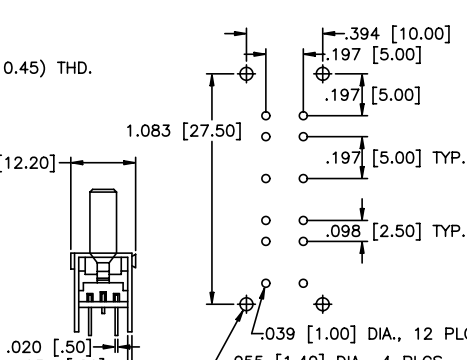
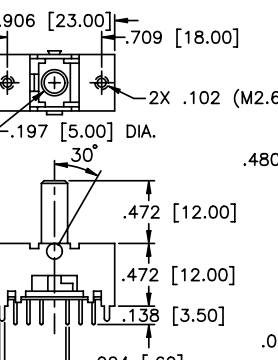
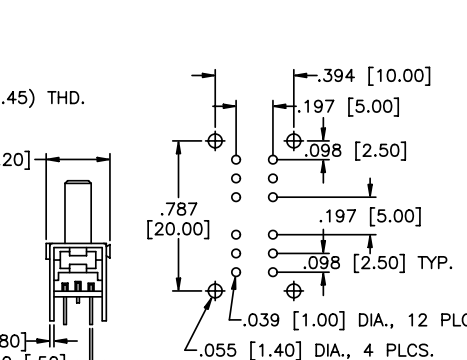
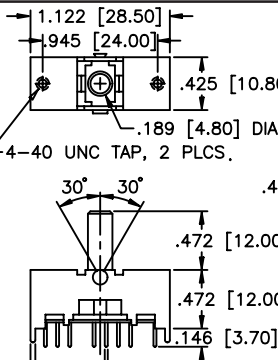
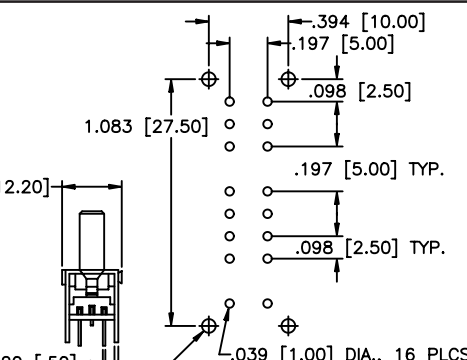
MODEL NO. CONTACTS			
MBT22N	NON-SHORTING	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p> <p style="text-align: center;">P.C. BOARD LAYOUT</p>
MBT22S	SHORTING	<p>2P2T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p> <p style="text-align: center;">P.C. BOARD LAYOUT</p>
MBT23N	NON-SHORTING	<p>2P3T</p>  <p>● = COMMON</p>	 <p style="text-align: center;">MECHANICAL OUTLINE</p> <p style="text-align: center;">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> .787 [20.00] .394 [10.00] .197 [5.00] .118 [3.00] .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> 1.083 [27.50] .394 [10.00] .197 [5.00] .197 [5.00] TYP. .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> .787 [20.00] .394 [10.00] .197 [5.00] .098 [2.50] .197 [5.00] .098 [2.50] TYP. .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> 1.083 [27.50] .394 [10.00] .197 [5.00] .098 [2.50] .197 [5.00] TYP. .098 [2.50] TYP. .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			
MBT62N	NON-SHORTING	6P2T ● = COMMON		
MBT62S	SHORTING			
		SCHEMATIC	MECHANICAL OUTLINE	P.C. BOARD LAYOUT
MBT63	UNSPECIFIED	6P3T ● = COMMON		

