

**Slide Switches, Low Profile, Instrumentation Grade**

**MATERIAL SPECIFICATIONS:**

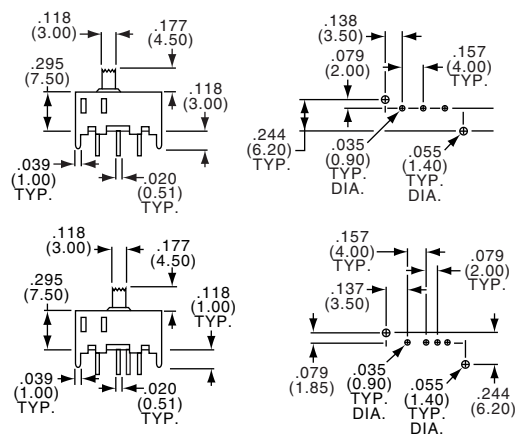
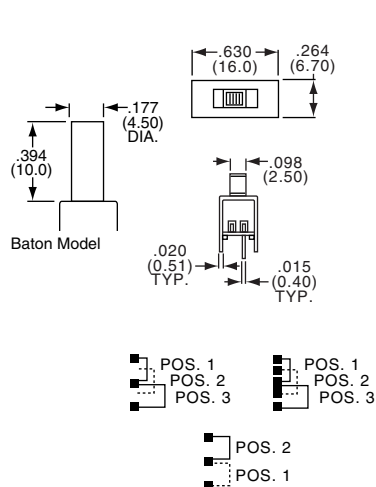
Contacts .....Gold or silver over nickel over Cu alloy  
 Frame Material .....Nickel plated, Steel  
 Actuator Material .....POM 94 HB  
 Terminals/Fixed Contacts.....Gold or silver over nickel over Cu alloy  
 Terminal Seal .....Epoxy

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....-4°F to +212°F (-20°C to +100°C)  
 Storage Temperature.....-40°F to +212°F (-40°C to + 100°C)  
 Solder Heat Resistance .....See page M3-4  
 Recommended Cleaning.....No chlorine base or Freon can be used.  
 Aqueous or 100% ethanol.

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....Gold: 0.4 VA 20 VDC or peak AC  
 Silver: 300 mA @ 125 VAC  
 Initial Contact Resistance .....20 Milliohms max.  
 Contact Timing.....Make-before-break  
 Insulation Resistance .....1000 Megohms min.  
 Dielectric Strength .....500 Volts RMS @ sea level  
 Actuation Force .....50 to 450 Grams  
 Actuator Travel.....0.079"-.158" (2.01-4.01)  
 Life Expectancy .....Up to 15,000 Cycles



**SPDT/SP3T**

Standard

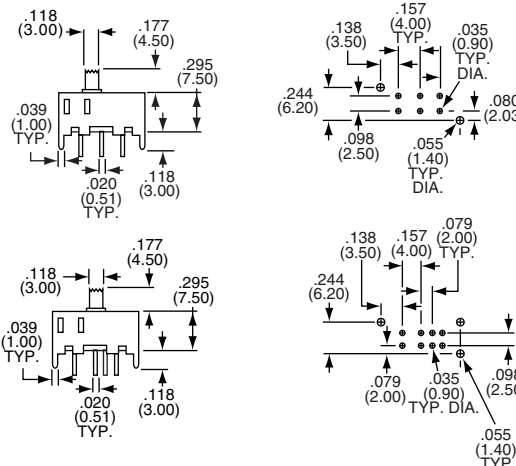
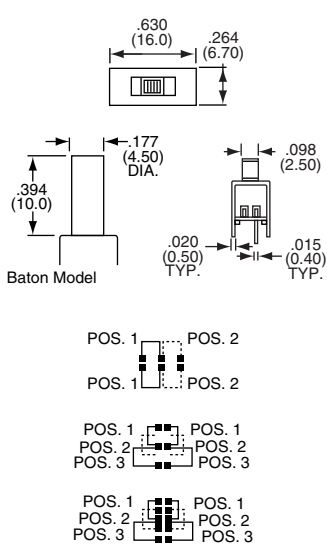
MHS122

Baton

MHS133

MHS122K

| Standard Model Tyco Electronics | Alcoswitch | Baton Model Tyco Electronics | Alcoswitch | Type | On | None | Off | Contacts |
|---------------------------------|------------|------------------------------|------------|------|----|------|-----|----------|
| 1437576-9                       | MHS122     | 1-1437576-2                  | MHS122K    | SPDT | On | None | On  | Silver   |
| 1-1437576-5                     | MHS123     | 1-1437576-7                  | MHS123K    | SPDT | On | Off  | On  | Silver   |
| 1-1437576-9                     | MHS133     | 2-1437576-2                  | MHS133K    | SP3T | On | On   | On  | Silver   |
| 1-1437576-0                     | MHS122G    | 1-1437576-3                  | MHS122KG   | SPDT | On | None | On  | Gold     |
|                                 | MHS123G    |                              | MHS123KG   | SPDT | On | Off  | On  | Gold     |
| 2-1437576-0                     | MHS133G    | 2-1437576-3                  | MHS133KG   | SP3T | On | On   | On  | Gold     |



**DPDT/DP3T**

Standard

MHS223

Baton

MHS233

MHS233K

| Standard Model Tyco Electronics | Alcoswitch | Baton Model Tyco Electronics | Alcoswitch | Type | On | None | Off | Contacts |
|---------------------------------|------------|------------------------------|------------|------|----|------|-----|----------|
| 2-1437576-5                     | MHS222     | 2-1437576-8                  | MHS222K    | DPDT | On | None | On  | Silver   |
| 3-1437576-1                     | MHS223     | 3-1437576-4                  | MHS223K    | DPDT | On | Off  | On  | Silver   |
| 3-1437576-6                     | MHS233     | 3-1437576-9                  | MHS233K    | DP3T | On | On   | On  | Silver   |
| 2-1437576-6                     | MHS222G    | 2-1437576-9                  | MHS222KG   | DPDT | On | None | On  | Gold     |
| 3-1437576-2                     | MHS223G    | —                            | MHS223KG   | DPDT | On | Off  | On  | Gold     |
| 3-1437576-7                     | MHS233G    | 4-1437576-0                  | MHS233KG   | DP3T | On | On   | On  | Gold     |

**Slide Switches, Low Profile, Right Angle, Instrumentation Grade**

SEE PAGE B33 FOR PRODUCT SPECIFICATIONS

**B**  
MHS Series

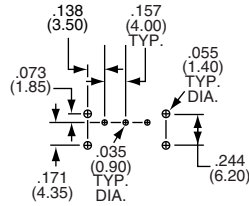
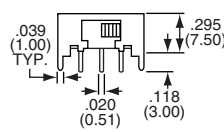
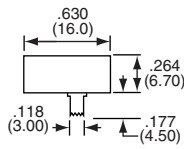
**SPDT/SP3T**



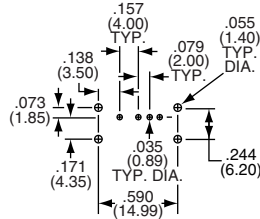
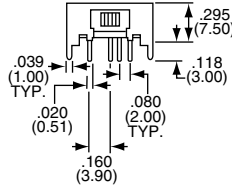
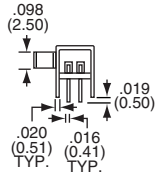
MHS122RA



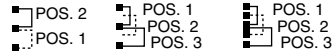
MHS133GRA



MHS122/123



MHS133



| Tyco Electronics | Alcoswitch | Type |    |      |    | Contacts |
|------------------|------------|------|----|------|----|----------|
| 1-1437576-4      | MHS122RA   | SPDT | On | None | On | Silver   |
| 1-1437576-8      | MHS123RA   | SPDT | On | Off  | On | Silver   |
| 2-1437576-4      | MHS133RA   | SP3T | On | On   | On | Silver   |
| 1-1437576-1      | MHS122GRA  | SPDT | On | None | On | Gold     |
| 1-1437576-6      | MHS123GRA  | SPDT | On | Off  | On | Gold     |
| 2-1437576-1      | MHS133GRA  | SP3T | On | On   | On | Gold     |

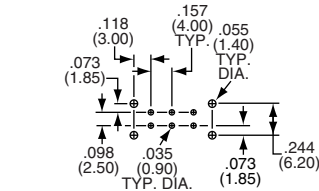
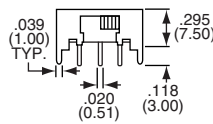
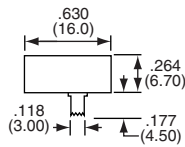
**DPDT/DP3T**



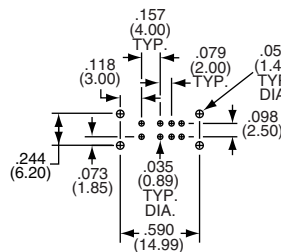
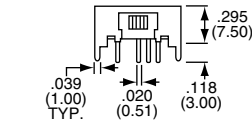
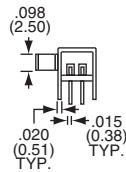
MHS222RA



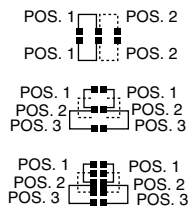
MHS233GRA



MHS222/223



MHS233



| Tyco Electronics | Alcoswitch | Type |    |      |    | Contacts |
|------------------|------------|------|----|------|----|----------|
| 3-1437576-0      | MHS222RA   | DPDT | On | None | On | Silver   |
| 3-1437576-5      | MHS223RA   | DPDT | On | Off  | On | Silver   |
| 4-1437576-1      | MHS233RA   | DP3T | On | On   | On | Silver   |
| 2-1437576-7      | MHS222GRA  | DPDT | On | None | On | Gold     |
| 3-1437576-3      | MHS223GRA  | DPDT | On | Off  | On | Gold     |
| 3-1437576-8      | MHS233GRA  | DP3T | On | On   | On | Gold     |

**Slide Switches, Micro Size, Instrumentation Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver clad plate over copper alloy  
 Cover Base Material .....Polyester  
 Actuator Material .....Polyacetal  
 Terminals .....Silver over nickel plate over copper alloy  
 Terminal Seal .....Molded in

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....100 Milliamps @ 12 VDC  
 Initial Contact Resistance .....20 Milliohms max.  
 Contact Timing .....Make before break  
 Insulation Resistance .....100 Megohms min.  
 Dielectric Strength .....500 Volts RMS @ sea level  
 Actuation Force .....250 Grams, (+200g, -150g)  
 Actuator Travel .....0.079" (2.01)  
 Life Expectancy .....Up to 10,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....+14°F to +140°F (-10°C to +60°C)  
 Storage Temperature .....-4°F to +140°F (-20°C to +60°C)  
 Solder Heat Resistance .....270°C+10°C, 5 seconds per MIL-STD-202, Method 210

**B**  
SSJ Series

**PCB Hole Layout**

SPDT

SSJ12

**Part Number**

| Tyco Electronics | Alcoswitch | Plating | Mounting Style |
|------------------|------------|---------|----------------|
| 3-1437575-1      | SSJ12      | Silver  | Upright        |

Circuit Diagram

**PCB Hole Layout**

SPDT

SSJ12R

**Part Number**

| Tyco Electronics | Alcoswitch | Plating | Mounting Style |
|------------------|------------|---------|----------------|
| 3-1437575-2      | SSJ12R     | Silver  | Right Angle    |

Circuit Diagram

**PCB Hole Layout**

SP3T

SSJ13

**Part Number**

| Tyco Electronics | Alcoswitch | Plating | Mounting Style |
|------------------|------------|---------|----------------|
| 3-1437575-3      | SSJ13      | Silver  | Upright        |

Circuit Diagram

**Slide Switches, Micro Size, Instrumentation Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver over nickel over copper alloy  
 Case Material .....Polyacetal UL94HB  
 Actuator Material .....Polyester UL94HB  
 Terminals .....Silver over nickel over copper alloy  
 Terminal Seal .....Epoxy  
 Terminal Board.....UL 94 V-O

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....+14°F to +140°F (-10°C to +60°C)  
 Storage Temperature.....+14°F to +140°F (-10°C to +60°C)  
 Solder Heat Resistance.....230 ± 150 grams ± 5°C for 3 seconds per MIL-STD-202, Method 210

**TYPICAL PERFORMANCE CHARACTERISTICS:**

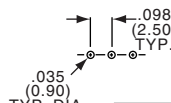
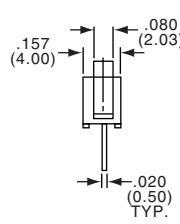
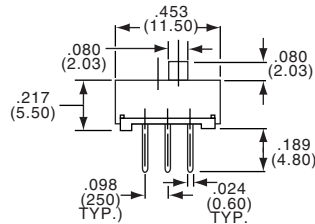
Contact Rating .....100 mA @ 30 VDC or peak AC  
 Initial Contact Resistance .....30 Milliohms max.  
 Contact Timing .....Make before break  
 Insulation Resistance .....100 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....200 ± 150 Grams  
 Life Expectancy .....Up to 10,000 Cycles

**B**  
MMS Series

**SPDT**



MMS12



Circuit Diagram

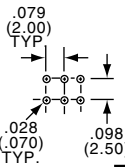
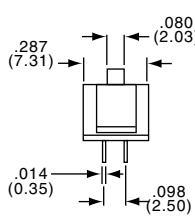
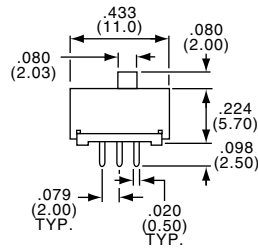


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 1437575-4        | MMS12      | SPDT | Silver  | Upright        |

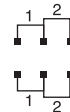
**DPDT**



MMS22



Circuit Diagram

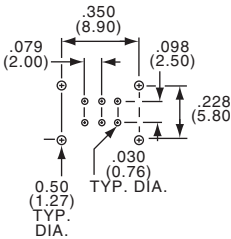
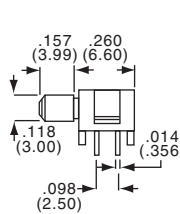
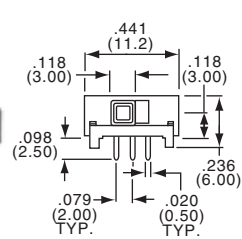


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 1437575-5        | MMS22      | DPDT | Silver  | Upright        |

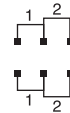
**DPDT**



MMS22R



Circuit Diagram

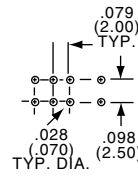
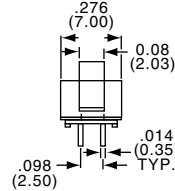
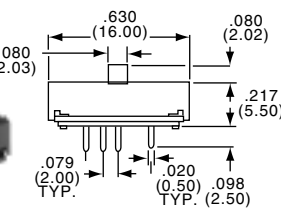


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 1437575-6        | MMS22R     | DPDT | Silver  | Right Angle    |

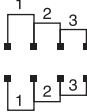
**DP3T**



MMS23



Circuit Diagram

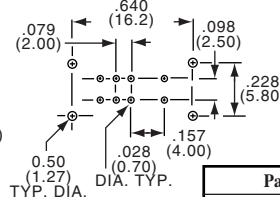
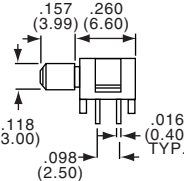
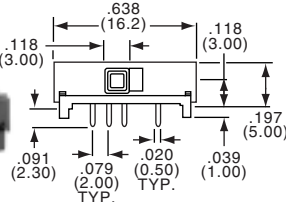


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 1437575-8        | MMS23      | DP3T | Silver  | Upright        |

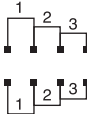
**DP3T**



MMS23R



Circuit Diagram

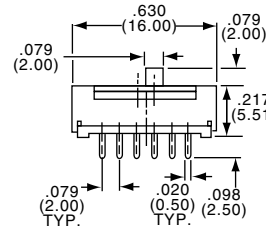
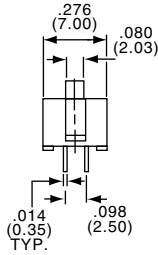
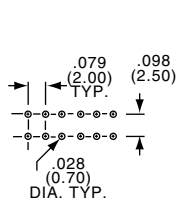
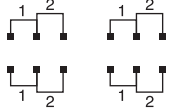


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 1437575-9        | MMS23R     | DP3T | Silver  | Right Angle    |

**Slide Switches, Micro Size, Instrumentation Grade**

SEE PAGE B36 FOR PRODUCT SPECIFICATIONS

Circuit Diagram

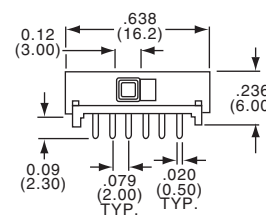
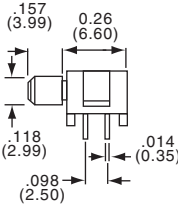
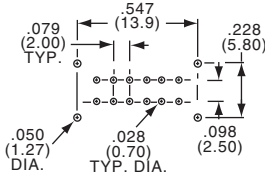
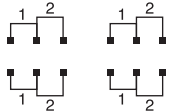


4PDT

MMS42

| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| I-1437575-0      | MMS42      | 4PDT | Silver  | Upright        |

Circuit Diagram

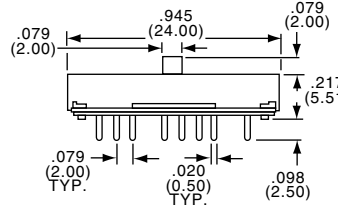
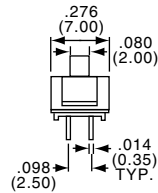
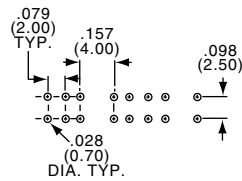
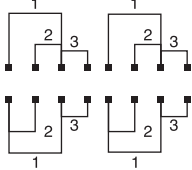


4PDT

MMS42R

| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| I-1437575-1      | MMS42R     | 4PDT | Silver  | Right Angle    |

Circuit Diagram

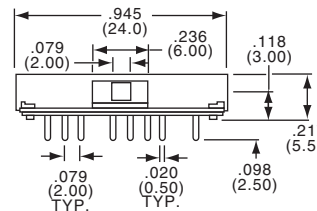
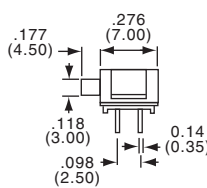
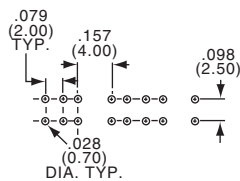
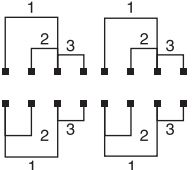


4P3T

MMS43

| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| I-1437575-2      | MMS43      | 4P3T | Silver  | Upright        |

Circuit Diagram



4P3T

MMS43R

| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| I-1437575-3      | MMS43R     | 4P3T | Silver  | Right Angle    |

**Slide Switches, Micro Size, Instrumentation Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Gold or silver plate over nickel plate  
 Case Material .....Steel, tin plate  
 Actuator Material .....Polyacetal UL94HB  
 Terminals .....Gold or silver plate over nickel plate  
 Terminal Seal .....Epoxy

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....-4°F to +176°F (-20°C to +80°C)  
 Storage Temperature.....-40°F to +212°F (-40°C to +100°C)  
 Solder Heat Resistance.....+260°C (+500°F) for 5 seconds  
 per MIL-STD-202, Method 210

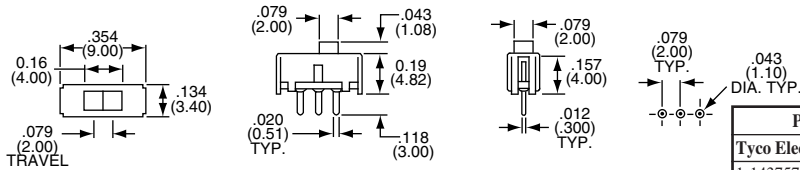
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....Gold: 0.4 VA @ 20 VDC or peak AC  
 Silver: 100 mA @ 30 VDC  
 Initial Contact Resistance.....30 Milliohms max.  
 Contact Timing.....Make before break  
 Insulation Resistance .....100 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....250 ± 150 Grams  
 Life Expectancy .....Up to 10,000 Cycles  
 Travel .....0.079" (2.01)

**SPDT**



SSB12



Circuit Diagram

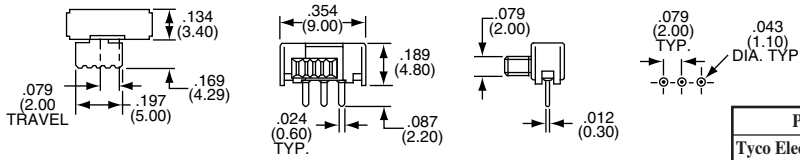


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 1-1437575-8      | SSB12      | SPDT | Silver  | Upright        |
| 1-1437575-9      | SSB12G     | SPDT | Gold    | Upright        |

**SPDT**



SSB12R



Circuit Diagram

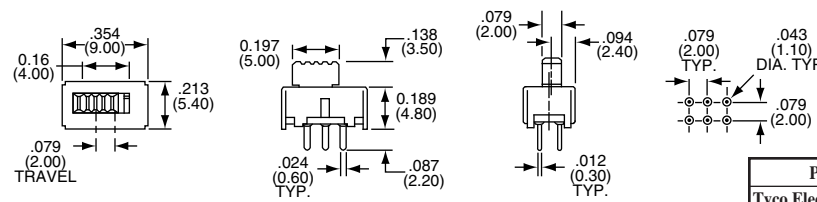


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 2-1437575-0      | SSB12R     | SPDT | Silver  | Right Angle    |
| 2-1437575-1      | SSB12RG    | SPDT | Gold    | Right Angle    |

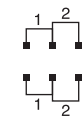
**DPDT**



SSB22



Circuit Diagram

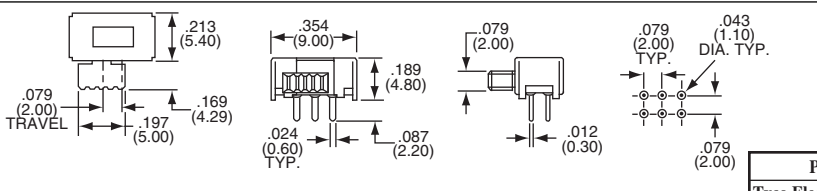


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 2-1437575-2      | SSB22      | DPDT | Silver  | Upright        |
| 2-1437575-3      | SSB22G     | DPDT | Gold    | Upright        |

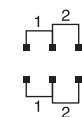
**DPDT**



SSB22R



Circuit Diagram

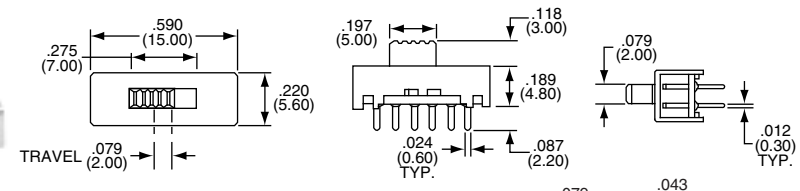


| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 2-1437575-4      | SSB22R     | DPDT | Silver  | Right Angle    |
| 2-1437575-5      | SSB22RG    | DPDT | Gold    | Right Angle    |

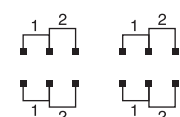
**4PDT**



SSB42



Circuit Diagram



| Part Number      |            |      |         |                |
|------------------|------------|------|---------|----------------|
| Tyco Electronics | Alcoswitch | Type | Plating | Mounting Style |
| 2-1437575-8      | SSB42      | 4PDT | Silver  | Upright        |
| 2-1437575-9      | SSB42G     | 4PDT | Gold    | Upright        |

**Slide Switches, Micro Size, Instrumentation Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver or gold plate  
 Case Material .....Polyester PPS UL94VO  
 Actuator Material .....Polyamide UL94HB  
 Cover Material .....Polyamide UL94HB  
 Terminals .....Silver or gold plate  
 Terminal Seal .....Epoxy

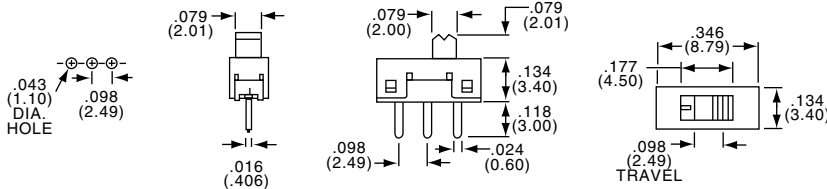
**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....-4°F to +158°F (-20°C to +70°C)  
 Storage Temperature.....-40°F to +194°F (-40°C +90°C)  
 Solder Heat Resistance.....260°C (+500°F) for 5 seconds  
 per MIL-STD-202, Method 210

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....Gold: 0.4 VA max. @ 20 VDC or peak AC  
 Silver: 100 Milliamps @ 30 VDC  
 Initial Contact Resistance .....30 Milliohms max.  
 Contact Timing.....Break-Before-Make  
 Insulation Resistance .....100 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....250 ± 100 Grams  
 Actuator Travel.....0.098" (2.49)  
 Life Expectancy .....Up to 10,000 Cycles

**SPDT**



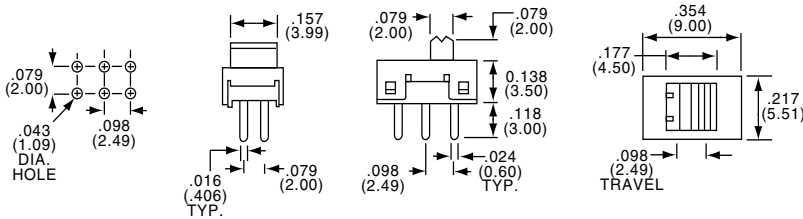
SSA12

Circuit Diagram



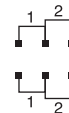
| Part Number      |            |         |                |
|------------------|------------|---------|----------------|
| Tyco Electronics | Alcoswitch | Plating | Mounting Style |
| 1-1437575-4      | SSA12      | Silver  | Upright        |
| 1-1437575-5      | SSA12G     | Gold    | Upright        |

**DPDT**



SSA22

Circuit Diagram



| Part Number      |            |         |                |
|------------------|------------|---------|----------------|
| Tyco Electronics | Alcoswitch | Plating | Mounting Style |
| 1-1437575-6      | SSA22      | Silver  | Upright        |
| 1-1437575-7      | SSA22G     | Gold    | Upright        |

**Slide Switches, PC Tails, Wiping Contact, Consumer Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver plate over copper alloy  
 Case Material .....Steel  
 Actuator Material .....Polycarbonate  
 Terminals/Fixed Contacts.....Silver plate over copper alloy  
 Terminal Seal .....Epoxy

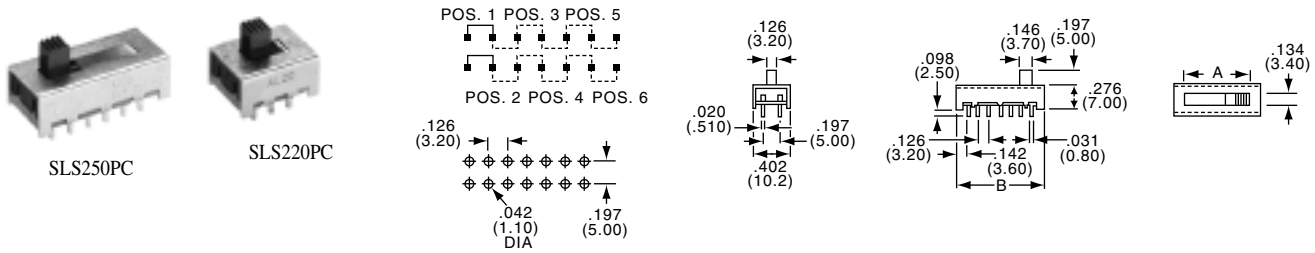
**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....14°F to +140°F (-10°C to +60°C)  
 Storage Temperature.....14°F to +140°F (-10°C to +60°C)

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....250 mA @ 125 VAC, 150 mA @ 12 VDC  
 Initial Contact Resistance .....30 Milliohms max.  
 Contact Timing .....Break before make  
 Insulation Resistance .....500 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....100-300 Grams  
 Actuator Travel.....0.126" (3.20)  
 Life Expectancy .....Up to 10,000 Cycles

**2 TO 6 POSITIONS**

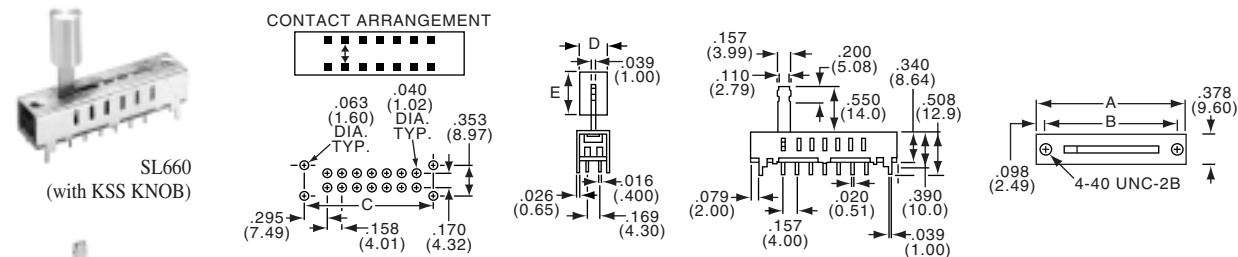


| Part Number      |            | Type        | Dim.A       | Dim.B        |
|------------------|------------|-------------|-------------|--------------|
| Tyco Electronics | Alcoswitch |             |             |              |
| 3-1437577-9      | SLS220PC   | 2 Positions | .272(6.91)  | .535(13.59)  |
| 4-1437577-1      | SLS230PC   | 3 Positions | .398(10.11) | .661(16.79)  |
| 4-1437577-3      | SLS240PCA  | 4 Positions | .524(13.31) | .787(19.99)  |
| 4-1437577-5      | SLS250PC   | 5 Positions | .650(16.51) | .913(23.19)  |
| 4-1437577-7      | SLS260PC   | 6 Positions | .776(19.71) | 1.039(26.39) |

**SL Series**

**Slide Switches, PC Tails, Lever or Knob Actuator**

**2 TO 10 POSITIONS**



| Part Number      |            | Type         | Dim. A      | Dim. B      | Dim. C      | Knob Only | Description            | Dim. D     | Dim. E      |
|------------------|------------|--------------|-------------|-------------|-------------|-----------|------------------------|------------|-------------|
| Tyco Electronics | Alcoswitch |              |             |             |             |           |                        |            |             |
| 1437577-9        | SL220      | 2 Positions  | .95(24.13)  | .750(19.05) | .750(19.05) | KSS10A    | Aluminum-Clear Anodize | .270(6.86) | .500(12.70) |
| 1-1437577-0      | SL330      | 3 Positions  | 1.11(28.19) | .910(23.1)  | .910(23.1)  | KSS10B    | Aluminum-Black Anodize | .270(6.86) | .500(12.70) |
| 1-1437577-1      | SL550      | 5 Positions  | 1.42(36.07) | 1.22(30.99) | 1.22(31.1)  | KSS20A    | Aluminum-Clear Anodize | .305(7.75) | .512(13.00) |
| 1-1437577-2      | SL660      | 6 Positions  | 1.58(40.13) | 1.38(35.05) | 1.38(35.1)  | KSS20B    | Aluminum-Black Anodize | .305(7.75) | .512(13.00) |
| 1-1437577-3      | SL770      | 7 Positions  | 1.74(44.20) | 1.54(39.12) | 1.54(39.1)  |           |                        |            |             |
| 1-1437577-4      | SL880      | 8 Positions  | 1.89(48.01) | 1.70(43.18) | 1.70(43.1)  |           |                        |            |             |
| 1437577-8        | SL1000     | 10 Positions | 2.21(56.13) | 2.01(51.05) | 2.01(51.5)  |           |                        |            |             |



**Slide Switches, Panel Mount, Wiping Contact, Consumer Grade**

**MATERIAL SPECIFICATIONS:**

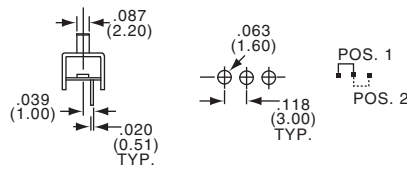
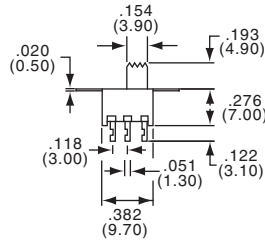
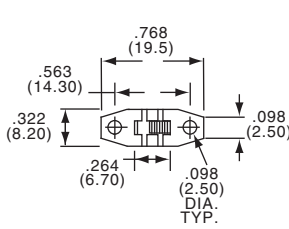
Contacts .....Silver over nickel plate copper alloy  
 Case Material .....Steel-zinc plated  
 Actuator Material .....PBT 30% glass  
 Terminals/Fixed Contacts.....Silver over nickel plate copper alloy  
 Terminal Seal .....Epoxy

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....-4°F to +185°F (-20°C to +85°C)  
 Storage Temperature.....-40°F to +212°F (-40°C to +100°C)  
 Solder Heat Resistance .....+300°C (+572°F) for 5 seconds

**TYPICAL PERFORMANCE CHARACTERISTICS:**

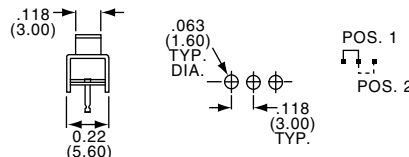
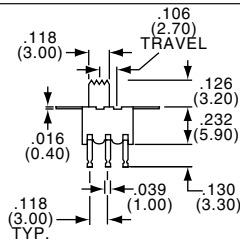
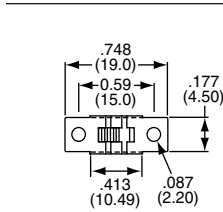
Contact Rating .....500 mA @ 125 VAC, 200 mA @ 12 VDC  
 Initial Contact Resistance .....30 Milliohms max.  
 Contact Timing .....Break-Before-Make  
 Insulation Resistance .....500 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....SLS: 100-300 Grams; SLSA: 220, 300 -500 Grams  
 Plunger/Actuator Travel: .....0.106" (2.69)  
 Life Expectancy .....Up to 10,000 Cycles



SPDT

SLS120

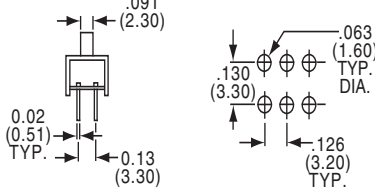
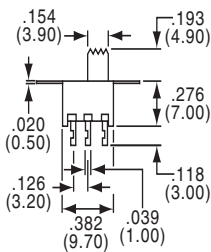
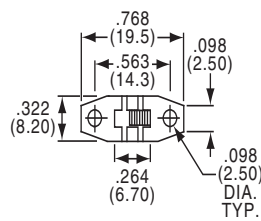
| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 1-1437577-5      | SLS120     | SPDT | Panel    | Lug                |



SPDT

SLSA120

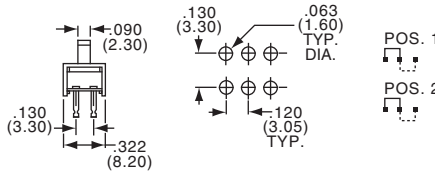
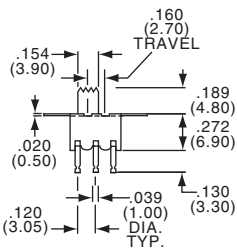
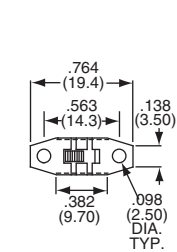
| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 5-1437577-3      | SLSA120    | SPDT | Panel    | Turret             |



DPDT

SLS220

| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 3-1437577-7      | SLS220     | DPDT | Panel    | Lug                |



DPDT

SLSA220

| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 5-1437577-5      | SLSA220    | DPDT | Panel    | Turret             |

**Slide Switches, Wiping Contacts, Consumer Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper alloy-silver/nickel  
 Case Material .....Steel-zinc plate  
 Actuator Material .....PBT 30% Glass  
 Terminals/Fixed Contacts.....Copper, alloy, silver/nickel plate  
 Terminal Seal .....Epoxy

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....-4°F to + 185°F (-20°C to + 85°C)  
 Storage Temperature.....-40°F to + 212°F (-40°C to + 100°C)  
 Solder Heat Resistance .....+300°C (+572°F) for 5 seconds

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....500 mA @ 125 VAC, 200 mA @ 12 VDC  
 Initial Contact Resistance .....30 Milliohms max.  
 Contact Timing .....Break before make  
 Insulation Resistance .....500 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....350±150 Grams  
 Plunger/Actuator Travel: .....0.106 (2.69)  
 Life Expectancy .....Up to 10,000 Cycles

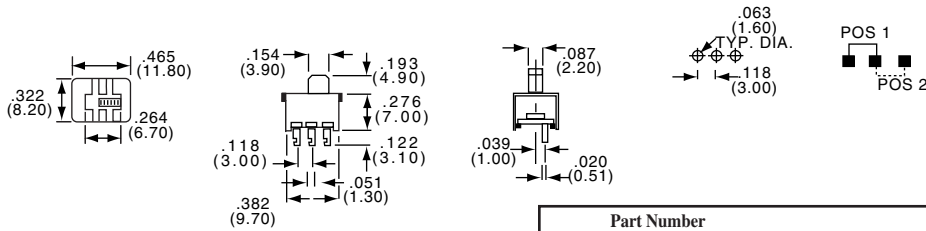
**B**  
SLS/SLSA Series

**SPDT**



Lug

SLS1201



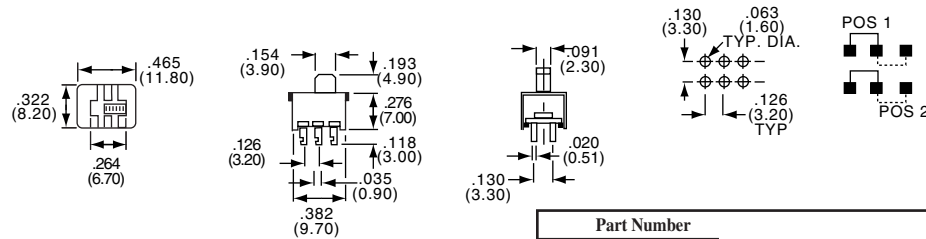
| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 1-1437577-6      | SLS1201    | SPDT | PC       | Lug                |

**DPDT**



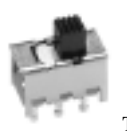
Lug

SLS2201



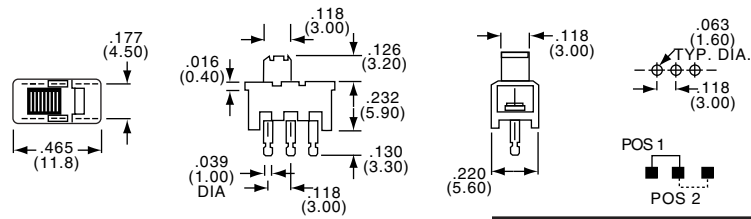
| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 3-1437577-8      | SLS2201    | DPDT | PC       | Lug                |

**SPDT**



Turret

SLSA1201



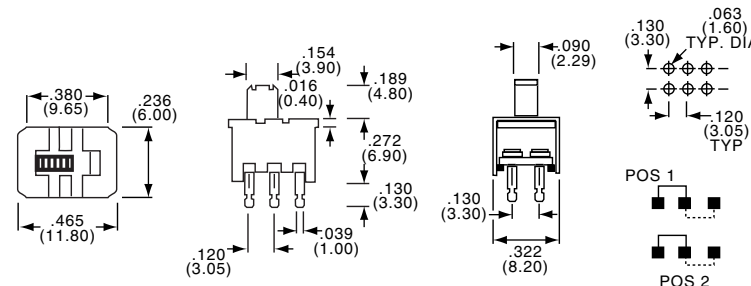
| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 5-1437577-4      | SLSA1201   | SPDT | PC       | Turret             |

**DPDT**



Turret

SLSA2201



| Part Number      |            |      |          |                    |
|------------------|------------|------|----------|--------------------|
| Tyco Electronics | Alcoswitch | Type | Mounting | Terminals Contacts |
| 5-1437577-6      | SLSA2201   | DPDT | PC       | Turret             |

**Slide Switches, Miniature, Rolling Contact, Economy Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver over nickel plate over copper alloy  
 Case Material .....Tin plate over steel  
 Actuator Material .....Polycarbonate  
 Terminals/Fixed Contacts.....Silver over nickel plate over copper alloy

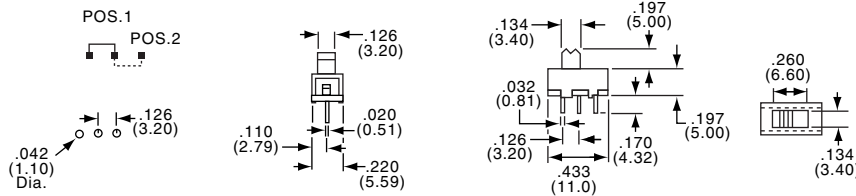
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....250 mA @ 125 VAC, 150 mA @ 12 VDC  
 Initial Contact Resistance .....30 Milliohms max.  
 Contact Timing .....Break before make  
 Insulation Resistance .....500 Megohms min.  
 Dielectric Strength .....500 VAC  
 Actuation Force .....340 ± 57 Grams  
 Actuator Travel.....0.126" (3.20)  
 Life Expectancy .....Up to 6,000 to 10,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....14°F to +185°F (-10°C to +85°C)  
 Storage Temperature.....14°F to +185°F (-10°C to +85°C)

**B**  
SLS Series

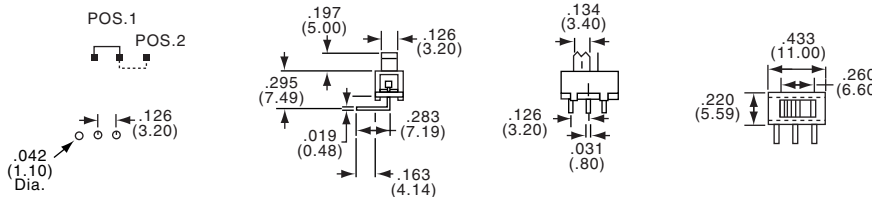


SPDT



SLS121PC

| Part Number      |            |                 |
|------------------|------------|-----------------|
| Tyco Electronics | Alcoswitch | Mounting Style  |
| 1-1437577-9      | SLS121PC   | Printed Circuit |

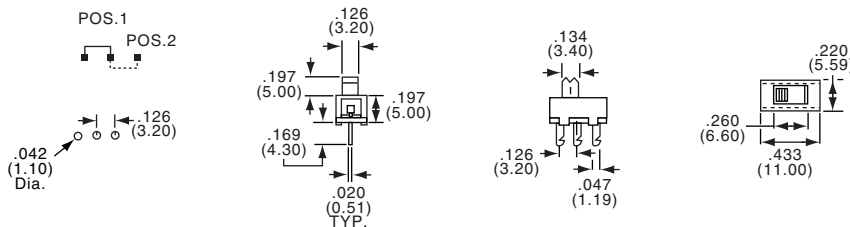


SPDT



SLS121RA

| Part Number      |            |                |
|------------------|------------|----------------|
| Tyco Electronics | Alcoswitch | Mounting Style |
| 2-1437577-2      | SLS121RA   | Right Angle PC |

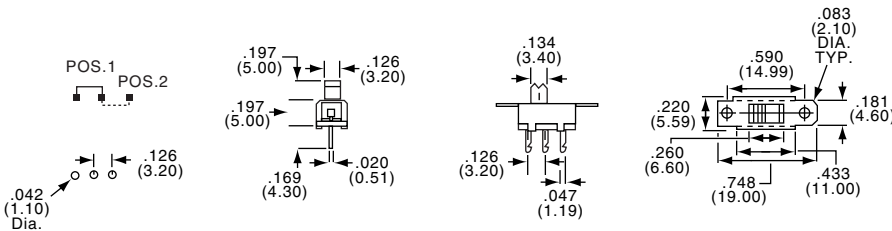


SPDT



SLS1211

| Part Number      |            |                 |
|------------------|------------|-----------------|
| Tyco Electronics | Alcoswitch | Mounting Style  |
| 1-1437577-8      | SLS1211    | Printed Circuit |



SPDT



SLS121

| Part Number      |            |                |
|------------------|------------|----------------|
| Tyco Electronics | Alcoswitch | Mounting Style |
| 1-1437577-7      | SLS121     | Panel Mounted  |

**Slide Switches, Miniature, Rolling Contact, Economy Grade**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver over nickel flash over copper alloy  
 Case Material .....Steel  
 Actuator Material .....Polycarbonate  
 Terminals/Fixed Contacts.....Silver over nickel over copper alloy

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....+14°F to +185°F (-10°C to +85°C)  
 Storage Temperature.....+14°F to +185°F (-10°C to +85°C)  
 Solder Heat Resistance.....+260°C for 5 seconds

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....250mA @ 125 VAC  
 150mA @ 12VDC  
 Initial Contact Resistance .....20 Milliohms max.  
 Contact Timing .....Break-Before-Make  
 Insulation Resistance .....>50 Megohms.  
 Dielectric Strength .....500 Volts RMS @ sea level  
 Actuation Force .....340 ± 57 Grams  
 Plunger/Actuator Travel: .....0.260" to 0.512" (6.60-13.00)  
 Life Expectancy .....Up to 10,000 Cycles at no load

**B**  
SLS Series

**SP3T**

**SLS131PC**

| Part Number      |            |                 |
|------------------|------------|-----------------|
| Tyco Electronics | Alcoswitch | Mounting Style  |
| 2-1437577-4      | SLS131PC   | Printed Circuit |

**SP3T**

**SLS131RA**

| Part Number      |            |                |
|------------------|------------|----------------|
| Tyco Electronics | Alcoswitch | Mounting Style |
| 2-1437577-6      | SLS131RA   | Right Angle PC |

**SP4T**

**SLS141PC**

| Part Number      |            |                 |
|------------------|------------|-----------------|
| Tyco Electronics | Alcoswitch | Mounting Style  |
| 2-1437577-8      | SLS141PC   | Printed Circuit |

**SP4T**

**SLS141RA**

| Part Number      |            |                |
|------------------|------------|----------------|
| Tyco Electronics | Alcoswitch | Mounting Style |
| 3-1437577-0      | SLS141RA   | Right Angle PC |

**SP5T**

**SLS151PC**

| Part Number      |            |                 |
|------------------|------------|-----------------|
| Tyco Electronics | Alcoswitch | Mounting Style  |
| 3-1437577-2      | SLS151PC   | Printed Circuit |

**SP5T**

**SLS151RA**

| Part Number      |            |                |
|------------------|------------|----------------|
| Tyco Electronics | Alcoswitch | Mounting Style |
| 3-1437577-4      | SLS151RA   | Right Angle PC |

**Slide Switches, Baton-Toggle, Multi Pole**

**MATERIAL SPECIFICATIONS:**

Contacts .....Silver clad over nickel plated copper alloy  
 Case Material .....Steel, tin plate  
 Actuator Material .....ABS plastic/Aluminum cap  
 Terminals/Fixed Contacts.....Silver over nickel plated copper alloy  
 Terminal Seal .....Epoxy

**ENVIRONMENTAL SPECIFICATIONS:**

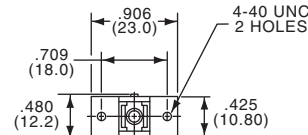
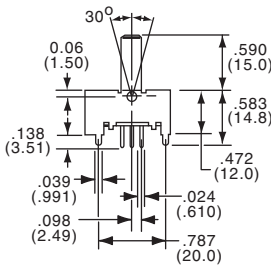
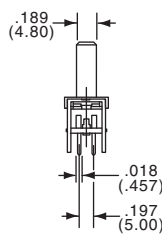
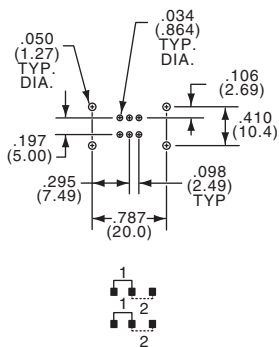
Operating Temperature.....+5°F to +131°F (-15°C to +55°C)  
 Storage Temperature.....-4°F to +140° F (-20°C to +60°C)  
 Solder Heat Resistance.....Hand: 300°C for 3 seconds  
 Wave: 250°C for 5 seconds

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....300 mA @ 125 VAC, 200 mA @ 12VDC  
 Initial Contact Resistance .....20 Milliohms max.  
 Contact Timing .....See table below  
 Insulation Resistance .....500 Megohms min.  
 Dielectric Strength .....500 Volts RMS @ sea level  
 Actuation Force .....450 ± 250 Grams  
 Plunger/Actuator Travel .....30°  
 Life Expectancy .....Up to 10,000 Cycles

**B**  
CST Series

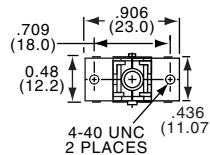
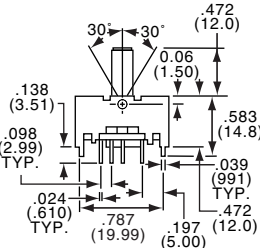
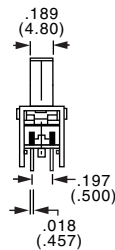
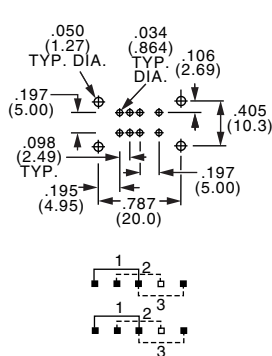
**DPDT**



CST022NK

| Part Number      |            |      |    |    | Contact Timing   |
|------------------|------------|------|----|----|--|
| Tyco Electronics | Alcoswitch |      |    |    |  |
| 1437576-2        | CST022NK   | None | On | On | Non Shorting - Break-Before-Make<br>(On) indicates momentary position. |

**DP3T**



CST023NK

| Part Number      |            |    |    |    | Contact Timing |
|------------------|------------|----|----|----|----------------|
| Tyco Electronics | Alcoswitch |    |    |    |                |
| 1437576-4        | CST023NK   | On | On | On | Non Shorting   |

**Slide Switches, Baton-Toggle, Multi Pole**

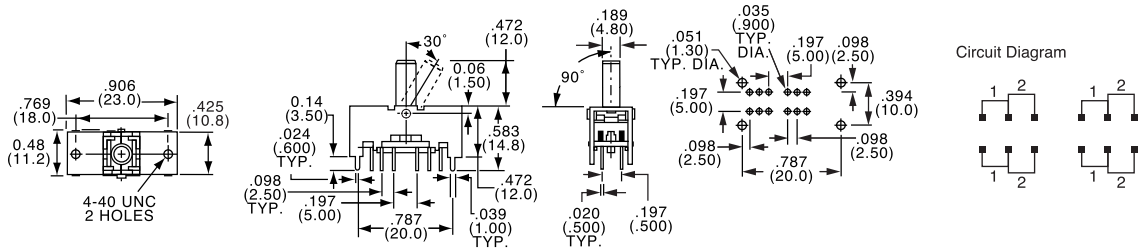
SEE PAGE B45 FOR PRODUCT SPECIFICATIONS

**B**  
CST Series

4PDT



CST042NK

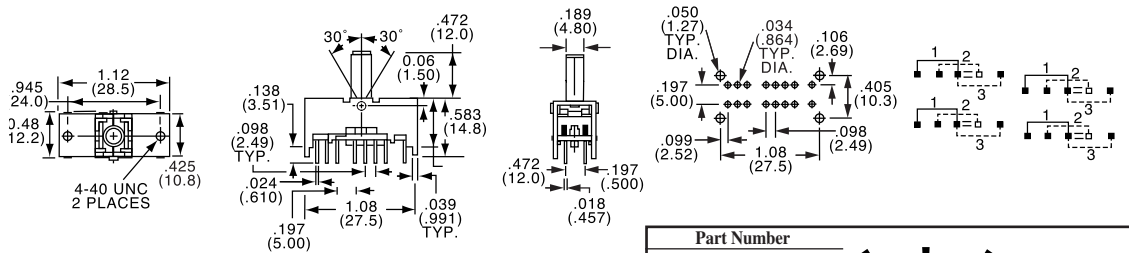


| Part Number      |            |      |    |    |                |
|------------------|------------|------|----|----|----------------|
| Tyco Electronics | Alcoswitch |      |    |    | Contact Timing |
| 1437576-5        | CST042NK   | None | On | On | Non Shorting   |

4P3T



CST043NK

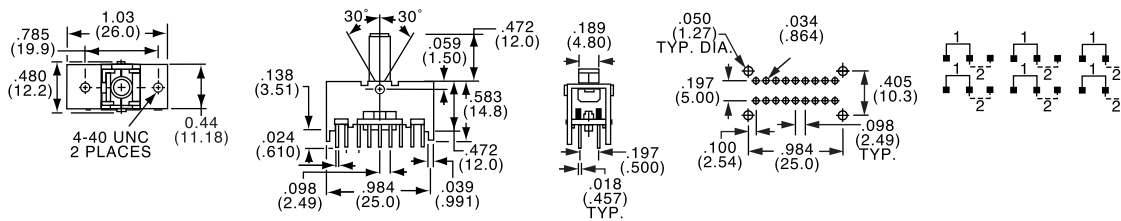


| Part Number      |            |    |    |    |                |
|------------------|------------|----|----|----|----------------|
| Tyco Electronics | Alcoswitch |    |    |    | Contact Timing |
| 1437576-6        | CST043NK   | On | On | On | Non Shorting   |

6PDT



CST062NK



| Part Number      |            |      |    |    |                |
|------------------|------------|------|----|----|----------------|
| Tyco Electronics | Alcoswitch |      |    |    | Contact Timing |
| 1437576-7        | CST062NK   | None | On | On | Non Shorting   |

**Slide Switches, Miniature, Right Angle, Surface Mount**

**MATERIAL SPECIFICATIONS:**

Contacts .....BeCu, copper alloy, 1 micron silver plate  
 Case Material .....40% G.F. PPS, UL94V-0  
 Frame .....Stainless steel, silver plated  
 Actuator Material .....Nylon, UL94HB polyamide  
 Terminals .....Brass, copper alloy, 1 micron silver plate  
 Terminal Seal .....Epoxy

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....0.3 Amp, 4 VDC  
 Initial Contact Resistance .....70 Milliohms  
 Insulation Resistance .....100 Megohms min.  
 Dielectric Strength .....100 VAC min.  
 Actuation Force .....175 ±100 Grams  
 Life Expectancy .....Up to 10,000 Cycles  
 Travel .....0.059 (1.5mm)

**ENVIRONMENTAL SPECIFICATIONS:**

Humidity .....MIL-STD-202, Method 103, Condition B  
 Moisture Resistance .....MIL-STD-202, Method 106  
 Thermal Shock .....MIL-STD-202, Method 107, Condition A  
 Solder Heat Resistance ...230°C per EIA 364-56 Level 2

**SPDT**

**CIRCUIT DIAGRAM**

MLL1200S

| Part Number      |            |      |
|------------------|------------|------|
| Tyco Electronics | Alcoswitch | Type |
| 1437575-1        | MLL1200S   | SPDT |
| 1437575-2        | MLL1200STR | SPDT |

**SP3T**

**CIRCUIT DIAGRAM**

MLL1300S

| Part Number      |            |      |
|------------------|------------|------|
| Tyco Electronics | Alcoswitch | Type |
| 1437575-3        | MLL1300S   | SP3T |