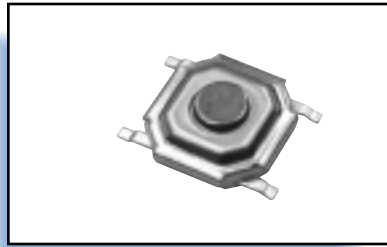
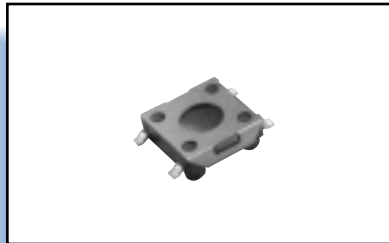




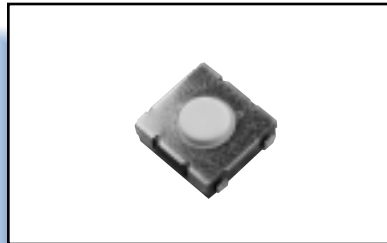
*FSM Series - Page E3*



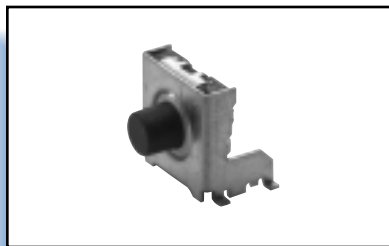
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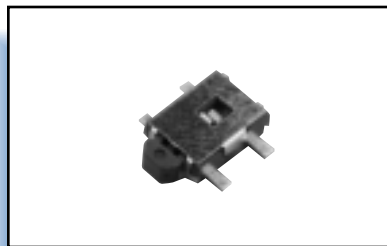
*Low Profile Series - Page E12*



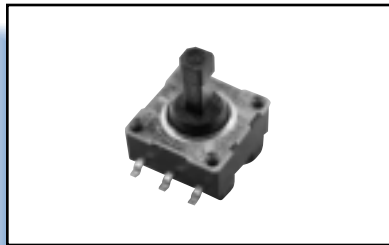
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# Tactile

E

Tactile Switches

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**E**  
Tactile Switches

**Tactile Switches, .138 [3.5] x .236 [6], Through Hole**

**MATERIAL SPECIFICATIONS:**

Contacts .....Stainless/Silver clad plate  
 Case Material .....Nylon  
 Actuator Material .....PBT  
 Terminals/Fixed Contacts.....Copper alloy, Silver/Nickel

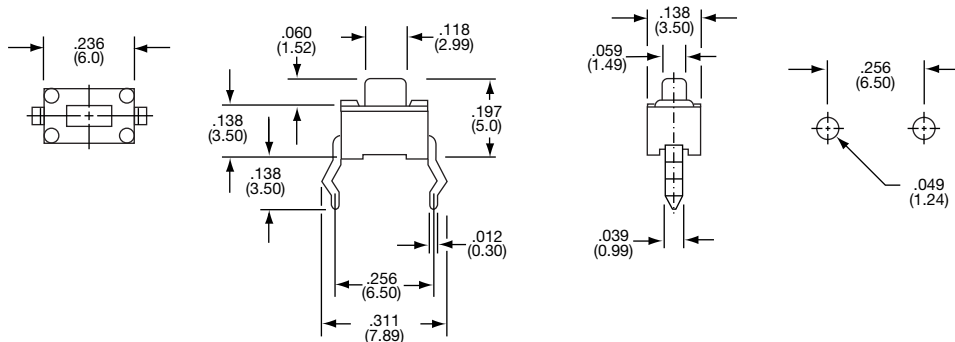
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 500 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....130±50 Grams  
 Actuator Travel......010"(.254)  
 Life Expectancy .....Up to 20,000 Cycles



**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature.....-40°F to +185°F (-40°C to + 85°C)  
 Storage Temperature.....-40°F to +185°F (-40°C to + 85°C)  
 Solder Heat Resistance .....See Page M3-4

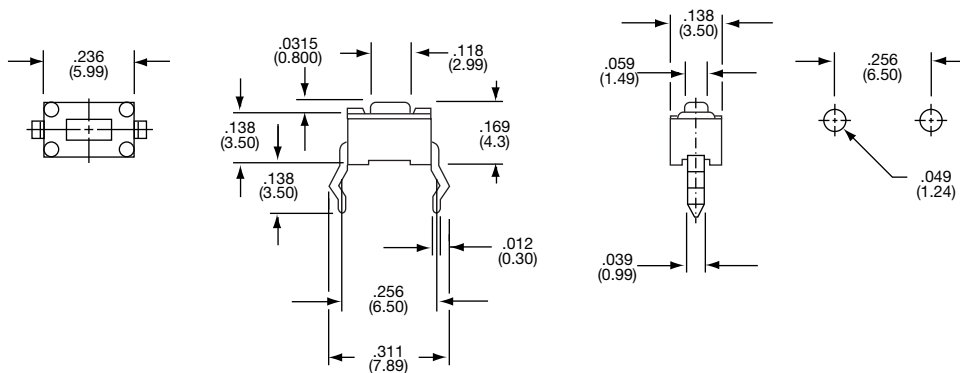
3.5 x 6mm





FSM

Tyco Electronics	Alcoswitch	Type		
1437565-1	FSM	SPST	Off	(On) (On) indicates momentary position.

3.5 x 6mm



FSMC

Tyco Electronics	Alcoswitch	Type		
7-1437565-6	FSMC	SPST	Off	(On) (On) indicates momentary position.

**Tactile Switches, .236 [6] x .236 [6], Through Hole**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper alloy, silver plate  
 Case.....Polyamide  
 Actuator Button .....Polyacetal Resin  
 Frame .....Steel, tin plate  
 Terminals .....Copper alloy, silver plate

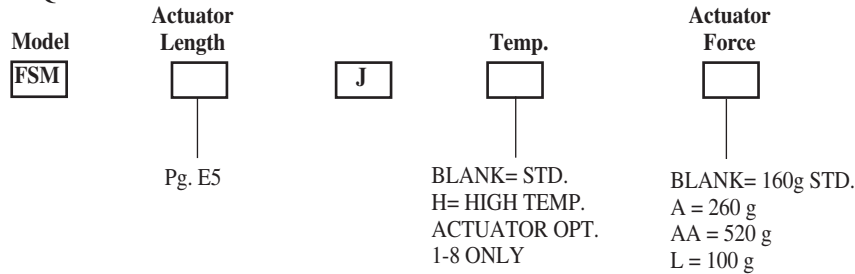
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC  
 Actuation Force .....See page E5  
 Actuator Travel......012" (0,3)  
 Electrostatic Discharge  
 w/ESD Ground Terminal .....5Kv w/no discharge  
 Life Expectancy .....Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS**

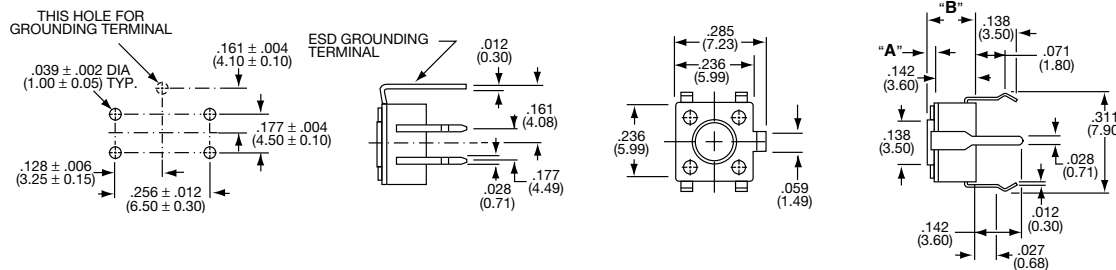
Operating Temperature.....-40°F to +221°F (-40°C to +105°C)  
 Storage Temperature.....-40°F to +221°F (-40°C to +105°C)  
 Solder Heat Resistance .....See Page M3-4

**PART NUMBERING SEQUENCE**



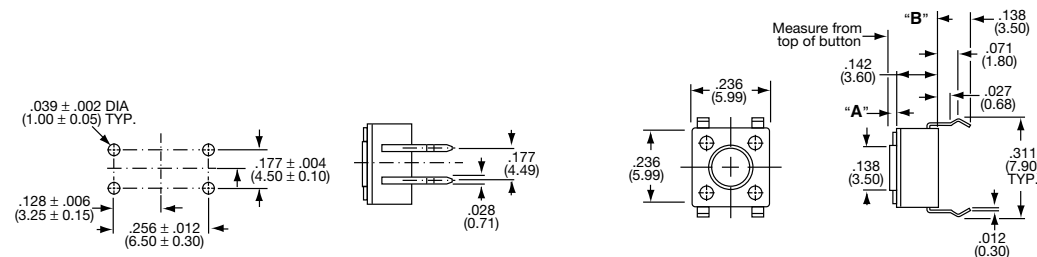
**E**  
FSMJ Series

6 x 6 mm



FSM1J WITH ESD TERMINAL

6 x 6 mm



FSM2J WITHOUT ESD TERMINAL

**Tactile Switches, .236 [6] x .236 [6], Through Hole (Continued)**

TYCO Electronics Part Number	ALCO Part Number	DIMENSIONS		Actuation Force	Actuator Material	Life Cycles
		A	B			
<b>With Ground Terminal</b>						
1-1437565-5	FSM1J	0.028 (0.70)	0.169 (4.30)	160±50gf	PBT	100,000
—	FSM1JAA	0.028 (0.70)	0.169 (4.30)	260±50gf	PBT	100,000
—	FSM1JAA	0.028 (0.70)	0.169 (4.30)	520±100gf	PBT	100,000
—	FSM1JL	0.028 (0.70)	0.169 (4.30)	100±50gf	PBT	100,000
3-1437565-3	FSM3J	0.055 (1.40)	0.196 (5.00)	160±50gf	PBT	100,000
—	FSM3JA	0.055 (1.40)	0.196 (5.00)	260±50gf	PBT	100,000
—	FSM3JAA	0.055 (1.40)	0.196 (5.00)	520±100gf	PBT	100,000
—	FSM3JL	0.055 (1.40)	0.196 (5.00)	100±50gf	PBT	100,000
4-1437565-4	FSM5J	0.134 (3.40)	0.276 (7.00)	160±50gf	ACETAL	100,000
—	FSM5JA	0.134 (3.40)	0.276 (7.00)	260±50gf	ACETAL	100,000
—	FSM5JAA	0.134 (3.40)	0.276 (7.00)	520±100gf	ACETAL	100,000
—	FSM5JL	0.134 (3.40)	0.276 (7.00)	100±50gf	ACETAL	100,000
5-1437565-1	FSM7J	0.232 (5.90)	0.374 (9.50)	160±50gf	PBT	100,000
—	FSM7JA	0.232 (5.90)	0.374 (9.50)	260±50gf	PBT	100,000
—	FSM7JAA	0.232 (5.90)	0.374 (9.50)	520±100gf	PBT	100,000
—	FSM7JL	0.232 (5.90)	0.374 (9.50)	100±50gf	PBT	100,000
7-1437565-5	FSM9J	0.146 (3.70)	0.287 (7.30)	160±50gf	ACETAL	100,000
—	FSM9JA	0.146 (3.70)	0.287 (7.30)	260±50gf	ACETAL	100,000
—	FSM9JAA	0.146 (3.70)	0.287 (7.30)	520±100gf	ACETAL	100,000
—	FSM9JL	0.146 (3.70)	0.287 (7.30)	100±50gf	ACETAL	100,000
1437565-8	FSM11J	0.173 (4.40)	0.315 (8.00)	160±50gf	ACETAL	100,000
—	FSM11JA	0.173 (4.40)	0.315 (8.00)	260±50gf	ACETAL	100,000
—	FSM11JAA	0.173 (4.40)	0.315 (8.00)	520±100gf	ACETAL	100,000
—	FSM11JL	0.173 (4.40)	0.315 (8.00)	100±50gf	ACETAL	100,000
1-1437565-0	FSM13J	0.370 (9.40)	0.512 (13.00)	160±50gf	ACETAL	100,000
1-1437565-1	FSM13JA	0.370 (9.40)	0.512 (13.00)	260±50gf	ACETAL	100,000
—	FSM13JAA	0.370 (9.40)	0.512 (13.00)	520±100gf	ACETAL	100,000
—	FSM13JL	0.370 (9.40)	0.512 (13.00)	100±50gf	ACETAL	100,000
—	FSM15J	0.527 (13.40)	0.669 (17.00)	160±50gf	ACETAL	100,000
147916-1	FSM15JA	0.527 (13.40)	0.669 (17.00)	260±50gf	ACETAL	100,000
—	FSM15JAA	0.527 (13.40)	0.669 (17.00)	520±100gf	ACETAL	100,000
—	FSM15JL	0.527 (13.40)	0.669 (17.00)	100±50gf	ACETAL	100,000
—	FSM17J	0.193 (4.90)	0.335 (8.51)	160±50gf	ACETAL	100,000
—	FSM17JA	0.193 (4.90)	0.335 (8.51)	260±50gf	ACETAL	100,000
—	FSM17JAA	0.193 (4.90)	0.335 (8.51)	520±100gf	ACETAL	100,000
—	FSM17JL	0.193 (4.90)	0.335 (8.51)	100±50gf	ACETAL	100,000
<b>Without Ground Terminal</b>						
2-1437565-0	FSM2J	0.028 (0.70)	0.169 (4.30)	160±50gf	PBT	100,000
2-1437565-1	FSM2JA	0.028 (0.70)	0.169 (4.30)	260±50gf	PBT	100,000
—	FSM2JAA	0.028 (0.70)	0.169 (4.30)	520±100gf	PBT	100,000
—	FSM2JL	0.028 (0.70)	0.169 (4.30)	100±50gf	PBT	100,000
2-1437565-4	FSM4J	0.055 (1.40)	0.196 (5.00)	160±50gf	PBT	100,000
3-1437565-6	FSM4JA	0.055 (1.40)	0.196 (5.00)	260±50gf	PBT	100,000
3-1437565-7	FSM4JAA	0.055 (1.40)	0.196 (5.00)	520±100gf	PBT	100,000
3-1437565-8	FSM4JL	0.055 (1.40)	0.196 (5.00)	100±50gf	PBT	100,000
4-1437565-5	FSM6J	0.134 (3.40)	0.276 (7.00)	160±50gf	ACETAL	100,000
4-1437565-6	FSM6JA	0.134 (3.40)	0.276 (7.00)	260±50gf	ACETAL	100,000
—	FSM6JAA	0.134 (3.40)	0.276 (7.00)	520±100gf	ACETAL	100,000
—	FSM6JL	0.134 (3.40)	0.276 (7.00)	100±50gf	ACETAL	100,000
5-1437565-2	FSM8J	0.232 (5.90)	0.374 (9.50)	160±50gf	PBT	100,000
5-1437565-3	FSM8JA	0.232 (5.90)	0.374 (9.50)	260±50gf	PBT	100,000
5-1437565-4	FSM8JAA	0.232 (5.90)	0.374 (9.50)	520±100gf	PBT	100,000
1571376-1	FSM8JL	0.232 (5.90)	0.374 (9.50)	100±50gf	PBT	100,000
1437565-7	FSM10J	0.146 (3.70)	0.287 (7.30)	160±50gf	ACETAL	100,000
—	FSM10JA	0.146 (3.70)	0.287 (7.30)	260±50gf	ACETAL	100,000
—	FSM10JAA	0.146 (3.70)	0.287 (7.30)	520±100gf	ACETAL	100,000
—	FSM10JL	0.146 (3.70)	0.287 (7.30)	100±50gf	ACETAL	100,000
1437565-9	FSM12J	0.173 (4.40)	0.315 (8.00)	160±50gf	ACETAL	100,000
—	FSM12JA	0.173 (4.40)	0.315 (8.00)	260±50gf	ACETAL	100,000
—	FSM12JAA	0.173 (4.40)	0.315 (8.00)	520±100gf	ACETAL	100,000
—	FSM12JL	0.173 (4.40)	0.315 (8.00)	100±50gf	ACETAL	100,000
1-1437565-2	FSM14J	0.370 (9.40)	0.512 (13.00)	160±50gf	ACETAL	100,000
—	FSM14JA	0.370 (9.40)	0.512 (13.00)	260±50gf	ACETAL	100,000
—	FSM14JAA	0.370 (9.40)	0.512 (13.00)	520±100gf	ACETAL	100,000
—	FSM14JL	0.370 (9.40)	0.512 (13.00)	100±50gf	ACETAL	100,000
1-1437565-3	FSM16J	0.527 (13.40)	0.669 (17.00)	160±50gf	ACETAL	100,000
—	FSM16JA	0.527 (13.40)	0.669 (17.00)	260±50gf	ACETAL	100,000
—	FSM16JAA	0.527 (13.40)	0.669 (17.00)	520±100gf	ACETAL	100,000
—	FSM16JL	0.527 (13.40)	0.669 (17.00)	100±50gf	ACETAL	100,000
1-1437565-4	FSM18J	0.193 (4.90)	0.335 (8.51)	160±50gf	ACETAL	100,000
—	FSM18JA	0.193 (4.90)	0.335 (8.51)	260±50gf	ACETAL	100,000
—	FSM18JAA	0.193 (4.90)	0.335 (8.51)	520±100gf	ACETAL	100,000
—	FSM18JL	0.193 (4.90)	0.335 (8.51)	100±50gf	ACETAL	100,000

**FSMJ Series**

**Tactile Switches, .236 [6] x .236 [6], Radial Tape**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper alloy, silver clad plate  
 Case.....Nylon  
 Actuator Button .....PBT  
 Cover.....Steel, tin plate  
 Terminals .....Copper alloy, silver clad plate

**TYPICAL PERFORMANCE CHARACTERISTICS:**

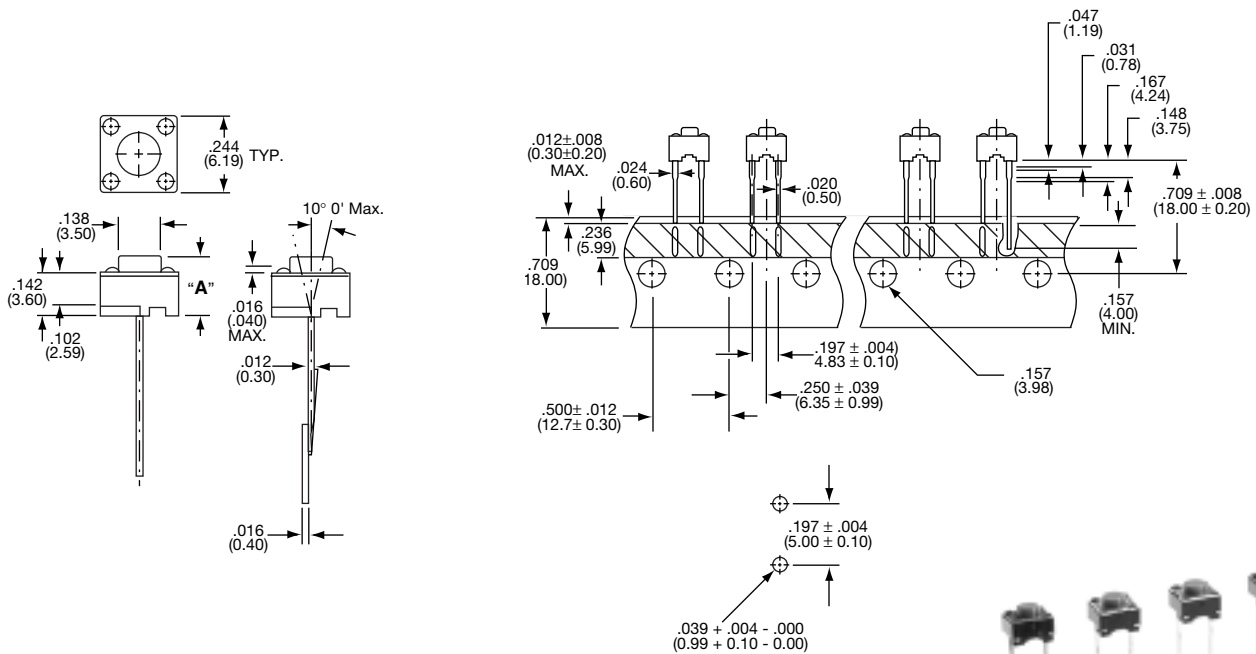
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See Below  
 Actuator Travel......010" (.254)  
 Life Expectancy .....Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS**

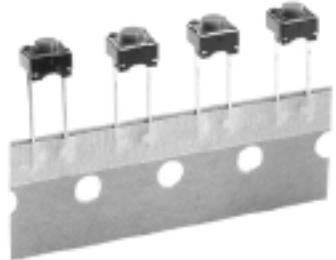
Operating Temperature..... -40°F to +221°F (-40°C to +105°C)  
 Storage Temperature.....-40°F to +221°F (-40°C to +105°C)  
 Solder Heat Resistance .....See Page M3-4

E

FSMJRT Series



Tyco Electronics	Alcoswitch	Dimension A	Actuation Force
2-1437565-6	FSM2JRT	4.3 (.169)	160 +/-50 gm
2-1437565-2	FSM2JART	4.3 (.169)	260 +/-75 gm
4-1437565-0	FSM4JRT	5.0 (.197)	160 +/-50 gm
147997-1	FSM4JART	5.0 (.197)	260 +/-75 gm
4-1437565-8	FSM6JRT	7.0 (.276)	160 +/-50 gm
1571402-1	FSM6JART	7.0 (.276)	260 +/-75 gm
147694-1	FSM8JRT	9.5 (.374)	160 +/-50 gm
147871-1	FSM8JART	9.5 (.374)	260 +/-75 gm
1571010-1	FSM14JRT	13.0 (.512)	160 +/-50 gm



FSM4JRT

**Tactile Switches, .236 [6] x .236 [6], Right Angle**

**MATERIAL SPECIFICATIONS:**

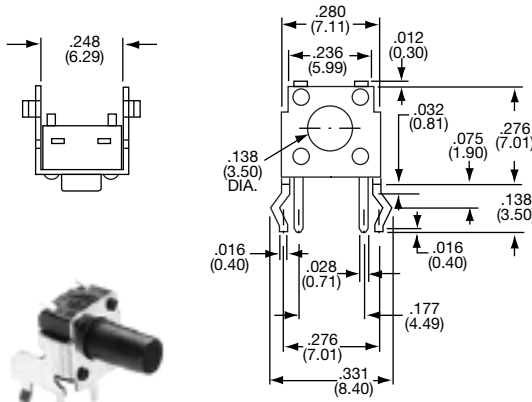
Contacts .....Copper alloy, silver clad plate  
 Case.....PBT  
 Actuator Button .....Nylon/acetal  
 Frame .....Steel, tin plate  
 Terminals .....Copper alloy, silver plate

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature.....-4°F to +185°F (-20°C to +85°C)  
 Storage Temperature.....-22°F to +185°F (-30°C to +85°C)  
 Solder Heat Resistance.....See Page M3-4

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See Below  
 Actuator Travel......012" (0,3)  
 Life Expectancy .....Up to 100,000 Cycles  
 Up to 50,000 Cycles 520 GF (AA option)



FSMRA7J

Type		
SPST	Off	(On)

(On) indicates momentary position.

Tyco Electronics	Alcoswitch	Dim. A	Dim B
8-1437565-4	FSMRA 1J	.022" (0,55)	.124" (3,15)
1571386-2	FSMRA 1JL	.022" (0,55)	.124" (3,15)
8-1437565-5	FSMRA 2J	.049" (1,25)	.152" (3,86)
1571386-1	FSMRA 2JL	.049" (1,25)	.152" (3,86)
8-1437565-8	FSMRA 2JA	.049" (1,25)	.152" (3,86)
8-1437565-9	FSMRA 2JH	.049" (1,25)	.152" (3,86)
9-1437565-0	FSMRA 3J	.128" (3,25)	.230" (5,84)
1571386-3	FSMRA 3JL	.128" (3,25)	.230" (5,84)
9-1437565-1	FSMRA 4J	.226" (5,74)	.329" (8,36)
1571819-1	FSMRA 4JA	.226" (5,74)	.329" (8,36)
1571386-4	FSMRA 4JL	.226" (5,74)	.329" (8,36)
9-1437565-2	FSMRA 5J	.140" (3,55)	.242" (6,15)
1571386-5	FSMRA 5JL	.140" (3,55)	.242" (6,15)
9-1437565-3	FSMRA 6J	.167" (4,25)	.269" (6,85)
1571386-6	FSMRA 6JL	.167" (4,25)	.269" (6,85)
9-1437565-5	FSMRA 7J	.364" (9,25)	.467" (11,86)
1571386-7	FSMRA 7JL	.364" (9,25)	.467" (11,86)
1571419-1	FSMRA 8J	.522" (13,26)	.624" (15,85)
1571386-8	FSMRA 8JL	.522" (13,26)	.624" (15,85)

**PART NUMBERING SEQUENCE**

<b>Model</b>	<b>Actuator Length</b>	<b>Temperature</b>	<b>Actuation Force</b>
FSMRA		J	
ACTUATOR LENGTH DIM "A"	SWITCH HEIGHT DIM "B"	BLANK = STD. TEMP. H = HIGH TEMP.	BLANK = 160 g (STD.) A = 260 g (OPT.) AA = 520 g (OPT.) L = 100 g (OPT.)
.022" (0,56)	1		
.049" (1,24)	2		
.128" (3,25)	3		
.226" (5,74)	4		
.140" (3,55)	5		
.167" (4,24)	6		
.364" (9,24)	7		
.522" (13,26)	8		

MATERIAL: CASE, PPS  
ACTUATOR, PPS  
(ACTUATOR OPTIONS 1 - 2)

CONSULT FACTORY FOR OTHER OPTIONS

**Tactile Switches, .236 [6] x .236 [6], Square Button, Straight or Right Angle**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper alloy, silver clad plate  
 Case.....Nylon  
 Actuator Button .....Polyacetal Resin  
 Cover.....Pet film  
 Terminals .....Copper alloy, silver plate  
 Frame (R/A) .....Steel, tin plate

**TYPICAL PERFORMANCE CHARACTERISTICS:**

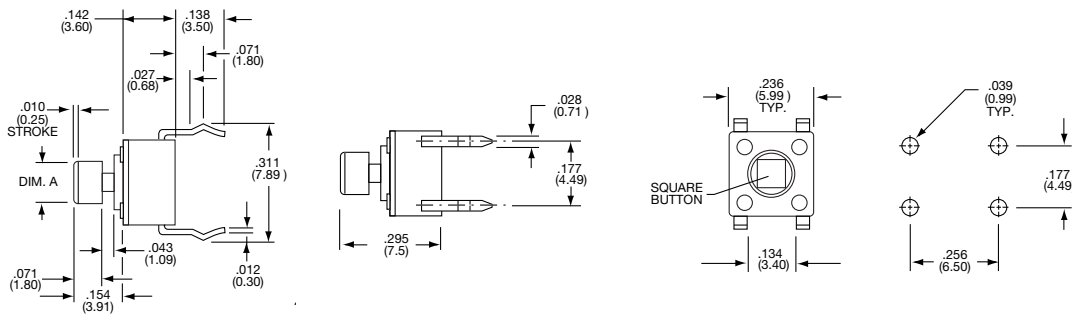
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms Max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....100 and 160 ±50 Grams  
 Actuator Travel......010"(.254)  
 Life Expectancy .....Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature..... -4°F to +185°F (-20°C to +85°C)  
 Storage Temperature.....-22°F to +185°F (-30°C to +85°C)  
 Solder Heat Resistance .....See Page M3-4

E  
FSMCD & FSMRACD Series

6 x 6 mm

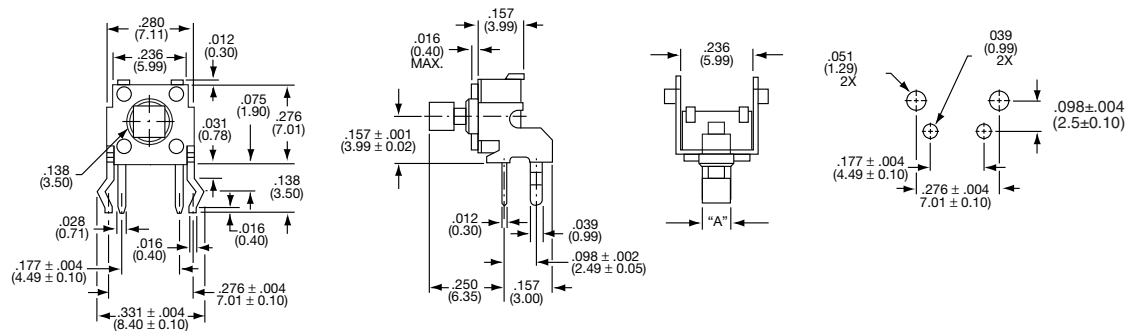


FSMCDA

Tyco Electronics	Alcoswitch	Dim. A	Type			Force
7-1437565-8	FSMCD	.095 (2,42)	SPST	Off	(On)	100±50g
7-1437565-9	FSMCDA	.110 (2,80)	SPST	Off	(On)	160±50g

(On) indicates momentary position.

6 x 6 mm



FSMRACDA

Tyco Electronics	Alcoswitch	Dim. A	Force
9-1437565-9	FSMRACD	.095 (2,42)	100±50g
1437566-1	FSMRACDA	.110 (2,80)	160±50g

E8



**Tactile Switches, .138 [3.5] x .236 [6], Surface Mount**

**MATERIAL SPECIFICATIONS:**

Contacts .....Stainless steel, silver clad plate  
 Case Material .....FSMSM: PPS  
 Actuator Material .....FSMSM: Nylon  
 FSMJM: PPS  
 Terminals .....Copper alloy, silver plate or tin plate  
 Cover.....Stainless steel

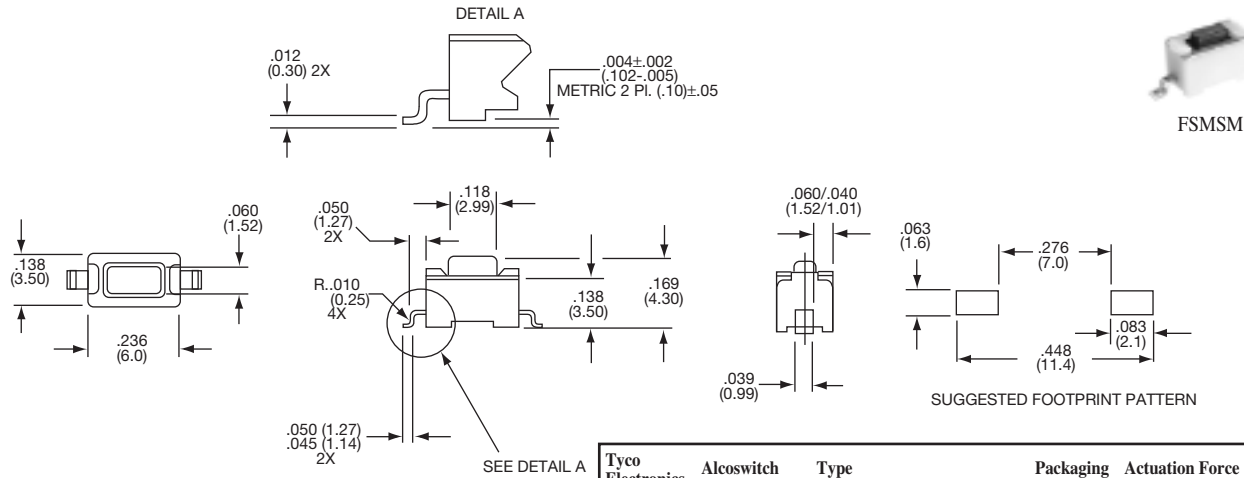
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 500 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuator Travel......010"(.254)  
 Life Expectancy .....20,000-40,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

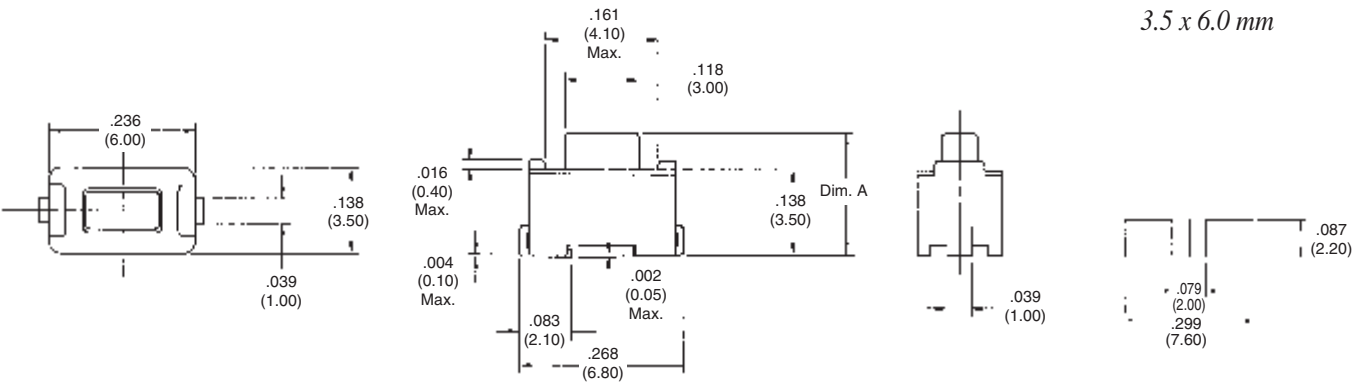
Operating Temperature.....-40°F to +185°F (-40°C to +85°C)  
 Storage Temperature.....-40°F to +185°F (-40°C to +85°C)  
 Solder Heat Resistance .....FSMSM IR Soldering EIA-364-56,  
 Procedure 5 Level 1, 215° C  
 FSMJM IR Soldering per EIA 364-56  
 Procedure 5, level 2, 464°F (240°C)

3.5 x 6.0 mm



Tyco Electronics	Alcoswitch	Type	Actuation Force	Life Cycle
1437566-3	FSMSM	SPST Off (On)	180±50	20,000
1437566-4	FSMSMTR		180±50	20,000

(On) indicates momentary position.



Tyco Electronics	Alcoswitch	Type	Dim. A	Actuation Force	Packaging	Life Cycle
147873-1	FSMJM5.0ATR	SPST	.197 (5.00)	180±50	Reel	40,000
147873-2	FSMJM4.3ATR	SPST	.169 (4.30)	180±50	Reel	40,000
147873-3	FSMJM3.5ATR	SPST	.138 (3.50)	180±50	Reel	40,000
147942-1	FSMJM4.3	SPST	.169 (4.30)	130±50	Bulk	40,000
147942-2	FSMJM4.3TR	SPST	.169 (4.30)	130±50	Reel	40,000

**Tactile Switches, .236 [6] x .236 [6], Surface Mount**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper alloy, silver plate  
 Case.....PPS  
 Actuator Button .....PPS  
 Cover.....Steel, tin plate  
 Terminals .....Copper alloy, silver plate

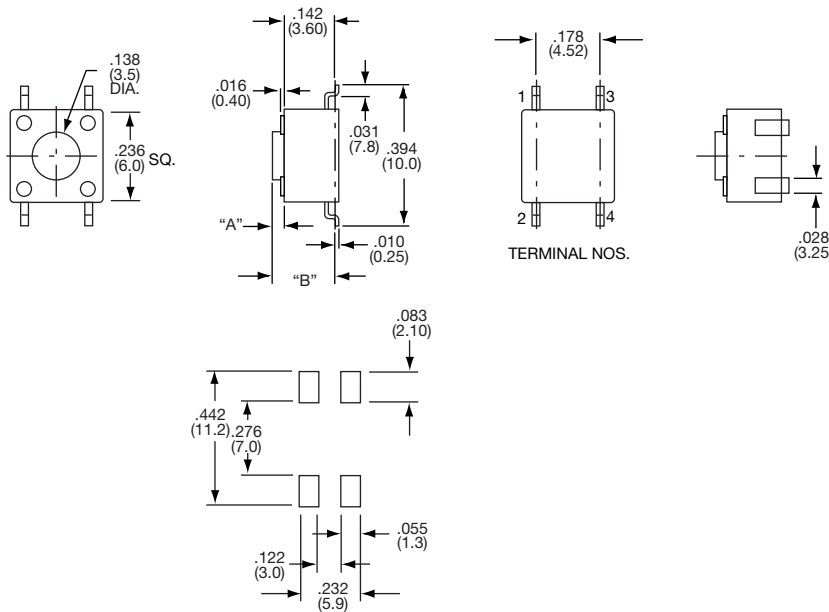
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See Below  
 Actuator Travel......010"(.254)  
 Life Expectancy .....Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature..... -4°F to +185°F (-20°C to + 85°C)  
 Storage Temperature.....-22°F to +185°F (-30°C to +85°C)  
 Solder Heat Resistance .....IR Soldering EIA-364-56  
 Procedure 5 Level 3, 500°F (260°C)

6 x 6 mm



FSMJ SMA

Bulk Pack Part Number		Tape & Reel Part Number		Actuator Length	Switch Height	Actuation Force
Tyco Electronics	Alcoswitch	Tyco Electronics	Alcoswitch	Dimension A	Dimension B	
2-1437565-7	FSM2JSMA	3-1437565-0	FSM2JSMATR	.028 (0.70)	.169 (4.30)	160 ± 50 grams
4-1437565-1	FSM4JSMA	4-1437565-2	FSM4JSMATR	.055 (1.40)	.196 (5.00)	160 ± 50 grams
4-1437565-9	FSM6JSMA	5-1437565-0	FSM6JSMATR	.134 (3.40)	.276 (7.00)	160 ± 50 grams
2-1437565-8	FSM2JSMAA	2-1437565-9	FSM2JSMAATR	.028 (0.70)	.169 (4.30)	260 ± 50 grams
1571563-1	FSM4JSML	1571563-2	FSM4JSMLTR	.055 (1.40)	.196 (5.00)	100 ± 50 grams
1571563-3	FSM4JSMAA	1571563-4	FSM4JSMAATR	.055 (1.40)	.196 (5.00)	260 ± 50 grams
—	FSM6JSMAA	—	FSM6JSMAATR	.134 (3.40)	.276 (7.00)	260 ± 50 grams
3-1437566-8	FSM8JSMA	—	FSM8JSMATR	.232 (5.90)	.374 (9.50)	260 ± 50 grams
1571527-1	FSM2JSML	1571527-2	FSM2JSMLTR	.028 (0.70)	.169 (4.30)	100 ± 50 grams

E  
FSMJ SMA Series

**Low Profile Series FSMCT Tactile Switches, .196 [5.0] x .196 [5.0],  
Surface Mount**

**MATERIAL SPECIFICATIONS:**

Cover .....Nickel Silver  
Stem/Actuator .....Brass-"J" Lead  
Brass nickel plate-gullwing

**Contacts:**

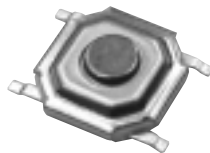
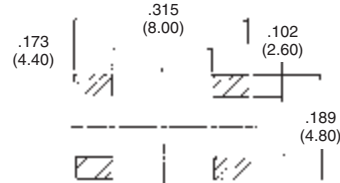
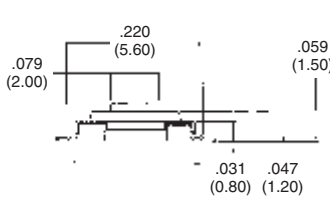
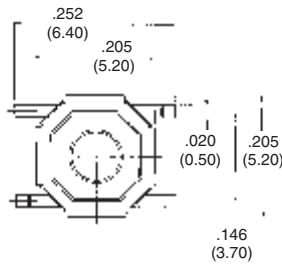
Moving .....Stainless Steel, Silver Clad-Plate  
Fixed/Terminal .....Copper Alloy, Silver-Plate  
Case .....Nylon, UL94V-0

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....20mA @ 15VDC  
Initial Contact Resistance .....100MilliOhms Max  
Insulation Resistance .....100Megaohms @ 100VDC Min.  
Dielectric Strength .....500 VAC for 1 minute  
Actuation Travel .....0.25 +0.1/-0.2  
Life Expectancy .....Up to 500,000 and 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
Storage Temperature .....-22 to +185°F (-30 to +85°C)  
Resistance to solder heat .....Per EIA-364-56A, Procedure 4 & 5,  
Level 3  
Solderability .....Per EIA-364-52, Class 2, Category 1,  
Temp. 473°F (245°C) max., Time 2.5  
seconds max., 95% minimum coverage.



Tyco Electronics	Alcoswitch	Type	Force	Life Cycle
8-1437565-0	FSMCTTR	SPST	160±50	1,000,000
8-1437565-1	FSMCTATR	SPST	260±50	500,000

"J" lead option in development. Contact factory for additional information.

E  
FSMCT/FSMCTJA Series

**Low Profile, 6 x 6 SMT J-Lead, Extended Life**

**MATERIAL SPECIFICATIONS:**

Cover .....Stainless Steel  
 Stem/Actuator .....Nylon UL94V-0  
 Contacts:  
   Moving .....Stainless Steel, Silver Clad-Plate  
   Fixed/Terminal .....Copper Alloy, Silver-Plate  
 Case .....Thermoplastic, UL94V-0, Black  
 Tape .....Teflon

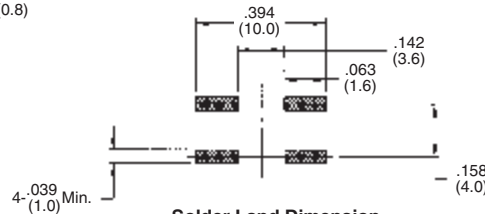
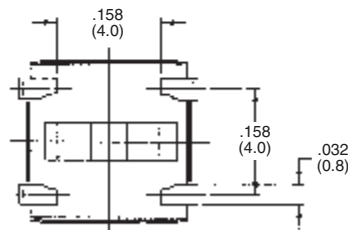
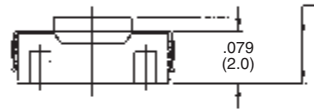
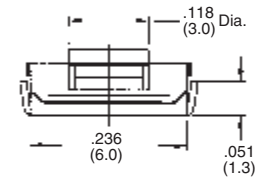
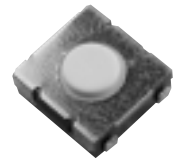
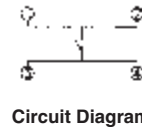
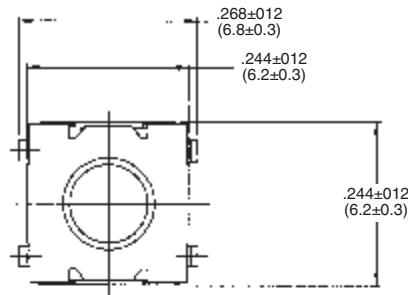
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Travel.....0.008 +/-0.004 (.2 +/- .10)

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-22 to +185°F (-30 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56A, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA-364-52, Class 2, Category 1, Temp 473°F (245°C), 95% minimum coverage.

**E**  
Extended Life Series



Tyco Electronics	Dim L	Force	Life	Packaging
1571625-1	.098 (2.5)	50gf	2,000,000	Bulk
1571625-2	.098 (2.5)	50gf	2,000,000	T&R
1571625-3	.098 (2.5)	100gf	1,000,000	Bulk
1571625-4	.098 (2.5)	100gf	1,000,000	T&R
1571625-5	.098 (2.5)	160gf	1,000,000	Bulk
1571625-6	.098 (2.5)	160gf	1,000,000	T&R
1571625-7	.098 (2.5)	260gf	100,000	Bulk
1571625-8	.098 (2.5)	260gf	100,000	T&R

**Low Profile, 6 x 6 SMT, Gull Wing, Extended Life**

**MATERIAL SPECIFICATIONS:**

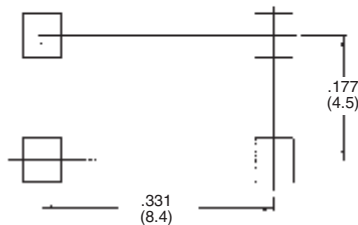
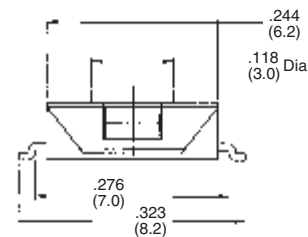
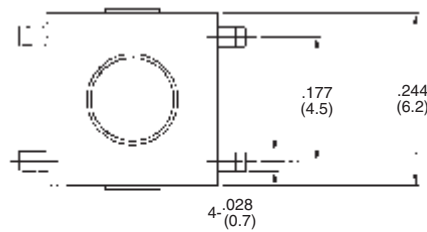
Cover .....Copper Alloy, Tin Lead Plate  
 Stem/Actuator .....Nylon UL94V-0  
 Contacts:  
     Moving .....Stainless Steel, Silver Clad-Plate  
     Fixed/Terminal .....Copper Alloy, Silver-Plate  
 Case .....Thermoplastic, UL94V-0, Black  
 Tape .....Teflon

**TYPICAL PERFORMANCE CHARACTERISTICS:**

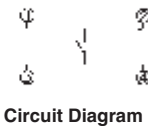
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Travel.....0.010 +/-0.004 (.25 +/- .10)

**ENVIRONMENTAL SPECIFICATIONS:**

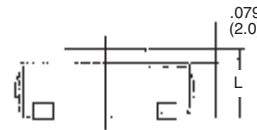
Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-22 to +185°F (-30 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56A, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA-364-52, Class 2, Category 1, Temp 473°F (245°C) max., time 2.5 seconds max., 95% minimum coverage.



**PCB Mounting Solder Land Dimension**



**Circuit Diagram**



Tyco Electronics	Dim L	Force	Life	Packaging
1571626-1	.098 (2.5)	50gf	1,000,000	Bulk
1571626-2	.098 (2.5)	50gf	1,000,000	T&R
1571626-3	.098 (2.5)	100gf	1,000,000	Bulk
1571626-4	.098 (2.5)	100gf	1,000,000	T&R
1571626-5	.098 (2.5)	160gf	1,000,000	Bulk
1571626-6	.098 (2.5)	160gf	1,000,000	T&R
1571626-7	.079 (2.0)	160gf	1,000,000	Bulk
1571626-8	.079 (2.0)	160gf	1,000,000	T&R
1571626-9	.098 (2.5)	260gf	100,000	Bulk
1-1571626-0	.098 (2.5)	260gf	100,000	T&R

**Low Profile, 6 x 6 SMT, Gull Wing w/ESD Terminal, Extended Life**

**MATERIAL SPECIFICATIONS:**

Cover .....Copper Alloy, Tin Lead Plate  
 Stem/Actuator .....Nylon UL94V-0  
 Contacts:  
     Moving .....Stainless Steel, Silver Clad-Plate  
     Fixed/Terminal .....Copper Alloy, Silver-Plate  
 Case .....Thermoplastic, UL94V-0, Black  
 Tape .....Teflon

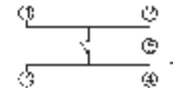
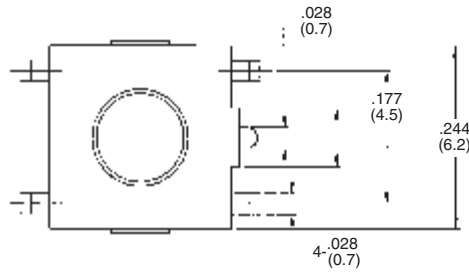
**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100Milliohms Max  
 Insulation Resistance .....100Megaohms @ 100V DC Min.  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Travel.....0.010 +/- .004 (.25 +/- .10)

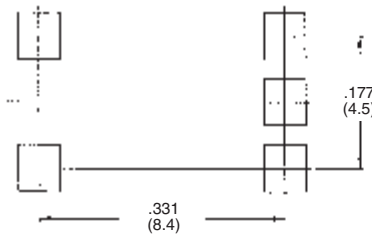
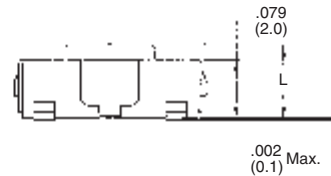
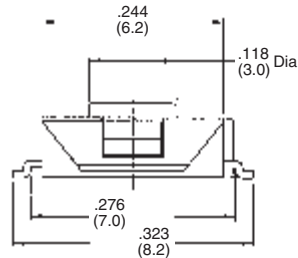
**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-22 to +185°F (-30 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56A, Procedure 4 & 5,  
     Level 3  
 Solderability .....Per EIA-364-52, Class 2, Category 1,  
     Temp 473°F (245°C) max., time 2.5  
     seconds max., 95% minimum coverage.

**E**  
Extended Life Series



**Circuit Diagram**



**PCB Mounting Solder Land Dimension**

Tyco Electronics	Dim L	Force	Life	Packaging
1571636-1	.098 (2.5)	50gf	1,000,000	Bulk
1571636-2	.098 (2.5)	50gf	1,000,000	T&R
1571636-3	.098 (2.5)	100gf	1,000,000	Bulk
1571636-4	.098 (2.5)	100gf	1,000,000	T&R
1571636-5	.098 (2.5)	160gf	1,000,000	Bulk
1571636-6	.098 (2.5)	160gf	1,000,000	T&R
1571636-7	.079 (2.0)	160gf	1,000,000	Bulk
1571636-8	.079 (2.0)	160gf	1,000,000	T&R
1571636-9	.098 (2.5)	260gf	100,000	Bulk
1-1571636-0	.098 (2.5)	260gf	100,000	T&R

**Tactile Switches, .236 [6] x .236 [6], Low Profile, Surface Mount**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper Alloy, silver clad plated  
 Case Material .....PPS  
 Stem .....PPS  
 Cover.....Steel, tin-plate  
 Terminals .....Copper alloy, silver plated

**TYPICAL PERFORMANCE CHARACTERISTICS:**

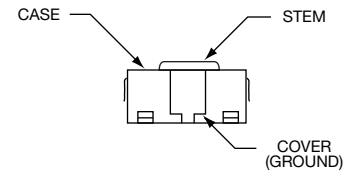
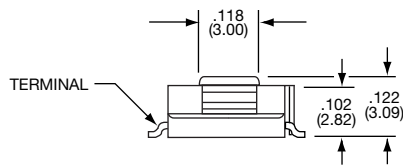
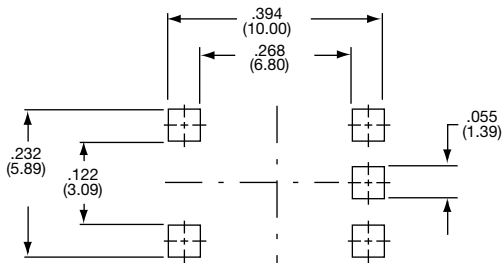
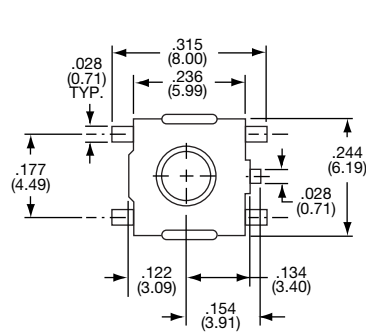
Contact Rating .....50mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC, 1 minute  
 Actuation Force .....See Below.  
 Life Expectancy .....Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

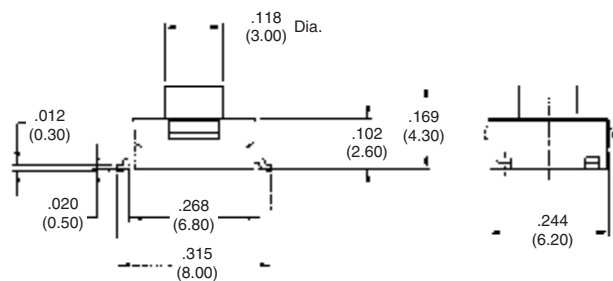
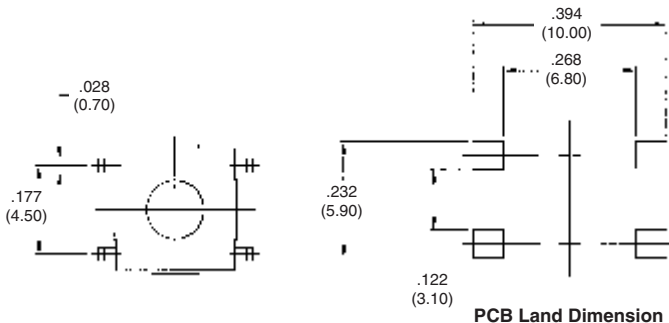
Operating Temperature.....-4°F to +185°F (-20°C to +85°C)  
 Storage Temperature.....-22°F to +185°F (-30°C to +85°C)  
 Solder Heat Resistance .....IR Soldering EIA-364-56  
 Procedure 5 Level 2, 464°F (240°C)



FSM1LP



FSM4LP



Tyco Electronics	Alcoswitch	Force	Actuator Packaging
1-1437565-6	FSM1LP	160	Bulk
1-1437565-7	FSM1LPA	260	Bulk
1-1437565-9	FSM1LPTR	160	Tape & Reel
1-1437565-8	FSM1LPATR	260	Tape & Reel
1571621-1	FSM4LP	260	Bulk
4-1437565-3	FSM4LPTR	260	Tape & Reel

**Tactile Switches, .472 [12] x .472 [12], Flush or Extended Actuators**

**MATERIAL SPECIFICATIONS:**

Contacts .....Copper alloy, silver clad plate  
 Case.....PBT  
 Actuator Button .....Polyacetal Resin  
 Cover.....PET film  
 Terminals .....Copper alloy, silver plate  
 Frame (R/A) .....Nylon

**TYPICAL PERFORMANCE CHARACTERISTICS:**

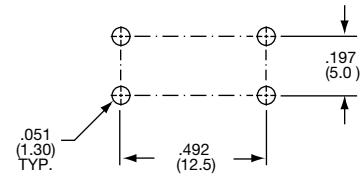
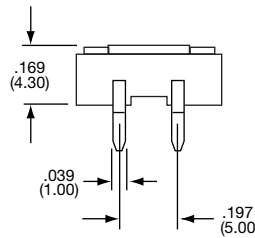
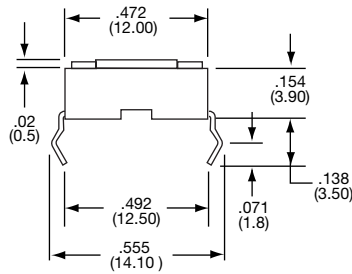
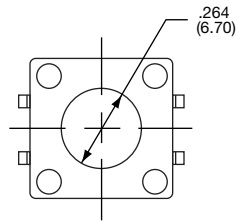
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See below  
 Actuator Travel.....0.012"(0.3)  
 Life Expectancy .....Up to 100,000 cycles

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature.....4°F to +185°F (-20°C to +85°C)  
 Storage Temperature.....-22°F to +185°F (-30°C to +85°C)  
 Solder Heat Resistance .....See Page M3-4



FSM100

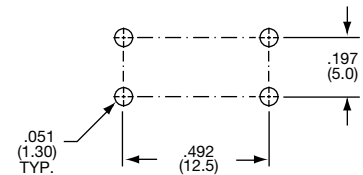
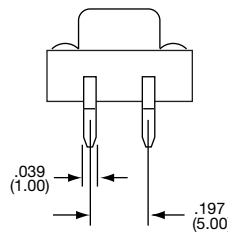
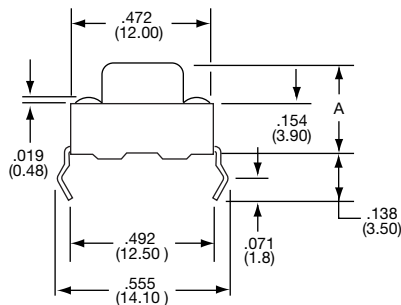
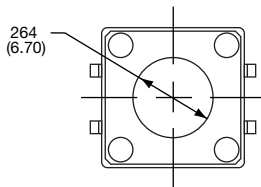


Tyco Electronics	Alcoswitch	Type			Force
1437565-2	FSM100	SPST	Off	(On)	160±50gf
1571139-1	FSM100A	SPST	Off	(On)	260±50gf

(On) indicates momentary position.



FSM101



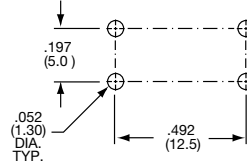
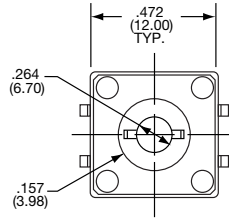
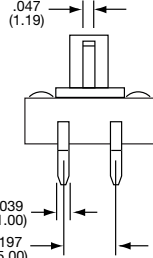
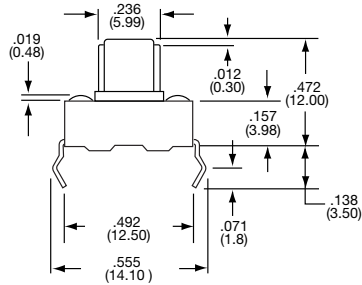
Tyco Electronics	Alcoswitch	Type			Force	Dim A
1437565-3	FSM101	SPST	Off	(On)	160±50gf	.295 [7.5mm]
1571140-1	FSM201A	SPST	Off	(On)	260±50gf	.335 [8.5mm]

(On) indicates momentary position.

E  
FSM100-104 Series



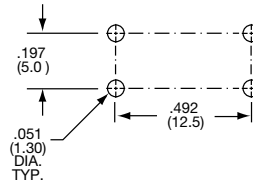
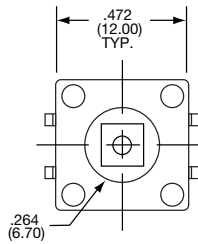
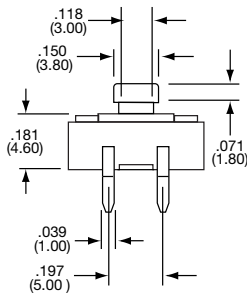
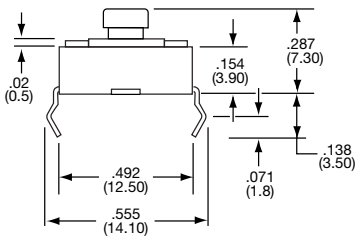
**Tactile Switches, .472 [12] x .472 [12], Vertical or Right Angle**



FSM102

Tyco Electronics	Alcoswitch	Type			Force
1437565-4	FSM102	SPST	Off	(On)	160±50gf
1571061-1	FSM102A	SPST	Off	(On)	260±50gf

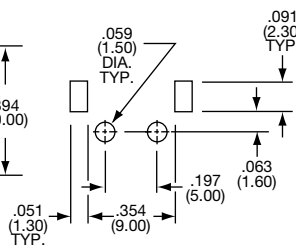
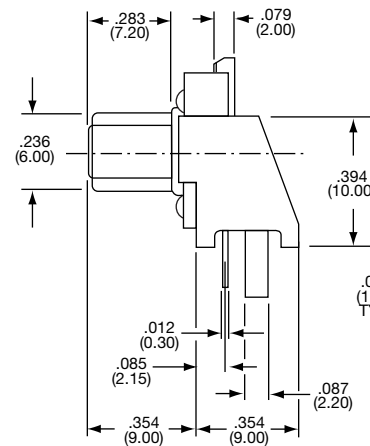
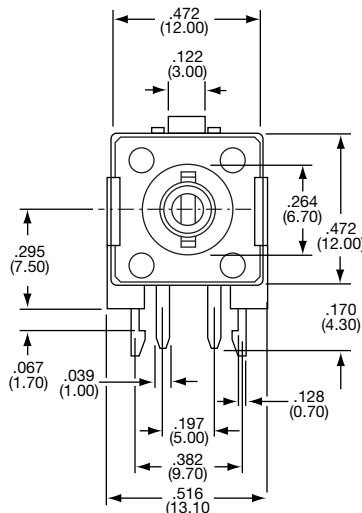
(On) indicates momentary position.



FSM103

Tyco Electronics	Alcoswitch	Type			Force
1437565-5	FSM103	SPST	Off	(On)	160±50gf

(On) indicates momentary position.



Tyco Electronics	Alcoswitch	Type			Force
1437565-6	FSM104	SPST	Off	(On)	160±50gf

(On) indicates momentary position.

**Tactile Switches, Sealed .472 [12] x .472 [12], Surface Mount, Projected Actuator**

**MATERIAL SPECIFICATIONS:**

Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

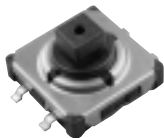
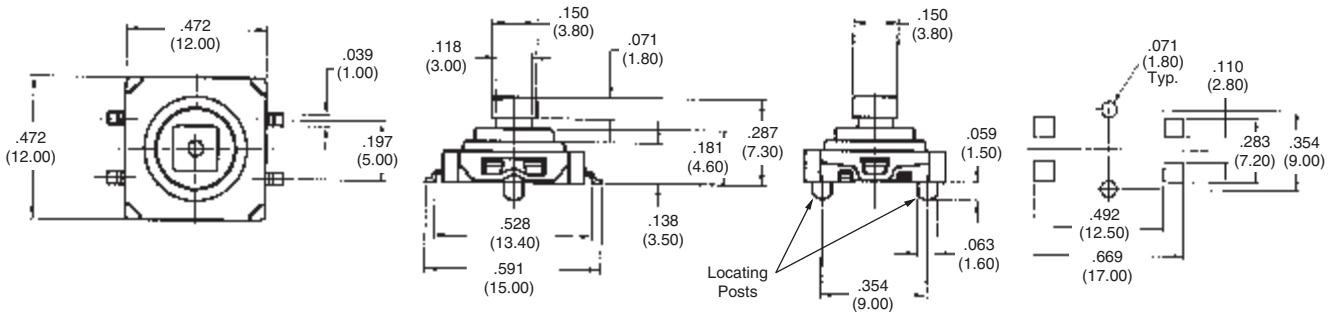
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +70°C)  
 Storage Temperature .....-4 to +185°F (-20 to +70°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67

**E**

Sealed Tactile Switches



Tyco Electronics	Locating Post	Packaging	Actuator Height	Force
1571217-1	No	Bulk	.287 (7.30)	160±70gf
1571217-2	Yes	Bulk	.287 (7.30)	160±70gf
1571217-3	No	T&R	.287 (7.30)	160±70gf
1571217-4	Yes	T&R	.287 (7.30)	160±70gf

**Tactile Switches, Sealed .472 [12] x .472 [12], Surface Mount, Flush, Actuator**

**MATERIAL SPECIFICATIONS:**

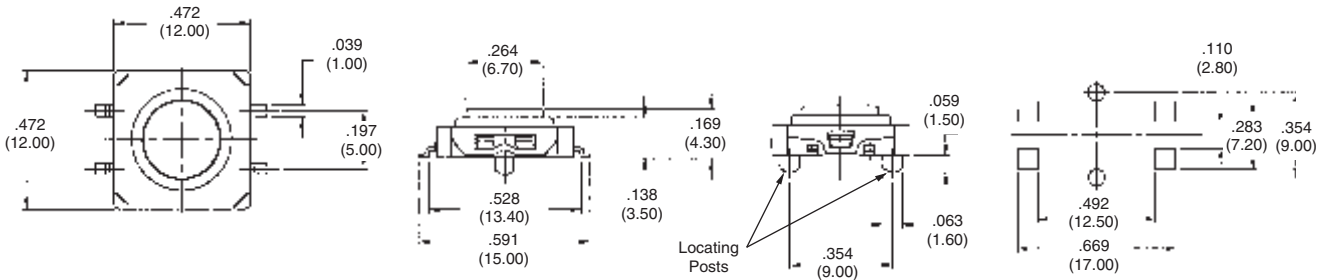
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Locating Post	Packaging	Actuator Height	Force
1571218-1	No	Bulk	.169 (4.30)	160±70gf
1571218-2	Yes	Bulk	.169 (4.30)	160±70gf
1571218-3	No	T&R	.169 (4.30)	160±70gf
1571218-4	Yes	T&R	.169 (4.30)	160±70gf

**E**  
Sealed Tactile Switches

**Tactile Switches, Sealed .472 [12] x .472 [12], Thru-Hole, Projected Actuator**

**MATERIAL SPECIFICATIONS:**

Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

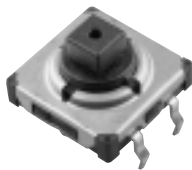
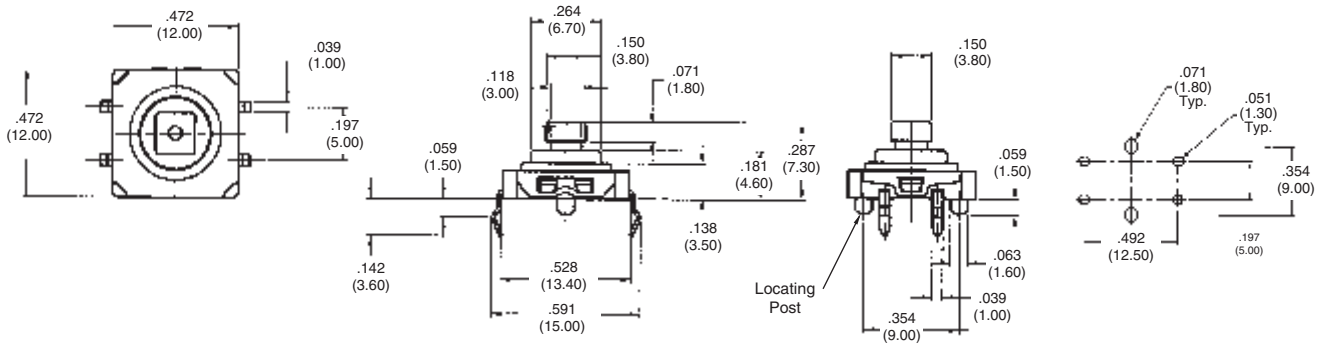
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/-0.008 (.35 +/- .20)  
 Life .....1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 3, Test Cond. B  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67

**E**

Sealed Tactile Switches



Tyco Electronics	Locating Post	Packaging	Actuator Height	Force
1571219-1	No	Bulk	.287 (7.30)	160±70gf
1571219-2	Yes	Bulk	.287 (7.30)	160±70gf

**Tactile Switches, Sealed .472 [12] x .472 [12], Thru-Hole, Flush Actuator**

**MATERIAL SPECIFICATIONS:**

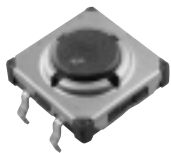
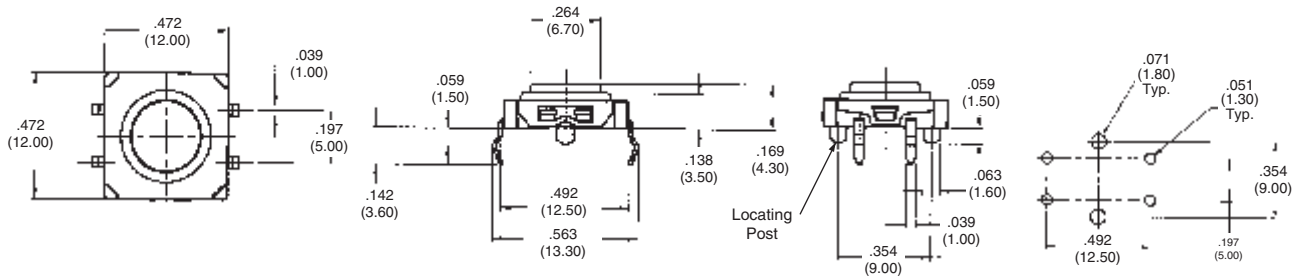
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/-0.008 (.35 +/- .20)  
 Life .....1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 3, Test Cond. B  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Locating Post	Packaging	Actuator Height	Force
1571220-1	No	Bulk	.169 (4.30)	160±70gf
1571220-2	Yes	Bulk	.169 (4.30)	160±70gf

**E**  
Sealed Tactile Switches

**Tactile Switches, Sealed .299 [7.6] x .287 [7.3], Surface Mount, Extended Actuator**

**MATERIAL SPECIFICATIONS:**

Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver

**TYPICAL PERFORMANCE CHARACTERISTICS:**

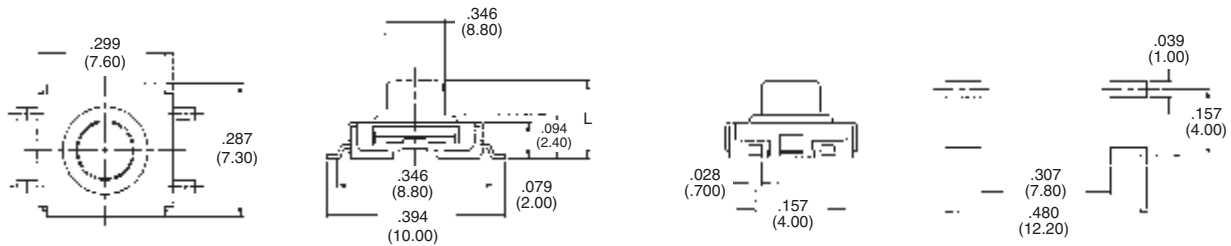
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67

E

Sealed Tactile Switches



Tyco Electronics	Packaging	L	Force
1571294-1	Bulk	.169 (4.30)	160±50gf
1571294-2	T&R	.169 (4.30)	160±50gf
1571294-3	Bulk	.197 (5.00)	160±50gf
1571294-4	T&R	.197 (5.00)	160±50gf

**Tactile Switches, Sealed .299 [7.6] x .287 [7.3], Surface Mount, Flush Actuator**

**MATERIAL SPECIFICATIONS:**

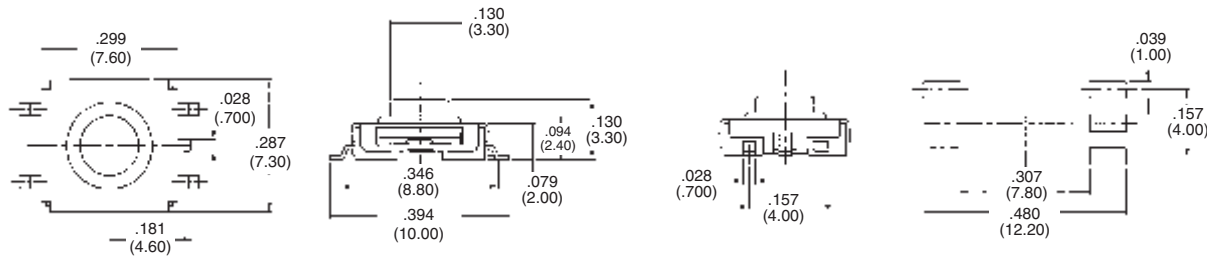
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Packaging	Actuator Height	Force
1571296-1	Bulk	.130 (3.30)	160±50gf
1571296-2	T&R	.130 (3.30)	160±50gf

**E**  
Sealed Tactile Switches

**Tactile Switches, Sealed .299 [7.6] x .287 [7.3], Thru-Hole, Extended Actuator**

**MATERIAL SPECIFICATIONS:**

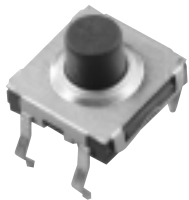
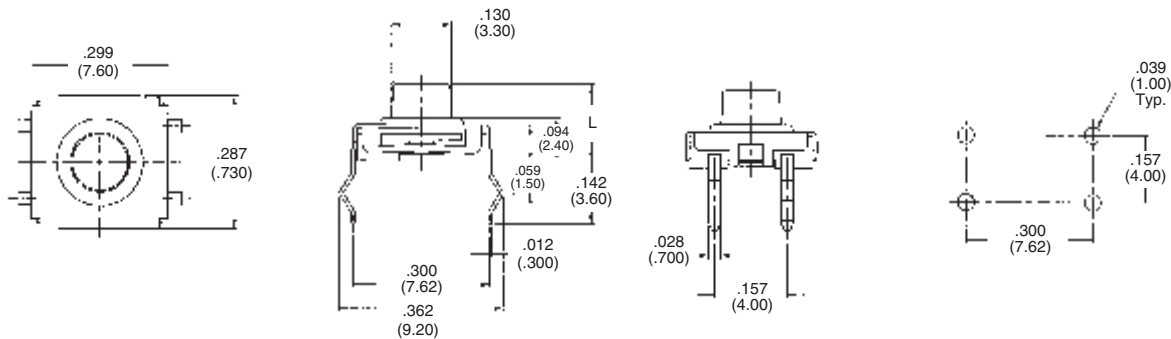
Case .....Thermoplastic, UL94V-0, Black  
 Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel .....0.014 +/-0.008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 3, Test Cond.B  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Packaging	L	Force
1571295-1	Bulk	.169 (4.30)	160±50gf
1571295-2	Bulk	.197 (5.00)	160±50gf

**E**  
Sealed Tactile Switches



**Tactile Switches, Sealed .185 [4.7] x .268 [6.8], Surface Mount**

**MATERIAL SPECIFICATIONS:**

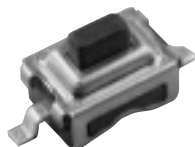
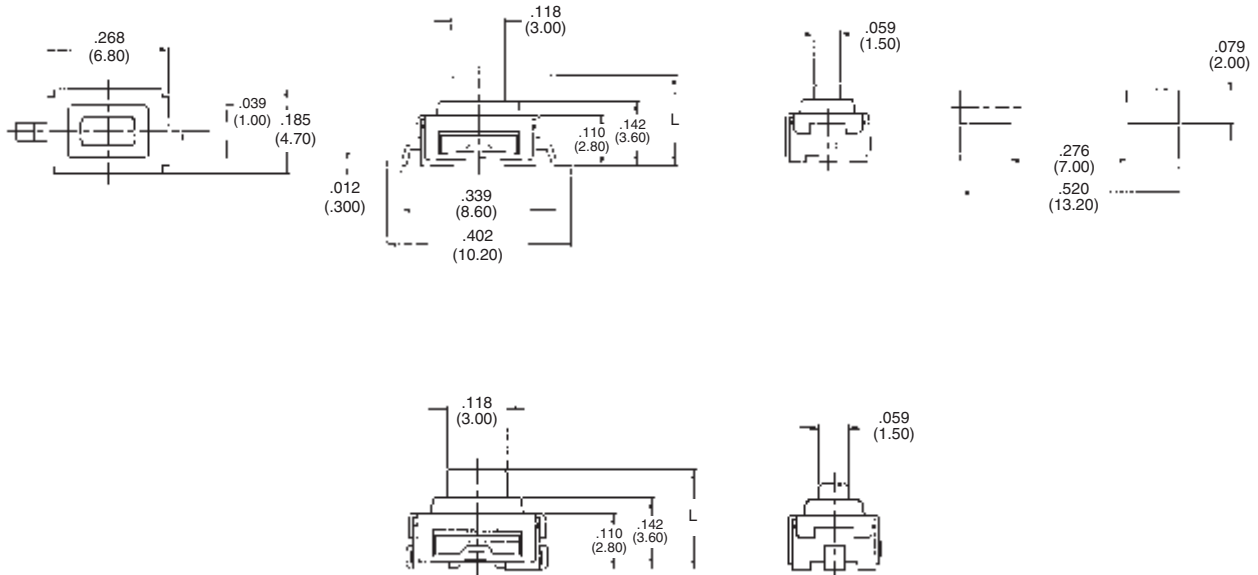
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/-0.008 (.35 +/- .20)  
 Life .....Up to 50,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Packaging	L	Operating Force	Lead Style
1571298-1	Bulk	.197 (5.00)	130 ± 50gf	Gull Wing
1571298-2	T&R	.197 (5.00)	130 ± 50gf	Gull Wing
1571299-1	Bulk	.169 (4.30)	130 ± 50gf	J Lead
1571299-2	T&R	.169 (4.30)	130 ± 50gf	J Lead
1571299-3	Bulk	.197 (5.00)	130 ± 50gf	J Lead
1571299-4	T&R	.197 (5.00)	130 ± 50gf	J Lead

**E**  
Sealed Tactile Switches

**Tactile Switches, Sealed .185 [4.7] x .268 [6.8], Thru-Hole**

**MATERIAL SPECIFICATIONS:**

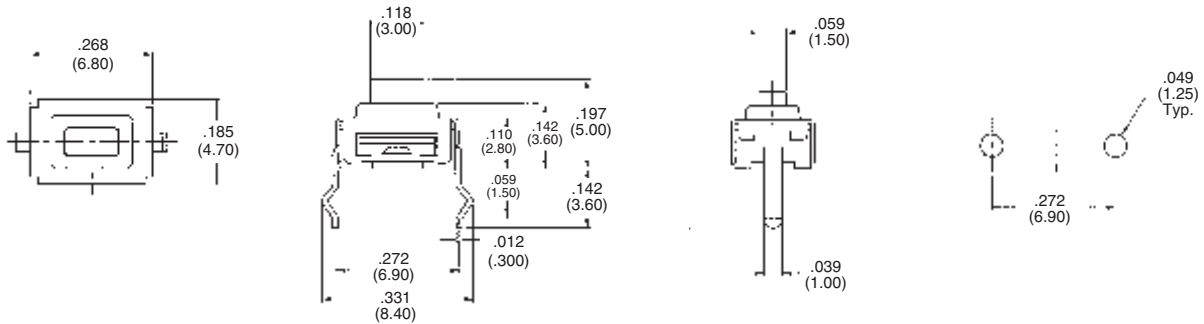
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 50,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4 to +185°F (-20 to +85°C)  
 Storage Temperature .....-4 to +185°F (-20 to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 3, Test Cond. B  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Packaging	Actuator Height	Operating Force
1571297-1	Bulk	.197 (5.00)	130 ± 50gf

E

Sealed Tactile Switches

**Tactile Switches, Sealed Right Angle, Surface Mount**

**MATERIAL SPECIFICATIONS:**

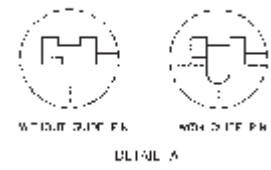
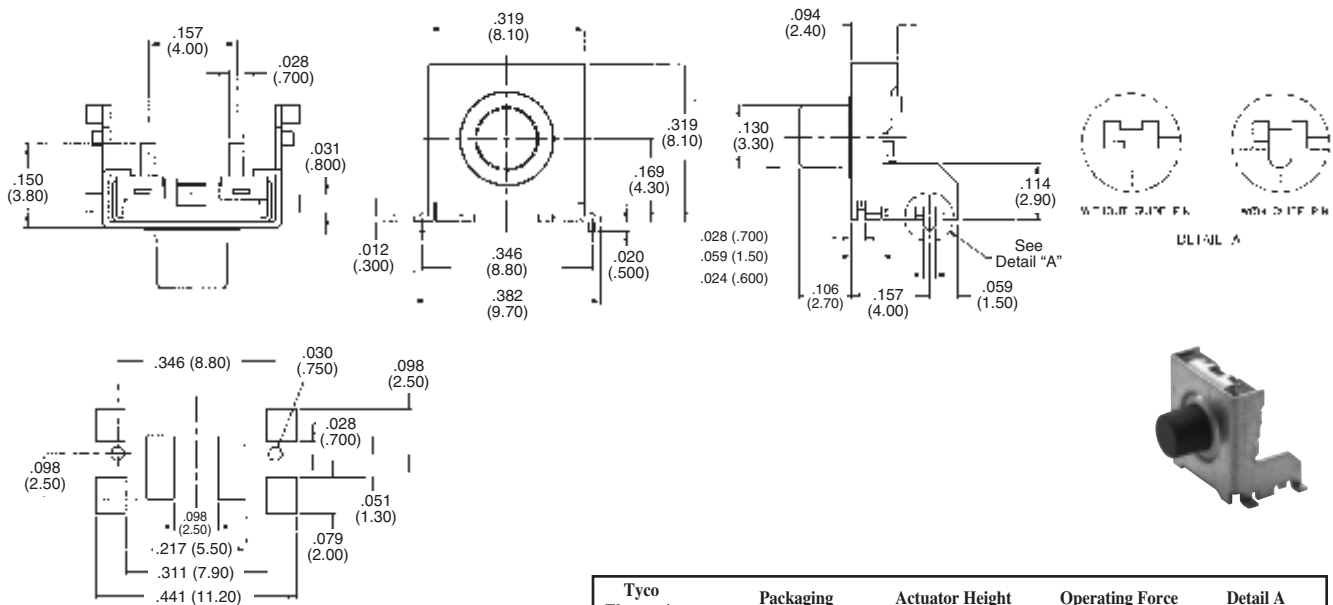
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4° to +185°F (-20°to +85°C)  
 Storage Temperature .....-4° to +185°F (-20°to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67



Tyco Electronics	Packaging	Actuator Height	Operating Force	Detail A
1571300-1	Bulk	.106 (2.70)	130 ± 50gf	Without Pin
1571300-2	Bulk	.106 (2.70)	130 ± 50gf	With Pin

**E**  
Sealed Tactile Switches

**Tactile Switches, Sealed Right Angle, Surface Mount**

**MATERIAL SPECIFICATIONS:**

Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver

**TYPICAL PERFORMANCE CHARACTERISTICS:**

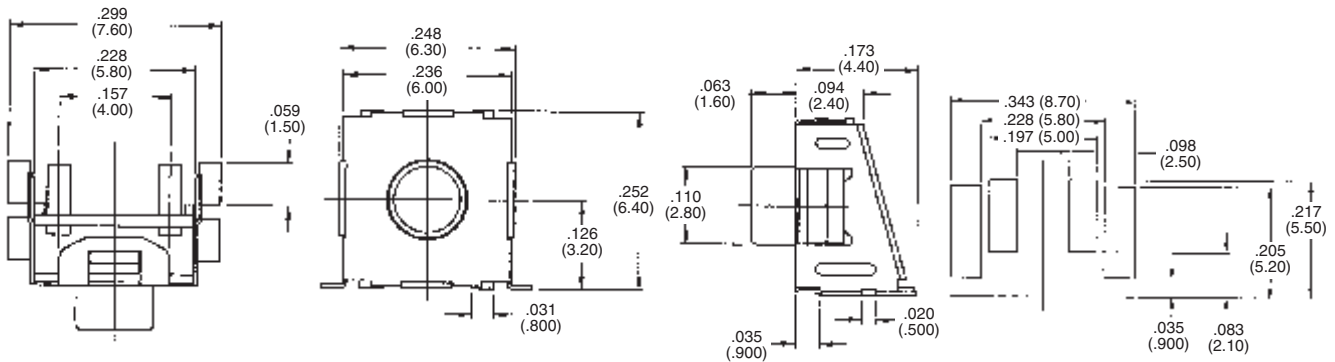
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....-4° to +185°F (-20°to +85°C)  
 Storage Temperature .....-4° to +185°F (-20°to +85°C)  
 Resistance to solder heat .....Per EIA-364-56, Procedure 4 & 5, Level 3  
 Solderability .....Per EIA RS-186-9E  
 Seal .....Per IP67

**E**

**Sealed Tactile Switches**



Tyco Electronics	Packaging	Actuator Height	Operating Force
1571407-1	Bulk	.063 (1.60)	260 ± 100gf
1571407-2	T&R	.063 (1.60)	260 ± 100gf

**Tactile Switches, Side Actuated, Surface Mount**

**MATERIAL SPECIFICATIONS:**

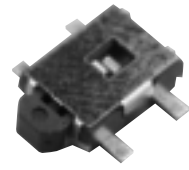
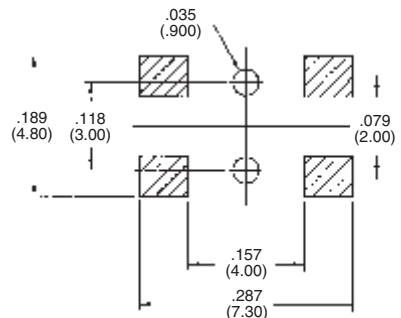
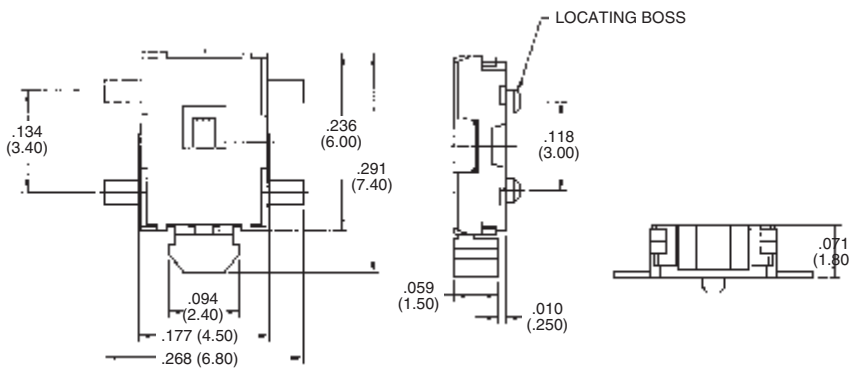
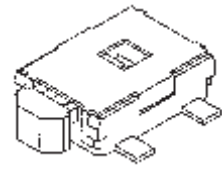
Case .....	Nylon 4/6, UL94V-0, Black
Stem/Actuator .....	Nylon 4/6, UL94V-0, Black
Cover .....	Stainless Steel
Contact Plate .....	Stainless Steel, Silver Clad Over Nickel Plate
Terminal .....	Copper Alloy, Silver Over Nickel Plate
Masking Tape .....	Teflon

**TYPICAL PERFORMANCE CHARACTERISTICS:**

Contact Rating .....	50mA @ 12 V DC
Initial Contact Resistance .....	100MilliOhms Max
Insulation Resistance .....	100Megaohms @ 100VDC Min.
Dielectric Strength .....	500 VAC for 1 minute
Force .....	160 (+70/-40gm)
Travel .....	.30 (+.1/-2mm)
Life .....	Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

Operating Temperature .....	-4° to +185°F (-20° to +85°C)
Storage Temperature .....	-22° to +185°F (-30° to +85°C)
Resistance to Solder Heat .....	Per EIA-364-56A, procedure 4 and 5, Level 3
Solderability .....	Per EIA-364-52, Class 2, Category 1, Temp. 473°F (245°C) max., time 2.5 sec. max., 95% min. coverage.



Tyco Electronics	Feature	Packaging
1571262-1	W/O Boss	Bulk
1571262-2	W/O Boss	T&R
1571262-3	with Boss	Bulk
1571262-4	with Boss	T&R

**Multi-Directional Actuation**

**MATERIAL SPECIFICATIONS:**

Contact .....Copper alloy - silver clad/nickel  
 Case Material .....Nylon - UL 94-HB, Black  
 Actuator Material .....Nylon - UL 94-HB, Black  
 Terminals/Fixed Contact .....Copper alloy - plate silver clad/nickel

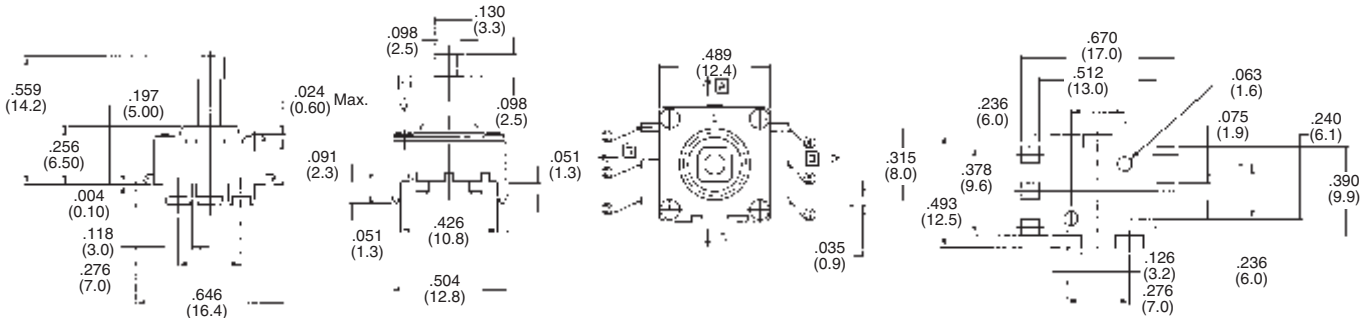
**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature .....-13° to 158°F (-25° to +70°C)  
 Storage Temperature .....-40° to 185°F (-40° to +85°C)  
 Solder Heat Resistance.....Per EIA-364-56A, Procedure 4 and 5, Level 3  
 Solderability .....Per EIA-364-52, Class 2 Cat. 1, temp. 255° max., time 5 seconds max. 95% min. coverage

**TYPICAL PERFORMANCE CHARACTERISTICS**

Contact Rating .....20mA @15VDC  
 Initial Contact Resistance.....100 Milliohms max.  
 Insulation Resistance .....100 Megohm min.  
 Dielectric Strength .....100 VAC for 1 min.  
 Life Expectancy .....Up to 50,000 Cycles  
 Actuation Force .....500±150 gf (center push),  
 200±100 gf (4-directional)  
 Actuation Travel.....0.039 (1.0) ±0.012 (.3) (4-directional),  
 0.315 (8.0) ±2° (4-directional)

E Multi-Directional Switches



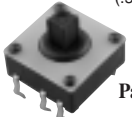
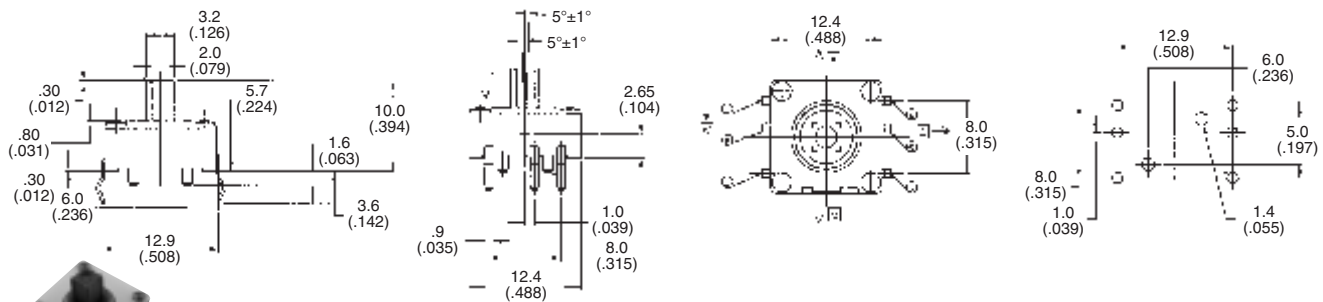
Tyco Electronics	Dimension L
1571514-1	.559 (14.2)
1571514-2	.480 (12.2)
1571514-3	.413 (10.5)

**MATERIAL SPECIFICATIONS:**

Contacts.....Stainless steel, plate silver clad/nickel  
 Case Material .....Nylon - UL 94-HB, Black  
 Actuator Material .....PBT, UL 94-HB  
 Terminals/Fixed Contacts .....Copper alloy - plate silver/nickel  
 Environmental Specifications  
 Operating Temperature .....-13° to 158°F (-25° to +70°C)  
 Storage Temperature.....-40° to 185°F (-40° to +85°C)  
 Solder Heat Resistance .....Per EIA-364-56A, Procedure 3, Condition B  
 Solderability .....Per EIA-364-52, Class 2 Cat. 1, temp. 255° max., time 5 seconds max. 95% min. coverage

**TYPICAL PERFORMANCE CHARACTERISTICS**

Contact Rating .....20mA @15VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohm min.  
 Dielectric Strength .....100 VAC for 1 min.  
 Life Expectancy .....Up to 50,000 Cycles  
 Actuation Force .....350±100 gf (center push),  
 200±70/-50 gf (4-directional)  
 Actuation Travel.....0.010 (.25) ±0.008 (.2) (center push),  
 0.197 (5.0) ±1° (4-directional)



Part Number 1571515-1

E30