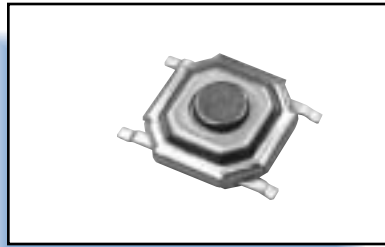
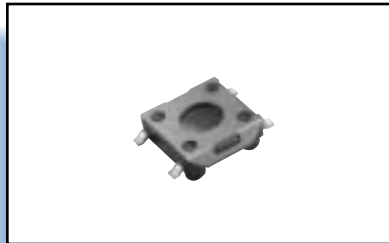




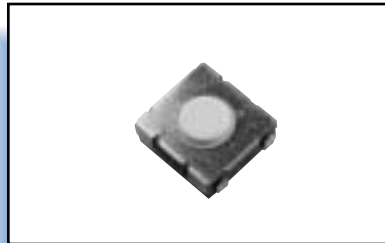
*FSM Series - Page E3*



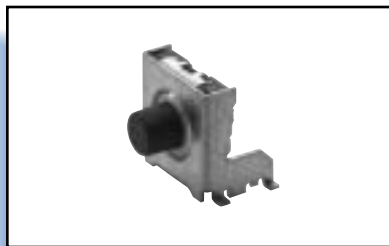
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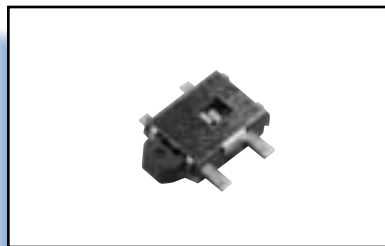
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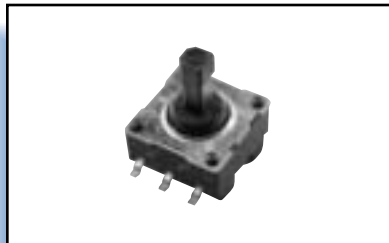
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*Sealed Series - Page E27*



*Side Actuated - Page E29*



*Multi-Directional Actuation - Page E30*

# Tactile

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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

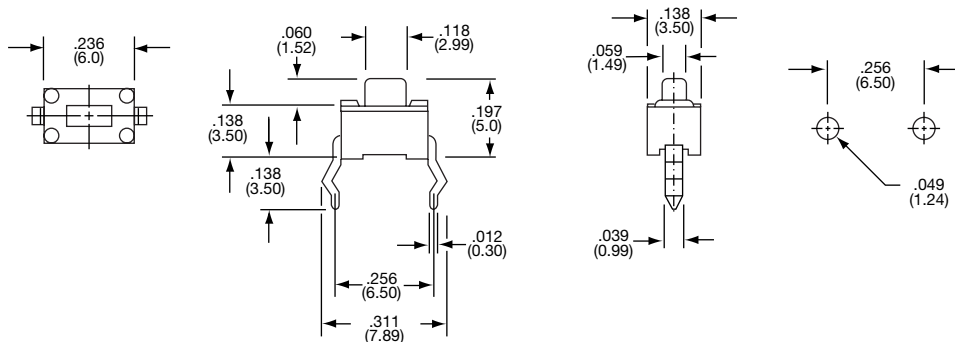
**TYPICAL PERFORMANCE CHARACTERISTICS:**

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

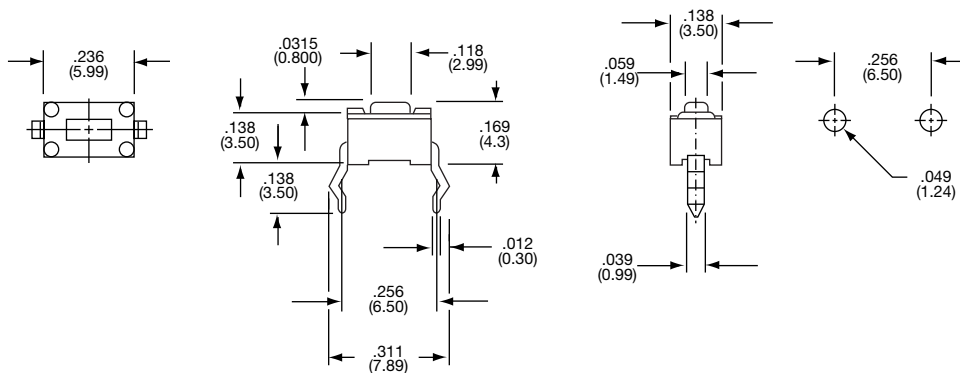
3.5 x 6mm





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

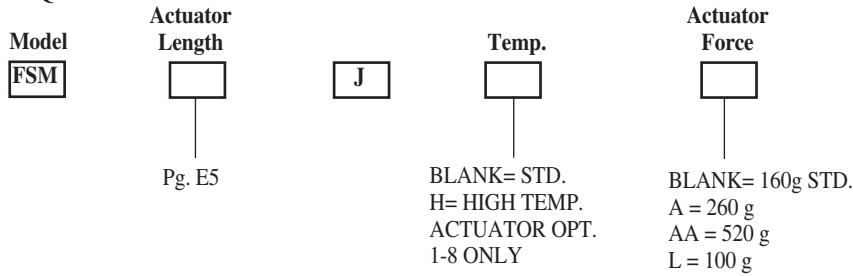
**TYPICAL PERFORMANCE CHARACTERISTICS:**

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

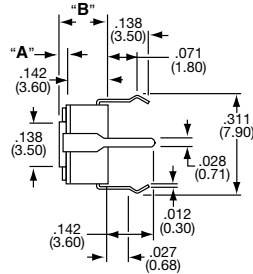
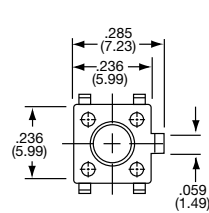
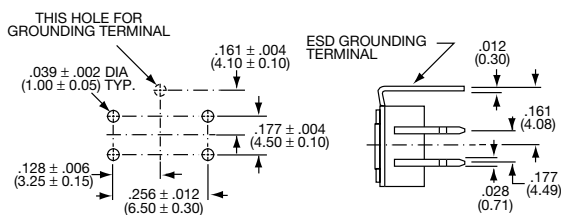
**ENVIRONMENTAL SPECIFICATIONS**

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**



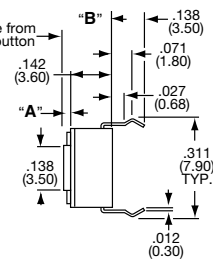
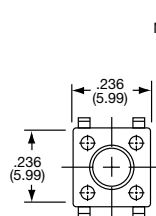
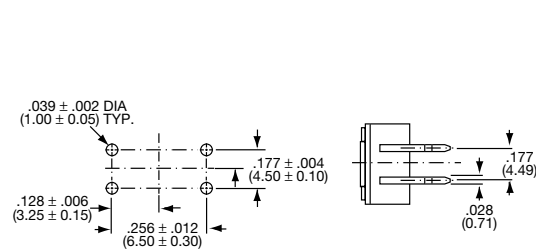
**E**  
FSMJ Series



6 x 6 mm



FSMJ 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

**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:**

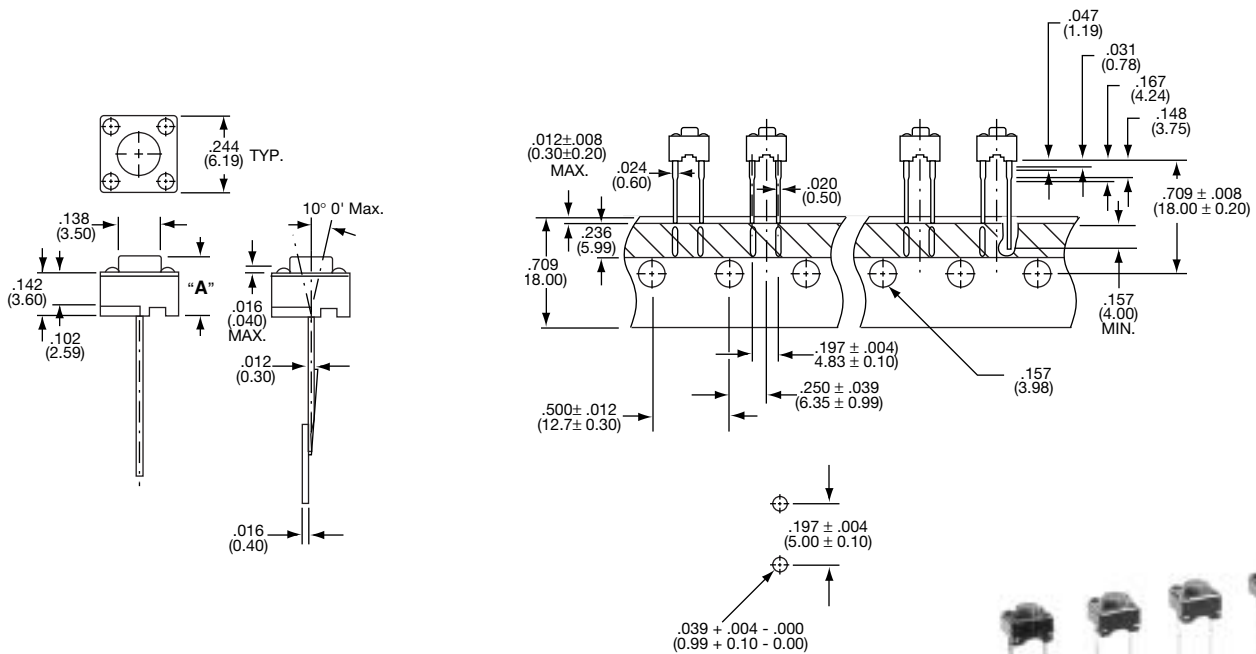
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See Below  
 Actuator Travel......010" (.254)  
 Life Expectancy .....Up to 100,000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

**ENVIRONMENTAL SPECIFICATIONS**

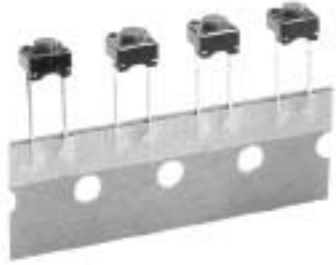
Operating Temperature..... -40°F to +221°F (-40°C to +105°C)  
 Storage Temperature.....-40°F to +221°F (-40°C to +105°C)  
 Solder Heat Resistance .....See Page M3-4

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:**

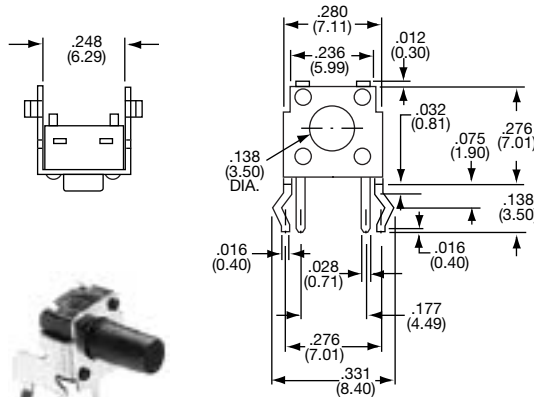
Contacts .....Copper alloy, silver clad plate  
 Case.....PBT  
 Actuator Button .....Nylon/acetel  
 Frame .....Steel, tin plate  
 Terminals .....Copper alloy, silver plate

**TYPICAL PERFORMANCE CHARACTERISTICS:**

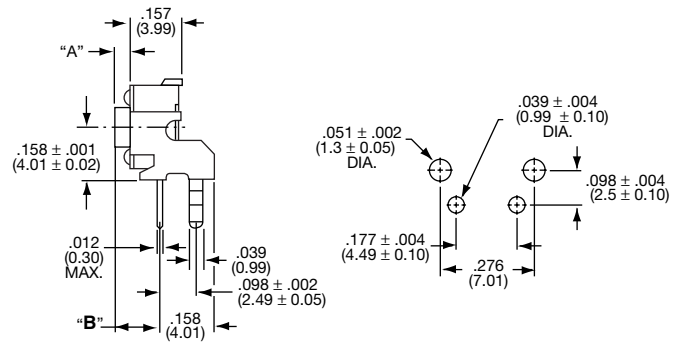
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See Below  
 Actuator Travel......012" (0,3)  
 Life Expectancy .....Up to 100,000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

**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



FSMRA7J

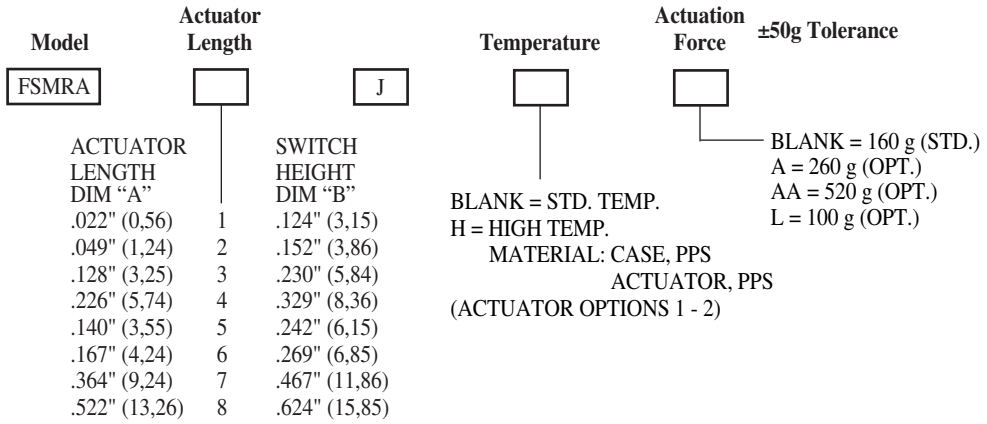


Type		
SPST	Off	(On)

(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**



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:**

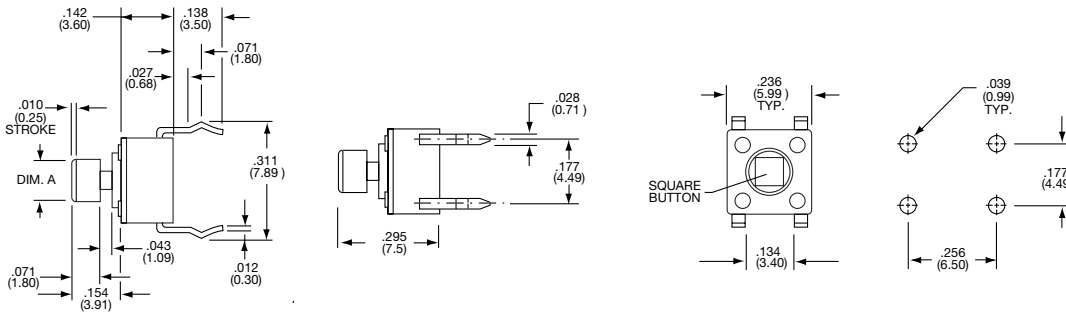
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms Max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....100 and 160 ±50 Grams  
 Actuator Travel......010"(.254)  
 Life Expectancy .....Up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

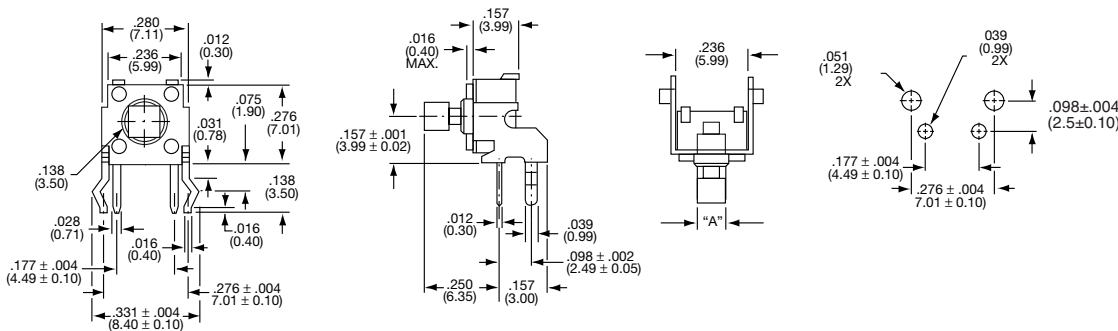
6 x 6 mm



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



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)

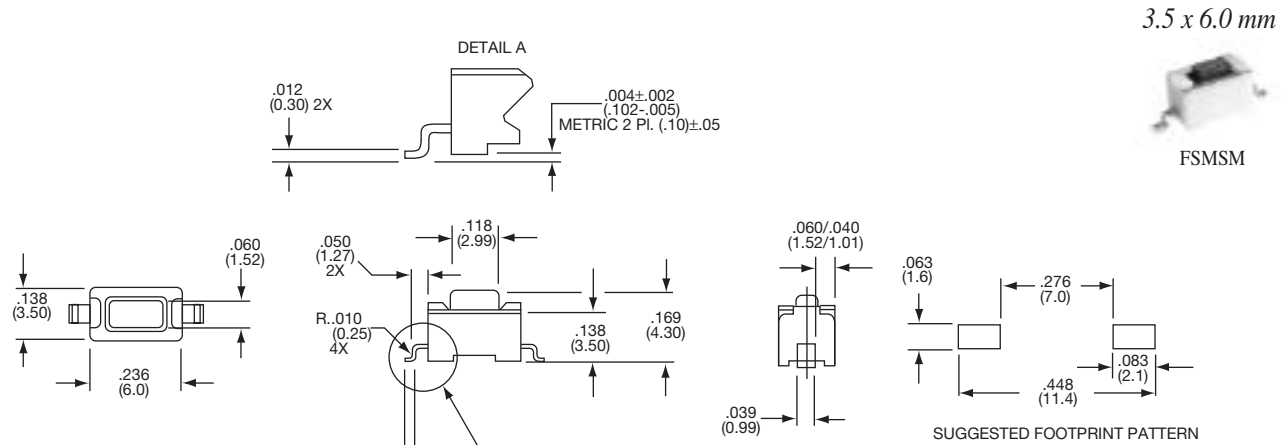


Table with columns: Tyco Electronics, Alcoswitch, Type, Packaging, Actuation Force, Life Cycle. Lists part numbers 1437566-3 and 1437566-4 with their respective specifications.

(On) indicates momentary position.

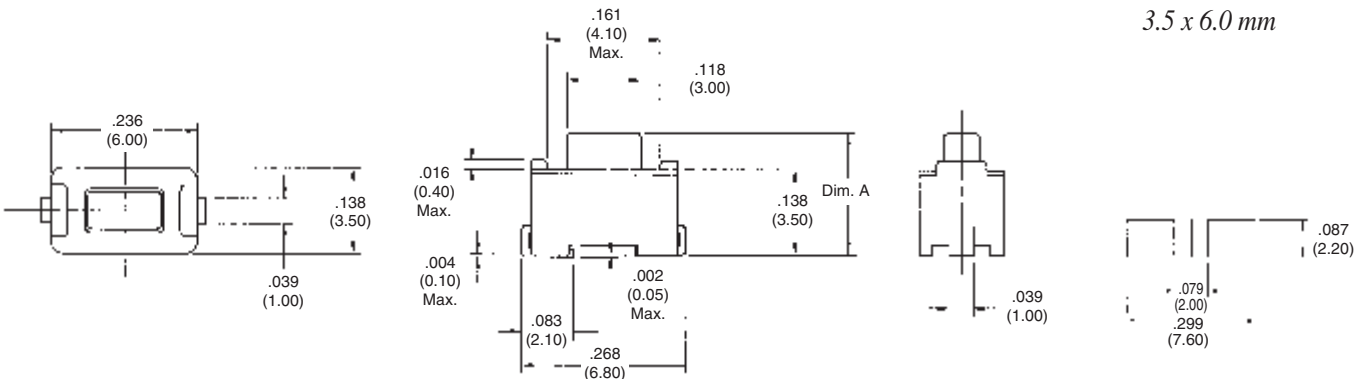


Table with columns: Tyco Electronics, Alcoswitch, Type, Dim. A, Actuation Force, Packaging, Life Cycle. Lists part numbers 147873-1 through 147942-2 with their respective specifications.

E
FSMSM/JM Series

**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

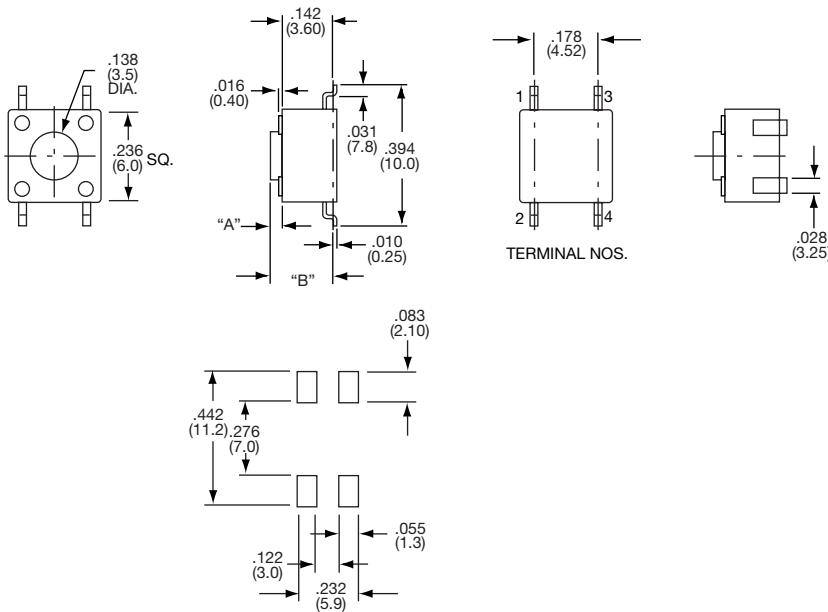
**TYPICAL PERFORMANCE CHARACTERISTICS:**

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:**

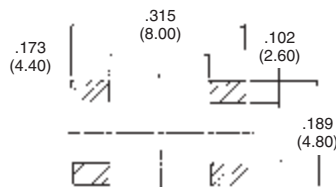
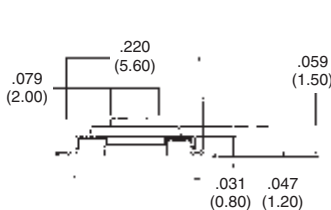
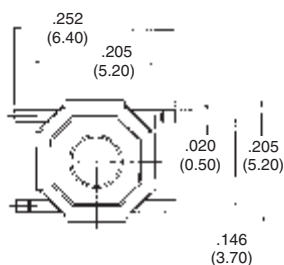
    Moving .....Stainless Steel, Silver Clad-Plate  
     Fixed/Terminal .....Copper Alloy, Silver-Plate  
 Case .....Nylon, UL94V-0

**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 .....PTFE

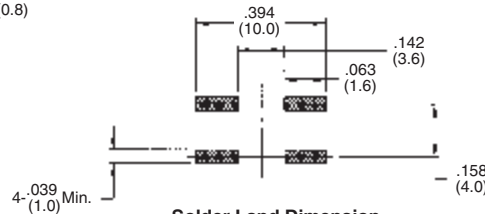
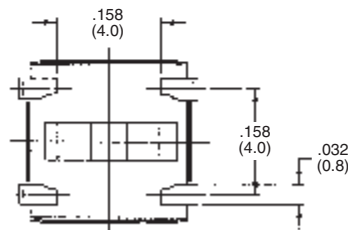
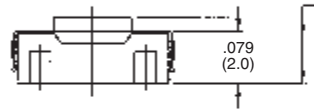
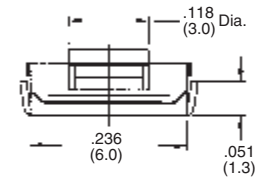
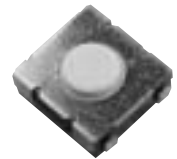
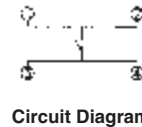
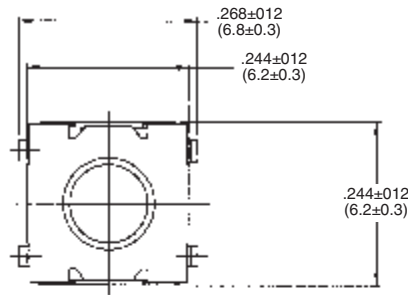
**TYPICAL PERFORMANCE CHARACTERISTICS:**

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:**

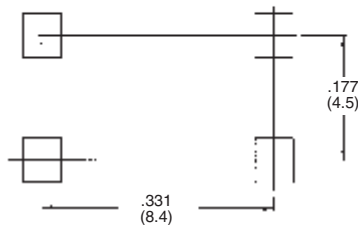
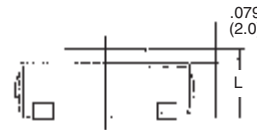
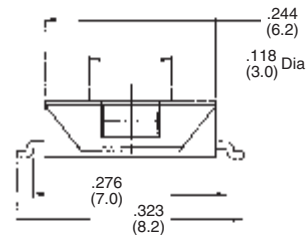
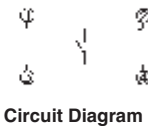
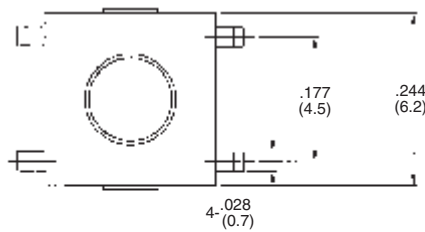
Cover .....Copper Alloy, Tin Lead Plate  
 Stem/Actuator .....Nylon UL94V-0  
 Contacts:  
     Moving .....Stainless Steel, Silver Clad-Plate  
     Fixed/Terminal .....Copper Alloy, Silver-Plate  
 Case .....Thermoplastic, UL94V-0, Black  
 Tape .....PTFE

**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 +/- .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**

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 .....PTFE

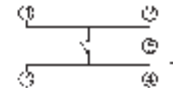
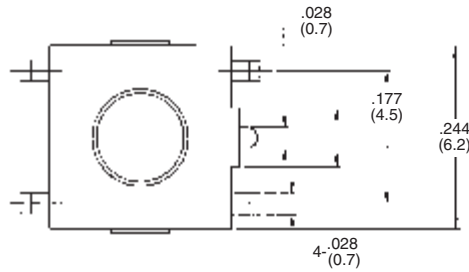
**TYPICAL PERFORMANCE CHARACTERISTICS:**

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)

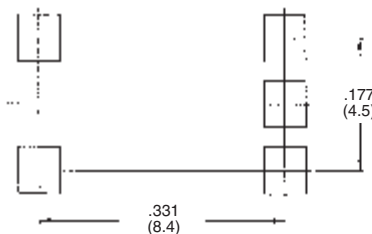
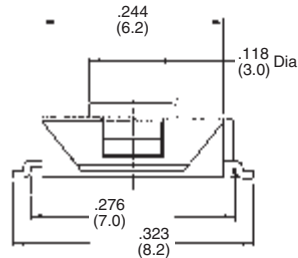
**ENVIRONMENTAL SPECIFICATIONS:**

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:**

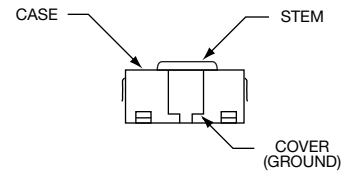
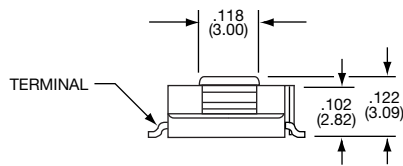
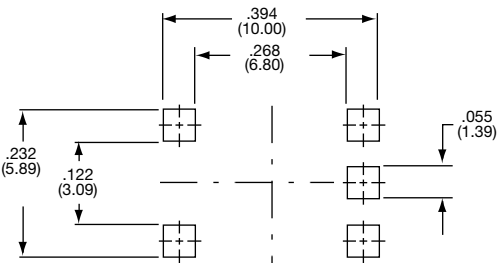
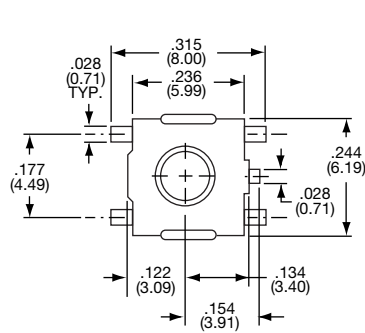
Contact Rating .....50mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @ 100 VDC  
 Dielectric Strength .....500 VAC, 1 minute  
 Actuation Force .....See Below.  
 Life Expectancy .....Up to 100,000 Cycles

**ENVIRONMENTAL SPECIFICATIONS:**

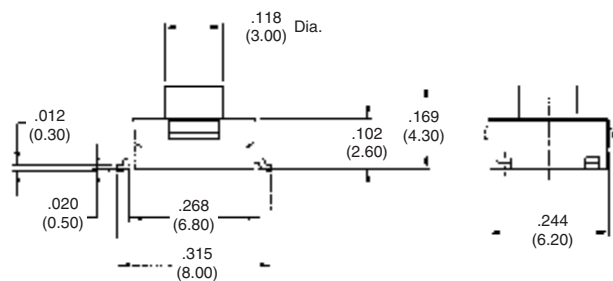
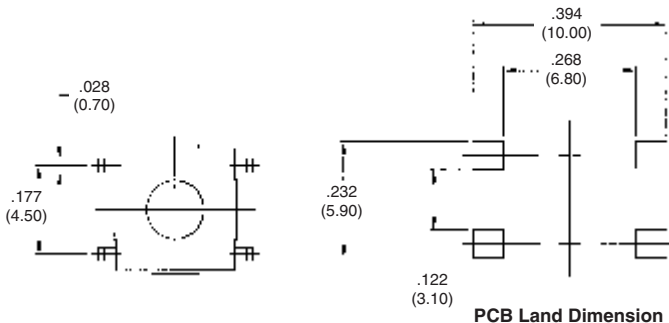
Operating Temperature.....-4°F to +185°F (-20°C to +85°C)  
 Storage Temperature.....-22°F to +185°F (-30°C to +85°C)  
 Solder Heat Resistance .....IR Soldering EIA-364-56  
 Procedure 5 Level 2, 464°F (240°C)



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:**

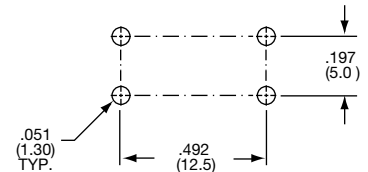
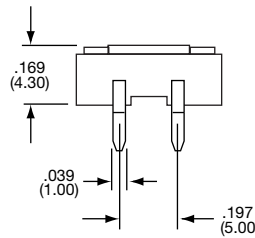
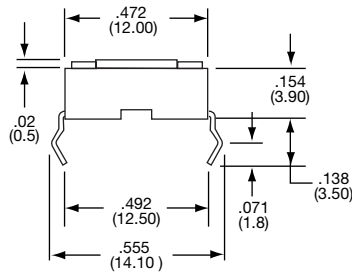
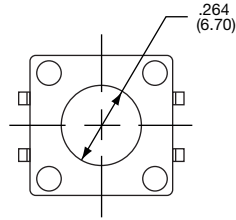
Contact Rating .....50 mA @ 12 VDC  
 Initial Contact Resistance .....100 Milliohms max.  
 Insulation Resistance .....100 Megohms min. @100 VDC  
 Dielectric Strength .....500 VAC for 1 minute  
 Actuation Force .....See below  
 Actuator Travel.....0.012"(0.3)  
 Life Expectancy .....Up to 100,000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

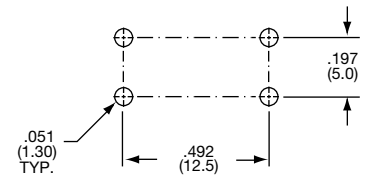
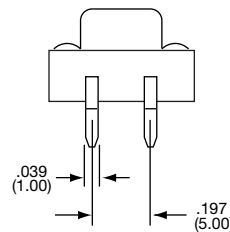
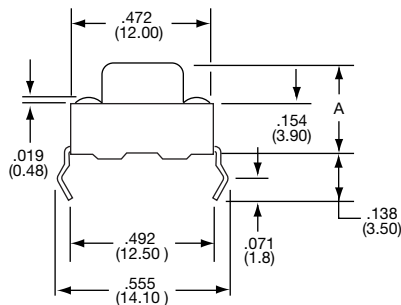
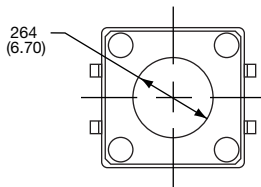


Tyco Electronics	Alcoswitch	Type			Force
1437565-2	FSM100	SPST	Off	(On)	160±50gf
1571139-1	FSM100A	SPST	Off	(On)	260±50gf

(On) indicates momentary position.



FSM101



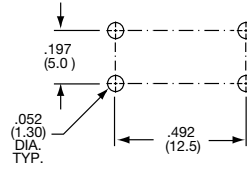
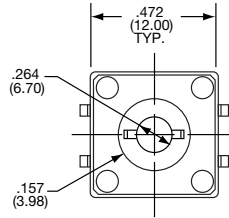
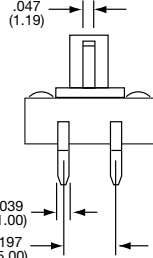
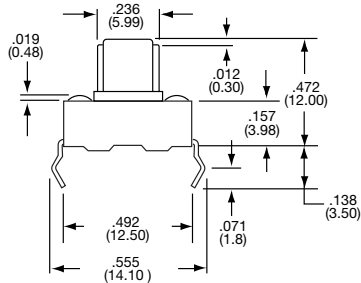
Tyco Electronics	Alcoswitch	Type			Force	Dim A
1437565-3	FSM101	SPST	Off	(On)	160±50gf	.295 [7.5mm]
1571140-1	FSM201A	SPST	Off	(On)	260±50gf	.335 [8.5mm]

(On) indicates momentary position.

E  
FSM100-104 Series



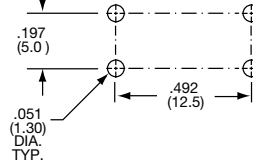
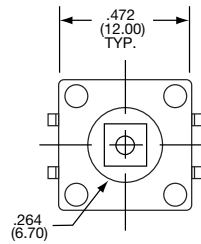
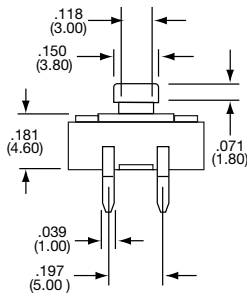
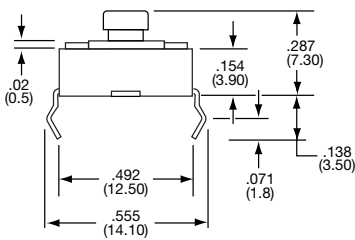
**Tactile Switches, .472 [12] x .472 [12], Vertical or Right Angle**



FSM102

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

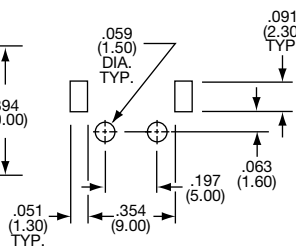
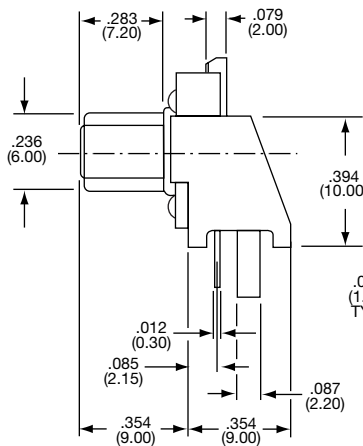
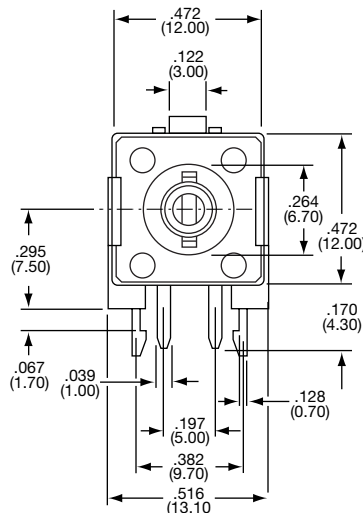
(On) indicates momentary position.



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.

FSM100-104 Series

**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:**

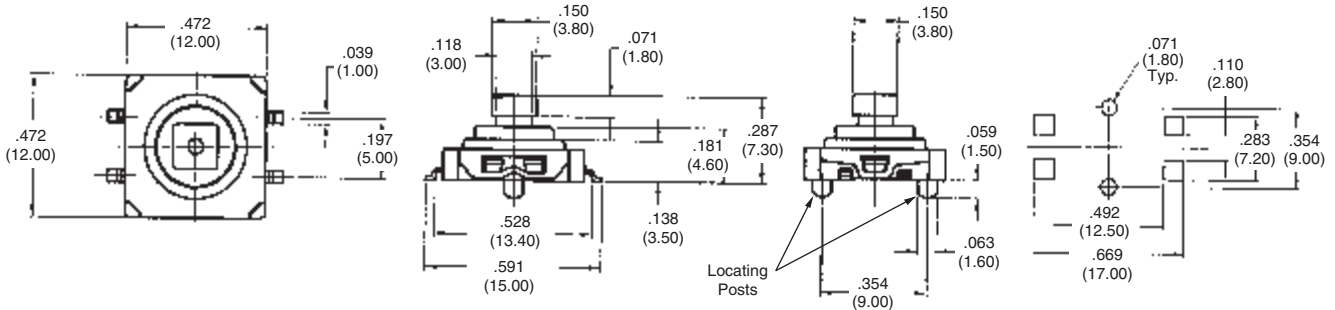
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**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:**

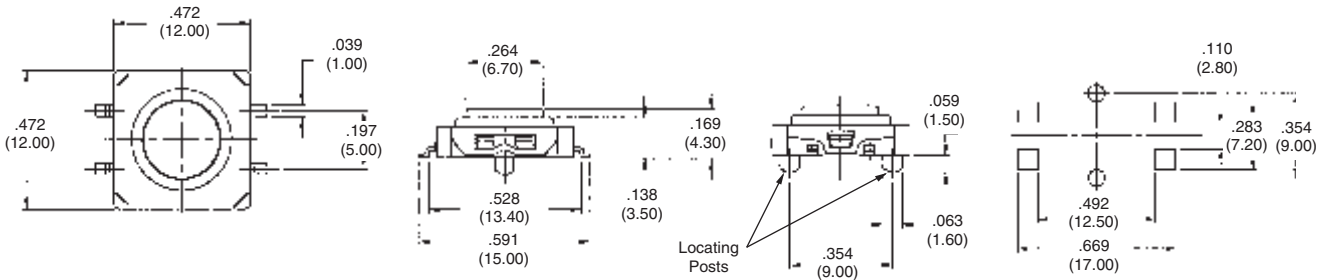
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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 +/-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 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

**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:**

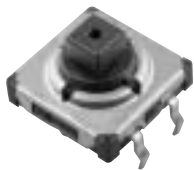
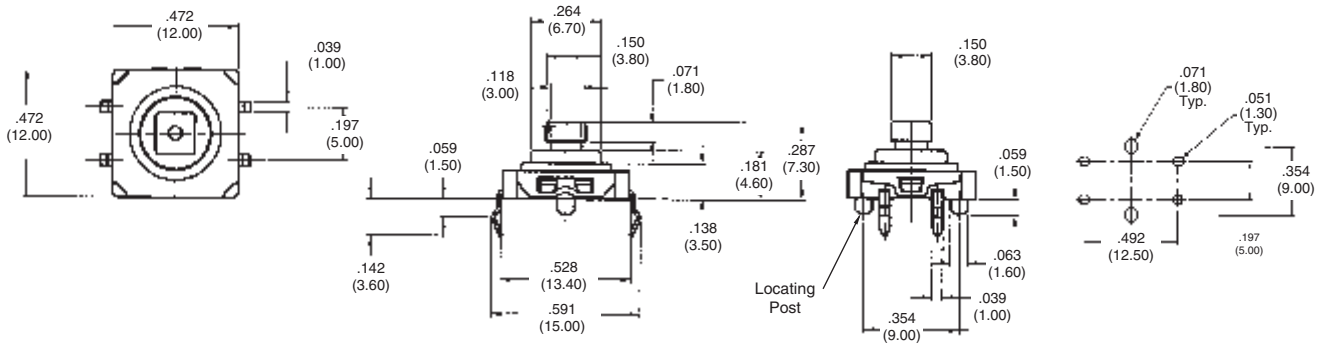
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/-0.008 (.35 +/- .20)  
 Life .....1,000,000 Cycles

**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:**

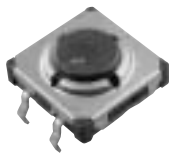
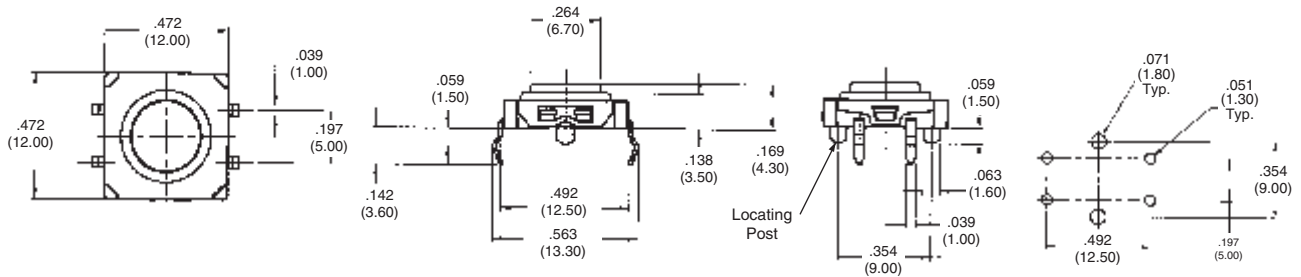
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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:**

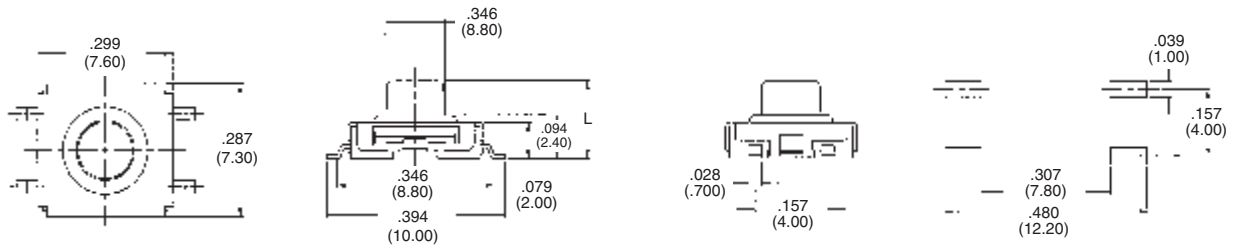
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**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:**

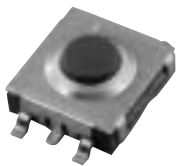
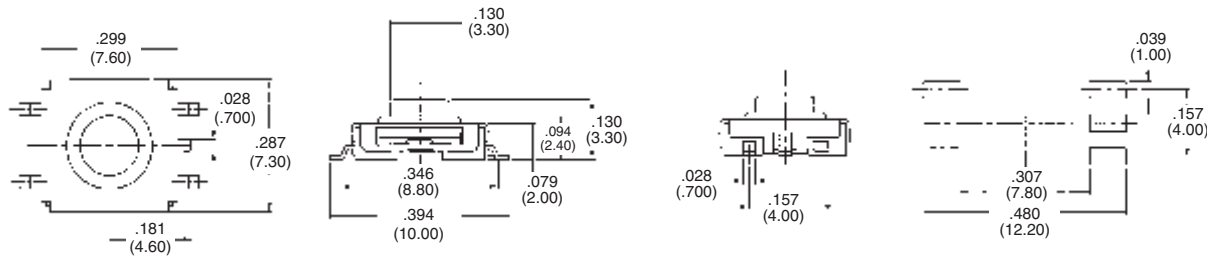
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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:**

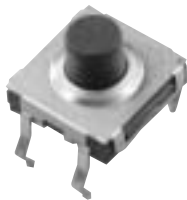
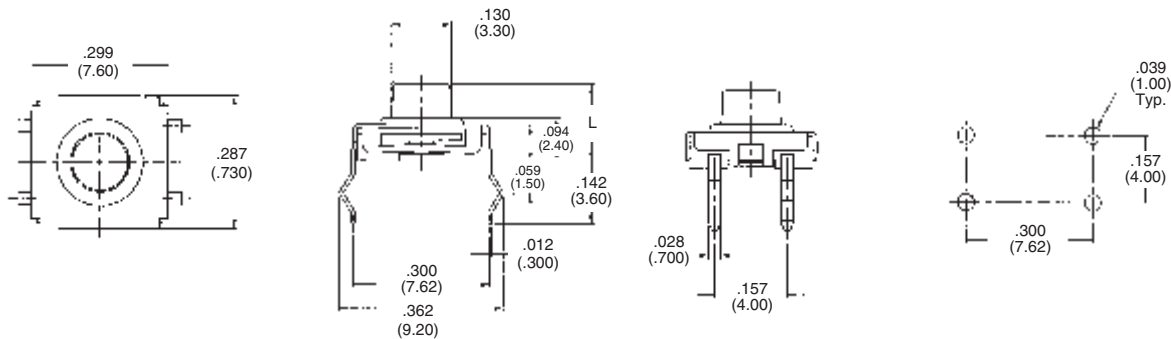
Case .....Thermoplastic, UL94V-0, Black  
 Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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:**

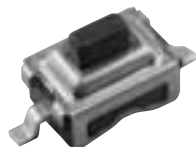
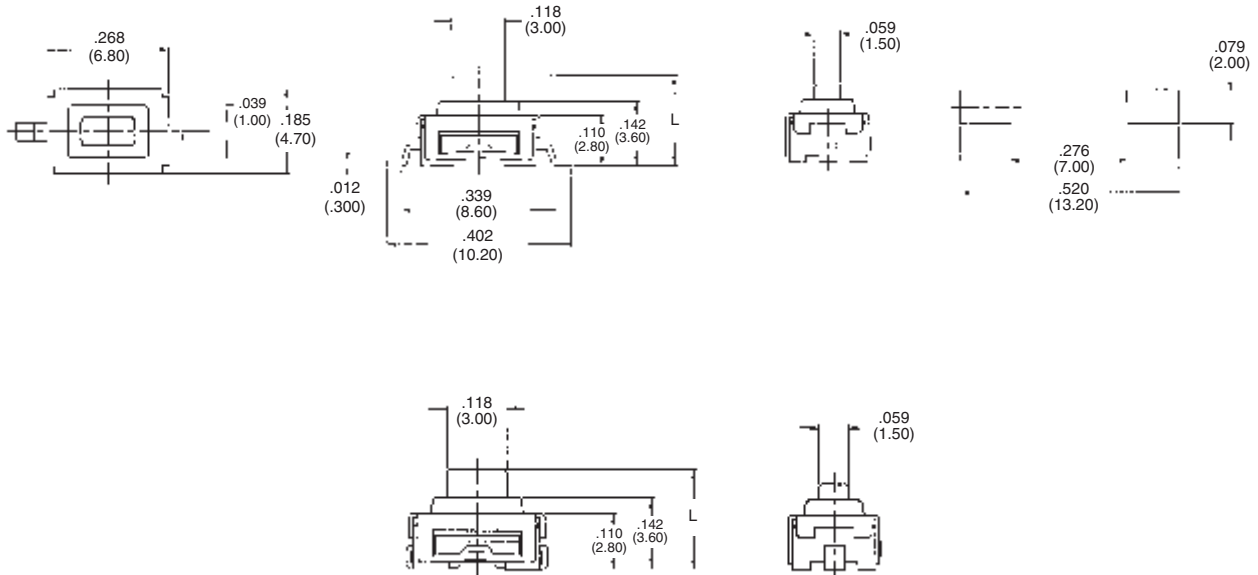
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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:**

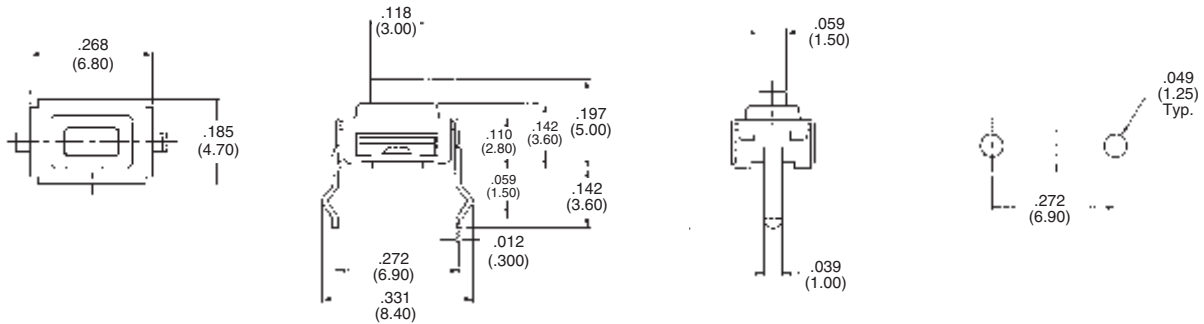
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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:**

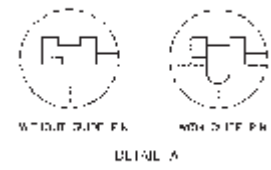
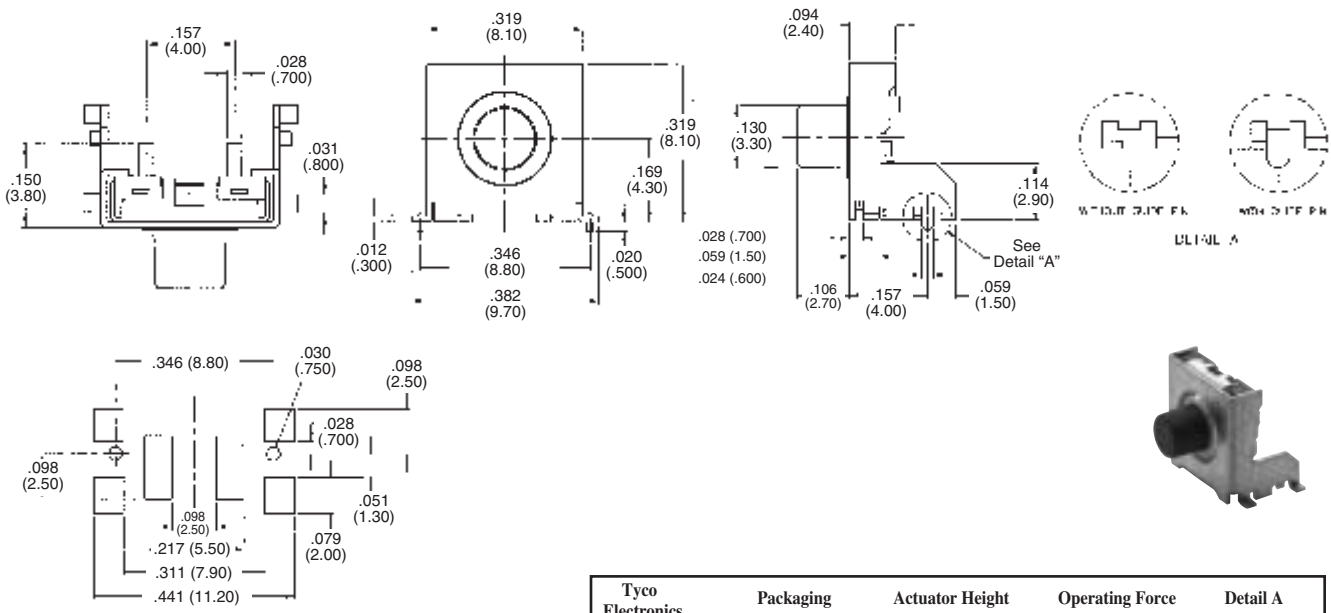
Case .....Thermoplastic, UL94V-0, Black  
 Stem/Actuator .....Thermoplastic, UL94V-0, Black  
 Cover .....Stainless Steel  
 Seal .....Silicone Rubber, Black  
 Contact.....Stainless Steel, Plating—Silver  
 Terminal .....Copper Alloy, Plating—Silver/Nickel

**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:**

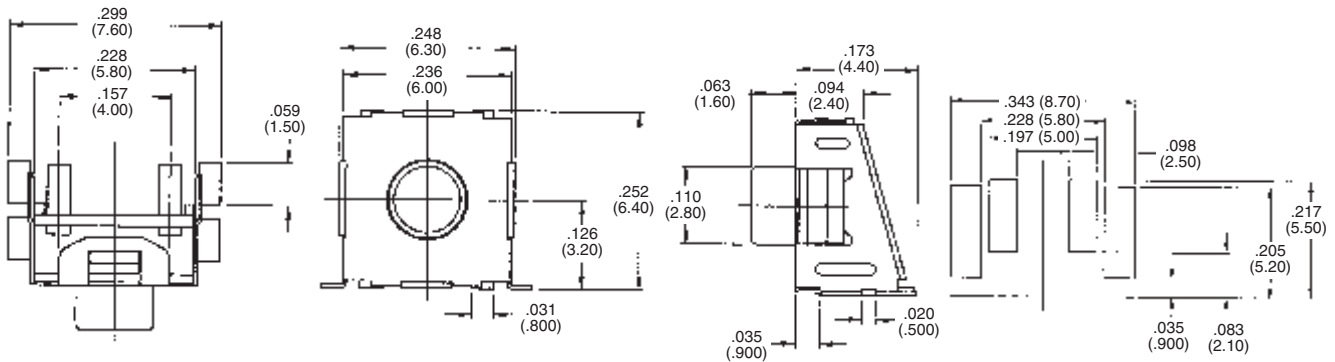
Contact Rating .....50mA @ 12 V DC  
 Initial Contact Resistance .....100MilliOhms Max  
 Insulation Resistance .....100Megaohms @ 100VDC Min.  
 Dielectric Strength .....500 VAC  
 Actuation Travel.....0.014 +/- .008 (.35 +/- .20)  
 Life .....Up to 1,000,000 Cycles

**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



**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

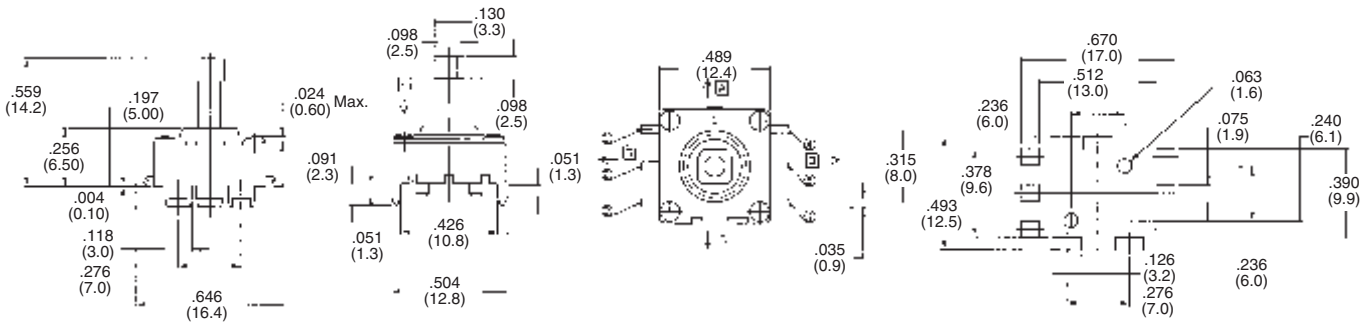
**ENVIRONMENTAL SPECIFICATIONS**

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) ±.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:**

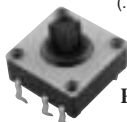
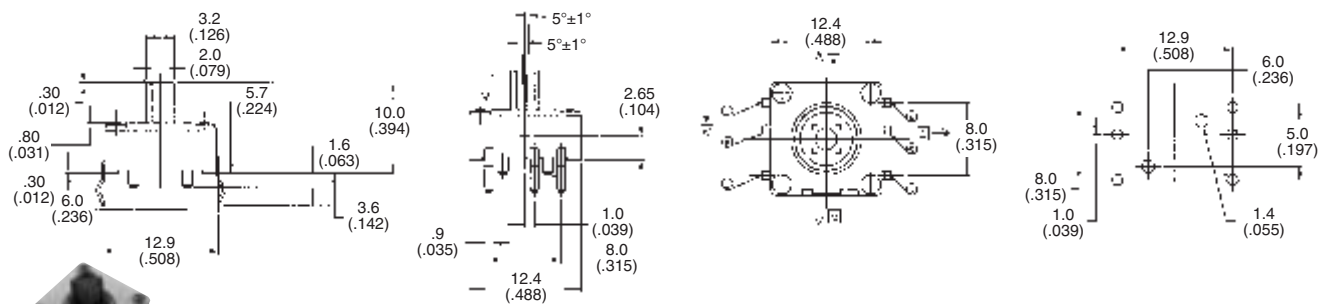
Contacts.....Stainless steel, plate silver clad/nickel  
 Case Material .....Nylon - UL 94-HB, Black  
 Actuator Material .....PBT, UL 94-HB  
 Terminals/Fixed Contacts .....Copper alloy - plate silver/nickel

**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) ±.008 (.2) (center push),  
 0.197 (5.0) ±1° (4-directional)



Part Number 1571515-1

E30

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