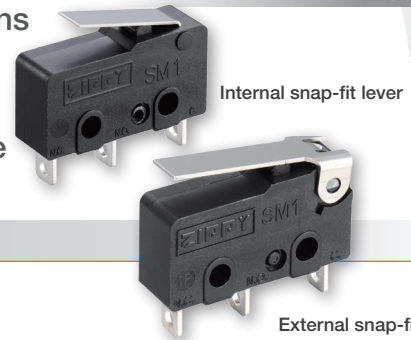


SM1 Series Micro Switches

herga

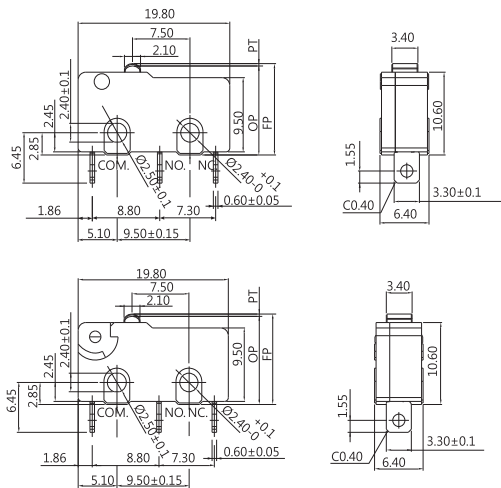
Technology Ltd

- High quality micro switches for a wide range of applications
- Internal or external snap-fit lever
- Designed for footswitch, hand control, joystick etc
- Excellent performance, high reliability and long service life
- UL/cUL and ENEC certification



Reference dimensions mm

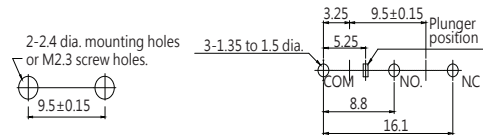
Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.



Contact configuration



Mounting holes



General specifications

Contact resistance (initial)	Max. 300 mΩ Measured by ohm meter - open voltage < 1VDC, driver current -100 mA
Insulation Resistance (at 500 VDC / minute)	Min. 100 MΩ
Dielectric Strength	Min. 500VAC (50-60HZ)/minute between Live parts. Min. 1500VAC (50-60HZ)/minute between Live parts and dead metal parts
Operating Temperature Range	-40°C to 125°C (with no icing)

Vibration	10~55Hz, displacement 0.75 mm (p-p)
Electrical Service Life	Min. 10,000 operations
Electrical Operating Frequency	10~30 operations per minute
Mechanical Service Life	All series for H force: No define the life cycles All series for F force: Min. 1,000,000 operations Others: Min. 5,000,000 operations
Mechanical Operating Frequency	120 operations per minute
Operating application of the switch	Set the switch pushing distance from 60% to 90% of the specified OT value

Certification information

Model Name	UL - cUL	ENEC
SM1-G1 SM1-NC1 SM1-GC1	0.1RA 125/250VAC μ T125 1E4 0.1RA 30VDC μ T125 1E4	0.1A 125/250VAC μ T125 1E4 0.1A 30VDC μ T125 1E4
SM1-N3 SM1-G3 SM1-NC3 SM1-GC3	3RA 125/250VAC μ T125 1E4 3RA 30VDC μ T125 1E4	3A 125/250VAC μ T125 1E4 3A 30VDC μ T125 1E4
SM1-N6 SM1-G6	6RA 125/250VAC μ T125 1E4 6GPA 125/250VAC μ T85 1E4 5RA 30VDC μ T125 1E4	6A 125/250VAC μ T125 1E4 5A 30VDC μ T125 1E4 6(3)A 125/250VAC μ T85 1E4 (S,F, H force only)

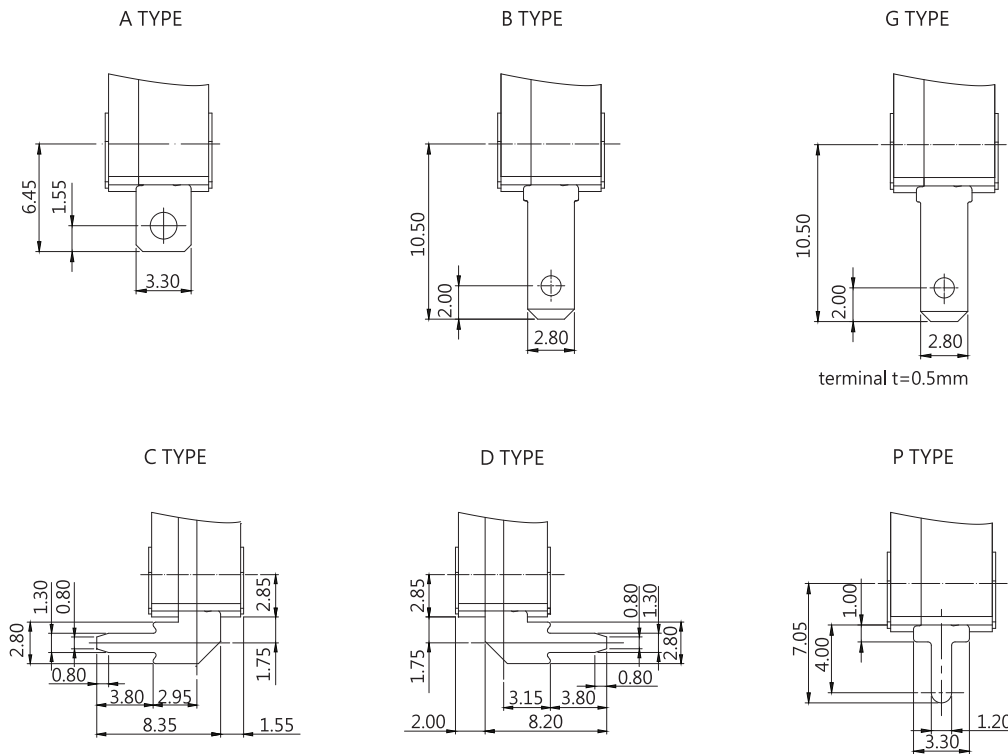
Selection of rating & force

MODEL	Rating	D	L	S	F	H
SM1-G1 SM1-NC1 or SM1-GC1	0.1A	✓	✓	✓	✓	✓
SM1-N3 or SM1-G3	3A	✓	✓	✓	✓	✓
SM1-NC3 or SM1-GC3	3A		✓	✓	✓	✓
SM1-N6 or SM1-G6	6A	✓	✓	✓	✓	✓
SM1-N6S, N6F, N6H	6(3)A			✓	✓	✓

NOTE: The symbol " ✓ " represents the result is accepted



Terminal types



Ordering information

S M 1		N 6		S		INTERNAL SNAP-FIT LEVER OR EXTERNAL SNAP-FIT LEVER		A		0		Z	
SERIES PREFIX	CODE	RATING CURRENT	OPERATING FORCE	CODE	ACTUATOR TYPE	CODE	ACTUATOR TYPE	CODE	TERMINAL TYPE	CODE	CONTACT ARRANGEMENT	ROHS CODE	
	G1 NC1 GC1	0.1A 125/250VAC 0.1A 30VDC	STANDARD	00		00		A		0	S.P.D.T		
	N3 G3 NC3 GC3	3A 125/250VAC 3A 30VDC	LIGHT	01		01		B		1	S.P.S.T NO		
	N6 G6	6A 125/250VAC 5A 30VDC	SLIGHT	02		02		C		2	S.P.S.T NC		
			HEAVY	03		03		D					
			HEAVIER	04		04		P					
				05		05		G					
				06		06							
				07		07							
				08		08							
				09		09							

NOTE

ITEM	RATING CURRENT	OPERATING FORCE
1	CODE:G1	ALL
2	CODE:N3/G3	ALL
3	CODE:N6/G6	ALL
4	CODE:NC1/GC1	ALL
5	CODE:NC3/GC3	L,S,F,H

Operating characteristics (SM1 series - internal snap-fit lever)

SWITCH TYPE	PART SUFFIX	OF Max. (gf)	OP (mm)	PT Max. (mm)	OT Min. (mm)	MD Max. (mm)	FP Max. (mm)	RF Min. (gf)	
SM1-□□□□-00□□-Z		H	355	11.4±0.3	1.1	0.4	0.2	12.2	100
		F	280						50
		S	150						25
		L	95						10
SM1-□□□□-01□□-Z		H	118	11.4±1.1	4.63	0.53	1.45	14.6	20
		F	90	11.8±0.8	3.6	0.6	0.8		9
		S	50						6
		L	28						1
SM1-□□□□-02□□-Z		H	107					11.4±1.3	5.29
		F	82	11.8±0.9	4.03	0.67	0.9	8	
		S	45					5	
		L	25					1	
SM1-□□□□-03□□-Z		H	87					11.0±1.8	7.47
		F	70	11.8±1.5	5.35	0.89	1.19	5	
		S	34					2	
		L	20					1	
SM1-□□□□-04□□-Z		H	111					13.3±1.2	5.02
		F	85	13.7±0.9	3.86	0.64	0.86	8	
		S	47					5	
		L	26					1	
SM1-□□□□-05□□-Z		H	117					17.1±1.1	4.60
		F	90	17.5±0.8	3.8	0.6	0.8	9	
		S	50					6	
		L	28					1	
SM1-□□□□-06□□-Z		H	97					18.0±1.5	6.12
		F	75	19.0±1.5	5.7	1.0	1.0	7	
		S	42					2	
		L	23					1	
SM1-□□□□-07□□-Z		H	55					9.9±2.7	11.20
		F	53	11.8±2.0	8.6	1.5	1.8	3	
		S	25					1	
		L	16					1	
SM1-□□□□-08□□-Z		F	58					-2.3±3.0	6.0
		S	25	1					
		L	17	1					
SM1-□□□□-09□□-Z		F	38	11.8±3.0	13.3	1.0	2.9	22.1	2
		S	15						2
		L	12						1

SM1 Series Micro Switches

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Technology Ltd

Operating characteristics (SM1 series - external snap-fit lever)

SWITCH TYPE	PART SUFFIX	OF Max. (gf)	OP (mm)	PT Max. (mm)	OT Min. (mm)	MD Max. (mm)	FP Max. (mm)	RF Min. (gf)	
SM1- □□□ -500 □□ -Z		H	355	11.4±0.3	1.1	0.4	0.2	12.2	100
		F	280						50
		S	150						25
		L	95						10
SM1- □□□ -501 □□ -Z		H	145	11.8±1.10	4.6	0.9	0.8	15.3	15
		F	105						12
		S	50						6
		L	40						1
SM1- □□□ -502 □□ -Z		H	135	11.8±1.20	5.1	0.7	0.8	15.70	10
		F	100						8
		S	50						5
		L	40						--
SM1- □□□ -503 □□ -Z		H	110	11.8±1.60	6.90	0.9	1.10	17.10	10
		F	80						7
		S	45						4
		L	35						--
SM1- □□□ -504 □□ -Z		H	140	13.7±1.1	4.80	1.50	0.8	17.40	15
		F	100						11
		S	50						6
		L	40						1
SM1- □□□ -505 □□ -Z		H	145	17.9±1.0	4.05	0.55	0.9	21.00	15
		F	110						12
		S	55						6
		L	40						1
SM1- □□□ -506 □□ -Z		H	195	11.8±0.8	3.2	0.6	0.6	14.2	25
		F	145						19
		S	70						10
		L	50						2
SM1- □□□ -507 □□ -Z		H	85	11.8±2.6	10.8	1.2	1.9	20.0	5
		F	60						3
		S	35						1
		L	30						---
SM1- □□□ -508 □□ -Z		H	140	14.9±1.1	4.10	1.0	0.8	17.95	40
		F	100						11
		S	50						3
		L	40						1
SM1- □□□ -509 □□ -Z		H	65	11.8±3.5	14.8	2.8	2.6	23.1	1
		F	50						1
		S	30						1
		L	25						---