

ZM Series

Mini Size Snap-acting Switches



Agency Approvals

Agency	Agency File Number
	E42363
	ENEC-03343

Specifications

Contact Rating	F7: 3A @ 125 VAC, M9: 0.2A @ 60 VDC
Electrical Life	10,000 cycles @ 3A
Insulation Resistance	100 M ohm min.
Dielectric Strength	1000 Vrms
Operating Temperature	-30°C to 85°C
Operating Force	CJ: 150 grams, CH: 90 grams

Notes:

Low Level = conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max.

Description

Designers of PCB detection switches, communication devices and testing equipment turn to the ZM series because of their reputation for being reliable and long-lasting. The ZM series is a mini size snap-acting switch that features a reliable snap-acting mechanism, compact size and the long electrical and mechanical life that today's applications require.

Features & Benefits

- Reliable snap-acting mechanism
- Long electrical and mechanical life
- Compact size—Ideal when space is limited
- Various PCB terminals and actuators
- RoHS compliant / compatible

Applications

- PCB detection switch
- Communication devices
- Testing equipment
- Security/Alarm systems
- Consumer electronics
- Automotive: door latch, seat position detection, EV charging

Materials

Cover	Nylon 6/6
Actuator Button	
Case	SUS
Spring	
Movable Blade	BeCu
Movable Contact	Silver alloy (M9 option gold plated)
Fixed Contacts	
Fixed Terminals	Brass - Ag plated
Actuator (Leaf/Roller options)	SUS

Notes:

1. Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

ZM Series

Mini Size Snap-acting Switches



Ordering Number

To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult Customer Service Center.

ZM - x - x - x - x

Series

ZM: SP Mom.

Operating Force

CJ: 150 grams

CH: 90 grams

Electrical Rating
see chart below

Terminations

T: PC Thru-hole

L: Left-footed PC Thru-hole

R: Right-footed, PC Thru-hole

K: PC Thru-hole with retention feature

Actuator

P0: Pin plunger

L0: Leaf

L3: Leaf

T13: Simulated roller

T23: Simulated roller

Option Code	UL 1054 c US	UL 61058-1 c US	
F7	3A 125 V AC	3A 125 V AC 3A 30 V DC	3A 125 V AC
M9		0.1 A 48 V DC 0.2 A 60 V DC 0.1 A 125 V AC	

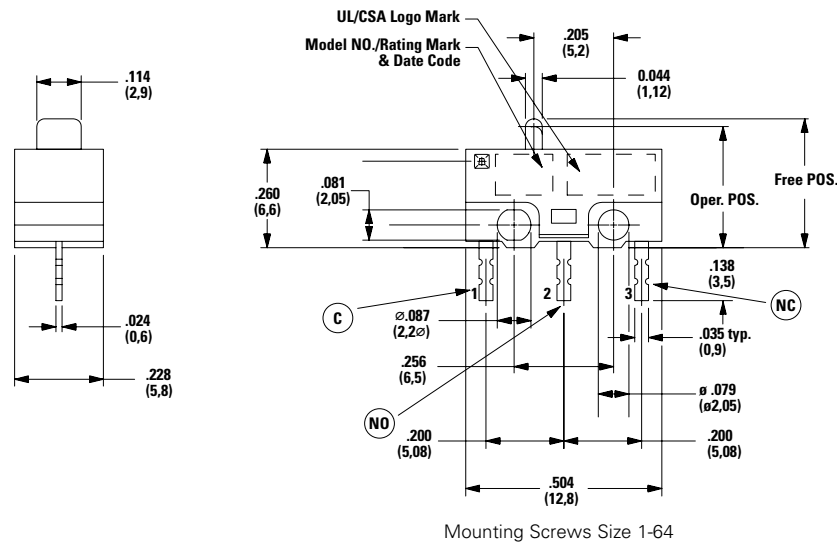
Available in Operating Force-Actuator combination:

CJ-L01

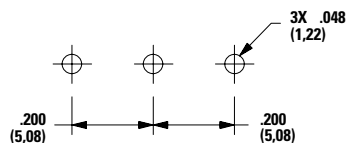
CH-L32

Series

ZM Mini Size Snap-Acting Switches – SP Momentary ZMCJF7L0T SPDT



PC Mounting



ZM Series

Mini Size Snap-acting Switches



Operating Force

Option Code	Basic Switch Operating Force (Oz./Grams)
CJ	5.29, 150
CH	3.15, 90

Electrical Rating

Option Code	RoHS Compliant	RoHS Compatible	Contact Material		Electrical Rating
			Movable Contact	Sta	
F7	Yes		Silver Alloy		See chart
M9	Yes		Gold plating or silver alloy		

Notes:

1. See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.
All models  with all options.

Consult Customer Service center for availability and delivery of nonstandard ratings.

Option Code

Option Code	UL 1054 	UL 61058-1 	
F7	3A 125 V AC	3A 125 V AC 3A 30 V DC	3A 125 V AC
M9		0.1 A 48 V DC 0.2 A 60 V DC 0.1 A 125 V AC	

Actuator Option Code	A (mm)	B Red (mm)	C (mm)	D (mm)	E (mm)	Diff. Motion mm Max.	Oper. Force grams max		Released Force Grams max.	Over Travel Min.
	Length of Lever	Lever Length MTG. Hole to OP	Pre- Travel Max.	Operating Position	Free Position Max.		CJ	CH		
F0 Pin Plunger	NA		1.3	7.0 ± 0.3	8.0	0.3	150	90	15-20	0.2
L0 Leaf	13.0	4.03	3.4	8.4 ± 0.8	11.0	1.3	50	-	8	0.6
L3 Leaf							-	30	5	
T13 Simulated Roller	15.0	5.36	3.8	10.5 ± 0.8	13.0	1.5	40	-	7	0.6
T23 Simulated Roller							-	25	4	

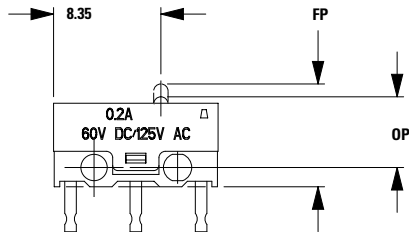
ZM Series

Mini Size Snap-acting Switches

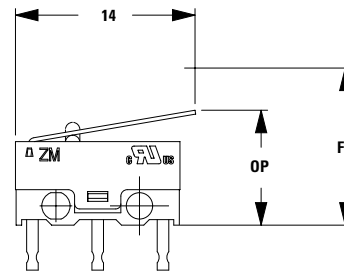


Actuator

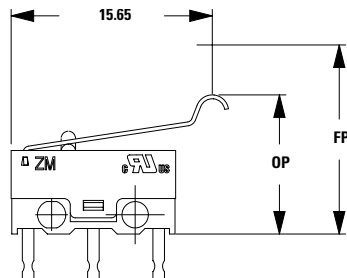
P0 Pin Plunger



L0 Leaf, 50 Grams (CJ Only)
L3 Leaf, 30 Grams (CH Only)

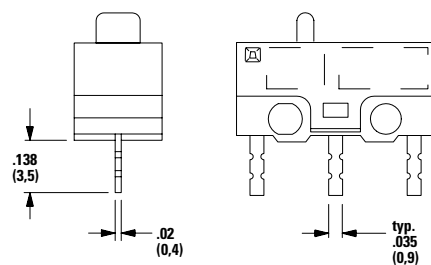


T13 Simulated Roller, 40 Grams (CJ Only)
T23 Simulated Roller, 25 Grams (CH Only)

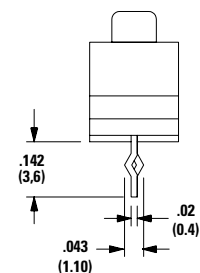


Terminations

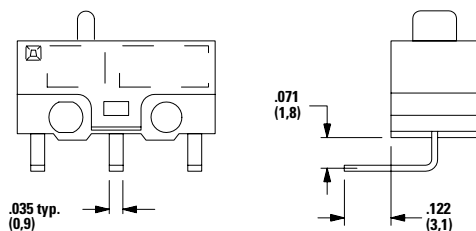
T (STD.) PC Thru-hole



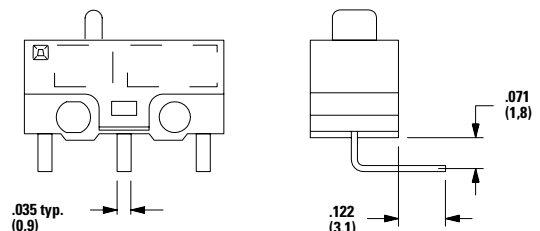
K PC Thru-hole With Retention Feature



L Left Footed, PC Thru-hole



R Right Footed, PC Thru-hole



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.