

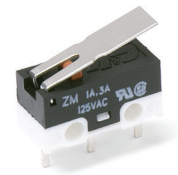
# ZM Series Subminiature Snap-acting Switches

## 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**

## Typical Applications

- **PCB detection switch**
- **Communication devices**
- **Testing equipment**
- **Security/Alarm systems**
- **Consumer electronics**



UL61058-1



## 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.

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

## Materials

COVER: Nylon 6/6

ACTUATOR BUTTON: Nylon 6/6

CASE: Nylon 6/6

SPRING: SUS

MOVABLE BLADE: BeCu

MOVABLE CONTACT: Silver alloy (M9 option gold plated)

FIXED CONTACTS: Silver alloy (M9 option gold plated)

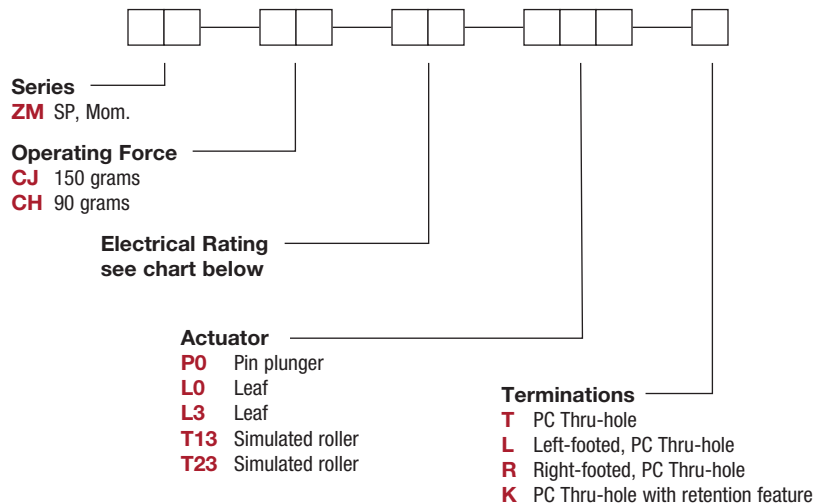
FIXED TERMINALS: Brass - Ag plated.

ACTUATOR (Leaf / Roller options): SUS

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

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages J-48 and J-49. For additional options not shown in catalog, consult Customer Service Center.



| Option Code | UL<br>cULus 1054                                 | UL<br>cULus 61058-1                              |                                                  |
|-------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| <b>F7</b>   | 3 A 125 V AC                                     | 3 A 125 V AC<br>3 A 30 V DC                      | 3 A 125 V AC                                     |
| <b>M9</b>   | 0.1 A 48 V DC<br>0.2 A 60 V DC<br>0.1 A 125 V AC | 0.1 A 48 V DC<br>0.2 A 60 V DC<br>0.1 A 125 V AC | 0.1 A 48 V DC<br>0.2 A 60 V DC<br>0.1 A 125 V AC |

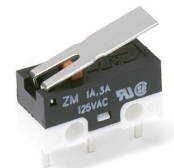
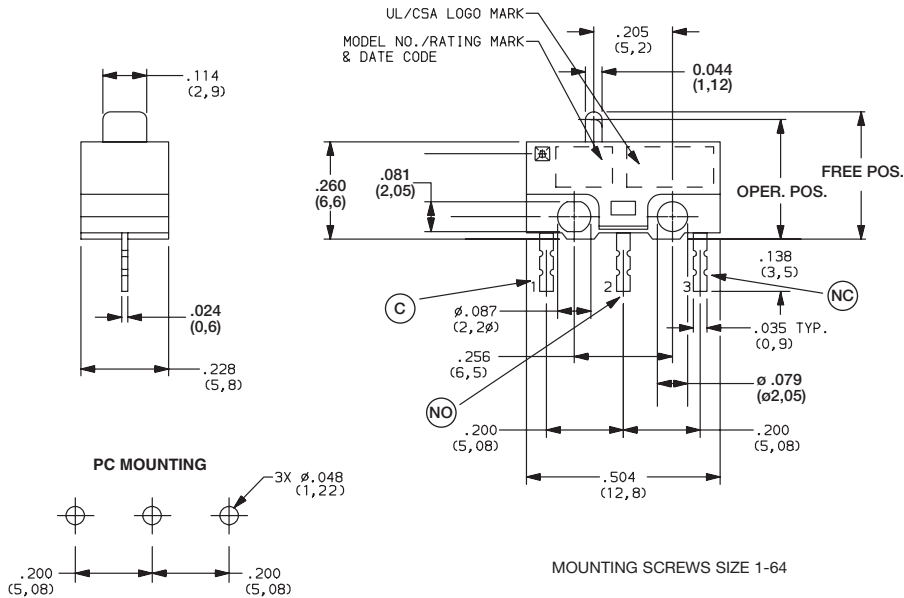


# ZM Series

## Subminiature Snap-acting Switches

SERIES **ZM** ■ ■ ■ ■ ■

**ZM** SUBMINIATURE SNAP-ACTING SWITCHES – SP MOMENTARY



ZMCJF7L0T  
SPDT

### OPERATING FORCE ■ ■ ■ ■ ■

| OPTION CODE | BASIC SWITCH<br>OPERATING FORCE<br>(OZ./GRAMS) |
|-------------|------------------------------------------------|
| <b>CJ</b>   | 5.29<br>150                                    |
| <b>CH</b>   | 3.15<br>90                                     |

### ELECTRICAL RATING ■ ■ ■ ■ ■

| OPTION CODE | RoHS COMPLIANT* | RoHS COMPATIBLE* | CONTACT MATERIAL             |                    | ELECTRICAL RATING |
|-------------|-----------------|------------------|------------------------------|--------------------|-------------------|
|             |                 |                  | MOVABLE CONTACT              | STATIONARY CONTACT |                   |
| <b>F7</b>   | Yes             | Yes              | Silver alloy                 |                    | see chart         |
| <b>M9</b>   | Yes             | Yes              | Gold plating or silver alloy |                    | see chart         |

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

All models **C** **UL** **US** with all options.

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

| Option Code | <b>UL</b><br><b>US</b> 1054                      | <b>UL</b><br><b>US</b> 61058-1                   | <b>UL</b><br><b>US</b> 4                         |
|-------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| <b>F7</b>   | 3 A 125 V AC                                     | 3 A 125 V AC<br>3 A 30 V DC                      | 3 A 125 V AC                                     |
| <b>M9</b>   | 0.1 A 48 V DC<br>0.2 A 60 V DC<br>0.1 A 125 V AC | 0.1 A 48 V DC<br>0.2 A 60 V DC<br>0.1 A 125 V AC | 0.1 A 48 V DC<br>0.2 A 60 V DC<br>0.1 A 125 V AC |



Third Angle  
Projection

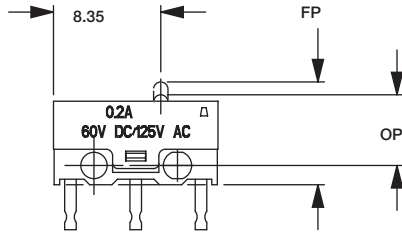
Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

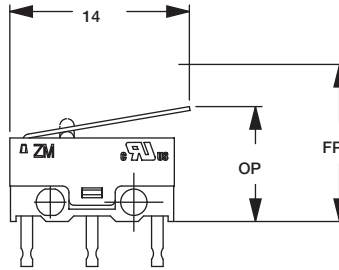
# ZM Series Subminiature Snap-acting Switches

## ACTUATOR

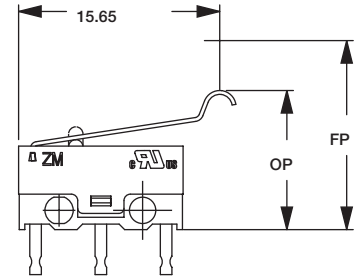
**P0** PIN PLUNGER



**L0** LEAF, 50 GRAMS (CJ ONLY)  
**L3** LEAF, 30 GRAMS (CH ONLY)



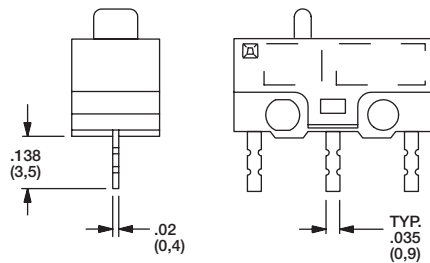
**T13** SIMULATED ROLLER, 40 GRAMS (CJ ONLY)  
**T23** SIMULATED ROLLER, 25 GRAMS (CH ONLY)



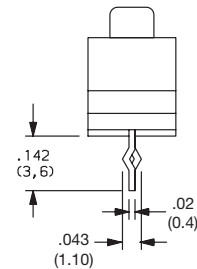
| ACTUATOR<br>OPTION CODE | A<br>(mm)             | B Ref<br>(mm)                         | C<br>(mm)             | D<br>(mm)             | E<br>(mm)               | DIFF.<br>MOTION<br>mm<br>MAX | OPER.<br>FORCE<br>grams<br>MAX |    | RELEASED<br>FORCE<br>Grams<br>MAX | OVER<br>TRAVEL<br>MIN |
|-------------------------|-----------------------|---------------------------------------|-----------------------|-----------------------|-------------------------|------------------------------|--------------------------------|----|-----------------------------------|-----------------------|
|                         | LENGTH<br>OF<br>LEVER | LEVER<br>LENGTH<br>MTG. HOLE<br>TO OP | PRE-<br>TRAVEL<br>MAX | OPERATING<br>POSITION | FREE<br>POSITION<br>MAX |                              | CJ                             | CH |                                   |                       |
| P0 PIN PLUNGER          | NA                    | NA                                    | 1.3                   | 7.0 $\pm 0.3$         | 8.0                     | 0.3                          | 150                            | 90 | 15-20                             | 0.2                   |
| L0 LEAF                 | 13.0                  | 4.03                                  | 3.4                   | 8.4 $\pm 0.8$         | 11.0                    | 1.3                          | 50                             | -  | 8                                 | 0.6                   |
| L3 LEAF                 | 13.0                  | 4.03                                  | 3.4                   | 8.4 $\pm 0.8$         | 11.0                    | 1.3                          | -                              | 30 | 5                                 | 0.6                   |
| T13 SIMULATED<br>ROLLER | 15.0                  | 5.36                                  | 3.8                   | 10.5 $\pm 0.8$        | 13.0                    | 1.5                          | 40                             | -  | 7                                 | 0.6                   |
| T23 SIMULATED<br>ROLLER | 15.0                  | 5.36                                  | 3.8                   | 10.5 $\pm 0.8$        | 13.0                    | 1.5                          | -                              | 25 | 4                                 | 0.6                   |

## TERMINATIONS

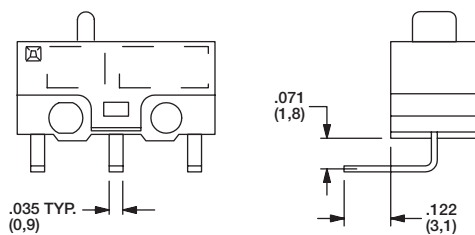
**T** (STD.) PC THRU-HOLE



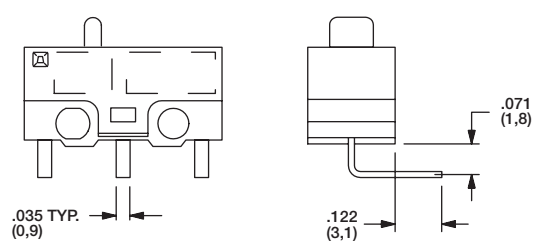
**K** PC THRU-HOLE WITH RETENTION FEATURE



**L** LEFT FOOTED, PC THRU-HOLE



**R** RIGHT FOOTED, PC THRU-HOLE



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

**C&K**

## Данный компонент на территории Российской Федерации

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<http://moschip.ru/get-element>

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