

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

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



## Specifications

OPERATING FORCE: 80 or 150 grams.

## Materials

TERMINALS: Brass, silver plated.

## Build-A-Switch

The diagram shows a 12-position DIP switch assembly. The first three positions are labeled with red boxes containing the letters Z, M, and A. The remaining nine positions are empty. Lines connect the labels to the corresponding positions:

- Series:** ZMA SP, Mom. (connected to positions 1, 2, and 3)
- Electrical Rating:** See charts below (connected to position 4)
- Operating Force:**
  - 150 5.29 oz. / 150 grams (connected to position 5)
  - 080 2.82 oz. / 80 grams (connected to position 6)
- Actuator:**
  - P00 Pin plunger (connected to position 7)
  - S03 Simulated roller 5.8mm (connected to position 8)
  - L30 Lever 20.5mm (connected to position 9)
  - L11 Lever 7.2mm (connected to position 10)
  - L08 Lever 3.95mm (connected to position 11)
  - A03 Roller 1.3mm (connected to position 12)
  - L04 Lever 3.9mm (connected to position 13)
  - S06 Simulated roller 2.03mm (connected to position 14)
  - S07 Simulated roller 0.75mm (connected to position 15)
- Terminations:**
  - P PC Thru-hole (connected to position 16)
  - L Left-footed, PC Thru-hole (connected to position 17)
  - R Right-footed, PC Thru-hole (connected to position 18)
  - E Solder (connected to position 19)
  - K PC Thru-hole with retention feature (connected to position 20)

At the bottom right, there is a label **C SPDT** with a line connecting it to the 20th position.

| Option Code | UL<br>C  US 1054 | UL<br>C  US 61058-1 |  4 |  15 |
|-------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 00A         | 0.1A 60 V DC<br>0.1A 125 / 250 V AC                                                                 |                                                                                                        |                                                                                       |                                                                                        |
| 03A         | 3 A 125 / 250 V AC                                                                                  | 3 A 125 / 250 V AC<br>3 A 24 V DC                                                                      | 0.1A 3A 125/250 V AC                                                                  |                                                                                        |
| 01A         |                                                                                                     | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                                      |                                                                                       | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                      |

| Option Code | UL<br>c  US 1054 | UL<br>c  US 61058-1 |  |  |
|-------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>G00</b>  | 0.1A 60 V DC<br>0.1A 125 / 250 V AC                                                                  |                                                                                                          |                                                                                       |                                                                                       |
| <b>G03</b>  | 3 A 125 / 250 V AC                                                                                   | 3 A 125 / 250 V AC<br>3 A 24 V DC                                                                        | 0.1A 3A 125/250 V AC                                                                  |                                                                                       |
| <b>G01</b>  |                                                                                                      | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                                        |                                                                                       | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                     |



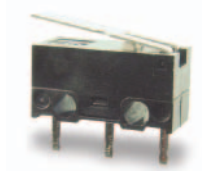
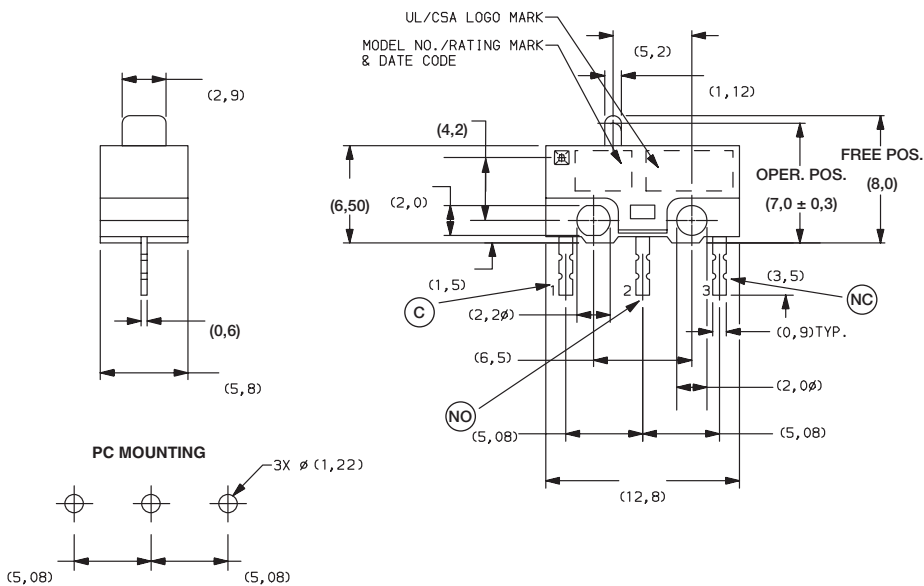
E-32

[www.ck-components.com](http://www.ck-components.com)

# ZMA Series Subminiature Snap-acting Switches

## SERIES

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



ZMA03A150L04PC  
SPDT

## ELECTRICAL RATING

### Silver Contacts

| Option Code | UL<br>c  US 1054 | UL<br>c  US 61058-1 |  |  |
|-------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 00A         | 0.1A 60 V DC<br>0.1A 125 / 250 V AC                                                                 |                                                                                                        |                                                                                     |                                                                                     |
| 03A         | 3 A 125 / 250 V AC                                                                                  | 3 A 125 / 250 V AC<br>3 A 24 V DC                                                                      | 0.1A 3A 125/250 V AC                                                                |                                                                                     |
| 01A         |                                                                                                     | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                                      |                                                                                     | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                   |

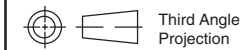
### Gold Plated Contacts

| Option Code | UL<br>c  US 1054 | UL<br>c  US 61058-1 |  |  |
|-------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| G00         | 0.1A 60 V DC<br>0.1A 125 / 250 V AC                                                                 |                                                                                                        |                                                                                       |                                                                                       |
| G03         | 3 A 125 / 250 V AC                                                                                  | 3 A 125 / 250 V AC<br>3 A 24 V DC                                                                      | 0.1A 3A 125/250 V AC                                                                  |                                                                                       |
| G01         |                                                                                                     | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                                      |                                                                                       | 1 A 24 V DC<br>1 A 125 / 250 V AC                                                     |

All models  US with all options.  
Consult Customer Service center for availability and delivery of nonstandard ratings.

## OPERATING FORCE

| OPTION CODE | BASIC SWITCH<br>OPERATING FORCE<br>(OZ./GRAMS) |
|-------------|------------------------------------------------|
| 150         | 5.29<br>150                                    |
| 080         | 2.82<br>80                                     |



Dimensions are shown: mm  
Specifications and dimensions subject to change

[www.ck-components.com](http://www.ck-components.com)



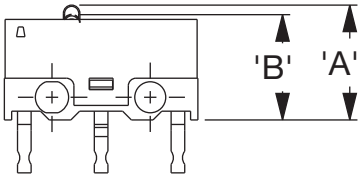
Detect

# ZMA Series

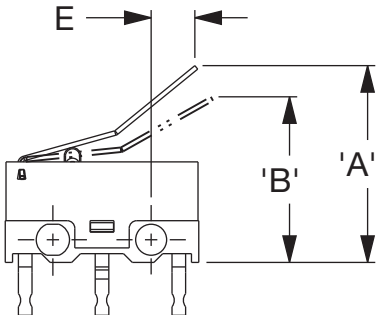
## Subminiature Snap-acting Switches

ACTUATOR 

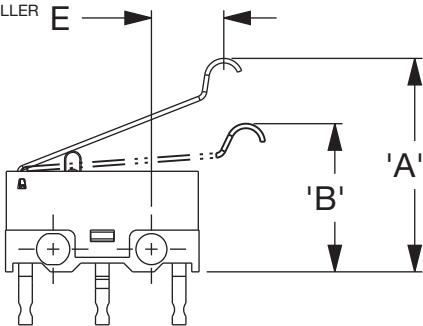
**P00** PIN PLUNGER



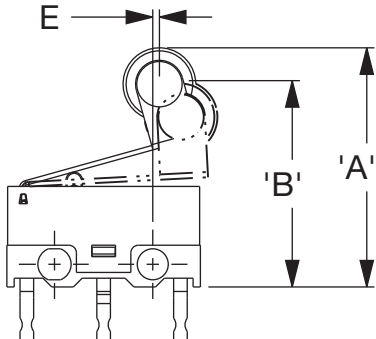
**L08** LEVER  
3.95MM



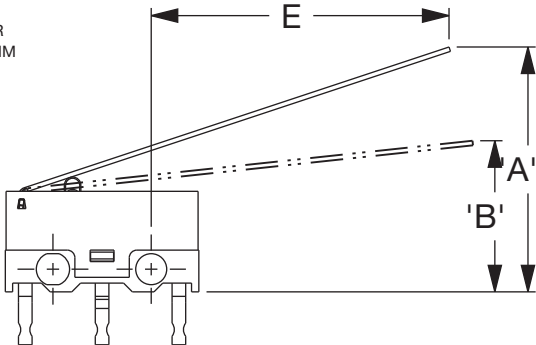
**S03** SIMULATED ROLLER  
5.8MM



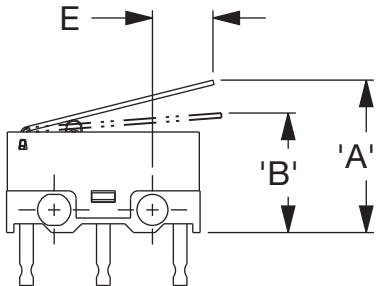
**A03** ROLLER  
1.3MM



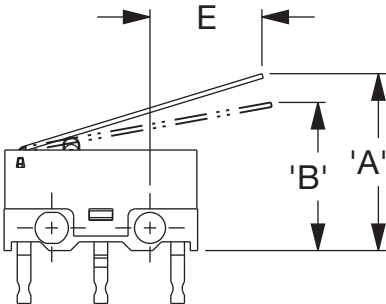
**L30** LEVER  
20.5MM



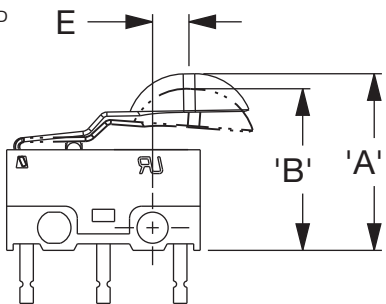
**L04** LEVER  
3.49MM



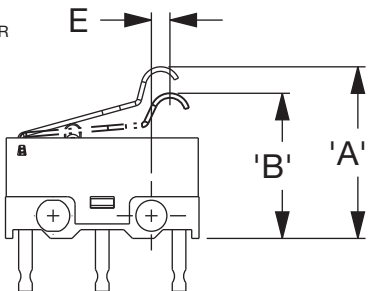
**L11** LEVER  
7.2MM



**S06** SIMULATED ROLLER  
2.03MM



**S07** SIMULATED ROLLER  
0.75MM



Third Angle  
Projection

Dimensions are shown: mm

Specifications and dimensions subject to change



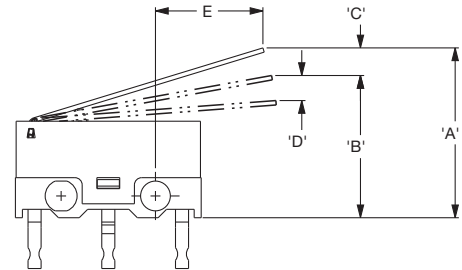
Detect



# ZMA Series Subminiature Snap-acting Switches

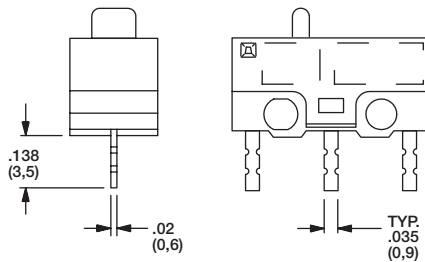
## SWITCH CHARACTERISTICS

| CODE         | OPER. FORCE<br>MAX. (GRAMS) |     | REL. FORCE<br>MIN. (GRAMS) |    | 'A'<br>FP MAX.<br>(MM) | 'B'<br>OP MAX.<br>(MM) | 'C'<br>PT MAX.<br>(MM) | 'D'<br>OT MIN.<br>(MM) | 'E'<br>MIN.<br>(MM) |
|--------------|-----------------------------|-----|----------------------------|----|------------------------|------------------------|------------------------|------------------------|---------------------|
| P00          | 80                          | 150 | 21                         | 35 | 7.35                   | 6.9 ±0.2               | 0.62                   | 0.2                    |                     |
| S03          | 25                          | 43  | 5                          | 7  | 14.2                   | 9.8 ±0.9               | 3.5                    | 0.7                    | 5.4                 |
| L30 (80gf)   | 13                          | 21  | 2                          | 3  | 16.8                   | 9.5 ±1.9               | 6.9                    | 0.55                   | 20.15               |
| L30 (150 gf) | 13                          | 21  | 2                          | 3  | 16.8                   | 9.25 ±1.9              | 6.9                    | 0.55                   | 20.15               |
| L11          | 25                          | 39  | 4                          | 6  | 11.7                   | 8.68 ±1                | 4.4                    | 0.6                    | 7.33                |
| L08          | 27                          | 48  | 3                          | 8  | 13.5                   | 10.75 ±0.8             | 3.5                    | 0.3                    | 3.82                |
| A03          | 34                          | 65  | 6                          | 10 | 16.55                  | 13.65 ±1               | 3.9                    | 0.5                    | 0.56                |
| L04          | 30                          | 50  | 5                          | 8  | 10.1                   | 7.9 ±0.8               | 3.0                    | 0.6                    | 3.49                |
| S06          | 33                          | 49  | 5                          | 11 | 12.43                  | 10.7 ±0.8              | 1.43                   | 1.25                   | 1.97                |
| S07          | 40                          | 65  | 2                          | 5  | 13.0                   | 9.7 ±1                 | 4.3                    | 0.5                    | 0.49                |

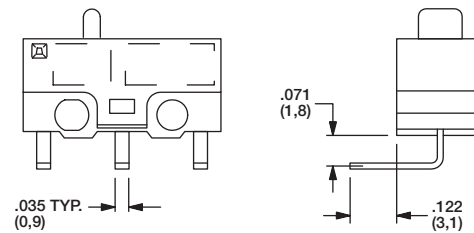


## TERMINATIONS

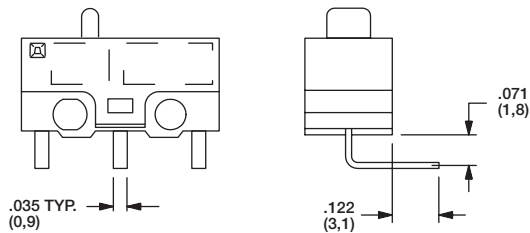
### P PC THRU-HOLE



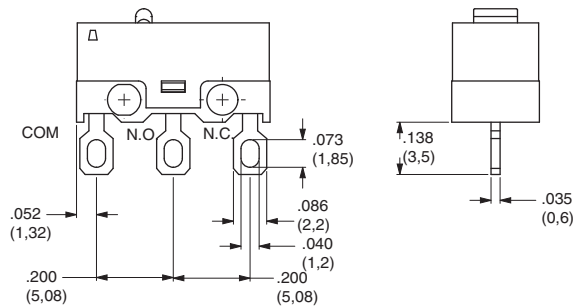
### L LEFT FOOTED, PC THRU-HOLE



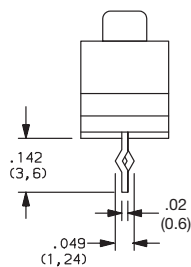
### R RIGHT FOOTED, PC THRU-HOLE



### E SOLDER



### K PC THRU-HOLE WITH RETENTION FEATURE



**D**

Detect