

# ZMA 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 compatible & compliant**

## Typical Applications

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

UL61058-1



## Specifications

CONTACT RATING: 3A @ 125 V AC 24 V DC  
 1 A @125 / 250 V AC 24 V DC  
 0.1A @ 125 V AC 60 V DC

ELECTRICAL LIFE: 300,000 cycles @ 0.1A / 10,000 cycles @ 3A.  
 MECHANICAL LIFE: 1,000,000 cycles.  
 INSULATION RESISTANCE: 100 M ohm min.  
 DIELECTRIC STRENGTH: 500 Vrms.  
 OPERATING TEMPERATURE: -40°C to 85°C  
 OPERATING FORCE: 80 or 150 grams.

## Materials

CASE/COVER: PBT  
 ACTUATOR: Button nylon 6/6  
 MOVABLE CONTACTS: Silver alloy or gold plated  
 STATIONARY CONTACTS: Silver alloy or gold plated  
 TERMINALS: Brass, silver plated.

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

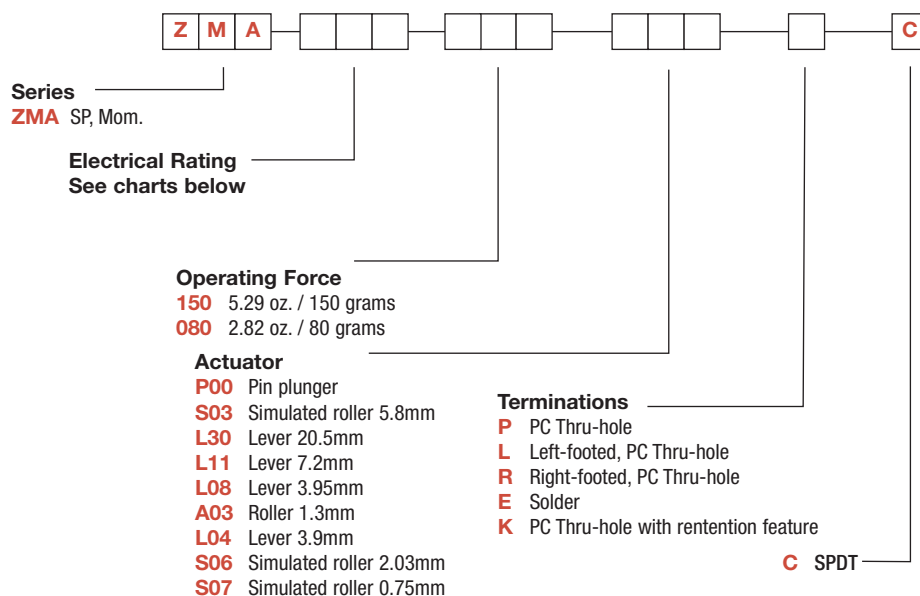
\* Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max.  
 @ 20 V AC or DC max.



Snap-acting

## 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-51 and J-53. For additional options not shown in catalog, consult Customer Service Center.



### Silver Contacts

Option Code	UL 1054	UL 61058-1	14	15
<b>00A</b>	0.1A 60 V DC 0.1A 125 V AC	0.1A 60 V DC 0.1A 125 V AC	0.1A 125 V AC	
<b>03A</b>	3 A 125 V AC	3 A 125 V AC 3 A 24 V DC	3A 125 V AC	
<b>01A</b>		1 A 24 V DC 1 A 125 / 250 V AC		1 A 24 V DC 1 A 125 / 250 V AC

### Gold Plated Contacts

Option Code	UL 1054	UL 61058-1	14	15
<b>G00</b>	0.1A 60 V DC 0.1A 125 V AC	0.1A 60 V DC 0.1A 125 V AC	0.1A 125 V AC	
<b>G03</b>	3 A 125 V AC	3 A 125 V AC 3 A 24 V DC	3A 125 V AC	
<b>G01</b>		1 A 24 V DC 1 A 125 / 250 V AC		1 A 24 V DC 1 A 125 / 250 V AC

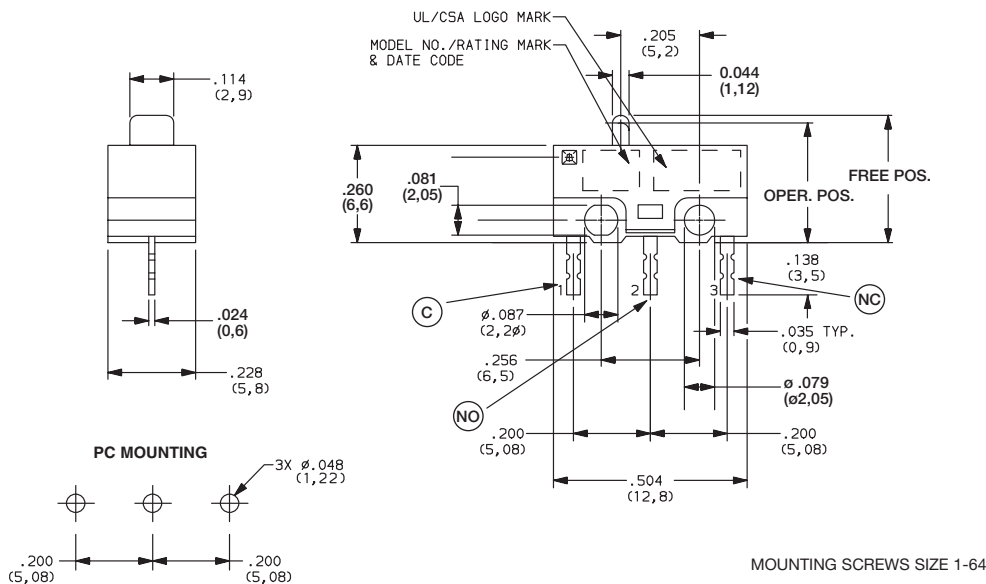


Dimensions are shown: Inch (mm)  
 Specifications and dimensions subject to change

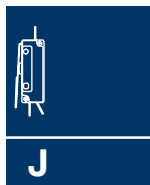
# ZMA Series Subminiature Snap-acting Switches

SERIES **Z M** ■ ■ ■ ■ ■ ■ ■ ■

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



ZMA03A150L04PC  
SPDT



Snap-acting

ELECTRICAL RATING ■ ■ ■ ■ ■ ■ ■ ■

## Silver Contacts

Option Code	UL cUL <sup>us</sup> 1054	UL cUL <sup>us</sup> 61058-1	UL <sup>14</sup>	UL <sup>15</sup>
<b>00A</b>	0.1A 60 V DC 0.1A 125 V AC	0.1A 60 V DC 0.1A 125 V AC	0.1A 125 V AC	
<b>03A</b>	3 A 125 V AC	3 A 125 V AC 3 A 24 V DC	3A 125 V AC	
<b>01A</b>		1 A 24 V DC 1 A 125 / 250 V AC		1 A 24 V DC 1 A 125 / 250 V AC

## Gold Plated Contacts

Option Code	UL cUL <sup>us</sup> 1054	UL cUL <sup>us</sup> 61058-1	UL <sup>14</sup>	UL <sup>15</sup>
<b>G00</b>	0.1A 60 V DC 0.1A 125 V AC	0.1A 60 V DC 0.1A 125 V AC	0.1A 125 V AC	
<b>G03</b>	3 A 125 V AC	3 A 125 V AC 3 A 24 V DC	3A 125 V AC	
<b>G01</b>		1 A 24 V DC 1 A 125 / 250 V AC		1 A 24 V DC 1 A 125 / 250 V AC

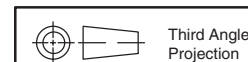
\* Note: See Technical Data in section N of this catalog for RoHS compliant and compatible definition and specifications.

All models **cUL<sup>us</sup>** with all options.

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

OPERATING FORCE ■ ■ ■ ■ ■ ■ ■ ■

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



Third Angle  
Projection

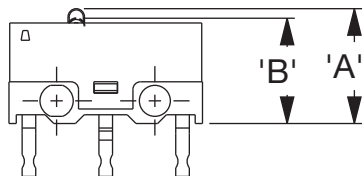
Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



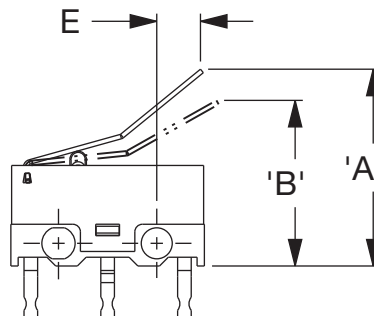
# ZMA Series Subminiature Snap-acting Switches

## ACTUATOR

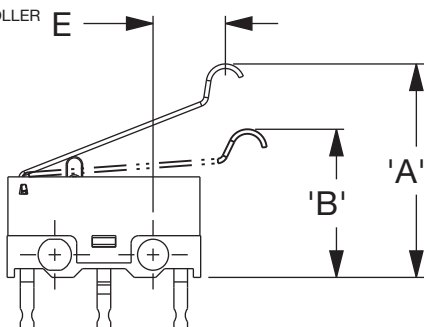
**P00** PIN PLUNGER



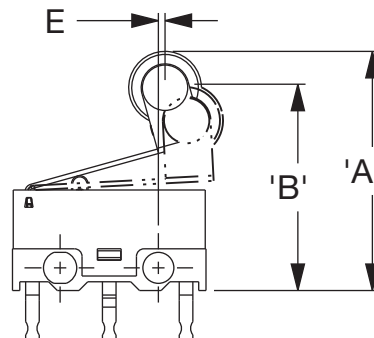
**L08** LEVER  
3.95MM



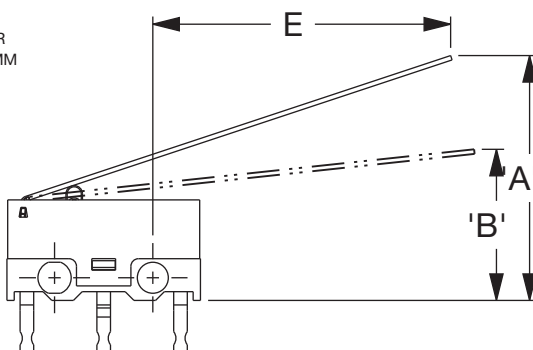
**S03** SIMULATED ROLLER  
5.8MM



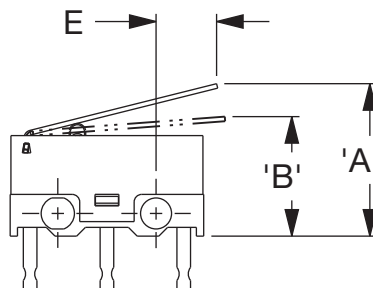
**A03** ROLLER  
1.3MM



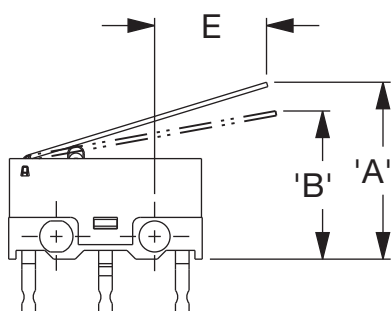
**L30** LEVER  
20.5MM



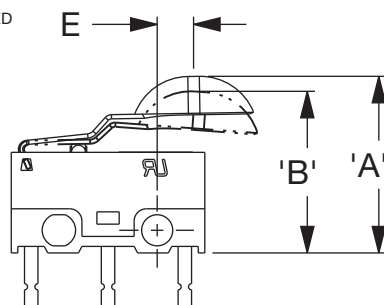
**L04** LEVER  
3.49MM



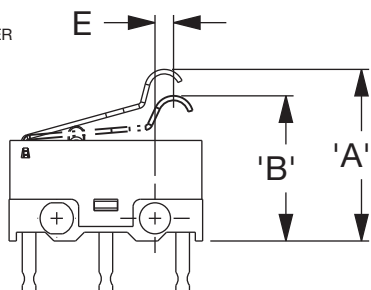
**L11** LEVER  
7.2MM



**S06** SIMULATED ROLLER  
2.03MM



**S07** SIMULATED ROLLER  
0.75MM

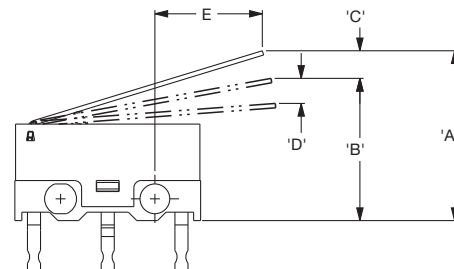


Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

# ZMA Series Subminiature Snap-acting Switches

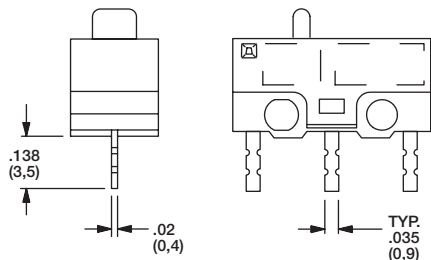
## SWITCH CHARACTERISTICS

CODE	OPER. FORCE MAX. (GRAMS)		REL. FORCE MIN. (GRAMS)		'A' FP MAX. (MM)	'B' OP MAX. (MM)	'C' PT MAX. (MM)	'D' OT MIN. (MM)	'E' MIN. (MM)
P00	80	150	21	35	7.35	6.9 ±0.3	0.62	0.2	
S03	25	43	5	7	14.2	9.8 ±0.9	3.5	0.7	5.41
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	9.75 ±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 ±0.7	3.0	0.5	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

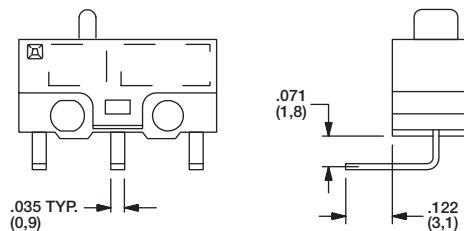


## TERMINATIONS

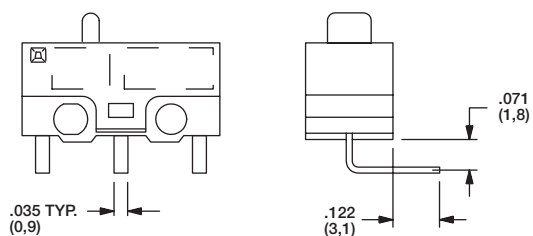
### P PC THRU-HOLE



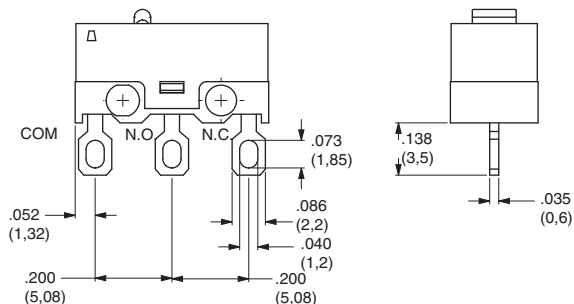
### L LEFT FOOTED, PC THRU-HOLE



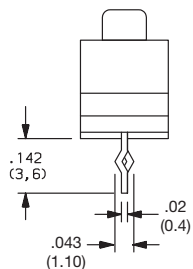
### R RIGHT FOOTED, PC THRU-HOLE



### E SOLDER



### K PC THRU-HOLE WITH RETENTION FEATURE



Snap-acting



Third Angle  
Projection

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