

# ZMA Series

## Mini Size Snap-acting Switches



### Description

ZMA series mini size snap-acting switches are often found used in PCB detection switches, communication devices and various types of testing equipment. Featuring a compact size (which is ideal when space is limited) and a reliable snap-acting mechanism, the ZMA series give applications a long electrical and mechanical life, ensuring they stand up to repeated use.



### Features & Benefits

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

### Applications

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

### Agency Approvals

Agency	Agency File Number
	E42363
	ENEC-03336

### Specifications

<b>Contact Rating</b>	3A @ 125 V AC 24 V DC 1 A @125 / 250 V AC 24 V DC 0.1A @ 125 V AC 60 V DC
<b>Electrical Life</b>	300,000 cycles @ 0.1A 10,000 cycles @ 3A.
<b>Mechanical Life</b>	1,000,000 cycles
<b>Insulation Resistance</b>	100 M ohm min.
<b>Dielectric Strength</b>	500 Vrms.
<b>Operating Temperature</b>	-40°C to 85°C
<b>Operating Force</b>	80 to 150 grams

#### Notes:

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

### Materials

<b>Cover Case</b>	PBT
<b>Actuator Button</b>	Nylon 6/6
<b>Movable Contacts</b>	Silver alloy or gold plated
<b>Stationary Contacts</b>	
<b>Terminals</b>	Brass, silver plated

#### Notes:

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

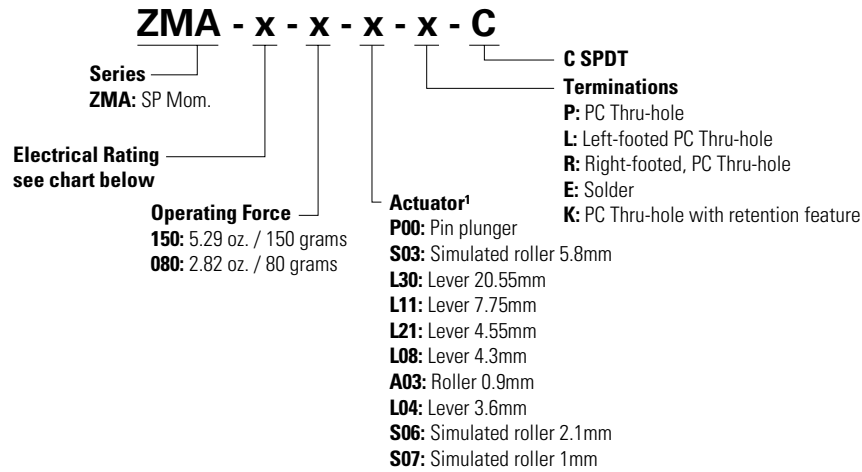
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## Mini Size Snap-acting Switches



### 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.



**Notes:**

1. Dim. E See chart on following pages for detailed information

### Silver Contacts

Option Code	UL 1054 C  US	UL 61058-1 C  US		
00A		0.1A 60 V DC 0.1A 125 V AC	0.1A 125 V AC	-
03A	3A 125 V AC	3A 125 V AC 3A 24 V DC	3A 125 V AC	-
01A	-	1A 24 V DC 1A 125 / 250 V AC	-	1A 24 V DC 1A 125 / 250 V AC

### Gold Plated Contacts

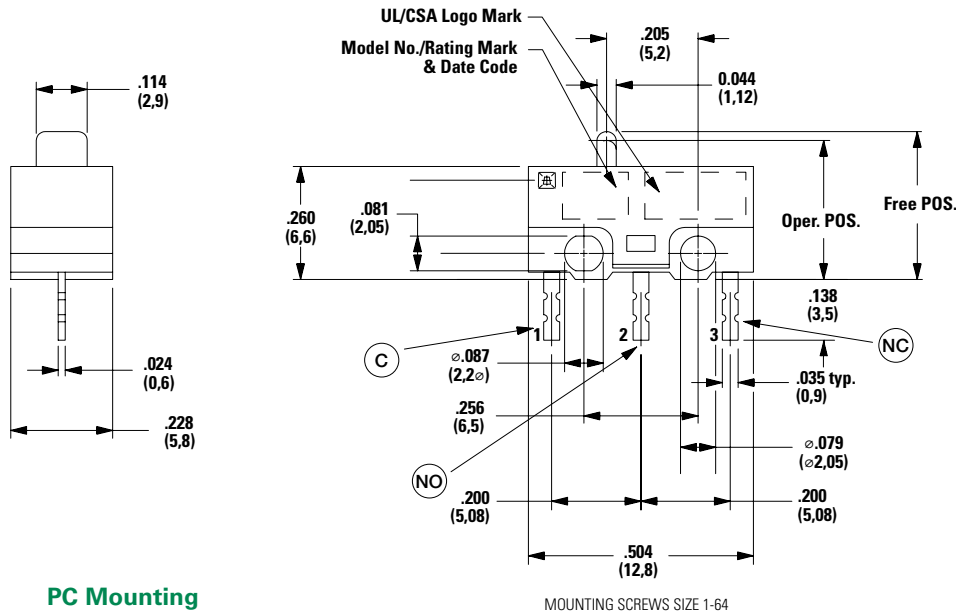
Option Code	UL 1054 C  US	UL 61058-1 C  US		
G00		0.1A 60 V DC 0.1A 125 V AC	0.1A 125 V AC	-
G03	3A 125 V AC	3A 125 V AC 3A 24 V DC	3A 125 V AC	-
G01	-	1 A 24 V DC 1 A 125 / 250 V AC	-	1 A 24 V DC 1 A 125 / 250 V AC

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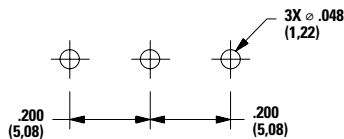
## Mini Size Snap-acting Switches



Series inches (mm)  
**ZMA Mini Size Snap-Acting Switches – SP Momentary**  
**ZMA03A150L04PC SPDT**



**PC Mounting**



**Electrical Rating**

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

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

**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.

**Operating Force**

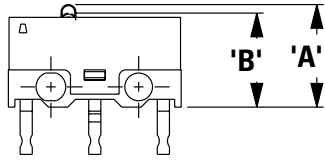
Option Code	Basic Switch Operating Force (Oz./Grams)
080	2.82, 80
150	5.29, 150

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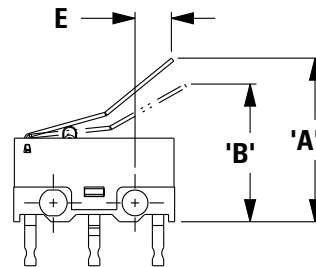
## Mini Size Snap-acting Switches



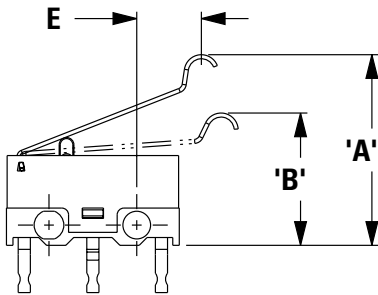
**P00 Pin Plunger**



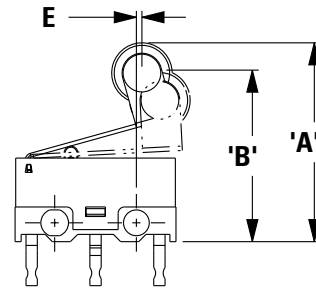
**L08 Lever 4.3mm**



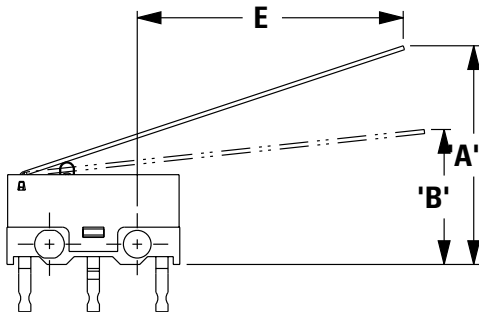
**S03 Simulated Roller 5.8mm**



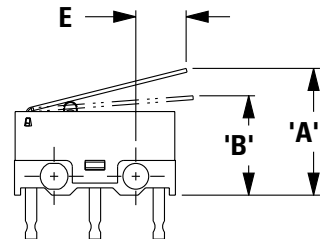
**A03 Roller 0.9mm**



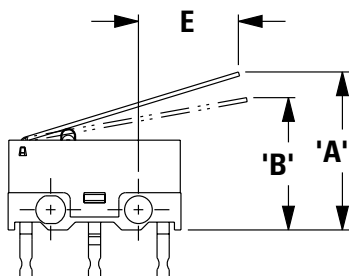
**L30 Lever 20.55mm**



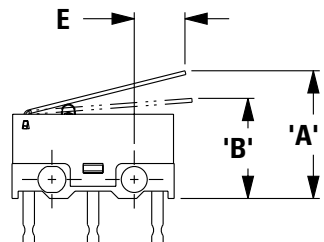
**L04 Lever 3.6mm**



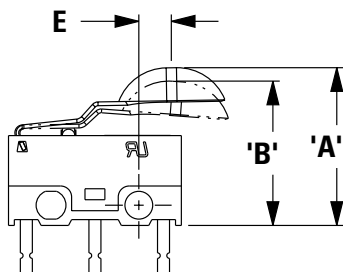
**L11 Lever 7.75mm**



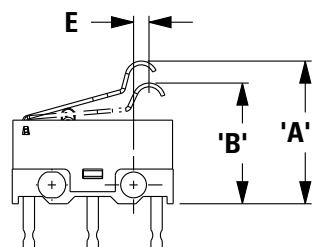
**L21 Lever 4.55mm**



**S06 Simulated Roller 2.1mm**



**S07 Simulated Roller 1mm**



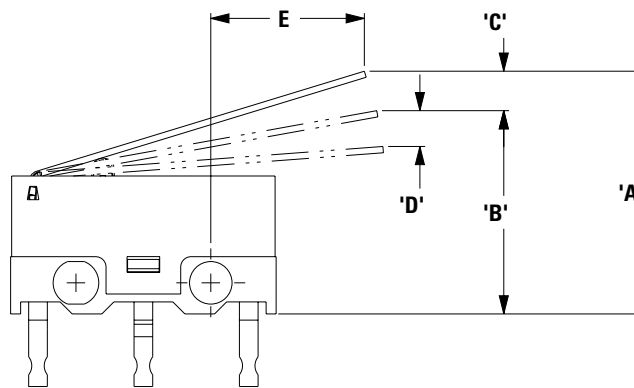
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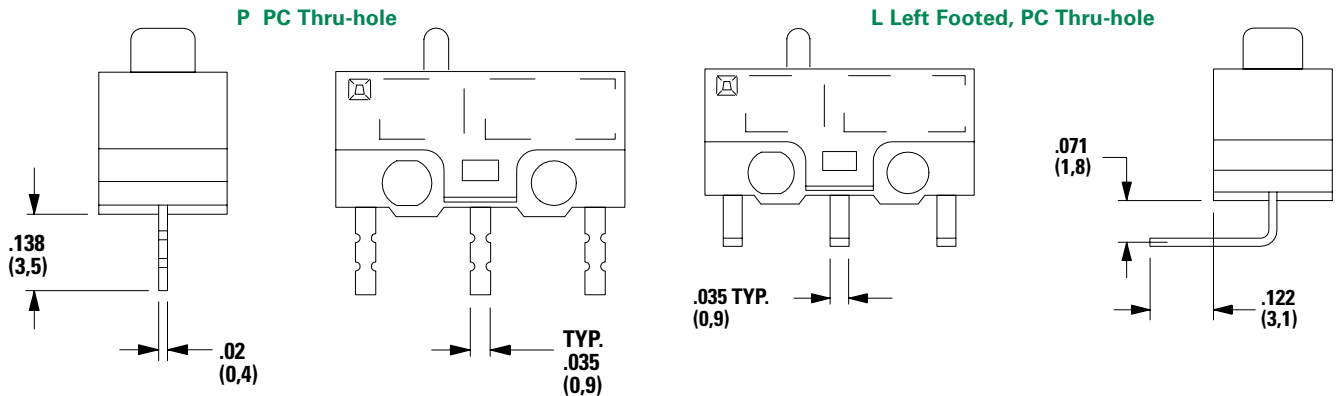


### Switch Characteristics

Option 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	5.8
L30 (80gf)	13	21	2	3	16.8	9.5 ± 1.9	6.9	0.55	20.55
L30 (150gf)						9.75 ± 1.9			
L11	25	39	4	6	11.7	8.68 ± 1	4.4	0.6	7.75
L21	30	47	2	7	10	8.35 ± 0.7	2.35	0.62	4.55
L08	27	48	3	8	13.5	10.75 ± 0.8	3.5	0.3	4.3
A03	34	65	6	10	16.55	13.65 ± 1	3.9	0.5	0.9
L04	30	50	5	8	10.1	7.9 ± 0.8	3.0	0.6	3.6
S06	33	49	5	11	12.43	10.7 ± 0.8	1.43	1.25	2.1
S07	40	65	2	5	13.0	9.7 ± 1	4.3	0.5	1



### Terminations inches (mm)

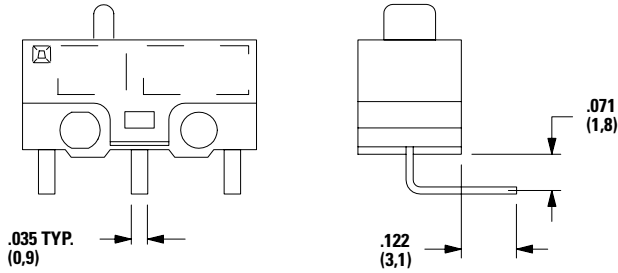


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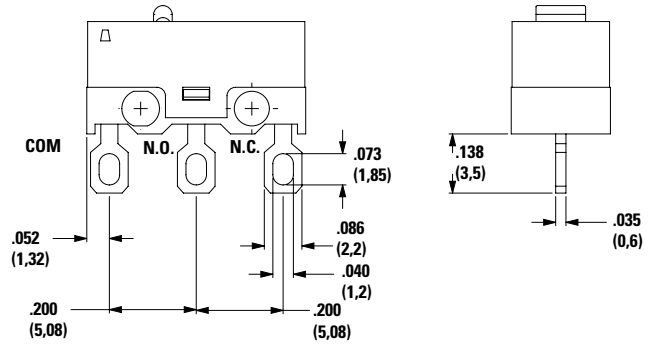
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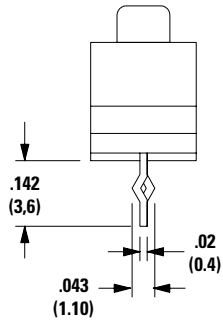
**R Right Footed, PC Thru-hole**



**E Solder**



**K PC Thru-hole, With Retention Feature**



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