

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.

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

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.

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.

Z	M	A							C
Series			ZMA SP, Mom.						
Electrical Rating			See charts below						
Operating Force			150 5.29 oz. / 150 grams 080 2.82 oz. / 80 grams						
Actuator			P00 Pin plunger S03 Simulated roller 5.8mm L30 Lever 20.5mm L11 Lever 7.2mm L21 Lever 14mm L08 Lever 3.95mm A03 Roller 1.3mm L04 Lever 3.9mm S06 Simulated roller 2.03mm S07 Simulated roller 0.75mm						
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						
			C SPDT						

Silver Contacts

Option Code	UL 1054	UL 61058-1	UL 14	UL 15
00A	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	
03A	3 A 125 V AC	3 A 125 V AC 3 A 24 V DC	3A 125 V AC	
01A		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	UL 14	UL 15
G00	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	
G03	3 A 125 V AC	3 A 125 V AC 3 A 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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J-58

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

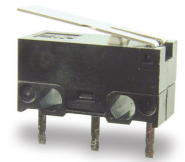
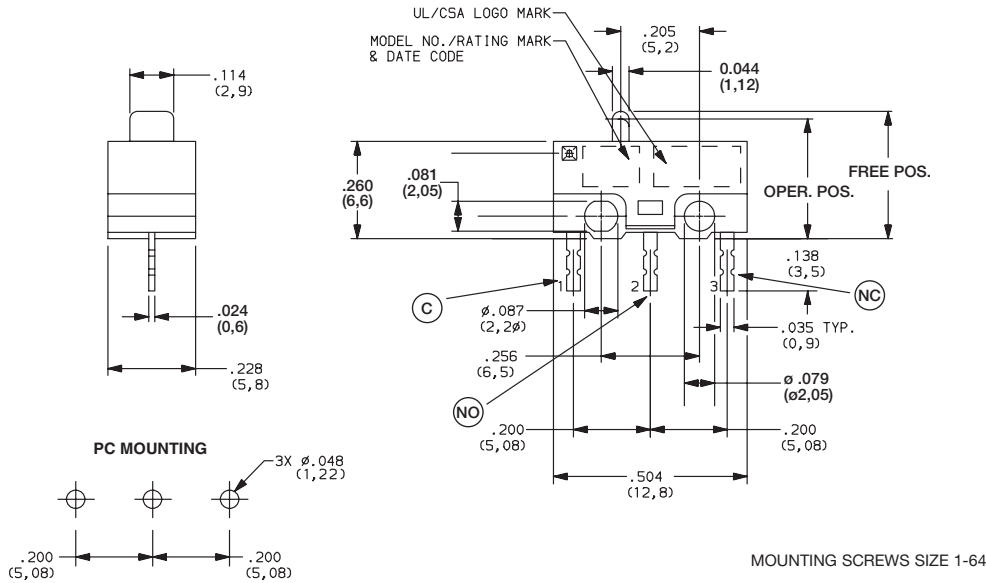
www.ckswitches.com

Snap-acting

ZMA Series Subminiature Snap-acting Switches

SERIES **Z M** ■ ■ ■ ■ ■

ZMA SUBMINIATURE SNAP-ACTING SWITCHES – SP MOMENTARY



ZMA03A150L04PC
SPDT

ELECTRICAL RATING ■ ■ ■ ■ ■

Silver Contacts

Option Code	UL c UL 1054	UL c UL 61058-1		
00A	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	
03A	3 A 125 V AC	3 A 125 V AC 3 A 24 V DC	3A 125 V AC	
01A		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 c UL 1054	UL c UL 61058-1		
G00	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	
G03	3 A 125 V AC	3 A 125 V AC 3 A 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

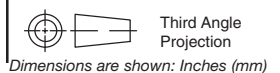
* Note: See Technical Data in section N of this catalog for RoHS compliant and compatible definition and specifications.

All models **c **UL**** 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



Dimensions are shown: Inches (mm)
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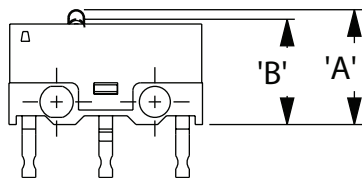
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ZMA Series Subminiature Snap-acting Switches

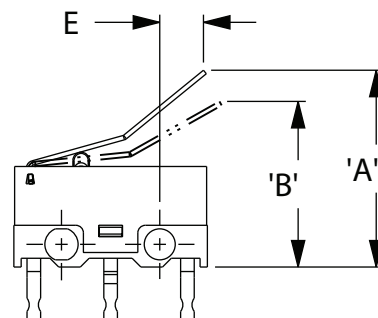
ACTUATOR



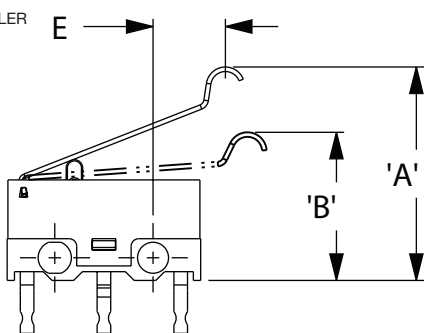
P00 PIN PLUNGER



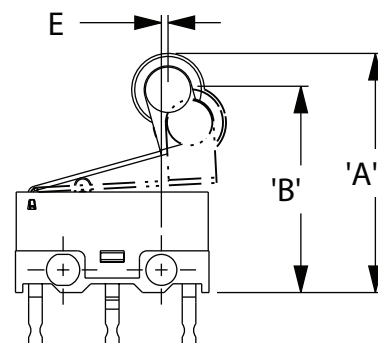
L08 LEVER
3.95MM



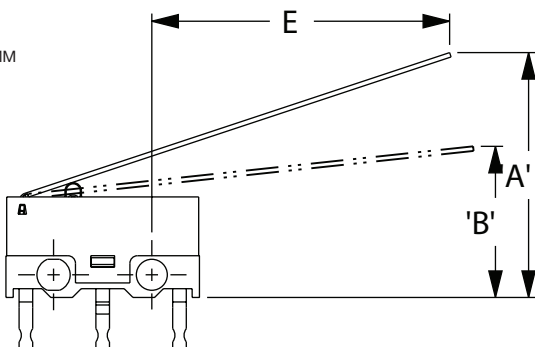
S03 SIMULATED ROLLER
5.8MM



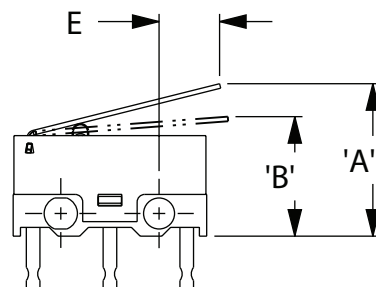
A03 ROLLER
1.3MM



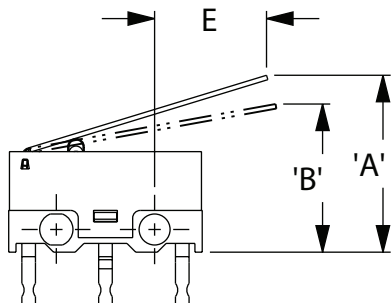
L30 LEVER
20.5MM



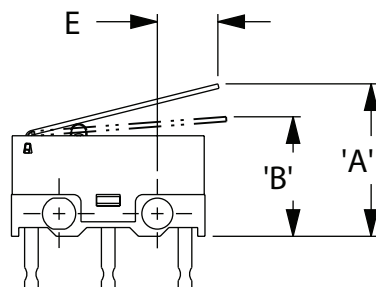
L04 LEVER
3.49MM



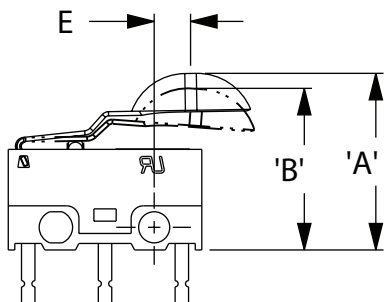
L11 LEVER
7.2MM



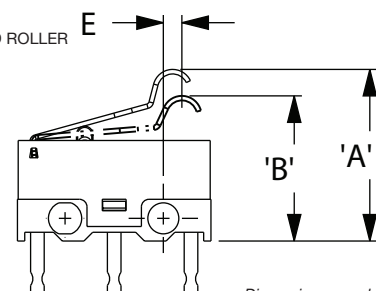
L21 LEVER
14MM



S06 SIMULATED ROLLER
2.03MM



S07 SIMULATED ROLLER
0.75MM

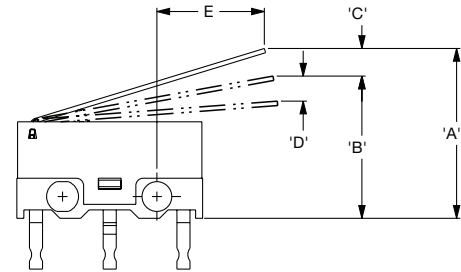


Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

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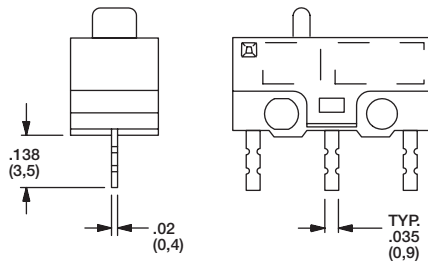
SWITCH CHARACTERISTICS

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	5.8
L30 (80gf)	13	21	2	3	16.8	9.5 ±1.9	6.9	0.55	20.55
L30 (150gf)	13	21	2	3	16.8	9.75 ±1.9	6.9	0.55	20.55
L21	30	47	2	7	10.0	8.35 ±0.7	2.35	0.62	4.55
L11	25	39	4	6	11.7	8.68 ±1	4.4	0.6	7.75
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	0.5	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

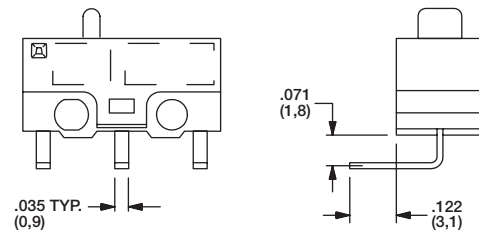


TERMINATIONS

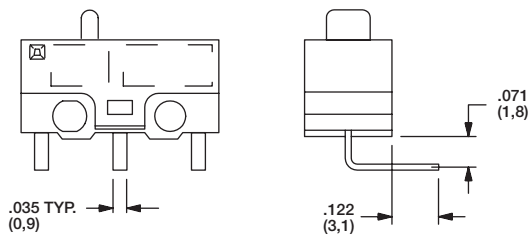
P PC THRU-HOLE



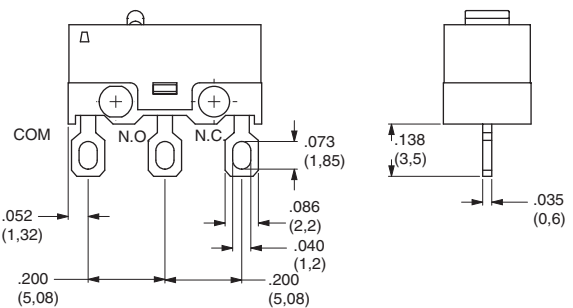
L LEFT FOOTED, PC THRU-HOLE



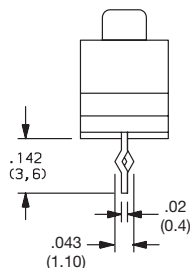
R RIGHT FOOTED, PC THRU-HOLE



E SOLDER



K PC THRU-HOLE WITH RETENTION FEATURE



Third Angle
Projection

Dimensions are shown: Inches (mm)
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