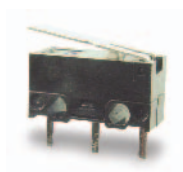


ZMA Series

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 / 250 V AC 24 V DC

1 A @125 / 250 V AC 24 V DC

0.1A @ 125 / 250 V AC 24 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

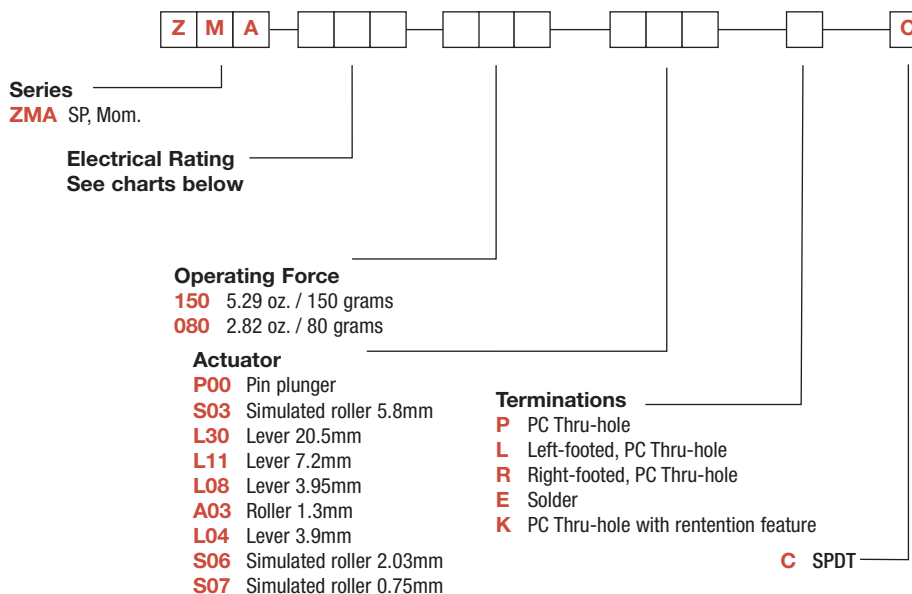
STATIONARY CONTACTS: Silver alloy or gold plated

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-37 and J-38. For additional options not shown in catalog, consult Customer Service Center.



Silver Contacts

Option Code	UL c  us 1054	UL c  us 61058-1	 4	 15
00A	0.1A 60 V DC 0.1A 125 / 250 V AC			
03A	3 A 125 / 250 V AC	3 A 125 / 250 V AC 3 A 24 V DC	0.1A 3A 125/250 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  US 1054	UL c  US 61058-1		
G00	0.1A 60 V DC 0.1A 125 / 250 V AC			
G03	3 A 125 / 250 V AC	3 A 125 / 250 V AC 3 A 24 V DC	0.1A 3A 125/250 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



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

SERIES

UL/CSA LOGO MARK

MODEL NO./RATING MARK & DATE CODE

.114 (2,9)

.024 (0,6)

.228 (5,8)

PC MOUNTING

3X $\phi .048$ (1,22)

.200 (5,08)

.200 (5,08)

.504 (12,8)

.260 (6,6)

.081 (2,05)

.205 (5,2)

.044 (1,12)

FREE POS.

OPER. POS.

.138 (3,5)

.035 TYP. (0,9)

$\phi .079$ ($\phi 2,05$)

.200 (5,08)

.256 (6,5)

$\phi .087$ (2,2 ϕ)

C

NC

NO

MOUNTING SCREWS SIDE VIEW



ZMA03A150L04PC
SPDT



Snap-acting

ELECTRICAL RATING

Gold Plated Contacts

Option Code	UL cUL _{US} 1054	UL cUL _{US} 61058-1			Option Code	UL cUL _{US} 1054	UL cUL _{US} 61058-1		
00A	0.1A 60 V DC 0.1A 125 / 250 V AC				G00	0.1A 60 V DC 0.1A 125 / 250 V AC			
03A	3 A 125 / 250 V AC	3 A 125 / 250 V AC 3 A 24 V DC	0.1A 3A 125/250 V AC		G03	3 A 125 / 250 V AC	3 A 125 / 250 V AC 3 A 24 V DC	0.1A 3A 125/250 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	G01		1 A 24 V DC 1 A 125 / 250 V AC		1 A 24 V DC 1 A 125 / 250 V AC

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

OPERATING FORCE

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



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

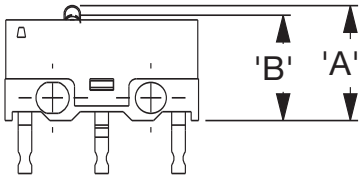


ZMA Series

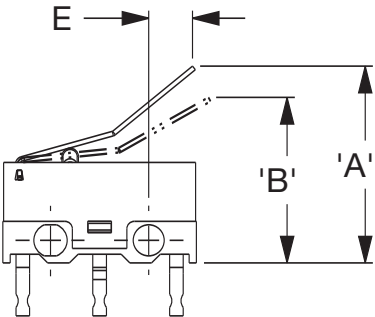
Subminiature Snap-acting Switches

ACTUATOR

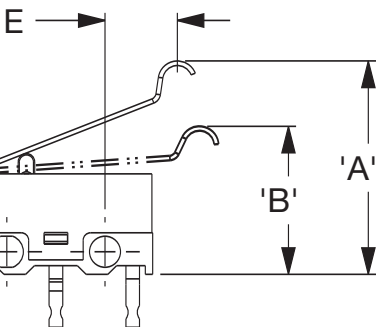
P00 PIN PLUNGER



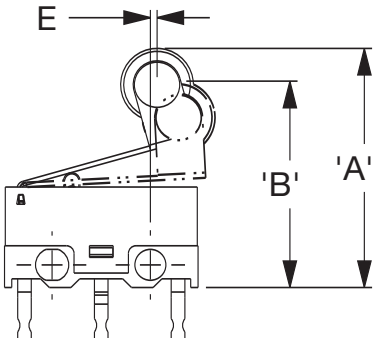
L08 LEVER
3.95MM



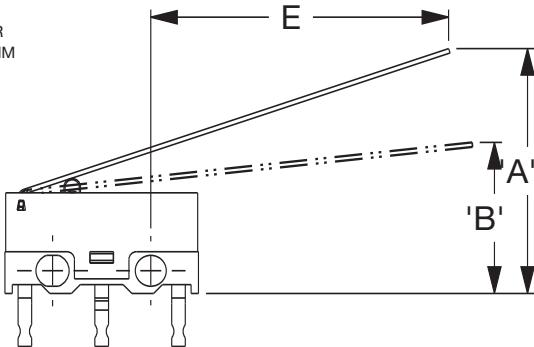
S03 SIMULATED ROLLER
5.8MM



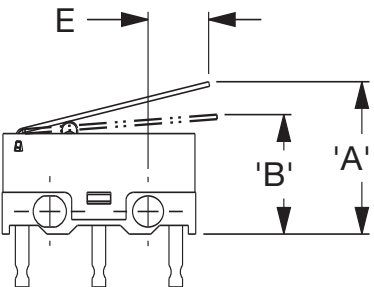
A03 ROLLER
1.3MM



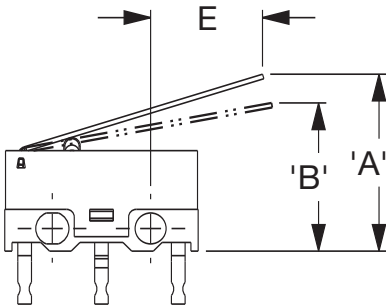
L30 LEVER
20.5MM



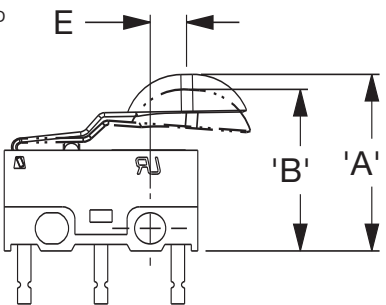
L04 LEVER
3.9MM



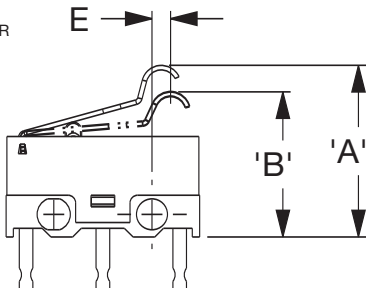
L11 LEVER
7.2MM



S06 SIMULATED ROLLER
2.03MM



S07 SIMULATED ROLLER
0.75MM



Third Angle
Projection

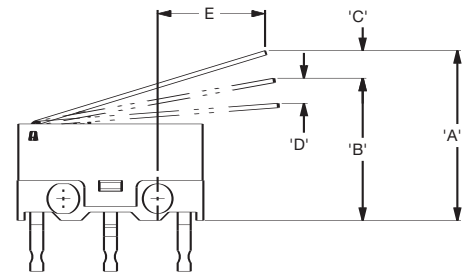
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change



ZMA Series Subminiature Snap-acting Switches

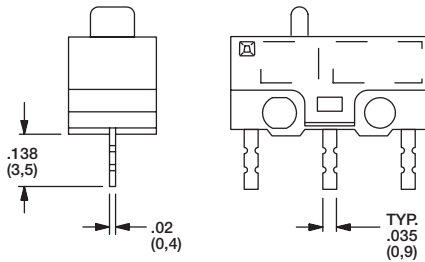
SWITCH CHARACTERISTICS

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 ±0.2	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

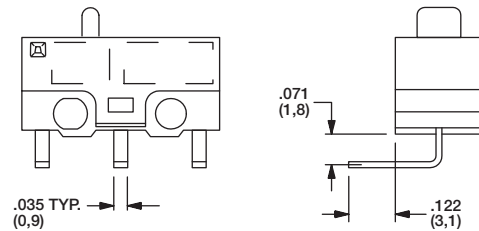


TERMINATIONS

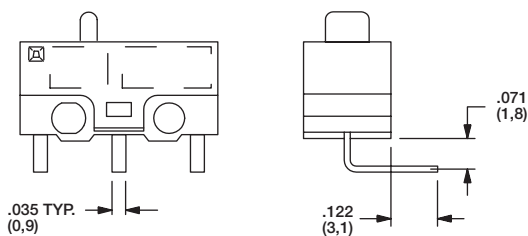
P PC THRU-HOLE



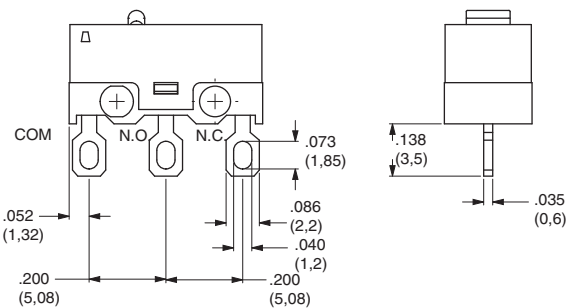
L LEFT FOOTED, PC THRU-HOLE



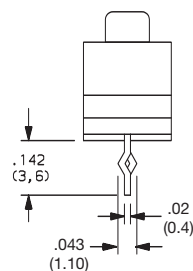
R RIGHT FOOTED, PC THRU-HOLE



E SOLDER



K PC THRU-HOLE WITH RETENTION FEATURE



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



Snap-acting