



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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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.

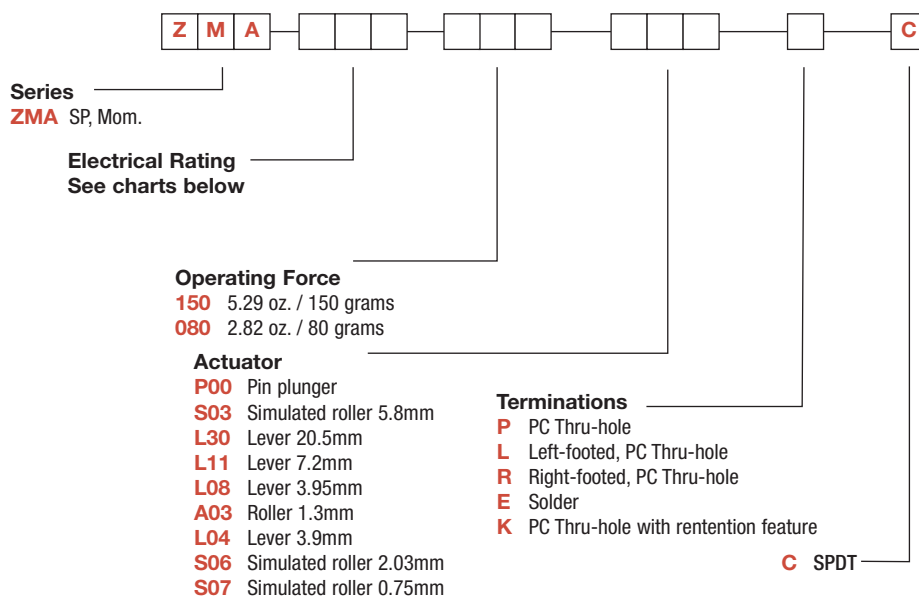
* Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max.
 @ 20 V AC or DC max.



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 |
|-------------|-------------------------------|-----------------------------------|---------------|-----------------------------------|
| 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 | 14 | 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 |

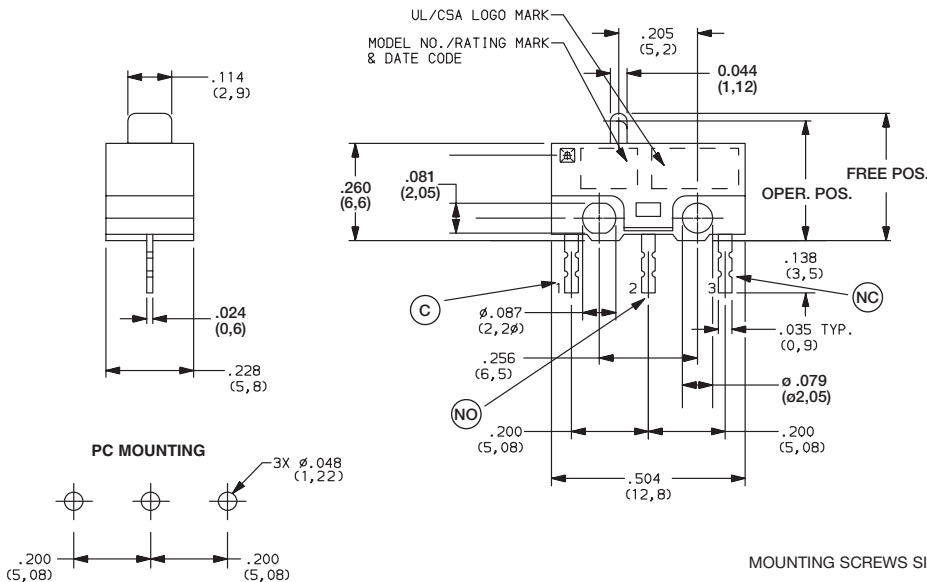


Dimensions are shown: Inch (mm)
 Specifications and dimensions subject to change

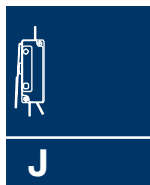
ZMA Series Subminiature Snap-acting Switches

SERIES **Z M** ■ ■ ■ ■ ■ ■ ■ ■

ZMA SUBMINIATURE SNAP-ACTING SWITCHES – SP MOMENTARY



ZMA03A150L04PC
SPDT



ELECTRICAL RATING ■ ■ ■ ■ ■ ■ ■ ■

Snap-acting

Silver Contacts

Gold Plated Contacts

| Option Code | UL cUL _{us} 1054 | UL cUL _{us} 61058-1 | UL ₁₄ | UL ₁₅ | Option Code | UL cUL _{us} 1054 | UL cUL _{us} 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 | | 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 | |
| 03A | 3 A 125 V AC | 3 A 125 V AC 3 A 24 V DC | 3A 125 V AC | | G03 | 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 | G01 | | 1 A 24 V DC 1 A 125 / 250 V AC | | 1 A 24 V DC 1 A 125 / 250 V AC |

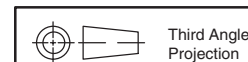
* Note: See Technical Data in section N of this catalog for RoHS compliant and compatible definition and specifications.

All models **cUL_{us}** with all options.

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 |



Third Angle
Projection

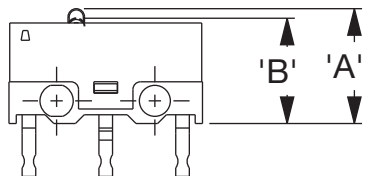
Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change



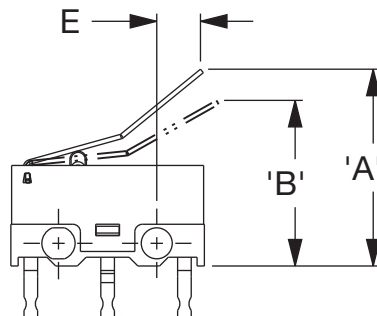
ZMA Series Subminiature Snap-acting Switches

ACTUATOR

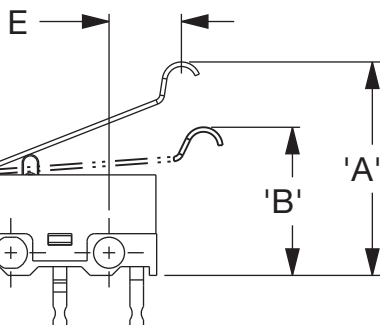
P00 PIN PLUNGER



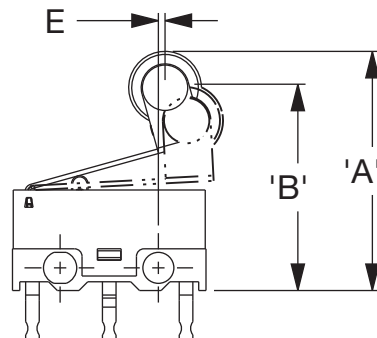
L08 LEVER
3.95MM



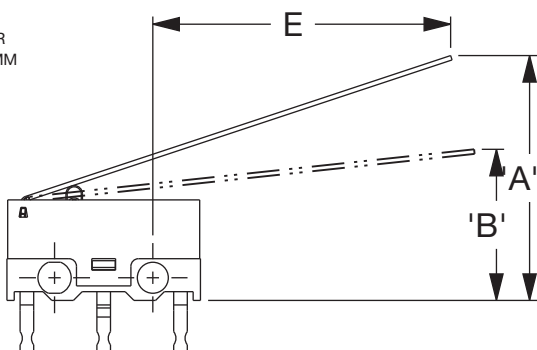
S03 SIMULATED ROLLER
5.8MM



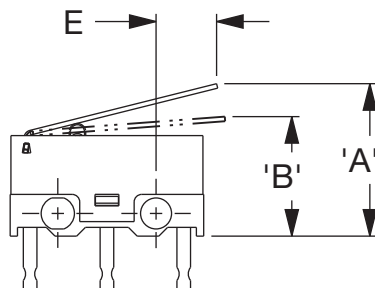
A03 ROLLER
1.3MM



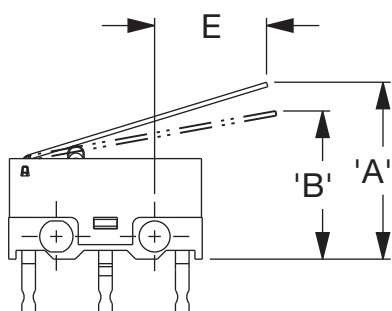
L30 LEVER
20.5MM



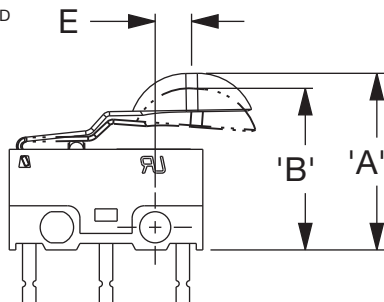
L04 LEVER
3.49MM



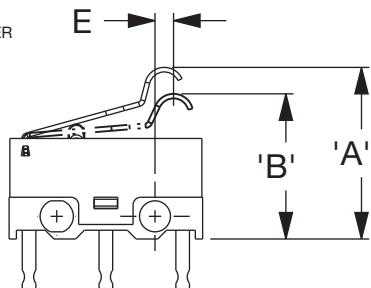
L11 LEVER
7.2MM



S06 SIMULATED ROLLER
2.03MM



S07 SIMULATED ROLLER
0.75MM



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

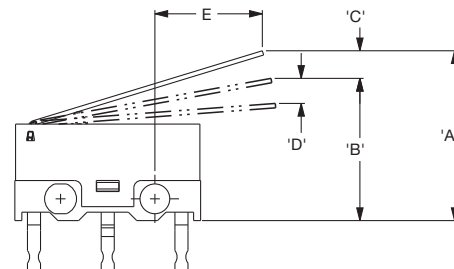


Snap-acting

ZMA Series Subminiature Snap-acting Switches

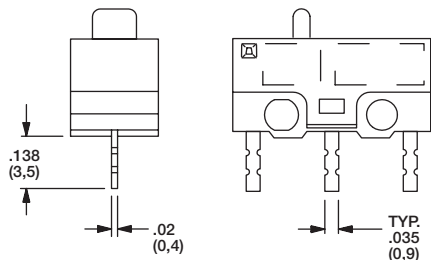
SWITCH CHARACTERISTICS

| 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 |

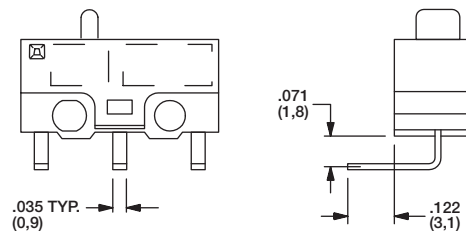


TERMINATIONS

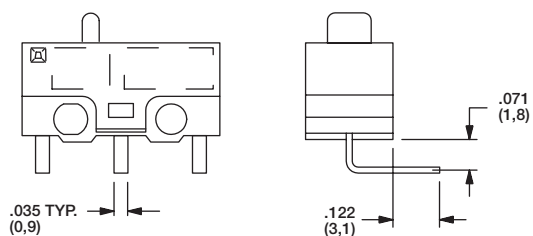
P PC THRU-HOLE



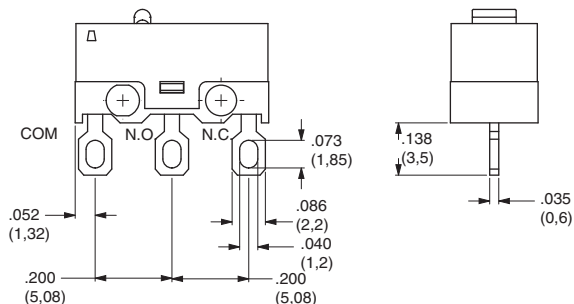
L LEFT FOOTED, PC THRU-HOLE



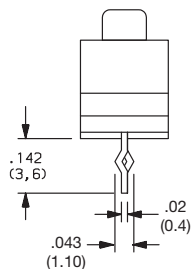
R RIGHT FOOTED, PC THRU-HOLE



E SOLDER



K PC THRU-HOLE WITH RETENTION FEATURE



Snap-acting



Third Angle
Projection

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

C&K