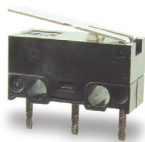


ZMA Series Subminiature Snap-acting Switches



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

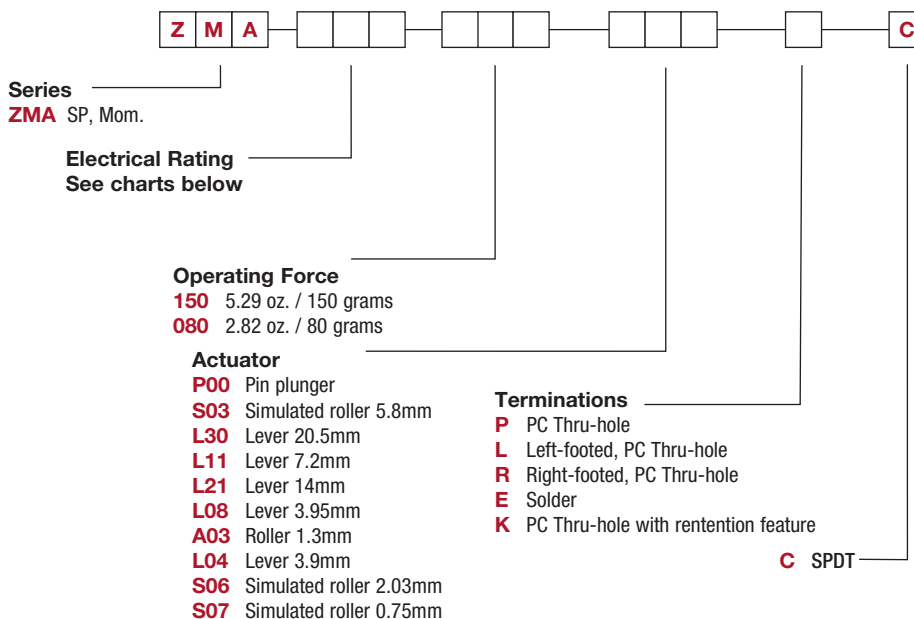
CASE/COVER: PBT
 ACTUATOR: Button nylon 6/6
 MOVABLE CONTACTS: Silver alloy or gold plated
 STATIONARY CONTACTS: Silver alloy or gold plated
 TERMINALS: Brass, silver plated.

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.

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 | EL14 | EL15 |
|-------------|-------------------------------|-----------------------------------|---------------|-----------------------------------|
| 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

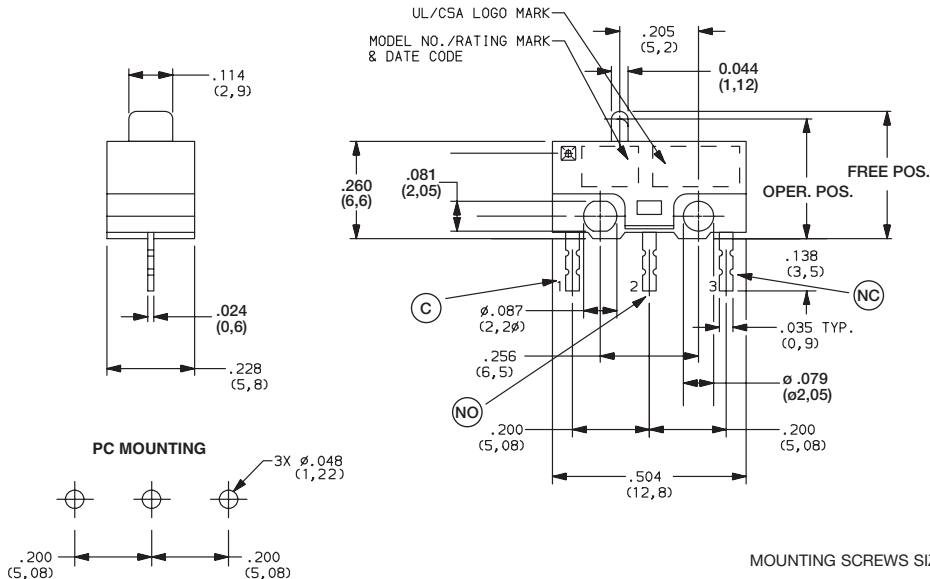
| Option Code | UL 1054 | UL 61058-1 | EL14 | EL15 |
|-------------|-------------------------------|-----------------------------------|---------------|-----------------------------------|
| G00 | 0.1A 60 V DC 0.1A 125 V AC | 0.1A 60 V DC 0.1A 125 V AC | 0.1A 125 V AC | |
| G03 | 3 A 125 V AC | 3 A 125 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 |



ZMA Series Subminiature Snap-acting Switches

SERIES **Z M** ■ ■ ■ ■ ■ ■ ■ ■

ZMA SUBMINIATURE SNAP-ACTING SWITCHES – SP MOMENTARY



ZMA03A150L04PC
SPDT

MOUNTING SCREWS SIZE 1-64

ELECTRICAL RATING ■ ■ ■ ■ ■ ■ ■ ■

Snap-acting

Silver Contacts

| Option Code | UL c US 1054 | UL c US 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 US 1054 | UL c US 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 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) |
|-------------|--|
| 080 | 2.82 80 |
| 150 | 5.29 150 |

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

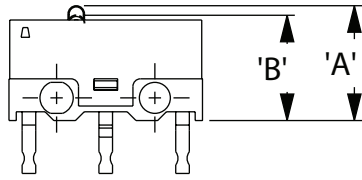


ZMA Series Subminiature Snap-acting Switches

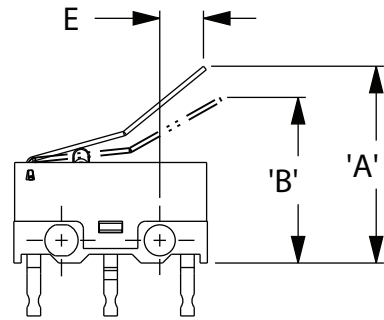
ACTUATOR



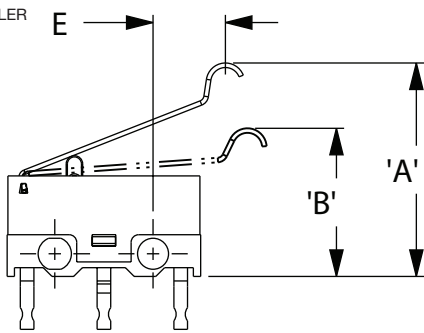
P00 PIN PLUNGER



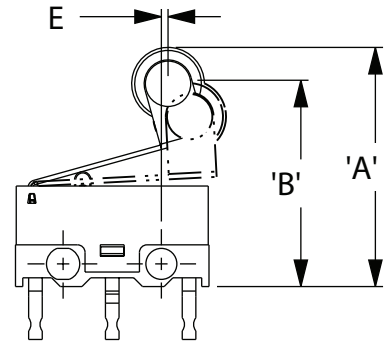
L08 LEVER
3.95MM



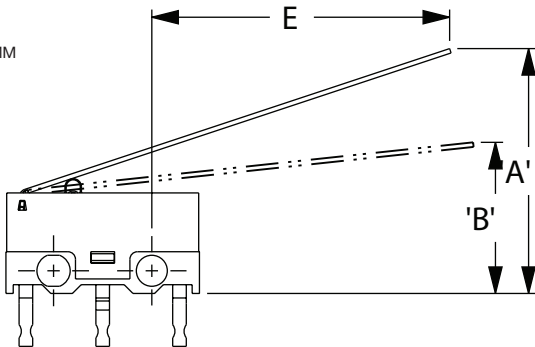
S03 SIMULATED ROLLER
5.8MM



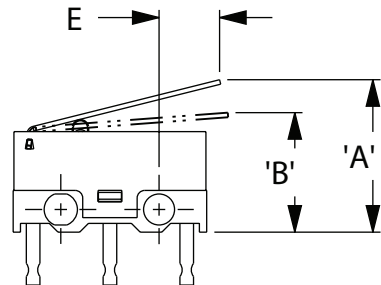
A03 ROLLER
1.3MM



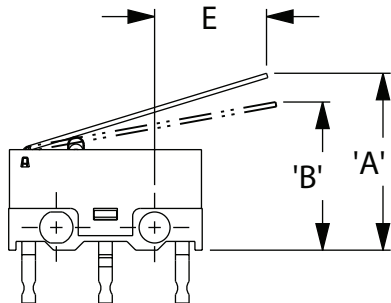
L30 LEVER
20.5MM



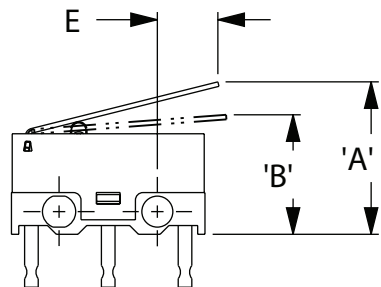
L04 LEVER
3.49MM



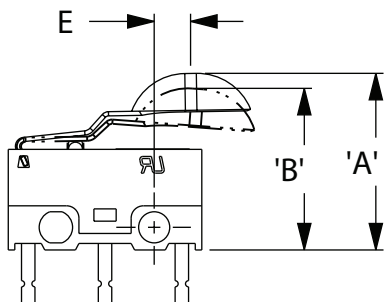
L11 LEVER
7.2MM



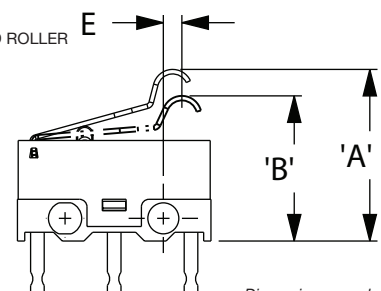
L21 LEVER
14MM



S06 SIMULATED ROLLER
2.03MM



S07 SIMULATED ROLLER
0.75MM



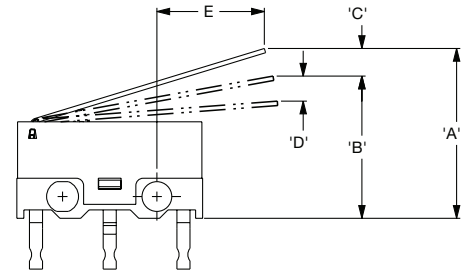
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

Snap-acting

ZMA Series Subminiature Snap-acting Switches

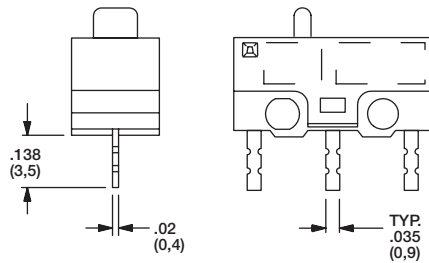
SWITCH CHARACTERISTICS

| 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 | 5.8 |
| 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 |

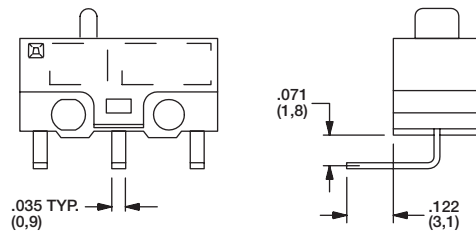


TERMINATIONS

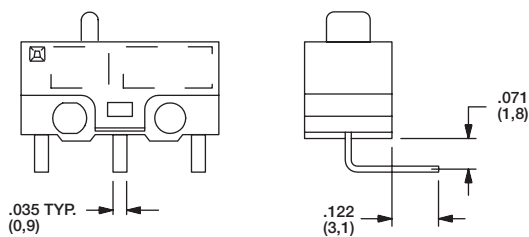
P PC THRU-HOLE



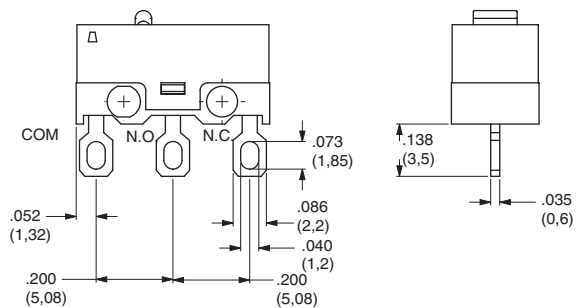
L LEFT FOOTED, PC THRU-HOLE



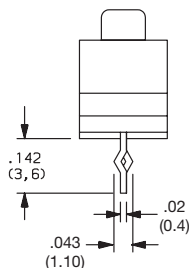
R RIGHT FOOTED, PC THRU-HOLE



E SOLDER



K PC THRU-HOLE WITH RETENTION FEATURE



Snap-acting



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