

ZMS Series Subminiature Snap-acting Switches (IP65)

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
- IP67 with potted wires only

Typical Applications

- PCB detection switch
- Communication devices
- Testing equipment
- Security/Alarm systems
- Consumer electronics



UL61058-1
UL1054



Specifications

CONTACT RATING: 3A@ 125 V AC/ 3A@ 12 V DC, 0.01A @ 12 V DC
ELECTRICAL LIFE: 100,000 cycles @ 0.01A 12V DC
100,000 cycles @ 3A 12 V DC
6,000 cycles @ 3A 125 V AC
MECHANICAL LIFE: 500,000 cycles
INSULATION RESISTANCE: 100 M ohm min.
DIELECTRIC STRENGTH: 500 Vrms.
OPERATING TEMPERATURE: -40°C + 85°C.
OPERATING FORCE: 130 grams.

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

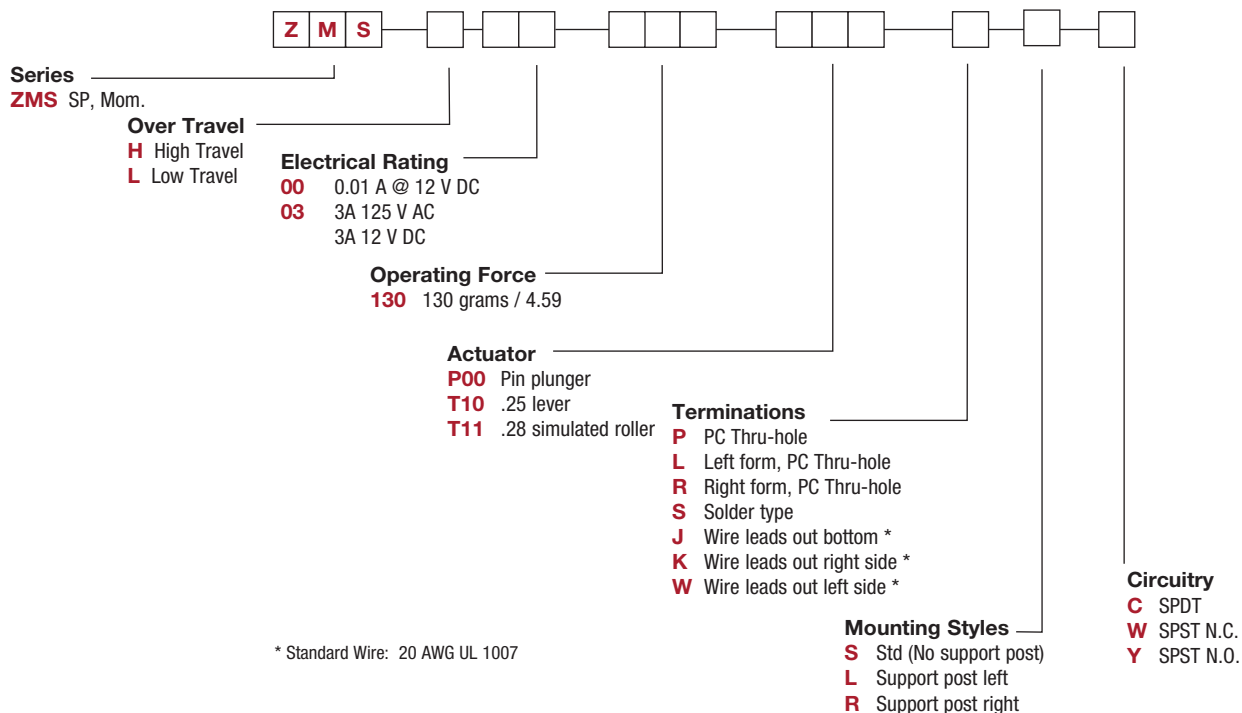
Materials

CASE: Nylon
COVER/ACTUATOR: PBT
MOVABLE CONTACTS: 3 Amp silver alloy, 0.01A gold plating over silver alloy
STATIONARY CONTACTS: 3 Amp silver alloy, 0.01 A gold plating over silver alloy
TERMINALS: Brass, silver plated
LEVER: Stainless steel

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

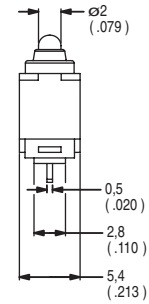
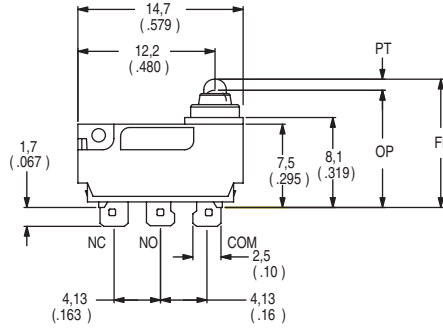
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages J-58 through J-60. For additional options not shown in catalog, consult Customer Service Center.



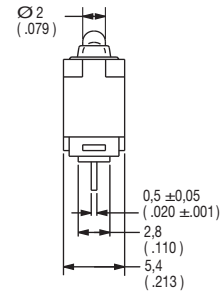
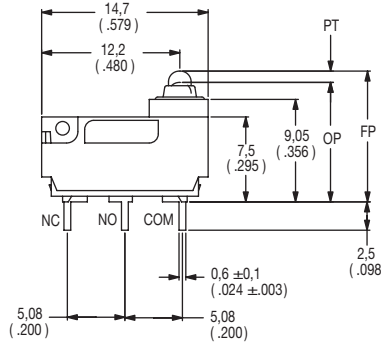
ZMS Series Subminiature Snap-acting Switches (IP65)

SERIES **ZMS** ■ ■ ■ ■ ■ ■ ■ ■

ZMSH HIGH OVER TRAVEL
Switch option shown: ZMSH00P00SSC



ZMSL LOW OVER TRAVEL
Switch option shown: ZMSL00P00PSC



ELECTRICAL RATING

| OPTION CODE | CONTACT MATERIAL | UL61058-1 UL1054 | ENEC |
|-------------|--------------------------------------|---|-----------------------|
| | MOVABLE CONTACT / STATIONARY CONTACT | ELECTRICAL RATING | ELECTRICAL RATING |
| 00 | Gold plating over silver alloy | 0.01 AMP @ 12 V DC 0.1 AMP @ 12 V DC | 10m AMP @ 12 V DC 5E5 |
| 03 | Silver alloy | 3 AMPS @ 125 V AC 3 AMPS @ 12 V DC | 3 AMPS @ 12 V DC 1E5 |

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

OPERATING FORCE

| OPTION CODE | BASIC SWITCH OPERATING FORCE (OZ./GRAMS) |
|-------------|--|
| 130 | 130 4.59 |



Third Angle
Projection

Dimensions are shown: Inch (mm)

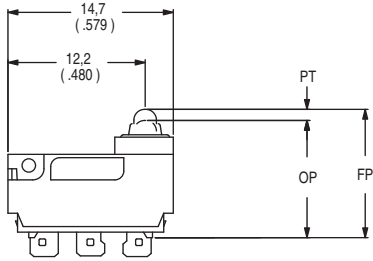
Specifications and dimensions subject to change



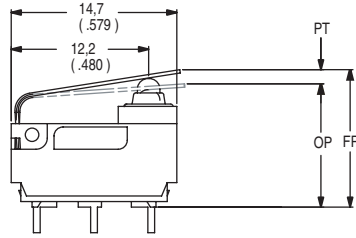
ZMS Series Subminiature Snap-acting Switches (IP65)

ACTUATOR

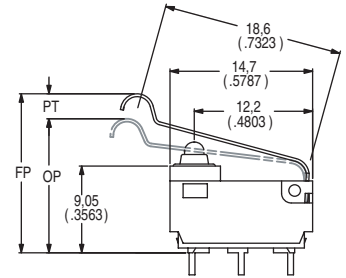
P00 PIN PLUNGER (IP65)



T10 .25 LEVER (IP65)



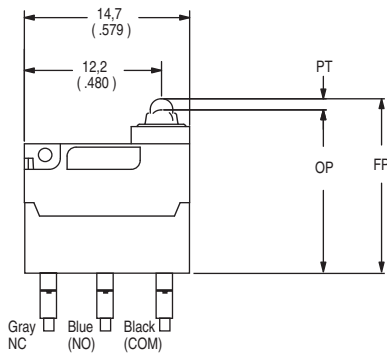
T11 LEVER (IP65)



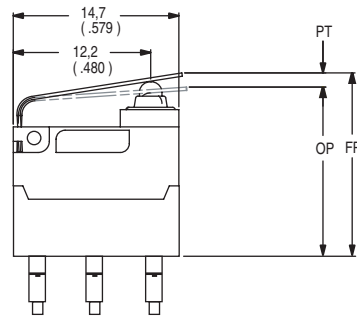
SWITCH CHARACTERISTICS

| Actuator code | Maximum Operate Force (grams/oz.) | Minimum Release Force (grams/oz.) | Free Position Max | Maximum Pre-travel | Operate Position | Maximum Differential | Low Overtravel min. (L) | High Overtravel min. (H) |
|---------------|-----------------------------------|-----------------------------------|-------------------|--------------------|-----------------------------|----------------------|-------------------------|--------------------------|
| P00 | 130 4.59 | 13 0.45 | .472 (12) | 0.032 (0,8) | .415 ± .012 (10.55 ± .3) | .012 (0,3) | 0.031 (0,8) | 0.068 (1,72) |
| T10 | 195 6.88 | 55 1.93 | .604 (15.35) | 0.152 (3.85) | .440 ± .020 (11.2 ± .5) | 0.020 (0,5) | 0.053 (1,35) | 0.084 (2,14) |
| T11 | 160 5.64 | 45 1.58 | .726 (18.45) | 0.186 (4.8) | .539 ± .032 (13.7 ± .8) | 0.030 (0,7) | 0.062 (1,65) | 0.101 (2,57) |

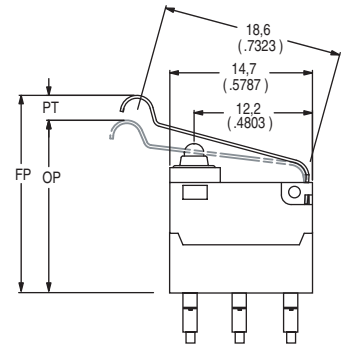
P00 PIN PLUNGER (IP67)



T10 .25 LEVER (IP67)



T11 .28 LEVER (IP67)



SWITCH CHARACTERISTICS "J" TERMINATION ONLY

| Actuator code | Maximum Operate Force (grams/oz.) | Minimum Release Force (grams/oz.) | Free Position Max | Maximum Pre-travel | Operate Position | Maximum Differential | Low Overtravel min. (L) | High Overtravel min. (H) |
|---------------|-----------------------------------|-----------------------------------|-------------------|--------------------|------------------------------|----------------------|-------------------------|--------------------------|
| P00 | 130 4.59 | 13 0.45 | .650 (16.50) | 0.032 (0,8) | .593 ± .020 (15.05 ± 0.5) | .012 (0,3) | 0.031 (0,8) | 0.068 (1,72) |
| T10 | 195 6.88 | 55 1.93 | .781 (19.85) | 0.152 (3.85) | .618 ± .028 (15.7 ± .7) | 0.020 (0,5) | 0.053 (1,35) | 0.084 (2,14) |
| T11 | 160 5.64 | 45 1.58 | .904 (22.95) | 0.188 (4.8) | .717 ± .039 (18.2 ± 1.0) | 0.030 (0,7) | 0.062 (1,65) | 0.101 (2,57) |



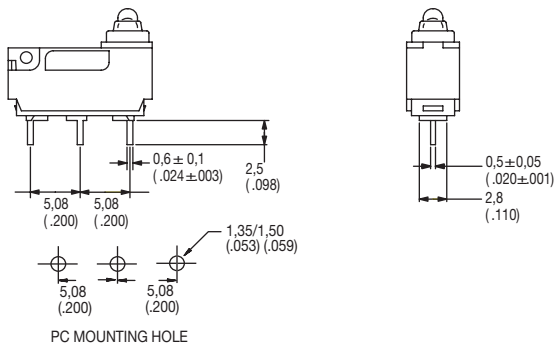
Dimensions are shown: mm (inch)
Specifications and dimensions subject to change



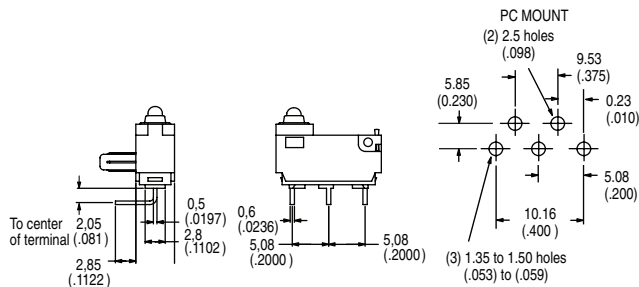
ZMS Series Subminiature Snap-acting Switches (IP65)

TERMINATIONS

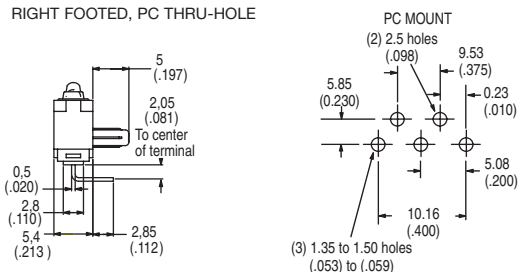
P PC THRU-HOLE



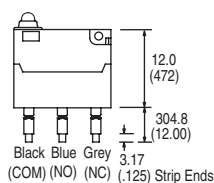
L LEFT FOOTED, PC THRU-HOLE



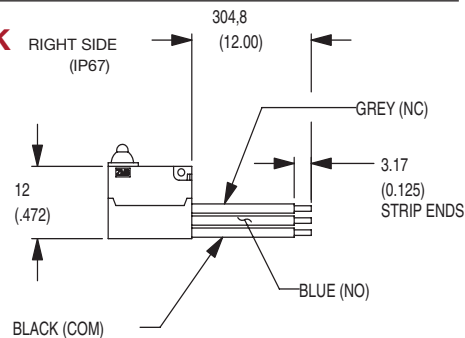
R RIGHT FOOTED, PC THRU-HOLE



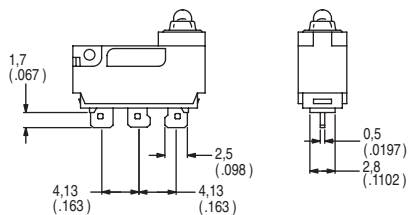
J WIRE LEADS BOTTOM (IP67)



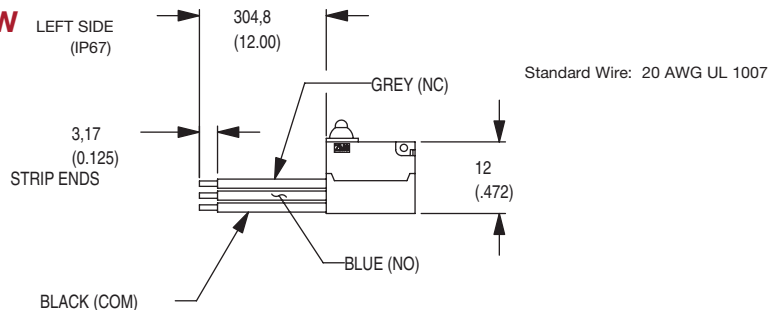
K RIGHT SIDE (IP67)



S SOLDER TYPE



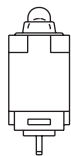
W LEFT SIDE (IP67)



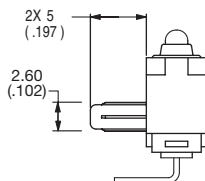
Snap-acting

MOUNTING STYLES

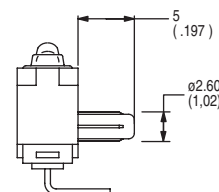
S STD (NO SUPPORT POST)



L SUPPORT POST LEFT



R SUPPORT POST RIGHT



CIRCUITRY

C SPDT (Single Pole, Double Throw)

W SPST, NC (Single Pole, Single Throw, Normally Closed)

Y SPST, NO (Single Pole, Single Throw, Normally Open)



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

