

# ZMS Series Mini Size Snap-acting Switches

## Features/Benefits

- Reliable snap-acting mechanism
- Long electrical and mechanical life
- Compact size - ideal when space is limited
- Various PCB terminals & actuators
- RoHS compatible
- IP67 for standalone switch except the metal terminal part; Full IP67 protection when potted with wire version

## Typical Applications

- PCB detection switch
- Communication devices
- Testing equipment
- Security/Alarm systems
- Consumer electronics
- Automotive: door latch, seat position detection, EV charging



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

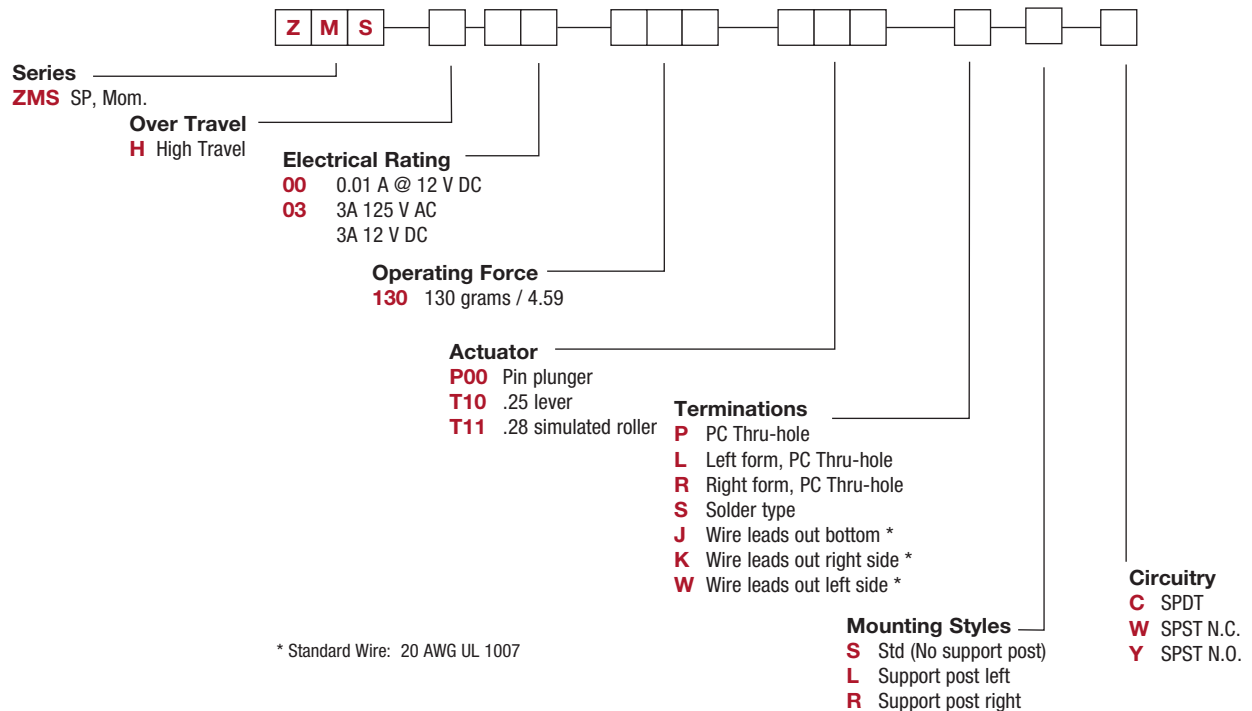
**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.



Sealing cap could possibly be damaged in case of contacts with oils or greases. Please try to avoid direct contact. If more support is needed, consult Customer Service Centre.

## Build-A-Switch

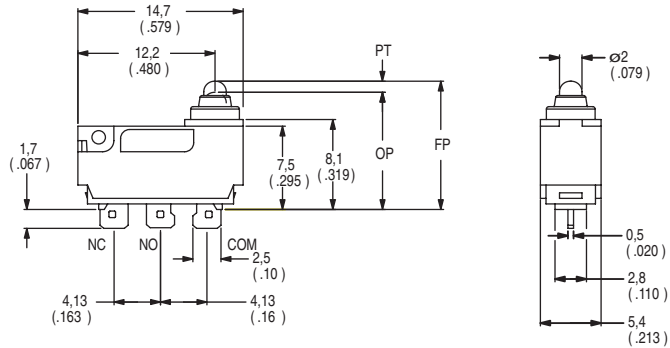
To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult Customer Service Center.



# ZMS Series Mini Size Snap-acting Switches

## SERIES

**ZMSH** HIGH OVER TRAVEL



## ELECTRICAL RATING

OPTION CODE	CONTACT MATERIAL	UL61058-1 UL1054	ENEC
	MOVABLE CONTACT / STATIONARY CONTACT	ELECTRICAL RATING	ELECTRICAL RATING
<b>00</b>	Gold plating over silver alloy	0.01 AMP @ 12 V DC 0.1 AMP @ 12 V DC	10m AMP @ 12 V DC 5E5
<b>03</b>	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)
<b>130</b>	130 4.59

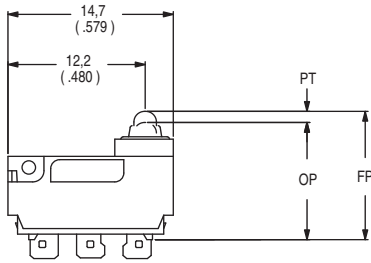


Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

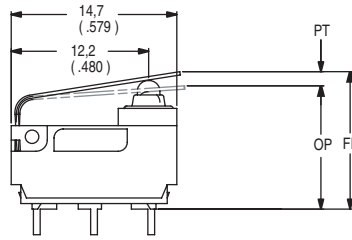
# ZMS Series Mini Size Snap-acting Switches

## ACTUATOR

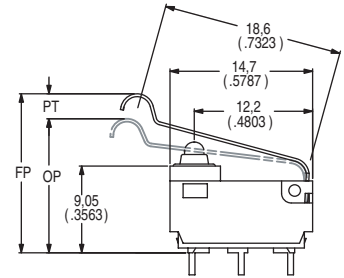
**P00** PIN PLUNGER



**T10** .25 LEVER



**T11** LEVER

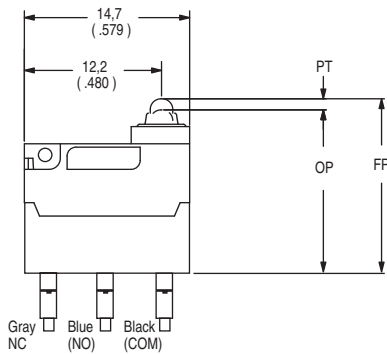


### SWITCH CHARACTERISTICS

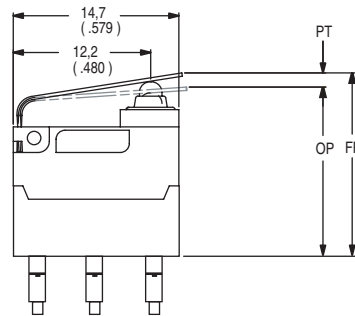
Actuator code	Maximum Operate Force (grams/oz.)	Minimum Release Force (grams/oz.)	Free Position Max	Maximum Pre-travel	Operate Position	Maximum Differential	High Overtravel min. (H)
<b>P00</b>	130 4.59	13 0.45	.472 (12)	0.032 (0.8)	.415 ± .012 (10.55 ± .3)	.012 (0.3)	0.068 (1.72)
<b>T10</b>	195 6.88	55 1.93	.604 (15.35)	0.152 (3.85)	.440 ± .020 (11.2 ± .5)	0.020 (0.5)	0.084 (2.14)
<b>T11</b>	160 5.64	45 1.58	.726 (18.45)	0.186 (4.8)	.539 ± .032 (13.7 ± .8)	0.030 (0.7)	0.101 (2.57)

Snap-acting

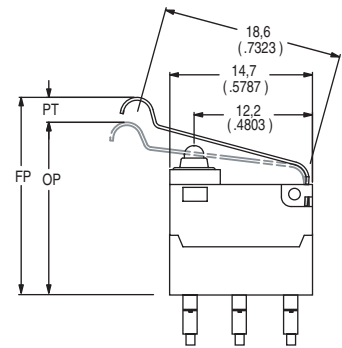
**P00** PIN PLUNGER (IP67)



**T10** .25 LEVER (IP67)

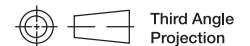


**T11** .28 LEVER (IP67)



### 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	High Overtravel min. (H)
<b>P00</b>	130 4.59	13 0.45	.650 (16.50)	0.032 (0.8)	.593 ± .020 (15.05 ± 0.5)	.012 (0.3)	0.068 (1.72)
<b>T10</b>	195 6.88	55 1.93	.781 (19.85)	0.152 (3.85)	.618 ± .028 (15.7 ± .7)	0.020 (0.5)	0.084 (2.14)
<b>T11</b>	160 5.64	45 1.58	.904 (22.95)	0.188 (4.8)	.717 ± .039 (18.2 ± 1.0)	0.030 (0.7)	0.101 (2.57)



Third Angle Projection

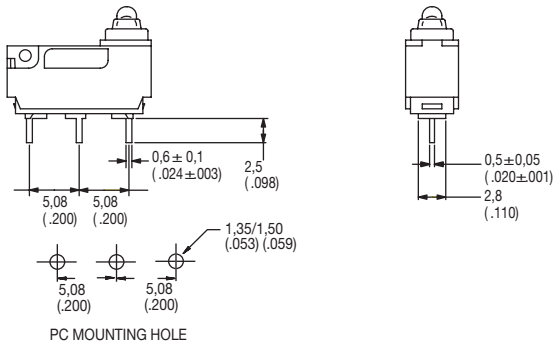
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change



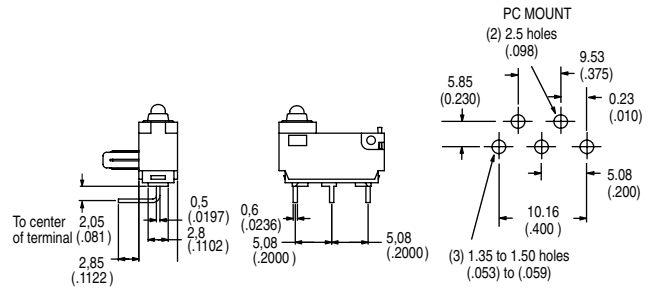
# ZMS Series Mini Size Snap-acting Switches

## TERMINATIONS

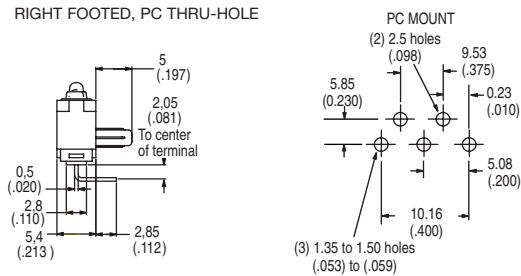
### P PC THRU-HOLE



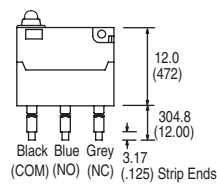
### L LEFT FOOTED, PC THRU-HOLE



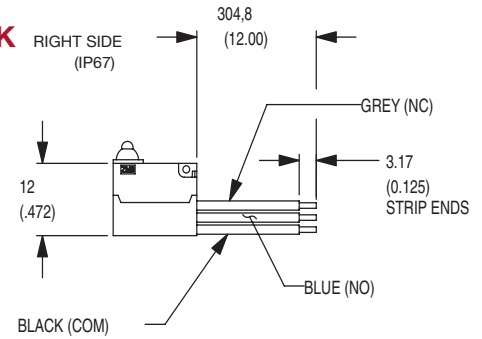
### R RIGHT FOOTED, PC THRU-HOLE



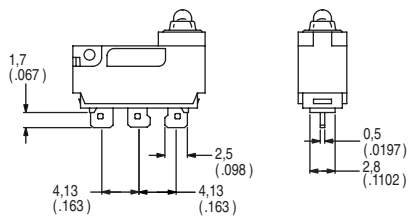
### J WIRE LEADS BOTTOM (IP67)



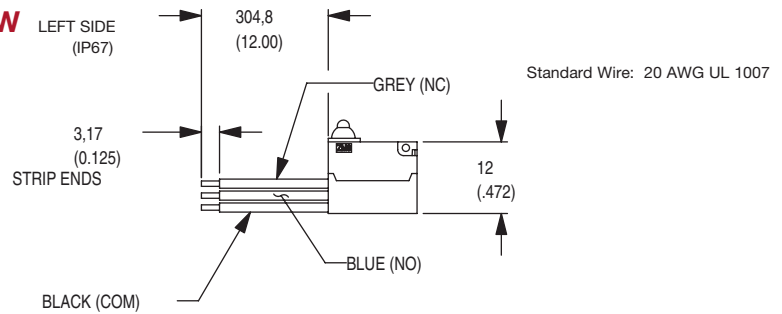
### K RIGHT SIDE (IP67)



### S SOLDER TYPE

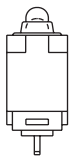


### W LEFT SIDE (IP67)

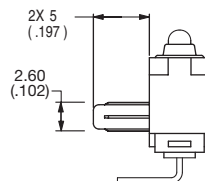


## MOUNTING STYLES

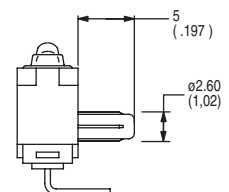
### S STD (NO SUPPORT POST)



### L SUPPORT POST LEFT



### R SUPPORT POST RIGHT

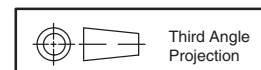


## CIRCUITRY

### C SPDT (Single Pole, Double Throw)

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

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



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