

# ZMS Series Subminiature Snap-acting Switches (Dust Proof)



## 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 on some models

## Typical Applications

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



## Specifications

CONTACT RATING: 3A @ 125 V AC, 3A 12 V DC / 10 mA @ 12 V DC.  
 ELECTRICAL LIFE: 300,000 cycles @ 10mA / 100,000 cycles @ 3A, 12V DC, 6,000 cycles @ 3A, 125 VAC  
 INSULATION RESISTANCE: 100 M ohm min.  
 DIELECTRIC STRENGTH: 500 Vrms.  
 OPERATING TEMPERATURE: -40°C to 85°C.  
 OPERATING FORCE: 80 or 130 grams.

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

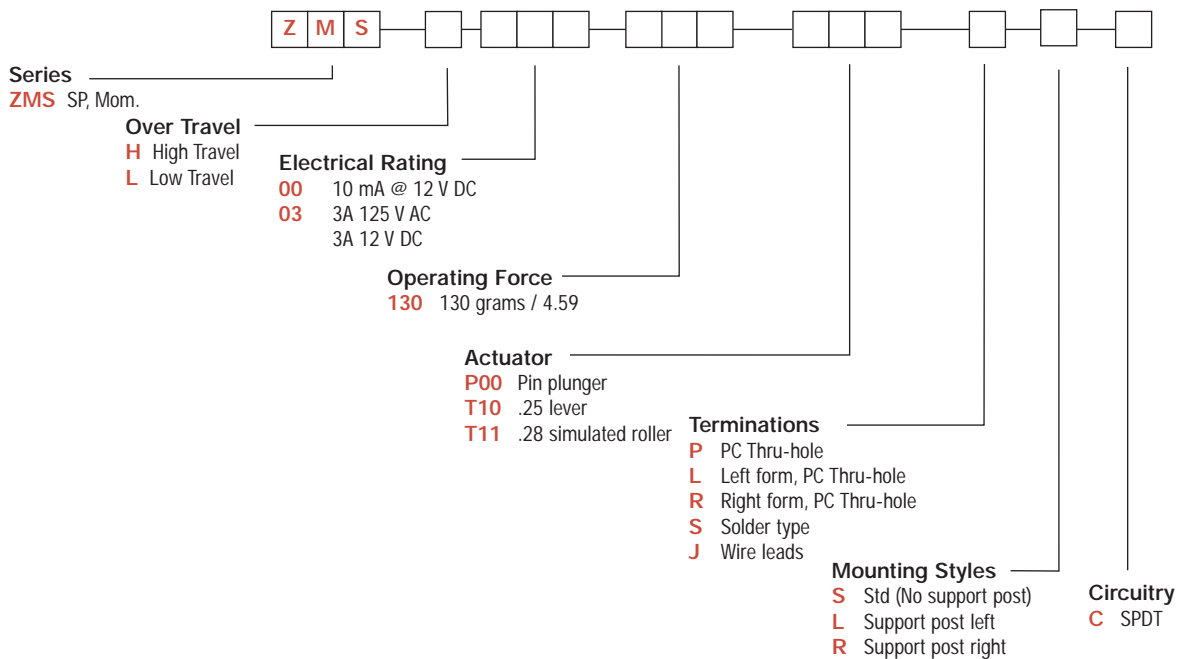
## Materials

CASE: Nylon  
 COVER/ACTUATOR: PBT  
 MOVABLE CONTACTS: Silver or gold plated.  
 STATIONARY CONTACTS: Silver or gold plated.  
 TERMINALS: Brass, tin 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 K-40 and K-42. For additional options not shown in catalog, consult Customer Service Center.

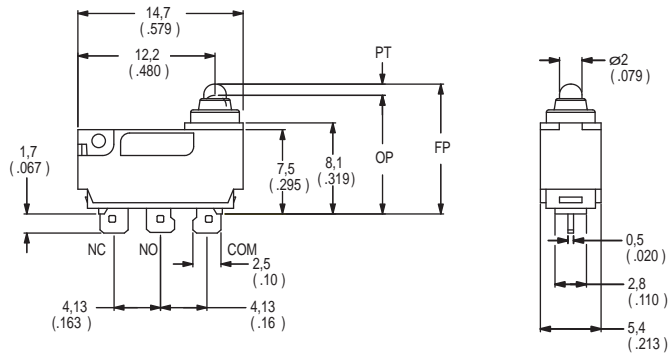


Snap-acting

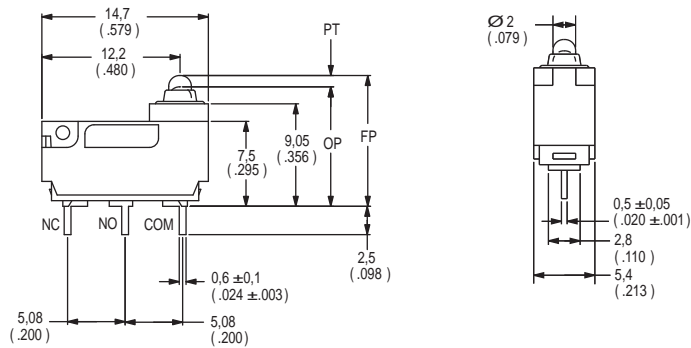
# ZMS Series Subminiature Snap-acting Switches

SERIES **ZMS** ■ ■ ■ ■ ■ ■ ■ ■

## ZMSH HIGH OVER TRAVEL



## ZMSL LOW OVER TRAVEL



## ELECTRICAL RATING

OPTION CODE	RoHS COMPLIANT*	RoHS COMPATIBLE*	CONTACT MATERIAL		ELECTRICAL RATING	
			MOVABLE CONTACT	STATIONARY CONTACT		
<b>00</b>	Yes	Yes	Gold over fine silver	Gold over fine silver	0.1 AMP @ 30 V DC	
<b>03</b>	Yes	Yes	Fine Silver	Fine silver	3 AMPS @ 125 V AC 3 AMPS @ 12 V DC	

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

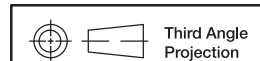
Model with option "S" (solder type) only.

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

\*Electrical rating 03A is not available with Operating Force rating of 080.

## OPERATING FORCE

OPTION CODE	BASIC SWITCH OPERATING FORCE (OZ./GRAMS)
<b>130</b>	130 4.59

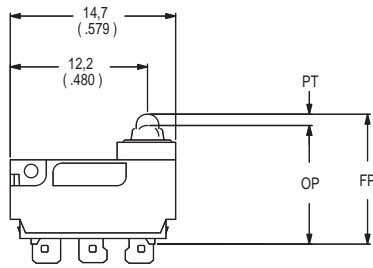


Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

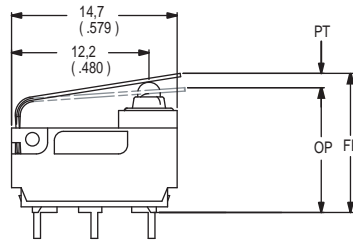
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## ACTUATOR

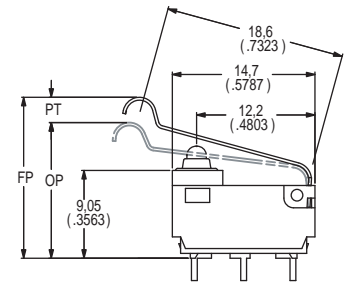
**P00** PIN PLUNGER



**T10** .25 LEVER



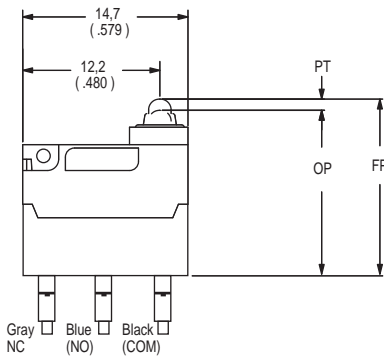
**T11** LEVER



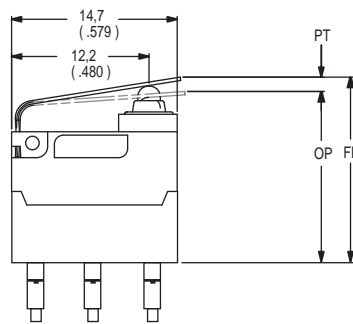
### SWITCH CHARACTERISTICS

Actuator code	Maximum Operate Force (grams/oz.)	Minimum Release Force (grams/oz.)	Free Position Max	Maximum Pre-travel	Operate Position	Maximum Differential	Minimum Overtravel
<b>P00</b>	130 4.59	13 0.45	.439 (11.15)	0.032 (0,8)	.415+/- .008 (10.55+/- .2)	.008 (0,2)	0.031 (0,8)
<b>T10</b>	195 6.88	55 1.93	.570 (14.5)	0.152 (3,85)	.440+/- .020 (11.2+/- .5)	0.020 (0,5)	0.053 (1,35)
<b>T11</b>	160 5.64	45 1.58	.693 (17.6)	0.186 (4,8)	.539+/- .032 (13.7+/- .8)	0.030 (0,7)	0.062 (1,65)

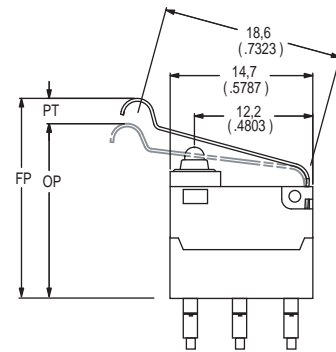
**P00** PIN PLUNGER



**T10** .25 LEVER



**T11** .28 LEVER



### 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	Minimum Overtravel
<b>P00</b>	130 4.59	13 0.45	.616 (15.65)	0.032 (0,8)	.593+/- .008 (15.05+/- .2)	.008 (0,2)	0.031 (0,8)
<b>T10</b>	195 6.88	55 1.93	.747 (19.0)	0.152 (3,85)	.617+/- .020 (20.2+/- .5)	0.020 (0,5)	0.053 (1,35)
<b>T11</b>	160 5.64	45 1.58	.870 (22.1)	0.188 (4,8)	.716+/- .032 (18.2+/- .8)	0.030 (0,7)	0.062 (1,65)



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

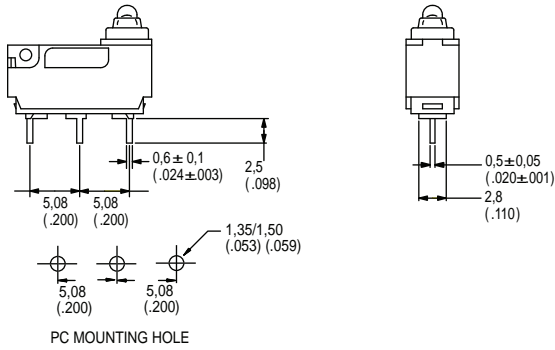


Snap-acting

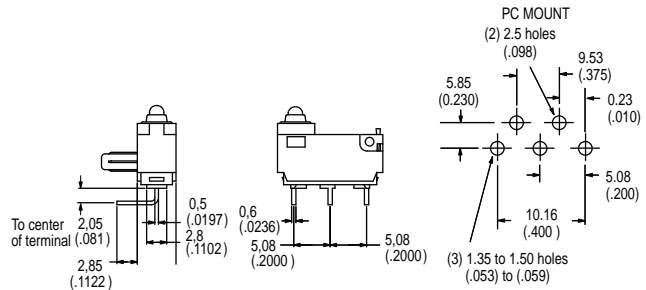
# ZMS Series Subminiature Snap-acting Switches (Dust Proof)

## TERMINATIONS

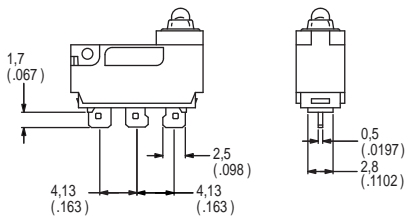
### P PC THRU-HOLE



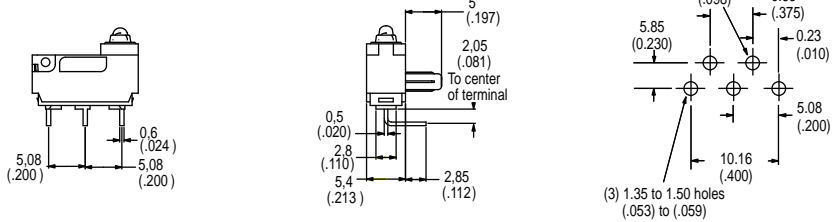
### L LEFT FOOTED, PC THRU-HOLE



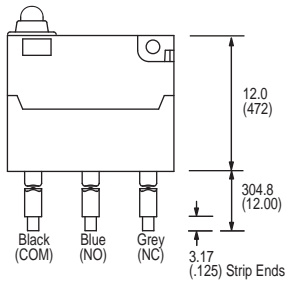
### S SOLDER TYPE



### R RIGHT FOOTED, PC THRU-HOLE

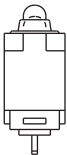


### J WIRE LEADS (IP67) 20 AWG

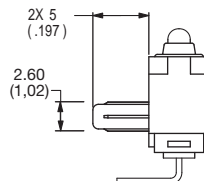


## MOUNTING STYLES

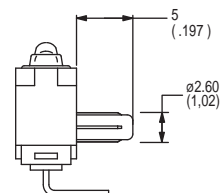
### S STD (NO SUPPORT POST)



### L SUPPORT POST LEFT



### R SUPPORT POST RIGHT



## CIRCUITRY

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



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