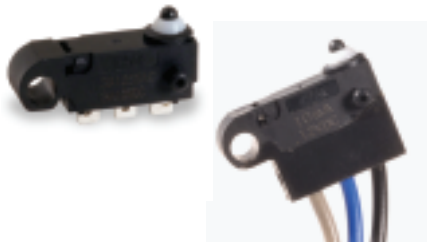


# ZMSM Series with Mounting Hole Subminiature Snap-acting Switches (Dust Proof)



## Features/Benefits

- **Reliable snap-acting mechanism**
- **Long electrical and mechanical life**
- **Various PCB terminals and actuators**
- **RoHS compatible**
- **IP67 on some models**

## Typical Applications

- **Communication devices**
- **Testing equipment**
- **Security/Alarm systems**



Models Available

## 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.

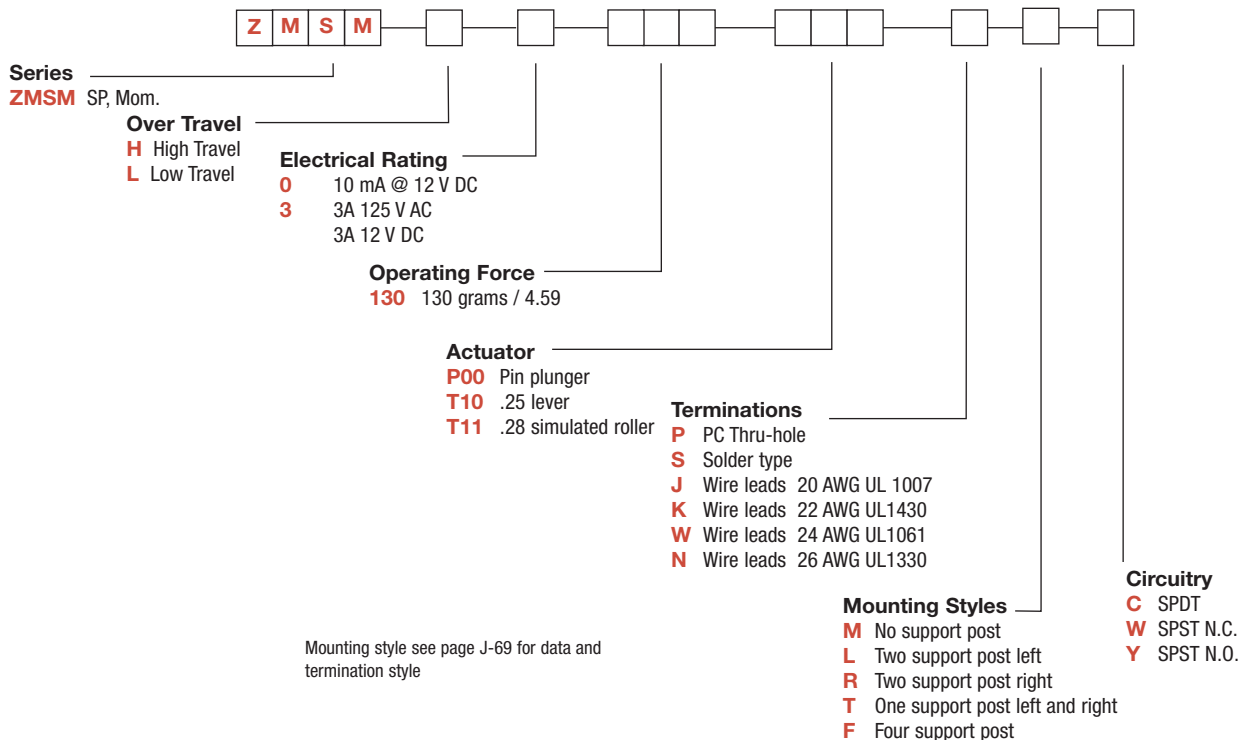
## Materials

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

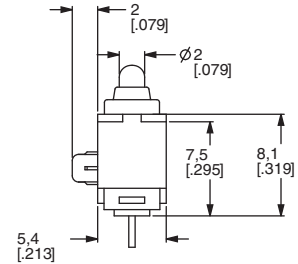
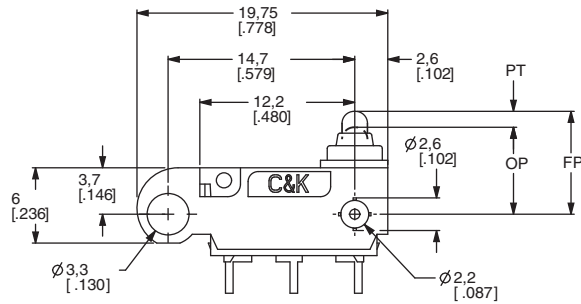
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages J-67 and J-68. For additional options not shown in catalog, consult Customer Service Center.



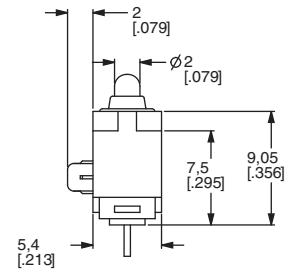
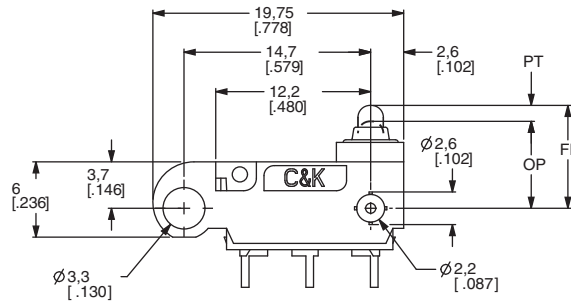
# ZMSM Series with Mounting Hole Subminiature Snap-acting Switches (Dust Proof)

SERIES **Z M S M** ■ ■ ■ ■ ■ ■ ■ ■

## ZMSMH HIGH OVER TRAVEL



## ZMSML LOW OVER TRAVEL



## ELECTRICAL RATING ■ ■ ■ ■ ■ ■ ■ ■

OPTION CODE	RoHS COMPLIANT*	RoHS COMPATIBLE*	CONTACT MATERIAL		ELECTRICAL RATING	
			MOVABLE CONTACT	STATIONARY CONTACT		
<b>0</b>	Yes	Yes	Gold over fine silver	Gold over fine silver	10mA @ 12 V DC	
<b>3</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



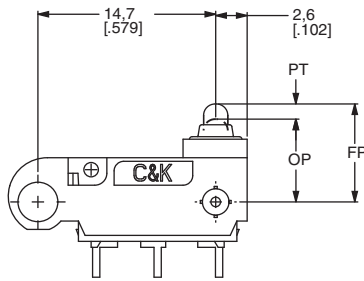
Third Angle Projection

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

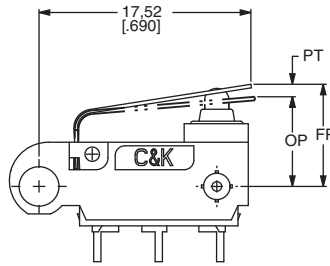
# ZMSM Series with Mounting Hole Subminiature Snap-acting Switches (Dust Proof)

## ACTUATOR

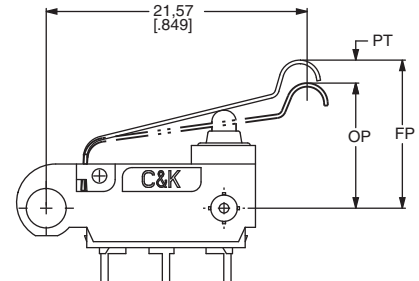
**P00** PIN PLUNGER



**T10** .25 LEVER



**T11** LEVER

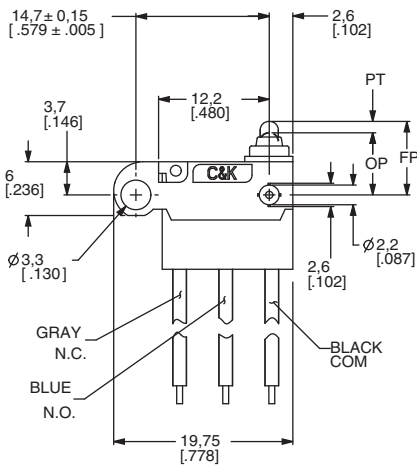


SWITCH CHARACTERISTICS

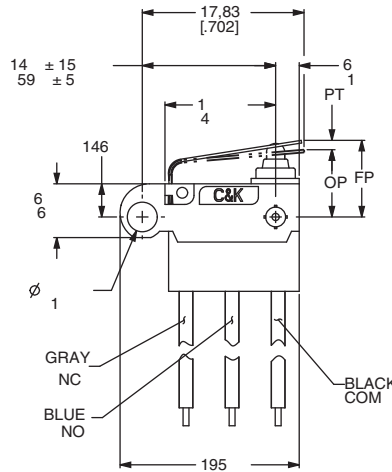
Actuator code	Maximum Operate Force (grams/oz.)	Minimum Release Force (grams/oz.)	Free Position Max (mm)	Maximum Pre-travel (mm)	Operate Position (mm) ±0.3	Maximum Differential (mm)	Minimum Overtravel (mm)
<b>P00</b>	130 4.59	13 0.45	8.20	0.8	6.75	0.3	0.8
<b>T10</b>	195 6.88	55 1.93	11.55	3.85	7.50	0.5	1.35
<b>T11</b>	160 5.64	45 1.58	14.65	4.8	9.90	0.7	1.65

Snap-acting

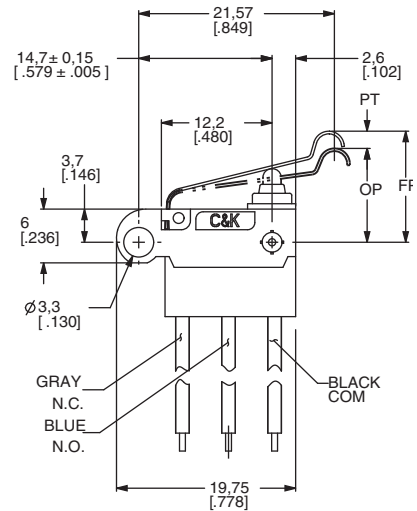
**P00** PIN PLUNGER



**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 (mm)	Maximum Pre-travel (mm)	Operate Position (mm) ±0.3	Maximum Differential (mm)	Minimum Overtravel (mm)
<b>P00</b>	130 4.59	13 0.45	8.20	0.8	6.75	0.3	0.8
<b>T10</b>	195 6.88	55 1.93	11.55	3.85	7.50	0.5	1.35
<b>T11</b>	160 5.64	45 1.58	14.65	4.8	9.90	0.7	1.65



Third Angle Projection

Dimensions are shown: mm (inch)

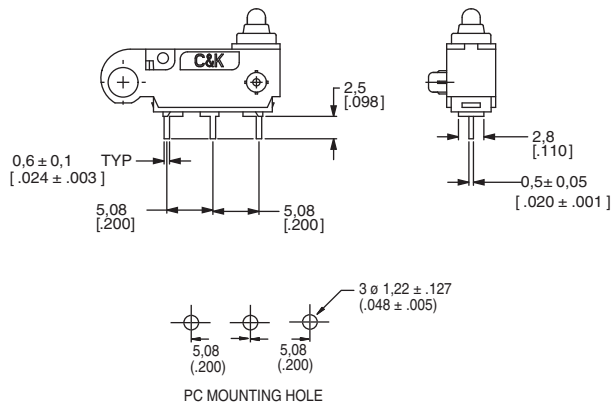
Specifications and dimensions subject to change



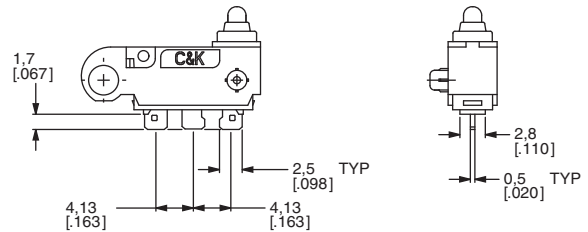
# ZMSM Series with Mounting Hole Subminiature Snap-acting Switches (Dust Proof)

## TERMINATIONS

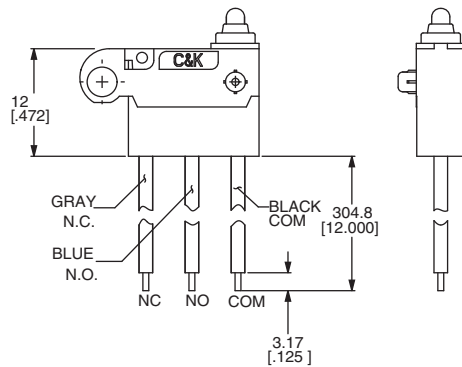
### P PC THRU-HOLE



### S SOLDER TYPE



### J WIRE LEADS BOTTOM (IP67)



Standard Wire: 20 AWG UL 1007

Available options - must specify

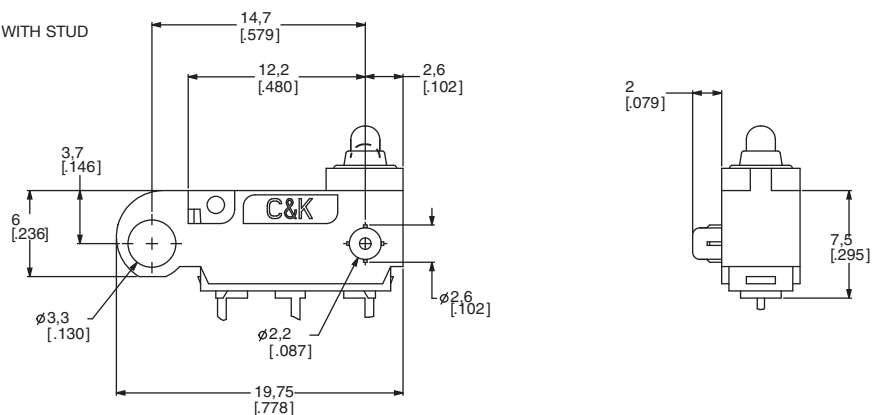
22AWG UL1430

24AWG UL1061

26AWG UL1330

## MOUNTING STYLES

### M 3.30 DIAMETER MOUNTING HOLE WITH STUD



## 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

**C&K**



Snap-acting