

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 12VDC
 100,000 cycles @ 3A 12 VDC
 6,000 cycles @ 3A 125 VAC
 MECHANICAL LIFE: 500,000 cycles
 INSULATION RESISTANCE: 100 M ohm min.
 DIELECTRIC STRENGTH: 500 Vrms.
 OPERATING TEMPERATURE: see chart below.
 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.

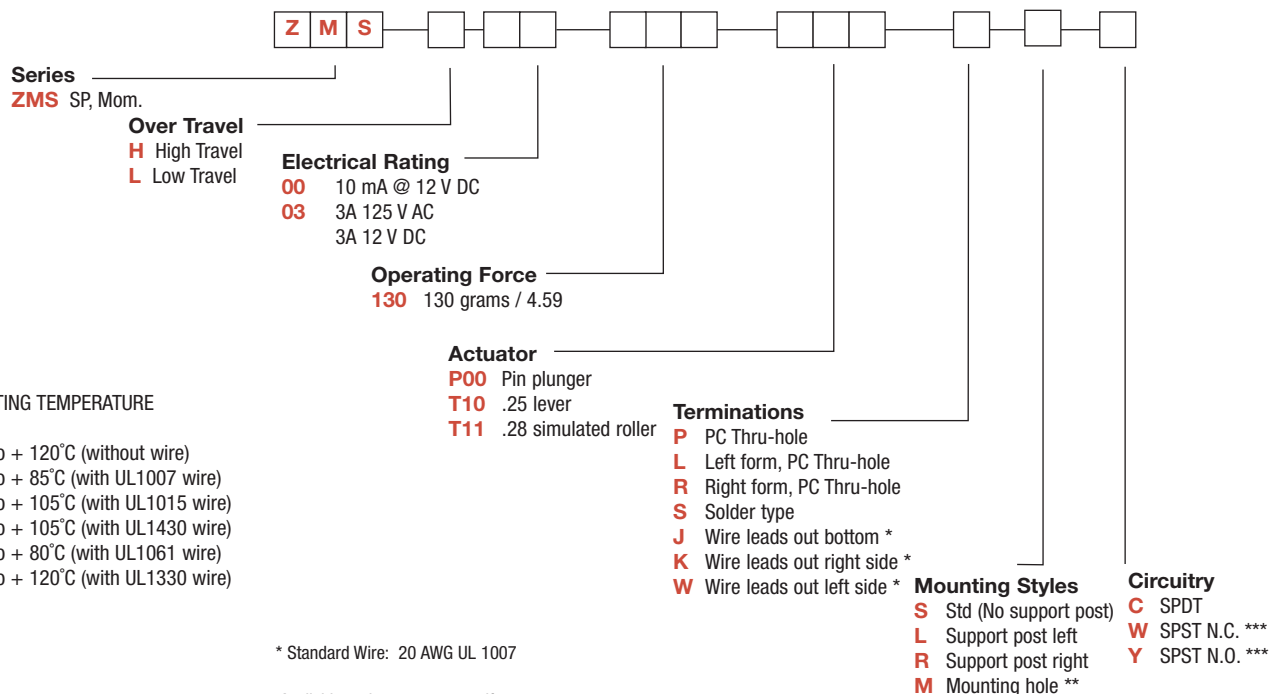
Materials

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-40 and J-42. For additional options not shown in catalog, consult Customer Service Center.



OPERATING TEMPERATURE

- 40°C to + 120°C (without wire)
- 40°C to + 85°C (with UL1007 wire)
- 40°C to + 105°C (with UL1015 wire)
- 40°C to + 105°C (with UL1430 wire)
- 40°C to + 80°C (with UL1061 wire)
- 40°C to + 120°C (with UL1330 wire)

* Standard Wire: 20 AWG UL 1007

Available options - must specify
 22AWG UL1430
 24AWG UL1061
 26AWG UL1330

** "M" mounting style see page J-42 and J-43 for data and termination style

*** Only available with "J" Termination option

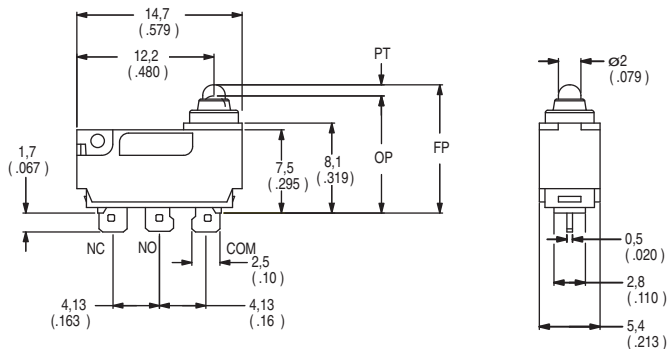


Dimensions are shown: Inch (mm)
 Specifications and dimensions subject to change

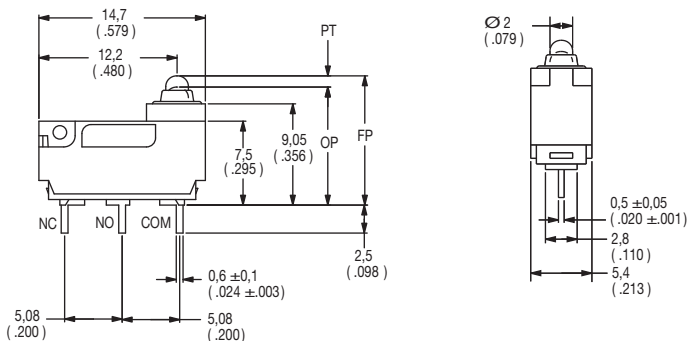
ZMS Series Subminiature Snap-acting Switches

SERIES **Z M S** ■ ■ ■ ■ ■ ■ ■ ■




ZMSH HIGH OVER TRAVEL
Switch option shown: ZMSH00P00SSC



ZMSL LOW OVER TRAVEL
Switch option shown: ZMSL00P00PSC



ELECTRICAL RATING

OPTION CODE	CONTACT MATERIAL		ELECTRICAL RATING
	MOVABLE CONTACT	STATIONARY CONTACT	
00	Silver plated	Silver plated	0.1 AMP @ 30 V DC 
03*	Fine Silver	Fine silver	 3 AMPS @ 125 V AC 

* 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.

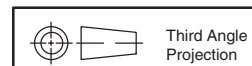
Consult Customer Service center for availability and delivery of nonstandard ratings.

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

OPERATING FORCE

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

Snap-acting

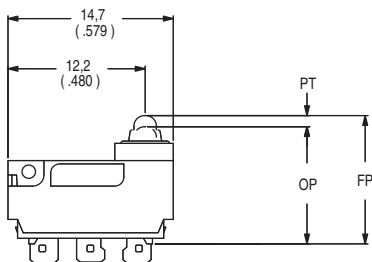


Third Angle Projection
Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

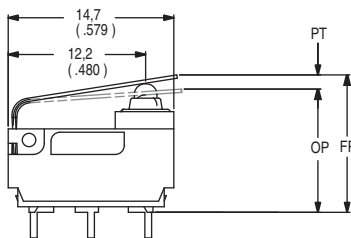
ZMS Series Subminiature Snap-acting Switches (Dust Proof)

ACTUATOR

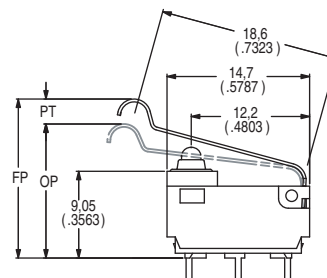
P00 PIN PLUNGER



T10 .25 LEVER



T11 LEVER

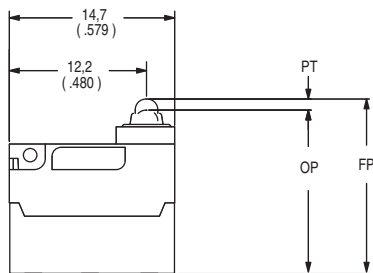


SWITCH CHARACTERISTICS

Actuator code	Maximum Operate Force (grams/oz.)	Minimum Release Force (grams/oz.)	Free Position Max	Maximum Pre-travel	Operate Position	Maximum Differential	Minimum Overtravel
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)
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)
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)

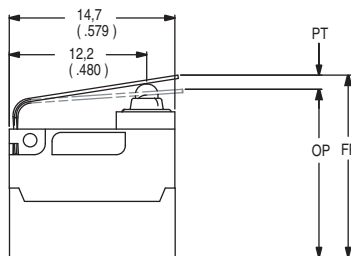
Snap-acting

P00 PIN PLUNGER

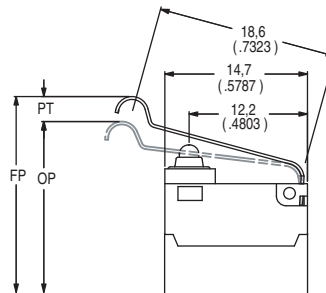


Gray NC
Blue (NO)
Black (COM)

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
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)
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)
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)



Third Angle Projection

Dimensions are shown: mm (inch)

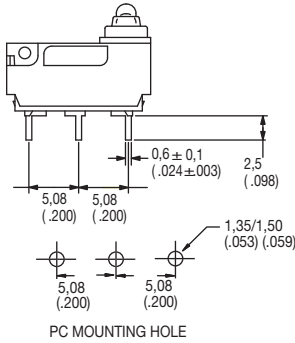
Specifications and dimensions subject to change



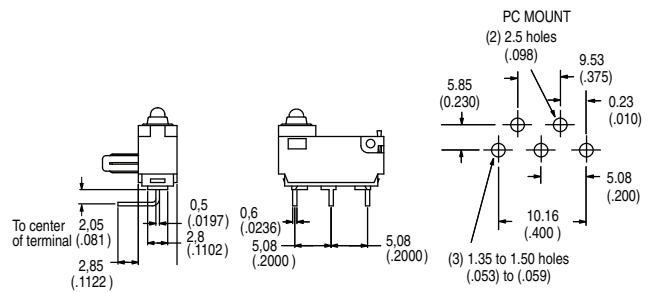
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TERMINATIONS

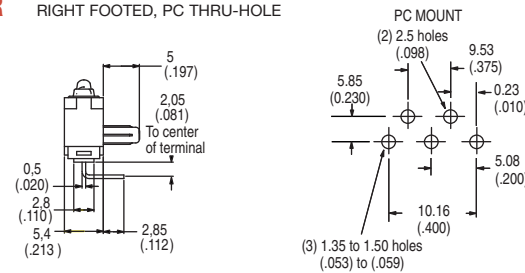
P PC THRU-HOLE



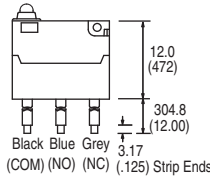
L LEFT FOOTED, PC THRU-HOLE



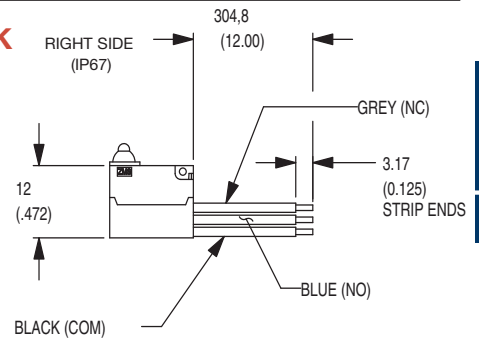
R RIGHT FOOTED, PC THRU-HOLE



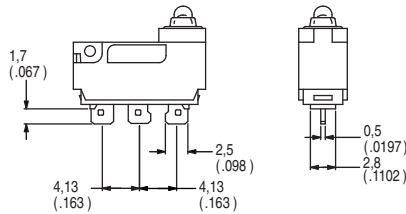
J WIRE LEADS BOTTOM (IP67)



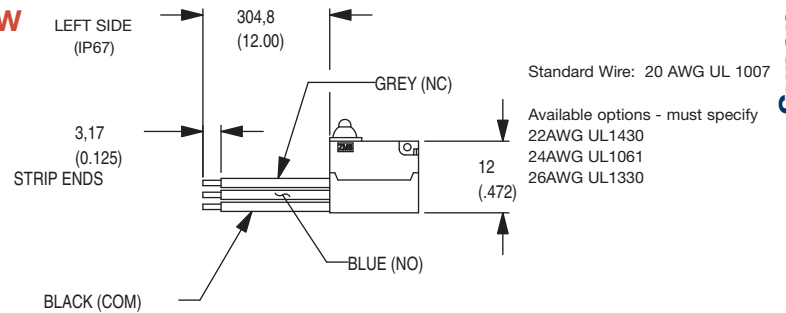
K RIGHT SIDE (IP67)



S SOLDER TYPE

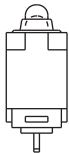


W LEFT SIDE (IP67)

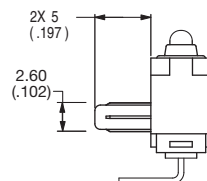


MOUNTING STYLES

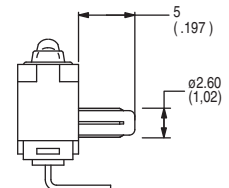
S STD (NO SUPPORT POST)



L SUPPORT POST LEFT



R SUPPORT POST RIGHT



CIRCUITRY

C SPDT (Single Pole, Double Throw)

W SPST, NC (Single Pole, Single Throw, Normally Closed) FOR "J" TERMINATION ONLY

Y SPST, NO (Single Pole, Single Throw, Normally Open) FOR "J" TERMINATION ONLY



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Specifications and dimensions subject to change

