

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, 0.1 Amp gold plating
over silver alloy
STATIONARY CONTACTS: 3 Amp silver alloy, 0.1 Amp 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-40 and J-42. For additional options not shown in catalog, consult Customer Service Center.

Series ZMS SP, Mom.	Over Travel H High Travel L Low Travel	Electrical Rating 00 0.1 A @ 12 V DC 03 3A 125 V AC 3A 12 V DC	Operating Force 130 130 grams / 4.59	Actuator P00 Pin plunger T10 .25 lever T11 .28 simulated roller	Terminations P PC Thru-hole L Left form, PC Thru-hole R Right form, PC Thru-hole S Solder type J Wire leads out bottom * K Wire leads out right side * W Wire leads out left side *	Mounting Styles S Std (No support post) L Support post left R Support post right	Circuitry C SPDT W SPST N.C. Y SPST N.O.
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* Standard Wire: 20 AWG UL 1007



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

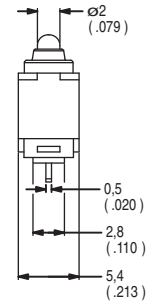
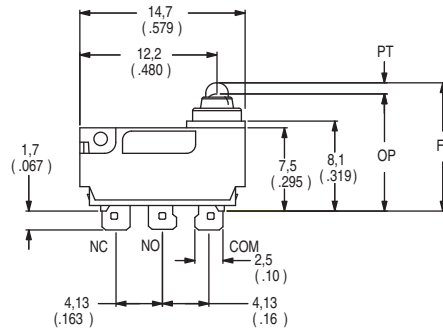
ZMS Series Subminiature Snap-acting Switches (IP65)

SERIES **Z M S** ■ ■ ■ ■ ■ ■ ■ ■

ZMSH

HIGH OVER TRAVEL

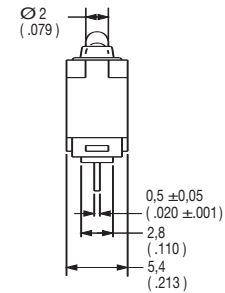
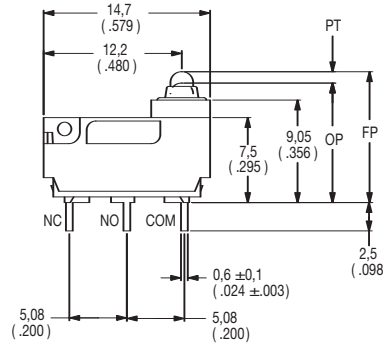
Switch option shown: ZMSH00P00SSC



ZMSL

LOW OVER TRAVEL

Switch option shown: ZMSL00P00PSC



ELECTRICAL RATING ■ ■ ■ ■ ■ ■ ■ ■

OPTION CODE	CONTACT MATERIAL	UL61058-1 UL1054 ELECTRICAL RATING	ENEC ELECTRICAL RATING
	MOVABLE CONTACT / STATIONARY CONTACT		
00	Gold plating over silver alloy	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

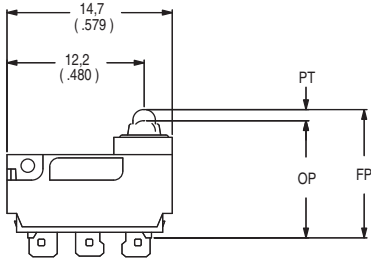
Dimensions are shown: mm (inch)
Specifications and dimensions subject to change

ZMS Series

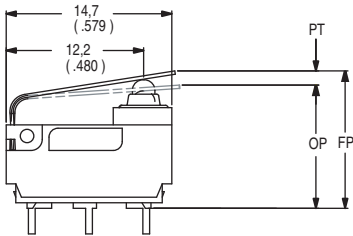
Subminiature Snap-acting Switches (IP65)

ACTUATOR

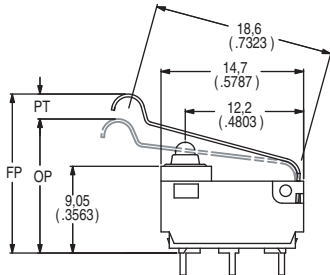
P00 PIN PLUNGER (IP65)



T10 .25 LEVER (IP65)



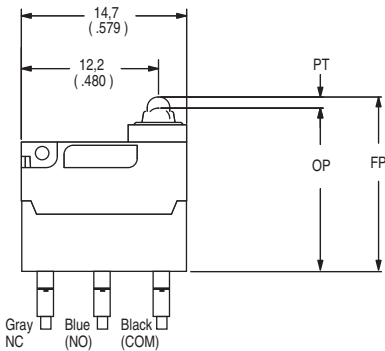
T11 LEVER (IP65)



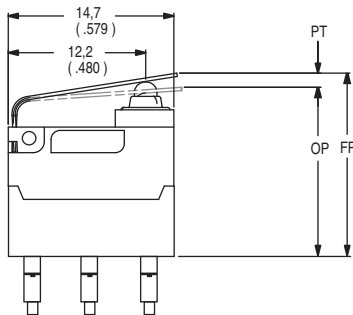
SWITCH CHARACTERISTICS

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)

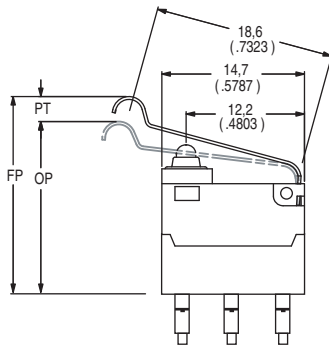
P00 PIN PLUNGER (IP67)



T10 .25 LEVER (IP67)

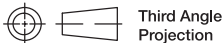


T11 .28 LEVER (IP67)



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)



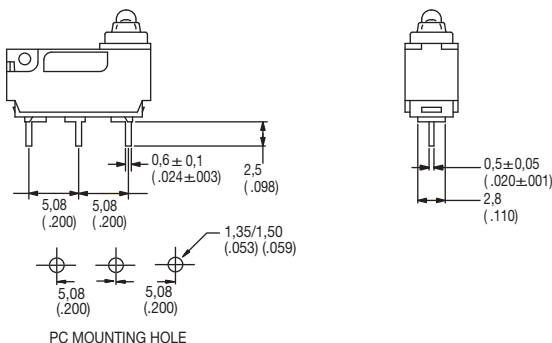
Dimensions are shown: mm (inch)
Specifications and dimensions subject to change



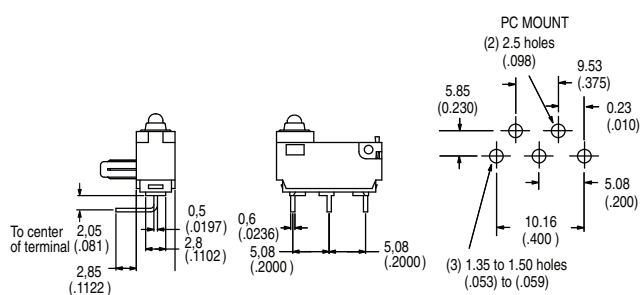
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TERMINATIONS

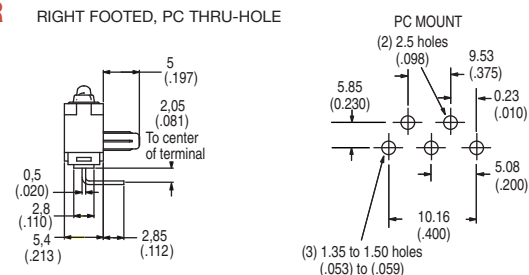
P PC THRU-HOLE



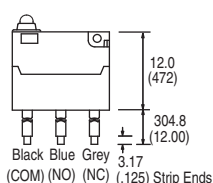
L LEFT FOOTED, PC THRU-HOLE



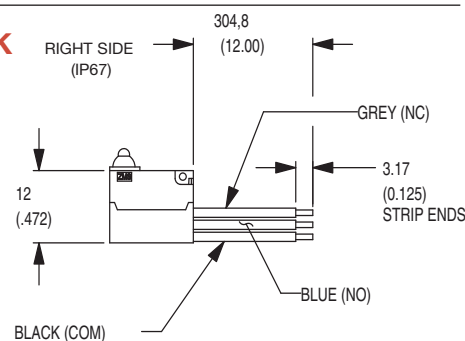
R RIGHT FOOTED, PC THRU-HOLE



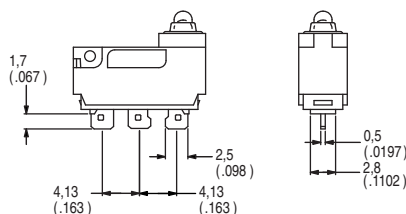
J WIRE LEADS BOTTOM (IP67)



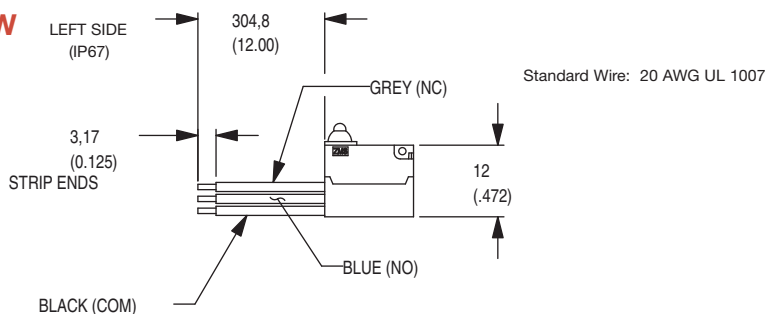
K RIGHT SIDE (IP67)



S SOLDER TYPE

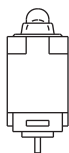


W LEFT SIDE (IP67)

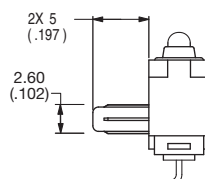


MOUNTING STYLES

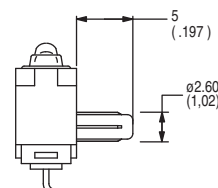
S STD (NO SUPPORT POST)



L SUPPORT POST LEFT



R SUPPORT POST RIGHT



CIRCUITRY

C SPDT (Single Pole, Double Throw)

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

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



Third Angle
Projection

Dimensions are shown: mm (inch)

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