

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.

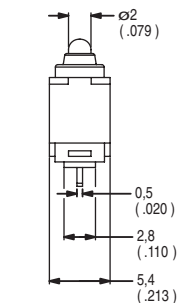
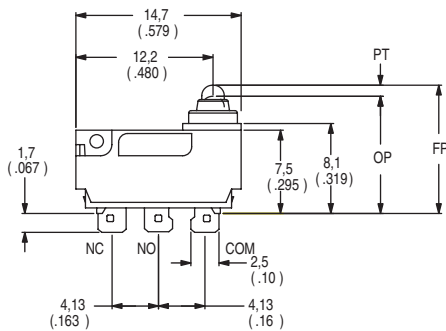
Z M S															
Series ZMS SP, Mom.		Over Travel H High Travel L Low Travel		Electrical Rating 00 0.01 A @ 12 V DC 03 3A 125 V AC 3A 12 V DC		Operating Force 130 130 grams / 4.59		Actuator P00 Pin plunger T10 .25 lever T11 .28 simulated roller		Terminations P PC Thru-hole L Left form, PC Thru-hole 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 *		Circuitry C SPDT W SPST N.C. Y SPST N.O.			
										Mounting Styles S Std (No support post) L Support post left R Support post right					

* Standard Wire: 20 AWG UL 1007

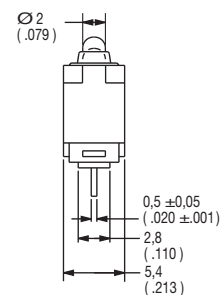
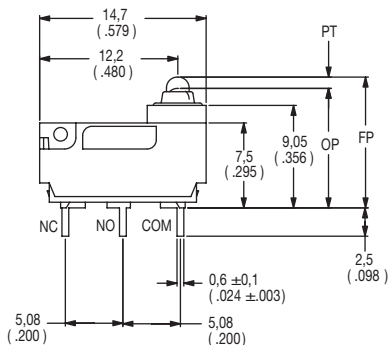
ZMS Series Mini Size Snap-acting Switches

SERIES

ZMSH HIGH OVER TRAVEL



ZMSL LOW OVER TRAVEL



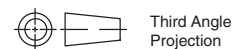
ELECTRICAL RATING

OPTION CODE	CONTACT MATERIAL	UL61058-1 UL1054 ELECTRICAL RATING	ENEC
	MOVABLE CONTACT / STATIONARY CONTACT		ELECTRICAL RATING
00	Gold plating over silver alloy	0.01 AMP @ 12 V DC 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	<u>130</u> 4.59



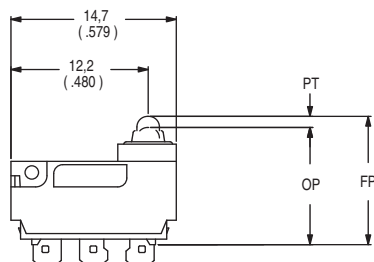
Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

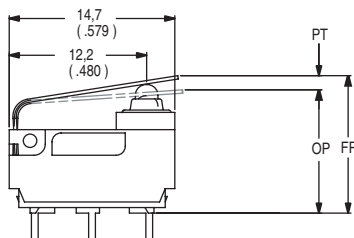
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ACTUATOR

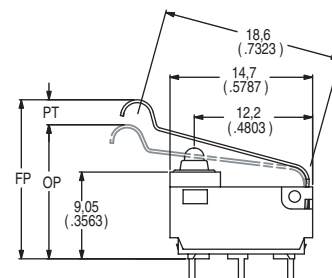
P00 PIN PLUNGER (IP65)



T10 .25 LEVER (IP65)



T11 LEVER (IP65)



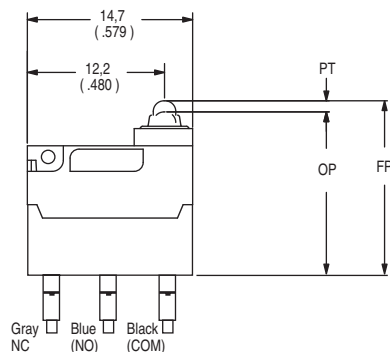
SWITCH CHARACTERISTICS

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)

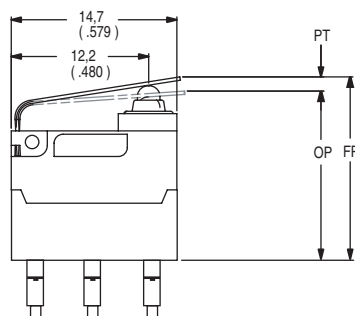


Snap-acting

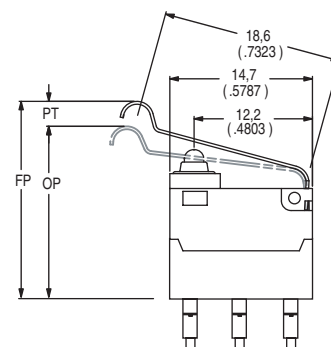
P00 PIN PLUNGER (IP67)



T10 .25 LEVER (IP67)



T11 .28 LEVER (IP67)



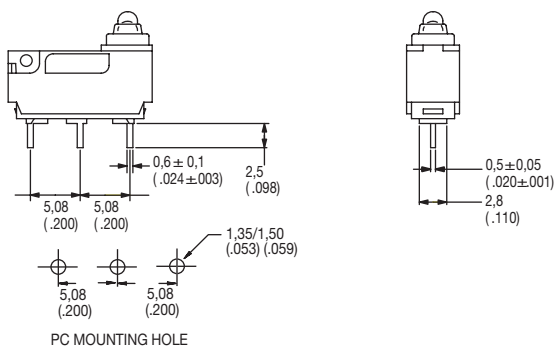
SWITCH CHARACTERISTICS "J" TERMINATION ONLY

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

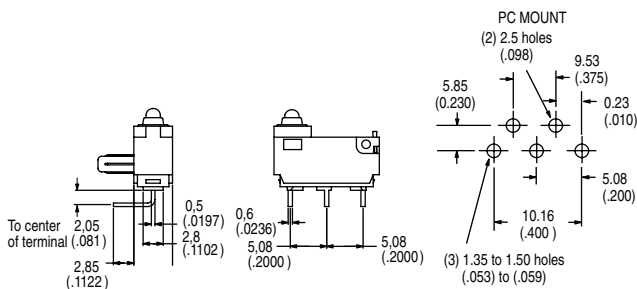
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TERMINATIONS

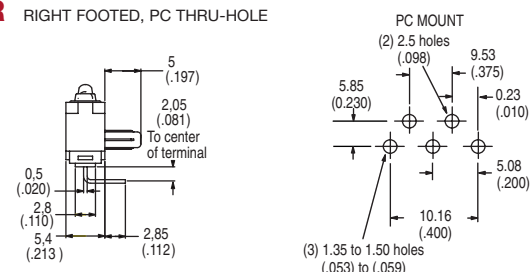
P PC THRU-HOLE



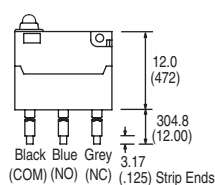
L LEFT FOOTED, PC THRU-HOLE



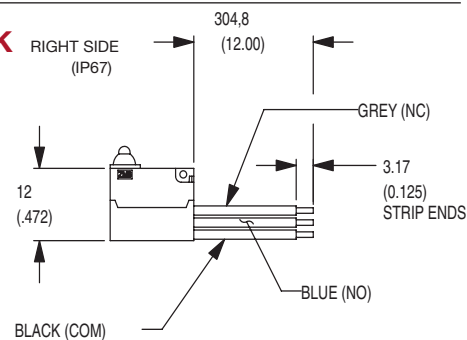
R RIGHT FOOTED, PC THRU-HOLE



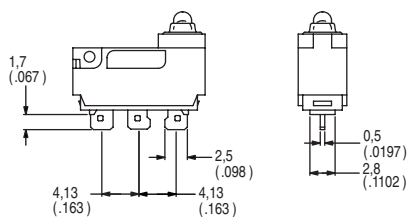
J WIRE LEADS BOTTOM (IP67)



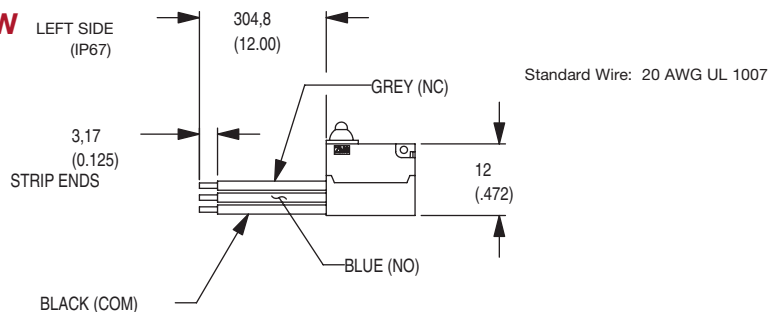
K RIGHT SIDE (IP67)



S SOLDER TYPE

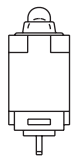


W LEFT SIDE (IP67)

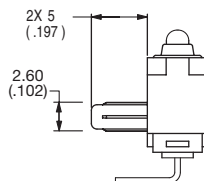


MOUNTING STYLES

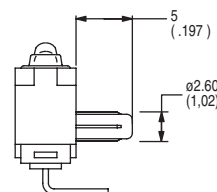
S STD (NO SUPPORT POST)



L SUPPORT POST LEFT



R SUPPORT POST RIGHT

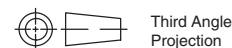


CIRCUITRY

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)
Specifications and dimensions subject to change