

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.

Series ZMS SP, Mom.	Over Travel H High 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	

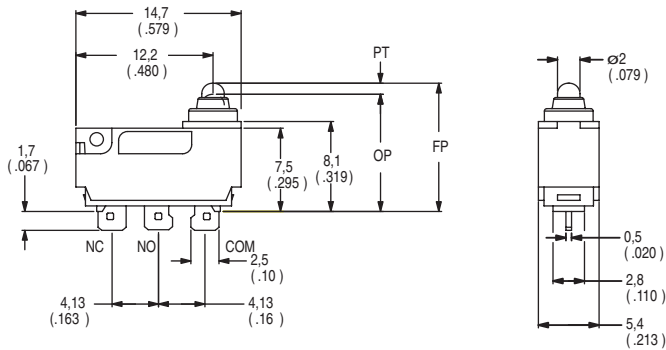
* Standard Wire: 20 AWG UL 1007



ZMS Series Mini Size Snap-acting Switches

SERIES

ZMSH HIGH OVER TRAVEL



ELECTRICAL RATING

OPTION CODE	CONTACT MATERIAL	UL61058-1 UL1054 ELECTRICAL RATING	ENEC ELECTRICAL RATING
	MOVABLE CONTACT / STATIONARY CONTACT		
00	Gold plating over silver alloy	0.01 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	130 4.59

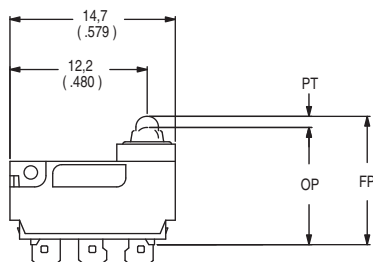


Snap-acting

ZMS Series Mini Size Snap-acting Switches

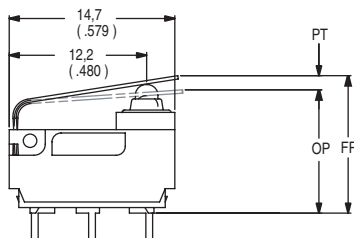
ACTUATOR

P00 PIN PLUNGER

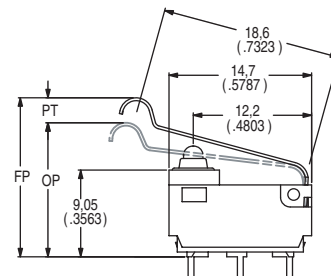


C&K US approved

T10 .25 LEVER



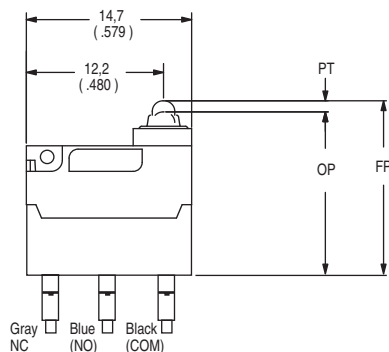
T11 LEVER



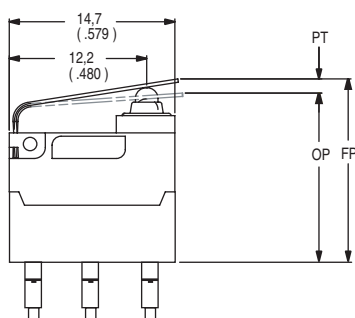
SWITCH CHARACTERISTICS

Actuator code	Maximum Operate Force (grams/oz.)	Minimum Release Force (grams/oz.)	Free Position Max	Maximum Pre-travel	Operate Position	Maximum Differential	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)	0.068 (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)	0.084 (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)	0.101 (2.57)

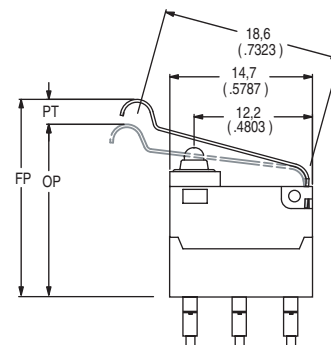
P00 PIN PLUNGER (IP67)



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	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)	0.068 (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)	0.084 (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)	0.101 (2.57)



Third Angle
Projection

Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

C&K

31 May 21

J-24

www.ckswitches.com

TERMINATIONS

Technical drawing of a 1/2" NPT female fitting. The drawing shows the side profile of the fitting, including the threaded section and the flared end. Dimensions are indicated with arrows and text:

- Threaded section length: 0.5 ± 0.05 (.020 $\pm$.001)
- Total length: 2.8 (.110)

The image contains two mechanical drawings of the PC mount. The left drawing is a side view showing the profile of the device with dimensions: 2.05 (.081) from the center of the terminal to the top of the main body, 0.5 (.0197) for the top flange thickness, 2.8 (.1102) for the main body height, and 2.85 (.1122) for the total height from the base to the top of the main body. The right drawing is a top view showing the footprint of the device with dimensions: 0.6 (.0236) for the width of the mounting tabs, 5.08 (.2000) for the total width, and 5.08 (.2000) for the total length. The rightmost drawing is a detailed top view of the PC mount with dimensions: (2) 2.5 holes (.098) for the mounting holes, 9.53 (.375) for the distance between the mounting holes, 5.85 (.230) for the distance from the edge to the first mounting hole, 0.23 (.010) for the hole diameter, 5.08 (.200) for the distance between the mounting holes, 10.16 (.400) for the total length, and (3) 1.35 to 1.50 holes (.053 to .059) for the mounting holes.

Diagram of the 12-pin connector showing dimensions and pin functions:

- Overall height: 12.0 (472)
- Height from base to top of connector: 304.8 (12.00)
- Pin pitch: 3.17 (.125)
- Pin functions:
 - Black (COM)
 - Blue (NO)
 - Grey (NC)
- Strip Ends

LEFT SIDE (IP67)

304,8 (12.00)

GREY (NC)

Standard Wire: 20 AWG UL 1007

3,17 (0.125)

STRIP ENDS

12 (.472)

BLACK (COM)

BLUE (NO)

Third Angle Projection



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