

ZMS Series

Mini Size Snap-acting Switches



Agency Approvals

Agency	Agency File Number
	E42363
	ENEC-03316

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 to 85°C
Operating Force	130 grams

Notes:

Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max.

Description

PCB detection switches, communication devices and testing equipment rely upon the long-lasting, highly responsive ZMS series mini size snap-acting switch. The ZMS series feature a reliable snap-acting mechanism and a compact size, giving designers extra space because of its compact size – and giving their applications the long electrical and mechanical life they need.

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

Applications

- PCB detection switch
- Communication devices
- Testing equipment
- Security/Alarm systems
- Consumer electronics
- Automotive: door latch, seat position detection, EV charging

Materials

Case	Nylon
Cover/Actuator	PBT
Movable Contacts	3 Amp silver alloy, 0.01A gold plating over silver alloy
Stationary Contacts	
Terminals	Brass, silver plated
Lever	Stainless steel

Notes:

1. 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 Center.

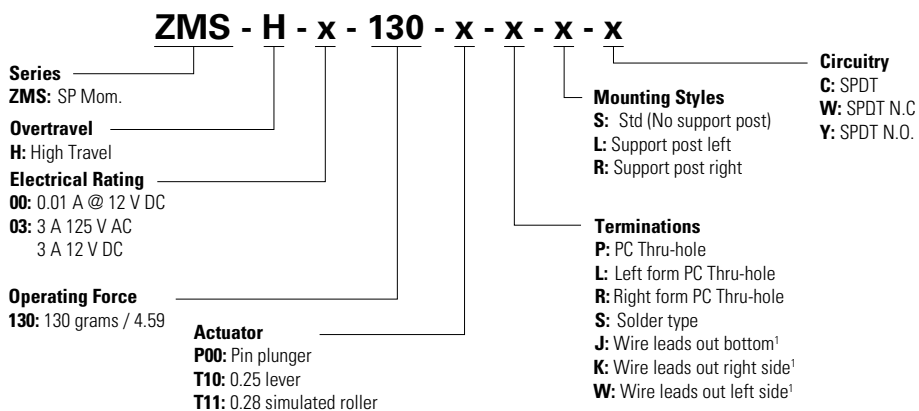
ZMS Series

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Ordering Number

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.

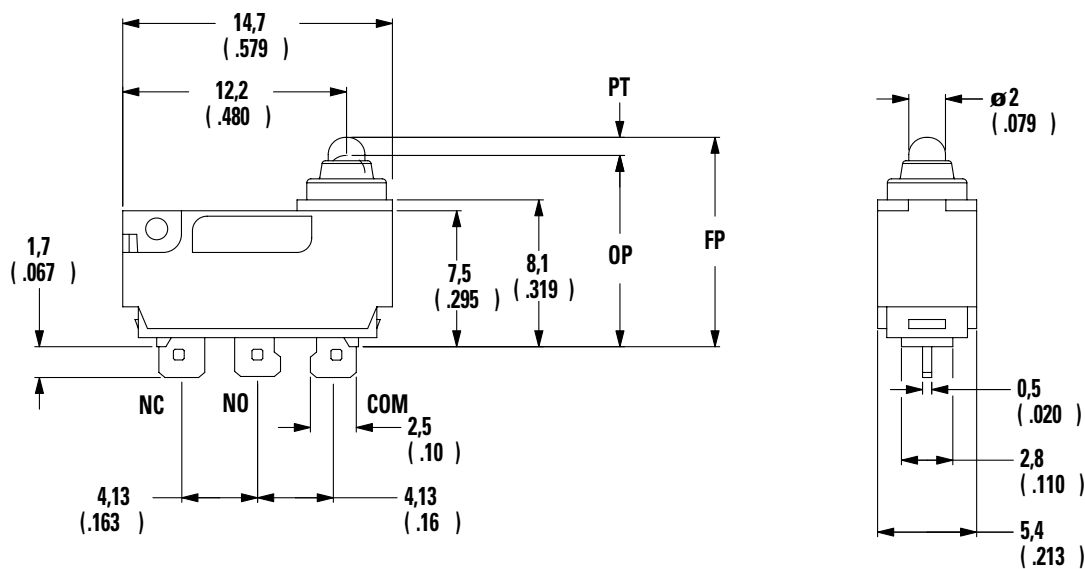


Notes:

1. Standard Wire: 20 AWG UL 1007

Series inches (mm)

ZMSH High Over Travel



ZMS Series

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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	10 amp @ 12 V DC 5E5
03	Silver alloy	3 amps @ 125 V AC, 3 amps @ 12 V DC	3 amps @ 12 V DC 1E5

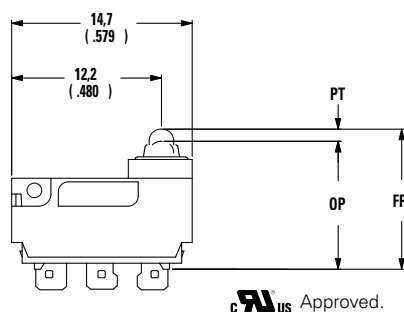
Notes

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

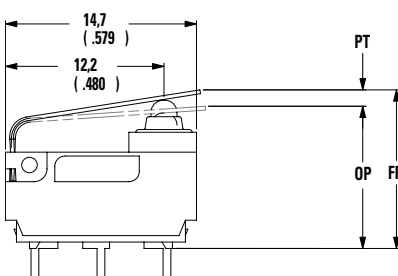
Operating Force

Option Code	Basic Switch Operating Force (Oz./Grams)
130	130, 4.59

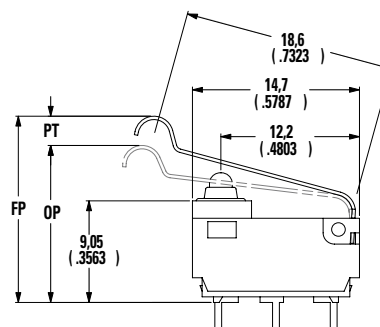
P00 Pin Plunger



T10 0.25 Lever

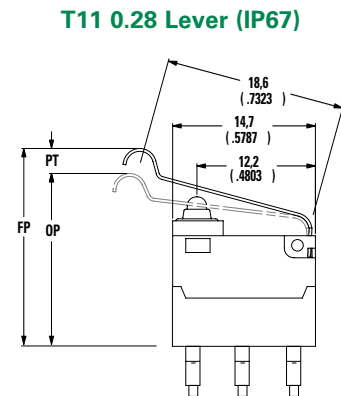


T11 Lever



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	0.650 (16.50)	0.032 (0.8)	0.593 ± 0.020 (15.05 ± 0.5)	0.012 (0.3)	0.068 (1.72)
T10	195, 6.88	55, 1.93	0.781 (19.85)	0.152 (3.85)	0.618 ± 0.028 (15.7 ± .7)	0.020 (0.5)	0.084 (2.14)
T11	160, 5.64	45, 1.58	0.904 (22.95)	0.186 (4.8)	0.717 ± 0.039 (18.2 ± 1.0)	0.030 (0.7)	0.101 (2.57)



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	0.472 (12)	0.032 (0.8)	0.415 ± 0.012 (10.55 ± 0.3)	0.012 (0.3)	0.068 (1.72)
T10	195, 6.88	55, 1.93	0.604 (15.35)	0.152 (3.85)	0.440 ± 0.020 (11.2 ± 0.5)	0.020 (0.5)	0.084 (2.14)
T11	160, 5.64	45, 1.58	0.726 (18.45)	0.186 (4.8)	0.539 ± 0.032 (13.7 ± 0.8)	0.030 (0.7)	0.101 (2.57)

PC MOUNT

(2) 2.5 holes
(.098)

5.85
(.0230)

9.53
(.375)

0.23
(.010)

10.16
(.400)

5.08
(.200)

(3) 1.35 to 1.50 holes
(.053 to .059)

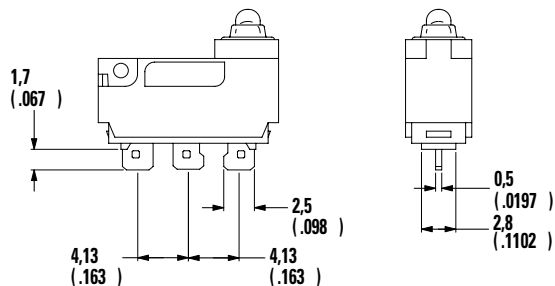
Technical drawing of a 12-pin connector. The drawing shows a side view of the connector with dimensions and labels. The dimensions are: 304,8 (12.00) for the total length, 12 (.472) for the pin pitch, and 3.17 (0.125) for the pin width. The labels are: BLACK (COM) for the ground pin, BLUE (NO) for the normally open pins, and GREY (NC) for the normally closed pins. The drawing also shows the internal wiring and the connector housing.

ZMS Series

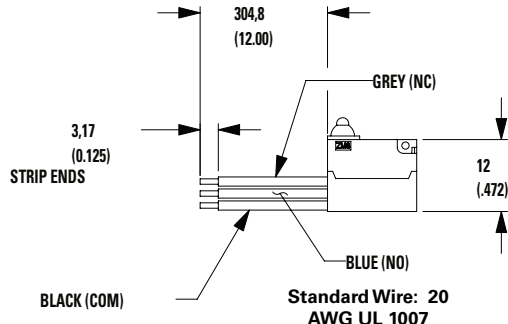
Mini Size Snap-acting Switches



S Solder Type

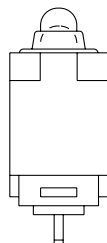


W Left Side

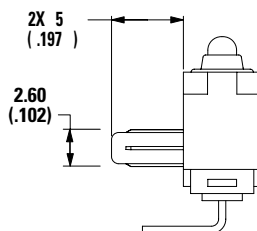


Mounting Styles inches (mm)

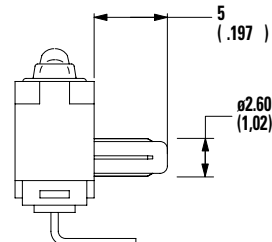
S STD (No Support Post)



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)

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