

ZMSM Series with Mounting Hole

Mini Size Snap-acting Switches



Description

The ZMSM series is a mini size snap-acting switch, perfect for use in communication devices, testing equipment and security or alarm systems. Designers turn to the ZMSM series because of its reliable snap-acting mechanism, long electrical and mechanical life, various PCB terminals and actuators and its compliance with regulations such as RoHS and IP67 (IP67 for standalone switch except the metal terminal part; Full IP67 protection when potted with wire version).

Features & Benefits

- Reliable snap-acting mechanism
- Long electrical and mechanical life
- Various PCB terminals & actuators
- RoHS compatible
- IP67 for standalone switch except the metal terminal part; Full IP67 protection when potted with wire version

Applications

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

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 12V DC 6,000 cycles @ 3A 125 V AC |
| 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.

| Agency | Agency File Number |
|--------|--------------------|
| | E42363 |
| | ENEC-03316 |

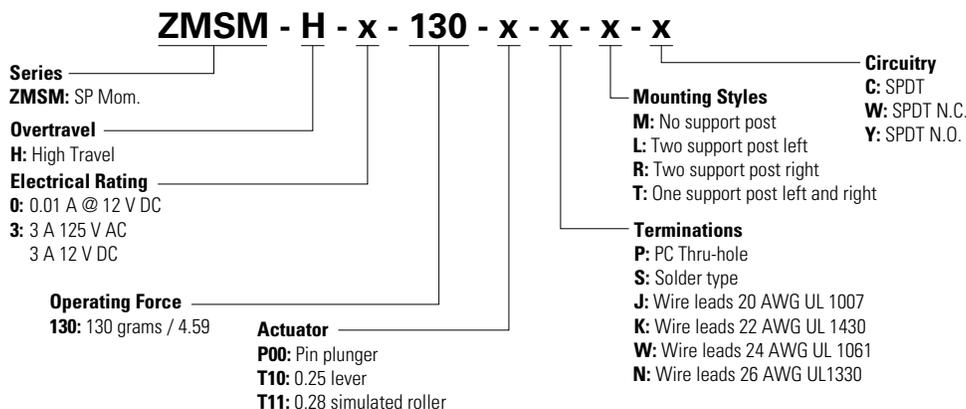
Materials

| | |
|----------------------------|-------------------------------|
| Case | Nylon |
| Cover/Actuator | PBT |
| Movable Contacts | 3 amp silver, 0.01A gold |
| Stationary Contacts | |
| Terminals | Brass, pre-plated with silver |
| 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.

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.



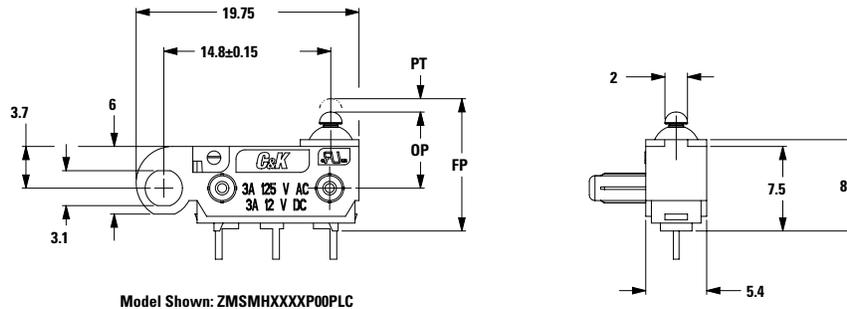
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Series (mm)

ZMSMH High Over Travel



Electrical Rating

| Option Code | RoHS Compliant | RoHS Compatible | Contact Material | Electrical Rating |
|-------------|----------------|-----------------|------------------------------------|-------------------------------------|
| | | | Movable Contact/Stationary Contact | |
| 0 | Yes | Yes | Gold alloy | 0.01 A @ 12 V DC |
| 3 | Yes | Yes | Silver alloy | 3 amps @ 125 V AC, 3 AMPS @ 12 V DC |

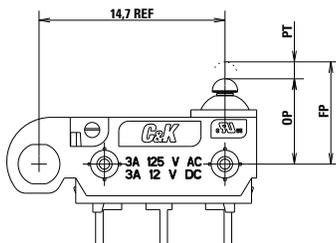
Notes:

1. Model c us with option "S" (solder type) only. Consult Customer Service center for availability and delivery of nonstandard ratings.

Operating Force

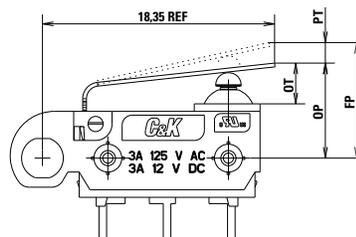
| Option Code | Basic Switch Operating Force (Oz./Grams) |
|-------------|--|
| 130 | 130, 4.59 |

P00 Pin Plunger (IP65)



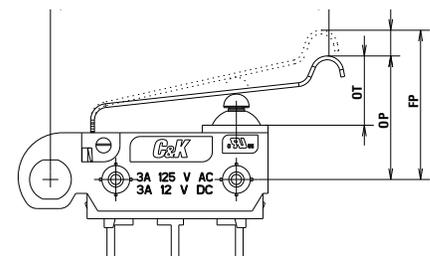
MODEL SHOWN: ZMSMHXXXP00PLC

T10 0.25 Lever (IP65)



MODEL SHOWN: ZMSMHXXXT10PLC

T11 Lever (IP65)



MODEL SHOWN: ZMSMHXXXT11PLC

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 | 7.35 | 0.8 | 6.75 ± 0.3 | 0.3 | 1.75 |
| T10 | 195, 6.88 | 55, 1.93 | 10.70 | 3.85 | 7.40 ± 0.8 | 0.5 | 2.3 |
| T11 | 160, 5.64 | 45, 1.58 | 13.80 | 4.8 | 9.90 ± 0.8 | 0.7 | 2.6 |

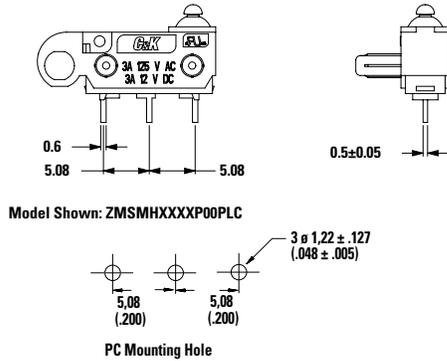
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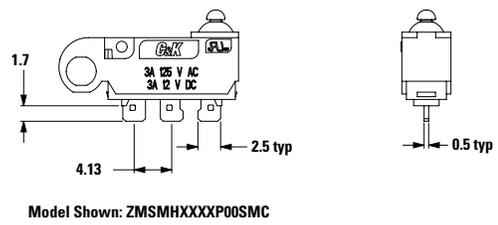


Terminations (mm)

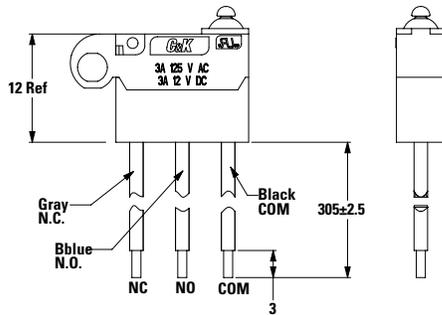
P PC Thru-hole (IP65)



S Solder Type (IP65)



J, K, W, N Wire Lead Bottom (IP67)



- Notes:**
Standard Wire: 20 AWG UL 1007
 Available options - must specify
J: 20AWG UL1007 (Standard)
K: 22AWG UL1430
W: 24AWG UL1061
N: 26AWG UL1330

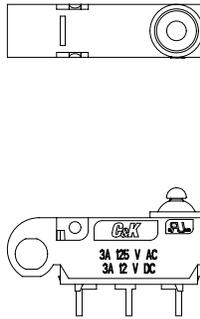
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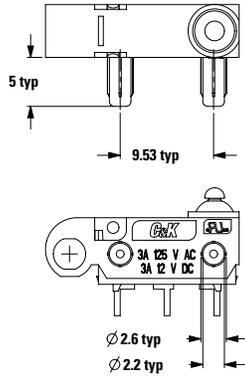
Mounting Styles (mm)

No Support Posts



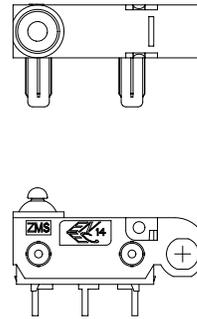
Model Shown:
ZMSMHXXXXP00PMC

L Two Support Posts Left



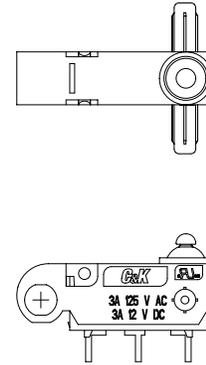
Posts Left
Model Shown:
ZMSMHXXXXP00PLC

R Two Support Posts Right



Posts Right
Model Shown:
ZMSMHXXXXP00PRC

T One Support Post Left & Right



Left & Right
Model Shown:
ZMSMHXXXXP00PTC

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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