# ZMSM Series with Mounting Hole Subminiature Snap-acting Switches (IP65)

### Features/Benefits

- Reliable snap-acting mechanism
- · Long electrical and mechanical life
- Various PCB terminals and actuators
- RoHS compatible
- IP67 with potted wires only

# Typical Applications

- Communication devices
- Testing equipment
- Security/Alarm systems





UL61058-1



# **Specifications**

CONTACT RATING: 3A@ 125 V AC/ 3A@ 12 V DC, 0.01 A@ 12 V DC. ELECTRICAL LIFE: 100,000 cycles @ 0.01 A, 12 V DC / 100,000 cycles @ 3A, 12 V DC, 6,000 cycles @ 3A, 125 VAC

INSULATION RESISTANCE: 100 M ohm min. DIELECTRIC STRENGTH: 500 Vrms.

OPERATING TEMPERATURE: see chart below.

OPERATING FORCE: 130 grams.

 $^{\star}$  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, 0.01A gold STATIONARY CONTACTS: 3 Amp silver, 0.01A gold

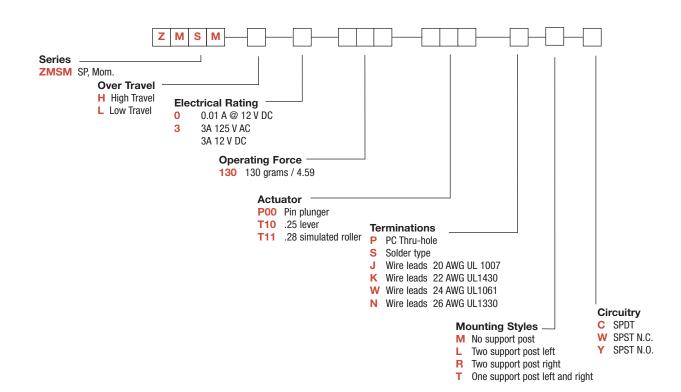
TERMINALS: Brass, Pre-plated with silver

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-62 through J-64. For additional options not shown in catalog, consult Customer Service Center.





Dimensions are shown: mm Specifications and dimensions subject to change

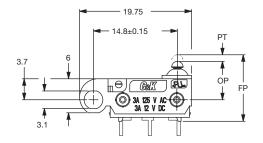
# Snap-acting C

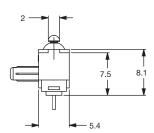
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# **SERIES**

ZMSMH HIGH OVER TRAVEL

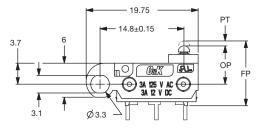


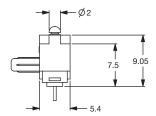




**ZMSML** LOW OVER TRAVEL

MODEL SHOWN: ZMSMHXXXXP00PLC





MODEL SHOWN: ZMSMLXXXXP00PLC

# **ELECTRICAL RATING**

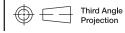
OPTION	D-UC	Dalle	CONTACT MATERIAL	
OPTION	RoHS COMPLIANT*	RoHS COMPATIBLE*	MOVABLE CONTACT STATIONARY CONTAC	T ELECTRICAL RATING
0	Yes	Yes	Gold alloy	0.01 A @ 12 V DC
3	Yes	Yes	Silver alloy	3 AMPS @ 125 V AC 3 AMPS @ 12 V DC

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	<u>130</u> 4.59		



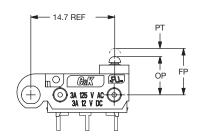
Dimensions are shown: mm Specifications and dimensions subject to change



# ZMSM Series with Mounting Hole Subminiature Snap-acting Switches (IP65)

# **ACTUATOR**

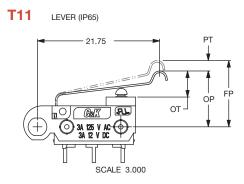
### POO PIN PLUNGER (IP65)



MODEL SHOWN: ZMSMLXXXXP00PLC

# T10 .25 LEVER (IP65)

MODEL SHOWN: ZMSMLXXXXT10PLC



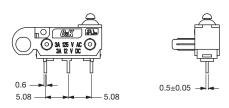
MODEL SHOWN: ZMSMLXXXXT11PLC

### **SWITCH CHARACTERISTICS**

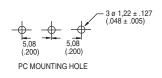
Actuator code	Maximum Operate Force (grams/oz.)	Minimum Release Force (grams/oz.)	Free Position Max (mm)	Maximum Pre-travel (mm)	Operate Position (mm)	Maximum Differential (mm)	Low Overtravel min. (mm)	High Overtravel min. (mm)
P00	130 4.59	13 0.45	7.35	0.8	6.75 ± 0.3	0.3	0.8	1.75
T10	195 6.88	55 1.93	10.70	3.85	7.40 ± 0.8	0.5	1.35	2.3
T11	160 5.64	45 1.58	13.80	4.8	9.90 ± 0.8	0.7	1.65	2.6

# **TERMINATIONS**

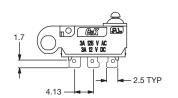
# PC THRU-HOLE (IP65)



MODEL SHOWN: ZMSMHXXXXP00PLC



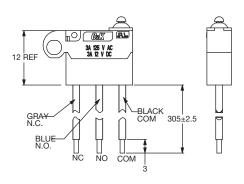
S SOLDER TYPE (IP65)





MODEL SHOWN: ZMSMHXXXXP00SMC

J WIRE LEADS BOTTOM (IP67)



Standard Wire: 20 AWG UL 1007

Available options - must specify 22AWG UL1430 24AWG UL1061 26AWG UL1330

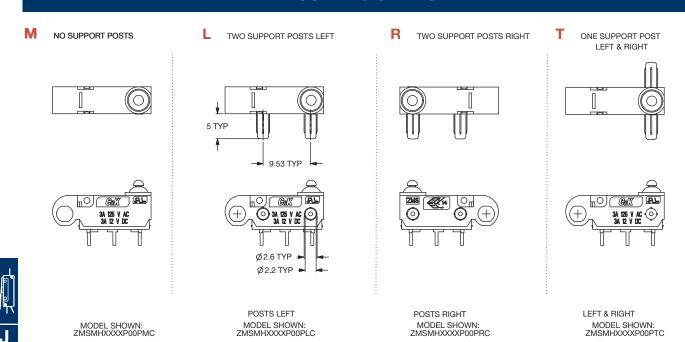


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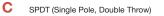


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# **MOUNTING STYLES**



# **CIRCUITRY**



Snap-acting

W

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

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



Third Angle Projection